# **IMPORTANT NOTICE**

THIS OFFERING IS AVAILABLE ONLY TO INVESTORS WHO ARE EITHER (1) "QUALIFIED INSTITUTIONAL BUYERS" ("QIBS") (AS DEFINED IN RULE 144A ("RULE 144A") UNDER THE US SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT")), OR (2) NON-US PERSONS IN OFFSHORE TRANSACTIONS IN RELIANCE ON REGULATION S UNDER THE SECURITIES ACT ("REGULATION S").

IMPORTANT: You must read the following disclaimer before continuing. The following disclaimer applies to the attached offering circular (the "Offering Circular") following this page, whether received by e-mail or other electronic communication, and you are therefore advised to read this carefully before reading, accessing or making any other use of the Offering Circular. In accessing the Offering Circular, you agree to be bound by the following terms and conditions, including any modifications to them any time you receive any information from Vedanta Resources plc (the "Company") or from us as a result of such access

None of Barclays Bank PLC, Credit Suisse (Hong Kong) Limited, DBS Bank Ltd., First Abu Dhabi Bank PJSC, J.P. Morgan Securities plc and Standard Chartered Bank as joint global coordinators (the "Joint Global Coordinators") and Axis Bank Limited, Singapore Branch, Barclays Bank PLC, Credit Suisse (Hong Kong) Limited, DBS Bank Ltd., First Abu Dhabi Bank PJSC, ICICI Bank Limited - IFSC Banking Unit, J.P. Morgan Securities plc and Standard Chartered Bank as joint lead managers and joint bookrunners (the "Joint Lead Managers and Joint Bookrunners") or any person who controls any of them or any of their respective affiliates, directors, officers, employees, agents, representatives or advisers accepts any liability whatsoever for any loss howsoever arising from any use of this e-mail or the attached Offering Circular or their respective contents or otherwise arising in connection therewith.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES HAVE NOT BEEN, AND WILL NOT BE REGISTERED UNDER THE SECURITIES ACT, OR WITH ANY OTHER SECURITIES REGULATORY AUTHORITY OF ANY STATE OR OTHER JURISDICTION AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ANY APPLICABLE STATE OR LOCAL SECURITIES LAWS. THE SECURITIES MAY ONLY BE OFFERED, SOLD OR OTHERWISE TRANSFERRED IN THE UNITED STATES OR TO UNITED STATES PERSONS (AS DEFINED IN REGULATION S) THAT ARE QIBS IN RELIANCE ON THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT PROVIDED BY RULE 144A. ANY INVESTMENT DECISION SHOULD BE MADE ON THE BASIS OF THE FINAL TERMS AND CONDITIONS OF THE SECURITIES AND THE INFORMATION CONTAINED IN THE FINAL OFFFERING CIRCULAR.

IF YOU DO NOT AGREE TO THE TERMS CONTAINED IN THIS NOTICE, YOU SHOULD NOT OPEN THE ATTACHED OFFERING CIRCULAR AND SHOULD DELETE THIS E-MAIL. THIS E-MAIL AND ITS ATTACHMENTS ARE PERSONAL TO YOU, ARE CONFIDENTIAL AND MAY ONLY BE READ BY THE ADDRESSEE AND MAY NOT BE REPRODUCED OR REDISTRIBUTED ELECTRONICALLY OR OTHERWISE TO ANY OTHER PERSON.

Confirmation of Your Representation: The attached Offering Circular is being sent at your request and by accepting the e-mail and accessing the attached Offering Circular, you shall be deemed to have represented to the Company, the Joint Global Coordinators, Joint Lead Managers and Joint Bookrunners that (1) you and any customer you represent are either (a) a QIB or (b)not a US person and that the e-mail address that you have given and to which this e-mail has been delivered is not located in the United States of America, its territories, its possessions and other areas subject to its jurisdiction; and its possessions include Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands and, to the extent you purchase the securities described in the attached Offering Circular, you will be doing so in offshore transactions in reliance on Regulation S; and (2) you consent to delivery of the attached Offering Circular and any amendments or supplements thereto by electronic transmission.

You are reminded that the attached Offering Circular has been delivered to you on the basis that you are a person into whose possession the attached Offering Circular may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located. If this is not the case, you must delete this e-mail in which the Offering Circular is attached and destroy any printed copies of the Offering Circular. You may not, nor are you authorised to, deliver or forward the Offering Circular, electronically or otherwise, or disclose the contents of the Offering Circular, to any other person.

The materials relating to the offering do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law and access has been limited so that it shall not constitute a general advertisement or solicitation in the United States or elsewhere. No action has been or will be taken in any jurisdiction by the Company, the Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners that would, or is intended to, permit a public offering of the securities, or possession or distribution of the Offering Circular (in preliminary, proof or final form) or any other offering or publicity material relating to the securities, in any country or jurisdiction where action for that purpose is required. If a jurisdiction requires that the offering be made by a licensed broker or dealer and any of the Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners or any affiliate of any of the Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners or dealer in that jurisdiction, the offering shall be deemed to be made by such Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners or such affiliate on behalf of the Company in such jurisdiction.

This communication is directed only at persons who (a) are outside the United Kingdom or (b) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Financial Promotion Order") or (c) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations, etc.") of the Financial Promotion Order (all such persons together being referred to as "relevant persons"). This communication must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which the Offering Circular relates is available only to relevant persons and will be engaged in only with relevant persons.

The attached Offering Circular has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently none of the Company, the Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners or any person who controls them or any director, officer, employee or agent of them or affiliate of any such person accepts any liability or responsibility whatsoever in respect of any difference between the Offering Circular distributed to you in electronic format and the hard copy version available to you on request from the Joint Global Coordinators, Joint Lead Managers and Joint Bookrunners.

THE ATTACHED OFFERING CIRCULAR MAY NOT BE DOWNLOADED, FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER. ANY DOWNLOADING, FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS ELECTRONIC TRANSMISSION AND THE ATTACHED OFFERING CIRCULAR IN WHOLE OR IN PART IS UNAUTHORISED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS. IF YOU HAVE GAINED ACCESS TO THIS TRANSMISSION CONTRARY TO ANY OF THE FOREGOING RESTRICTIONS, YOU ARE NOT AUTHORISED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE SECURITIES DESCRIBED IN THE ATTACHED OFFERING CIRCULAR.

You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.



# VEDANTA RESOURCES PLC

(incorporated with limited liability in England and Wales)

# \$1,000,000,000 6.125% Bonds due 2024

This is an offering of 1,000,000,000 6.125% bonds due 2024 (the "Bonds") by Vedanta Resources plc ("Vedanta" or the "Company").

The Bonds will bear interest at the rate of 6.125% per annum, payable semi-annually in arrears on 9 February and 9 August of each year, commencing 9 February 2018. Payments on the Bonds will be made without deduction for or on account of taxes of the United Kingdom to the extent described under "Terms and Conditions of the Bonds — Taxation".

The Bonds will mature on 9 August 2024. The Bonds may be redeemed at the option of the Company, in whole, but not in part, at a redemption price equal to the principal amount of the Bonds plus the Applicable Premium (as defined herein) applicable to the Bonds, plus accrued and unpaid interest, if any, to the redemption date.

At any time and from time to time prior to 9 August 2021, the Bonds may be redeemed, in whole or in part, at the option of the Company at a redemption price equal to 100% of the principal amount of the Bonds plus the Applicable Premium, plus accrued and unpaid interest, if any, to (but excluding) the redemption date. At any time and from time to time on or after 9 August 2021, the Bonds may be redeemed, in whole or in part, at the option of the Issuer at the redemption prices specified under "Terms and Conditions of the Bonds — Redemption and Purchase — Redemption at the option of the Issuer". The Bonds may be redeemed at the option of the Company in whole, but not in part, at a redemption price equal to the principal amount of the Bonds, together with accrued and unpaid interest, if any, to (but excluding) the redemption date, in the event of certain changes affecting taxes of the United Kingdom. Upon the occurrence of a Change of Control (as defined herein), the Company must make an offer to purchase all of the Bonds outstanding at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to (but excluding) the purchase date. See "Terms and Conditions of the Bonds — Redemption and Purchase".

### Issue Price: 100%

The Bonds have not been and will not be registered under the United States Securities Act of 1933, as amended (the "Securities Act") and are being offered in the United States only to qualified institutional buyers ("QIBs") in reliance on Rule 144A ("Rule 144A") under the Securities Act and to non-US persons outside the United States in reliance on Regulation S under the Securities Act ("Regulation S"). The Bonds which are being offered and sold outside the United States to non-US persons (as defined in Regulation S) in reliance on Regulation S (the "Regulation S Bonds") will each be initially represented by an unrestricted global certificate in registered form (the "Unrestricted Global Certificate"). The Bonds which are offered and sold in the United States to OIBs in reliance on Rule 144A (the "Rule 144A Bonds") will bear the Securities Act Legend (as defined in the trust deed to be dated on or about 9 August 2017 (the "Trust Deed")) and will each be initially represented by a restricted global certificate in registered form (the "Restricted Global Certificate" and, together with the Unrestricted Global Certificate, the "Global Certificates"). The Unrestricted Global Certificate will be deposited with a custodian for, and registered in the name of, a nominee of Cede & Co., as nominee of The Depository Trust Company ("DTC") for the accounts of Euroclear Bank SA/NV ("Euroclear") and Clearstream Banking, S.A. ("Clearstream"), and the Restricted Global Certificate will be deposited with a custodian for, and registered in the name of, Cede & Co., as nominee of DTC, on the Closing Date. Beneficial interests in the Global Certificates will be shown on, and transfers thereof will be effected only through, records maintained by DTC and its account holders. Prospective purchasers are hereby notified that sellers of the Bonds may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. For a description of these and certain further restrictions on offers, sales and transfers of the Bonds and distribution of this Offering Circular, see "Plan of Distribution" and "Transfer Restrictions". It is expected that delivery of the Bonds will be made against payment through the facilities of DTC on or about 9 August 2017 (the "Closing Date").

Approval in-principle has been received for the listing and quotation of the Bonds on the Official List of the Singapore Exchange Securities Trading Limited (the "SGX-ST"). The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions expressed or information contained in this Offering Circular. Approval in-principle for the listing and quotation of the Bonds on the SGX-ST is not to be taken as an indication of the merits of the offering, the Company or the Bonds. The Bonds will be traded on the SGX-ST in a minimum board lot size of \$200,000 or its equivalent for so long as the Bonds are listed on the SGX-ST. Currently, there is no public market for the Bonds.

Investing in the Bonds involves risks. For a discussion of certain factors to be considered in connection with an investment in the Bonds, see "Risk Factors" beginning on page 13.

The Company has corporate credit ratings of "B1" (with a stable outlook) from Moody's Investors Service, Inc. ("Moody's") and "B+" (with a stable outlook) from Standard & Poor's Ratings Services, a division of S&P Global Inc, Inc. ("Standard & Poor's"). The ratings may be reviewed by the rating agencies from time to time and subject to change. The Bonds are expected, on the Closing Date, to be rated "B3" by Moody's and "B+" by Standard & Poor's. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organisation.

Joint Global Coordinators (in alphabetical order)

Barclays Credit Suisse DBS Bank Ltd. First Abu Dhabi Bank J.P. Morgan Standard Chartered Bank

Joint Lead Managers and Joint Bookrunners (in alphabetical order)

Axis Bank Barclays Credit Suisse DBS Bank Ltd. First Abu Dhabi Bank ICICI Bank J.P. Morgan Standard Chartered Bank

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# **NOTICE TO INVESTORS**

This Offering Circular does not constitute an offer of, or an invitation by or on behalf of the Company or Barclays Bank PLC, Credit Suisse (Hong Kong) Limited, DBS Bank Ltd., First Abu Dhabi Bank PJSC, J.P. Morgan Securities plc and Standard Chartered Bank as joint global coordinators (collectively, the "Joint Global Coordinators") and Axis Bank Limited, Singapore Branch, Barclays Bank PLC, Credit Suisse (Hong Kong) Limited, DBS Bank Ltd., First Abu Dhabi Bank PJSC, ICICI Bank Limited - IFSC Banking Unit, J.P. Morgan Securities plc and Standard Chartered Bank as joint lead managers and joint bookrunners ("Joint Lead Managers and Joint Bookrunners") to subscribe for or purchase, any of the Bonds. The distribution of this Offering Circular and the offering of the Bonds in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular comes are required by the Company, the Joint Global Coordinators and Joint Lead Managers and the Joint Bookrunners to inform themselves about and observe any such restrictions. This Offering Circular does not constitute, and may not be used for or in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorised or to any person to whom it is unlawful to make such offer or solicitation. For a description of certain further restrictions on offers and sales of the Bonds and distribution of this Offering Circular see "Plan of Distribution" and "Transfer Restrictions".

No person is authorised to give any information or to make any representation not contained in this Offering Circular and any information or representation not so contained must not be relied upon as having been authorised by or on behalf of the Company or the Joint Global Coordinators and Joint Lead Managers or the Joint Bookrunners. The delivery of this Offering Circular or the offering, sale and delivery of the Bonds at any time does not imply that the information contained in this Offering Circular is correct at any time subsequent to its date.

To the fullest extent permitted by law, none of the Joint Global Coordinators and Joint Lead Managers, the Joint Bookrunners, the Trustee, the Principal Agent and the Registrar (each as defined herein) accept any responsibility for the accuracy and completeness of the contents of this Offering Circular or for any statement, made or purported to be made by the Joint Global Coordinators and Joint Lead Managers, the Joint Bookrunners, the Trustee, the Principal Agent or the Registrar or on its or their behalf in connection with the Company or the issue and offering of the Bonds. The Joint Global Coordinators and Joint Lead Managers, the Joint Bookrunners, the Trustee, the Principal Agent and the Registrar accordingly disclaim all and any liability whether arising in tort or contract or otherwise which it might otherwise have in respect of this Offering Circular or any such statement.

This Offering Circular should not be considered as a recommendation by the Company or the Joint Global Coordinators and Joint Lead Managers or the Joint Bookrunners, that any recipient of this Offering Circular should purchase any of the Bonds. Each investor contemplating a purchase of the Bonds should make its own independent investigation of the Company's financial condition and affairs and its own appraisal of the Company's creditworthiness.

Investors may not reproduce or distribute this Offering Circular, in whole or in part, and investors may not disclose any of the contents of this Offering Circular or use any information herein for any purpose other than considering an investment in the Bonds. Investors agree to the foregoing by accepting delivery of this Offering Circular.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and any of the Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners or any affiliate of any of the Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by such Joint Global Coordinators, Joint Lead Managers or Joint Bookrunners or such affiliate on behalf of the Company in such jurisdiction.

Market data and certain industry forecasts (where applicable) used throughout this Offering Circular have been obtained from internal surveys, market research, publicly available information and industry publications. Industry publications generally state that the information that they contain

has been obtained from sources believed to be reliable but that the accuracy and completeness of that information is not guaranteed. Similarly, internal surveys, industry forecasts and market research, while believed to be reliable, have not been independently verified, and none of the Company, the Joint Global Coordinators and Joint Lead Managers or the Joint Bookrunners make any representation as to the accuracy of the statement.

### **STABILISATION**

In connection with this offering, Standard Chartered Bank will act as the stabilising manager (the "Stabilising Manager") and it or any of its affiliates (or persons acting on behalf of the Stabilising Manager), may, to the extent permitted by applicable laws and regulations, over-allot or effect transactions with a view to supporting the market price of the Bonds at a level higher than that which might otherwise prevail for a limited time after the issue date of the Bonds. However, there is no assurance that the Stabilising Manager or any of its affiliates (or persons acting on behalf of the Stabilising Manager) will undertake any stabilising action. Any stabilising action may begin on or after the date on which adequate public disclosure of the terms of the offer of the Bonds is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the Bonds and 60 days after the date of the allotment of the Bonds. Any stabilisation action must be conducted by the Stabilising Manager or any of its affiliates (or persons acting on behalf of the Stabilising Manager) in accordance with all applicable laws and rules.

### NOTICE TO UK INVESTORS

This Offering Circular is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the "FSMA")) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This Offering Circular is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

### NOTICE TO PROSPECTIVE INVESTORS IN THE UNITED STATES

The Bonds have not been and will not be registered under the Securities Act, or with any securities regulatory authority of any state or other jurisdiction in the United States, and may not be offered, sold, pledged or otherwise transferred except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and in compliance with any applicable state securities laws.

In connection with the Bonds being offered in the United States to QIBs in reliance on the exemption from registration provided by Rule 144A, this Offering Circular is being furnished in the United States on a confidential basis solely for the purpose of enabling prospective investors to consider the purchase of the Bonds. Its use for any other purpose in the United States is not authorised.

The Bonds have not been approved or disapproved by the United States Securities and Exchange Commission (the "Commission"), any state securities commission in the United States or any other US regulatory authority, nor have any of the foregoing authorities passed upon or endorsed the merits of this offering or the accuracy or adequacy of this Offering Circular. Any representation to the contrary is a criminal offence in the United States.

### AVAILABLE INFORMATION

For so long as any of the Bonds remain outstanding and are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, the Company will, during any period in which the Company is neither subject to Section 13 or Section 15(d) of the US Securities Exchange Act of 1934 (the "Exchange Act") nor exempt from reporting pursuant to Rule 12g3-2(b) thereunder, provide to any holder or beneficial owner of such restricted securities or to any prospective purchaser of such restricted securities designated by such holder or beneficial owner or to the Trustee (as defined herein) for delivery to such holder, beneficial owner or prospective purchaser, in each case upon the request of such holder, beneficial owner, prospective purchaser or Trustee, the information required to be provided by Rule 144A(d)(4) under the Securities Act.

# **ENFORCEABILITY OF JUDGMENTS**

The Company is incorporated with limited liability under the laws of England and Wales. A substantial number of the Directors (as defined herein) or executive officers of the Company and all or a significant portion of the assets of such persons may be, and a substantial portion of the assets of the Company are, located outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon the Company or such persons or to enforce against any of them in the United States judgments obtained in US courts, including judgments predicated upon the civil liability provisions of the securities laws of the United States or any state or territory within the United States.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Offering Circular contains "forward-looking statements" that are based on the Company's current expectations, assumptions, estimates and projections about the Company and its industry. These forward-looking statements are subject to various risks and uncertainties. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "anticipate", "believe", "estimate", "expect", "intend", "will", "project", "seek", "should" and similar expressions. These statements include, but not limited to, the discussions of the Company's business strategy and expectations concerning its market position, future operations, margins, profitability, liquidity and capital resources. Such forward-looking statements involve risks and uncertainties, and that, although the Company believes that the assumptions on which such forward-looking statements are based are reasonable, any of those assumptions could prove to be inaccurate and, as a result, the forward-looking statements based on those assumptions could be materially incorrect. Factors which could cause these assumptions to be incorrect include:

- A decline or volatility in the prices or demand for oil and gas, zinc, copper, iron ore or aluminium or an increase in the supply of oil and gas, zinc, copper, iron ore or aluminium;
- Reliance on third party contractors and providers of equipment which may not be readily available and whose costs may increase;

- Decline in demand for iron ore in China, exports which are significant for Vedanta's iron ore business;
- Ability to successfully consummate and integrate strategic acquisitions;
- Regulatory, legislative and judicial developments and future regulatory actions and conditions in Vedanta's operating areas;
- Political or economic instability in the regions which Vedanta operates;
- Terrorist attacks and other acts of violence, natural disasters and other environmental conditions and outbreaks of infectious diseases and other public health concerns in the regions in which Vedanta operates;
- Vedanta's ability to retain its senior management team and hire and retain sufficiently skilled labour to support its operations;
- Vedanta's dependence on obtaining and maintaining mining leases to mining sites;
- General risks related to Vedanta's commercial power business;
- The outcome of any pending or threatened litigation in which Vedanta is involved;
- The continuation of tax holidays, exemptions and deferred tax schemes currently enjoyed by Vedanta;
- Changes in tariffs, royalties, custom duties and government assistance;
- Interruptions in the availability of exploration, production or supply equipment or infrastructure and/or increased costs:
- Construction of pipelines and terminals may take longer than planned, may not work as intended and the cost of construction may be greater than forecast;
- Unavailability or increased costs of raw materials for Vedanta's products;
- Vedanta's economically recoverable lead-zinc ore, copper ore, iron ore, or bauxite reserves being lower than estimated;
- Worldwide economic and business conditions;
- Compliance with extensive environmental and health and safety regulations;
- Currency fluctuations; and
- Ability to maintain good relations with trade unions and avoid strikes and lock-outs.

These and other factors are more fully discussed in "Risk Factors", "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Offering Circular. In light of these and other uncertainties, you should not conclude that the Company will necessarily achieve any plans, objectives or projected financial results referred to in any of the forward-looking statements. Except as required by law, the Company does not undertake to release revisions of any of these forward-looking statements to reflect future events or circumstances.

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# PRESENTATION OF INFORMATION

### **Certain Conventions**

The Company conducts its businesses through a consolidated group of companies that it has ownership interests in. See "Business — History and Development of Vedanta" for more information on these companies and their relationships to the Company. Unless otherwise stated in this Offering Circular or unless the context otherwise requires, references in this Offering Circular to the "Company" or "Vedanta" or the "consolidated group of companies" or the "Group", mean Vedanta Resources plc, its consolidated subsidiaries and its predecessors, collectively, including, Konkola Copper Mines plc ("KCM"), Vedanta Limited ("Vedanta Limited", and its subsidiaries together with Vedanta Limited, the "Vedanta Limited Group"), Bharat Aluminium Company Limited ("BALCO"), Monte Cello BV ("Monte Cello"), Copper Mines of Tasmania Pty Ltd ("CMT"), Thalanga Copper Mines Pty Ltd ("TCM"), Hindustan Zinc Limited ("HZL"), MALCO Energy Limited ("MEL"), Sesa Resources Limited ("SRL"), Western Cluster Limited ("WCL"), THL Zinc Namibia Holdings Limited and its subsidiaries ("Skorpion"), Vedanta Lisheen Holdings Limited and its subsidiaries ("Lisheen"), Talwandi Sabo Power Limited ("TSPL") and Black Mountain Mining Pty Ltd ("Black Mountain Mining"). Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the Fiscal year 2017. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017 and all erstwhile subsidiaries of Cairn India became subsidiaries of Vedanta Limited. Further, references in this Offering Circular to "Cairn India" refers to erstwhile Cairn India Limited. All references to "Cairn India Group" refers to erstwhile Cairn India Limited and its erstwhile subsidiaries, prior to the merger of Cairn India with Vedanta Limited.

All references to "Executive Directors" in this Offering Circular are to Messrs. Anil Agarwal, Navin Agarwal and Tom Albanese. All references to "Non-Executive Directors" in this Offering Circular are to Messrs. Geoffrey Green, Aman Mehta, Deepak Parekh, Ravi Rajagopal, Edward Story and Katya (Ekaterina) Zotova. All references to "Directors" in this Offering Circular are to the Executive Directors and Non-Executive Directors of the Company.

All references to "management" are to the Company's Directors, the executive officers and other significant employees of the Company, unless the context otherwise requires, on the date of this Offering Circular, and statements in this Offering Circular as to beliefs, expectations, estimates and opinions of the Company or management are those of the Company's management.

In this Offering Circular, references to "copper business" are to the business of Vedanta comprising the copper operations as further described in "Business — Description of the Businesses — Copper Business"; references to "zinc business" and "zinc-lead" are to the business of Vedanta comprising the zinc operations as further described in "Business — Description of the Businesses — Zinc Business"; references to "aluminium business" are to the business of Vedanta comprising the aluminium operations as further described in "Business — Description of the Businesses — Aluminium Business"; references to "iron ore business" are to the business of Vedanta comprising the iron ore operations as further described in "Business — Description of the Businesses — Iron Ore Business"; references to "commercial power generation business" or "power business" are to the business of Vedanta comprising the power operations as further described in "Business — Description of the Businesses — Commercial Power Generation Business"; and references to "oil and gas business" are to the business of Vedanta comprising the oil and gas operations as further described in "Business — Description of the Businesses — Oil and Gas Business".

In this Offering Circular, references to The London Metal Exchange Limited ("LME") price of copper, zinc or aluminium are to the cash seller and settlement price on the LME for copper, zinc or aluminium for the period indicated. References to "primary market share" in this Offering Circular are to the market that includes sales by producers of metal from copper and zinc, as applicable, and do not include sales by producers of recycled metal or imports.

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### **Presentation of Financial Information**

The consolidated audited financial statements for the Company as of and for fiscal year ended 31 March 2016 (the "Fiscal year 2016 Financial Statements") and as of and for fiscal year ended 31 March 2017 (the "Fiscal year 2017 Financial Statements" and together with the Fiscal year 2016 Financial Statements, the "Annual Financial Statements"), included elsewhere in this Offering Circular have been prepared in accordance with International Financial Reporting Standards ("IFRS") as adopted by the EU. The consolidated financial information for the Company as of and for fiscal years ended 31 March 2015, 2016 and 2017, included elsewhere in this Offering Circular has been derived from the Annual Financial Statements. The audited consolidated financial statements for the Company as of and for fiscal year ended 31 March 2015 (the "Fiscal year 2015 Financial Statements") are neither included nor incorporated by reference in this Offering Circular.

Certain amounts disclosed for the year ended 31 March 2016 are restated figures as reported in the fiscal year 2017 annual report, compared to the amounts published in the fiscal year 2016 annual report.

Rounding adjustments have been made in calculating some of the financial information included in this Offering Circular. As a result, numerical figures shown as totals in some tables may not be exact arithmetic aggregations of the figures that precede them.

References to a particular "fiscal" year are to a financial year ended or ending 31 March of that year in the case of the Company. References to a year other than a "fiscal" year are to the calendar year ended 31 December.

### **Currencies and Conversions**

In this Offering Circular, references to "US" or the "United States" are to the United States of America, its territories and its possessions. References to "UK" are to the United Kingdom. References to "India" are to the Republic of India. References to "Australia" are to the Commonwealth of Australia. References to "Zambia" are to the Republic of Zambia. References to "South Africa" are to the Republic of South Africa. References to "EU" are to the European Union as established by the Treaty on European Union. References to "\$", "dollars" OR US\$ or "US dollars" are to the legal currency of the United States; references to "GBP" or "£" are to the legal currency of the United Kingdom; references to "Rs.", "Rupees" or "Indian Rupees" are to the legal currency of India; references to "AUD", "Australian dollars" or "A\$" are to the legal currency of Australia; references to "ZAR", "South African Rands" are to the legal currency of South Africa; references to "Zambian Kwacha" or "ZMW" are to the legal currency of Zambia; and references to "€" are to the legal currency of certain nations within the EU. References to "¢" are to US cents and references to "lb" are to the imperial pounds (mass) equivalent to 0.4536 kilograms. References to "tonnes" are to metric tonnes, a unit of mass equivalent to 1,000 kilograms or 2,204.6 lb. In respect of Vedanta Limited's iron ore operations, references to "tonnes" are to dry metric tonnes and for wet metric tonnes. References to "m<sup>3</sup>" are to cubic metres, references to "km" are to kilometres and references to "km<sup>2</sup>" are to square kilometres.

Unless otherwise indicated, the financial information contained in this Offering Circular has been expressed in US dollars. The exchange rate between Zambian Kwachas and US dollars, and South African Rands and US Dollars are based on the spot rate provided by Bloomberg as of 31 March 2017, which was ZMW 9.66 = \$1.00, and ZAR 13.41= \$1.00 respectively. The US dollar equivalent information presented in this Offering Circular for Indian Rupees has been calculated based on the exchange rates certified by the Reserve Bank of India ("RBI Reference Rate") as of 31 March 2017, which was Rs. 64.84 = \$1.00.

The exchange rates presented in this Offering Circular for each period may have differed from the exchange rates used in the preparation of financial statements included elsewhere in this Offering Circular. See "Exchange Rates".

### **Non-IFRS Measures**

This Offering Circular includes the presentation of certain measures that are not defined by IFRS, including Vedanta EBITDA, cash costs per units, and Special Items (each as defined below). These measures have been included for the reasons described below. However, these measures are not measures of financial performance or cash flows under IFRS and may not be comparable to similarly titled measures of other companies because they are not uniformly defined. These measures should not be considered in isolation or as a substitute by investors as an alternative to Vedanta's operating results, operating profit or profit on ordinary activities before taxation, or as an alternative to cash flow from operating, investing or financing activities. Vedanta's management believes this information, along with comparable IFRS measures, is useful to investors because it provides a basis for measuring Vedanta's operating performance. Vedanta's management uses these financial measures, along with the most directly comparable IFRS financial measures, in evaluating Vedanta's operating performance and value creation. Non-IFRS financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with IFRS. Non-IFRS financial measures as reported by Vedanta may not be comparable to similarly titled amounts reported by other companies.

Because of these limitations, the non-IFRS measures should also not be considered as measures of discretionary cash available to Vedanta to invest in the growth of its business or as measures of cash that will be available to Vedanta to meet its obligations. Potential investors should compensate for these limitations by relying primarily on Vedanta's IFRS results and using these non-IFRS measures only supplementally to evaluate Vedanta's performance. Please see "Summary Consolidated Financial Information", "Selected Consolidated Financial Information", and the Annual Financial Statements and the related notes included elsewhere in this Offering Circular.

Furthermore, the non-IFRS measures included in this Offering Circular would also be considered a non-GAAP financial measure in the United States of America.

### **VEDANTA EBITDA**

Vedanta EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax. EBITDA is widely used by securities analysts, investors and other interested parties to evaluate the profitability of companies. Vedanta EBITDA eliminates potential differences in performance caused by variations in capital structures (affecting net finance costs), tax positions (such as the availability of net operating losses against which to relieve taxable profits), the cost and age of tangible assets (affecting relative depreciation expense) and the extent to which intangible assets are identifiable (affecting relative amortisation expense).

Vedanta EBITDA based measures have important limitations as an analytical tool, and you should not consider them in isolation or as substitutes for analysis of the results of operations.

Some of these limitations are:

- They do not reflect the impact of significant interest expense or the cash requirements necessary to service interest or principal payments in respect of any borrowings, which could further increase if Vedanta incurs more debt.
- They do not reflect the impact of income tax expense on Vedanta's operating performance.

- They do not reflect the impact of depreciation of assets on Vedanta's performance. The assets of Vedanta's business that are being depreciated will have to be replaced in the future and such depreciation expense may approximate the cost to replace these assets in the future. By excluding this expense from Vedanta EBITDA-based measures, these measures do not reflect our future cash requirements for these replacements.
- They do not reflect Vedanta's cash expenditures or future requirements for capital expenditure or contractual commitments.
- They do not reflect changes in or cash requirements for Vedanta's working capital needs.

Vedanta EBITDA, as defined by Vedanta, represents Vedanta EBITDA before additional specific items that are considered to hinder comparison of the trading performance of Vedanta's businesses either year-on-year or with other businesses. Vedanta EBITDA is the measure used by the Board to assess the trading performance of Vedanta's businesses and is therefore the measure of segment profit that is presented under IFRS. Vedanta EBITDA is also presented on a consolidated basis because management believes it is important to consider Vedanta's profitability on a basis consistent with that of Vedanta's operating segments. When presented on a consolidated basis, Vedanta EBITDA is a non-GAAP measure.

Vedanta EBITDA may not be comparable to similarly titled measures reported by other companies due to potential inconsistencies in the method of calculation. Vedanta has included its Vedanta EBITDA because it believes it is an indicative measure of its operating performance and is used by investors and analysts to evaluate companies in the same industry. Vedanta EBITDA should be considered in addition to, and not as a substitute for, other measures of financial performance and liquidity reported in accordance with IFRS. Vedanta believes that the inclusion of supplementary adjustments applied in its presentation of Vedanta EBITDA are appropriate because Vedanta believes it is a more indicative measure of the its baseline performance as it excludes certain charges that Vedanta's management considers to be outside of its core operating results. In addition, Vedanta EBITDA is among the primary indicators that Vedanta's management uses as a basis for planning and forecasting of future periods.

# Cash Costs per Unit

Cost of production as reported for Vedanta's metal products includes an off-set for any amounts Vedanta receives upon the sale of the by-products from the refining or smelting processes. The cost of production is divided by the daily average exchange rate for the year to calculate the US dollar cost of production per lb or tonne of metal as reported.

### **Special Items**

Special items are those items that management considers, by virtue of their size or incidence (including but not limited to impairment charges and acquisition and restructuring related costs), should be disclosed separately to ensure that the financial information allows an understanding of the underlying performance of the business in the year, so as to facilitate comparison with prior periods.

Also tax charges related to Special items and certain one-time tax effects are considered Special. Such items are material by nature or amount to the year's result and require separate disclosure in accordance with International Accounting Standards ("IAS") 1 paragraph 97. The determination as to which items should be disclosed separately requires a degree of judgement. Special Items are disclosed in the Annual Financial Statements, please refer to Note 5 in each set of consolidated financial statements for this definition and summary.

# Net Debt/Capitalisation (%)

Net Debt/Capitalisation (%) is calculated as Vedanta's Debt minus Cash and Cash Equivalents minus Liquid Investments, as a percentage of the total capitalisation of Vedanta. Total capitalisation of Vedanta is calculated as shareholder's equity including non-controlling interests and net debt.

# **Interest Coverage Ratio**

Interest coverage ratio is calculated as the number of times Vedanta EBITDA covers the total interest expense of Vedanta.

### Net Debt over Vedanta EBITDA

Net Debt over Vedanta EBITDA is calculated as Vedanta's Debt minus Cash and Cash Equivalents minus Liquid Investments, divided by Vedanta EBITDA.

### Debt/Vedanta EBITDA

Debt/Vedanta EBITDA is calculated as Vedanta's total borrowings divided by Vedanta EBITDA.

### Basis of Presentation of Reserves and Resources

### Ore Reserves and Mineral Resources

The reported reserves are defined as being either "Ore Reserves" if reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition, prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (the "JORC Code") or "Mineral Reserves" if reported in accordance with the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves which sets out minimum standards, recommendations and guidelines for public reporting of exploration results, Mineral Resources and Mineral Reserves in South Africa (the "SAMREC Code"). The meanings and definitions are the same. For convenience, Vedanta has standardised the term Ore Reserves. The reported mineral resources are defined as "Mineral Resources" if reported in accordance with the JORC Code (2012) or in accordance with the SAMREC Code.

The reported Ore Reserves of each project, and Mineral Resources for certain projects, are derived following a systematic evaluation of geological data and a series of technical and economic studies by Vedanta's geologists and engineers. The results and procedures used in the majority of these studies have been periodically reviewed by independent consultants.

- The Mineral Resources and Ore Reserves of KCM's Konkola, Nchanga and Nampundwe mines were audited as of 31 March 2017, by SRK Consulting (South Africa) (Pty) Ltd and are reported in accordance with the terms and definitions of the SAMREC Code (2009). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources of CMT's copper mines are derived from management estimates as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of HZL's mines were audited as of 31 March 2017 by SRK Consulting (UK) Limited and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.

- The Mineral Resources and Ore Reserves of Black Mountain Mining's Black Mountain mine are derived from management estimates as of 31 March 2017 and are reported in accordance with the terms and definitions of the SAMREC Code (2009). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of Black Mountain Mining's Gamsberg mines are derived from management estimates as of 31 March 2017 and are reported in accordance with the terms and definitions of the SAMREC Code (2009). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of Skorpion were audited by Axe Valley Mining Consultants Ltd. as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of BALCO's mines were audited by Geo Solutions Private Limited as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of the iron ore mines of Vedanta Limited and its subsidiary, SRL, are derived from management estimates as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of Vedanta Limited's bauxite mines are derived from management estimates as of 31 March 2017. There has been no bauxite mining in these mines during fiscal years 2015, 2016 and 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.

The Ore Reserves of Vedanta Limited's iron ore mines are derived from management estimates as of 31 March 2017. The estimation of the quantity and quality of the mineral occurrence is defined in two stages. In the first stage, the location, quantity, grade, geological characteristics and continuity of Mineral Resources are interpreted and estimated from specific geological evidence and knowledge. The geological evidence is gathered from exploration, sampling and testing information through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. See Annex B — "Mineral Resources (exclusive reporting basis)". Furthermore all Mineral Resources are reported on an exclusive basis where for the avoidance of doubt, the Mineral Resources exclude those Measured and Indicated Mineral Resources which have been modified to derive Ore Reserves. The definitions of the terms relied on for both the SAMREC Code (2009) and the JORC Code (2012) are included in the glossary to this Offering Circular. Furthermore the SAMREC Code (2009) has been recently superseded by the SAMREC Code (2016) which post-dates the effective audit date of 31 March 2017. As such the Mineral Resource and Ore Reserve Statements (the "Statements") for KCM have not been re-assessed in accordance with updated code. The effective date of the audits are 31 March 2017, as such all consultants confirm that they have not reviewed any additional technical information subsequent to this effective date whether with respect to material changes or otherwise.

The Offering Circular references various production expansion projections currently proposed by the Company, and in addition, associated capital expenditures. The Ore Reserve audits as completed by SRK UK or all consultants have been assessed in the context of current production levels and as such any expansion or associated capital expenditures have not been audited by all consultants.

All Mineral Resources and Ore Reserves are reported on a 100% basis and as such do not reflect the quantum which would be attributable to the Company based on its equity interest. This Offering Circular includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce a margin of error. Where such errors occur, the Company does not consider them to be material.

The SAMREC Code (2009) and the JORC Code (2012) specifies that reporting of Mineral Resources and Ore Reserves must be accompanied by additional supplemental information as stipulated by Table 1 of the JORC Code (2012). The Company intends, at a later date, to include a summary of the appropriate supplemental information on the Company's website to ensure full compliance with the relevant reporting Codes.

In the second stage, the "Ore Reserve" is defined. An "Ore Reserve" is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate that at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

Although the Company provides certain life of mine estimates on the basis of Ore Reserves and Mineral Resources, investors are cautioned to use the life of mine estimates based solely on Ore Reserves in Annex A — "Life of Mines" as the base case for any assessment of the life of a mine.

SRK UK noted that the geological information at Rampura Agucha, Sindesar Khurd, Rajpura Dariba and Kayad is modelled using commercial geological modelling software and the information at the Zawar Group mines is modelled using a combination of geological modelling software and on paper based sections.

SRK SA noted that the geological information at the Konkola copper mine is modelled using the GEMS Software, the Nchanga open-pit copper mine is modelled on Datamine resource models, the Nchanga underground copper mines are modelled on block and computerised analysis (Dynamic Ore Reserves System II) and the Nampundwe underground pyrite mine is modelled manually on paper based sections.

In addition to the Ore Reserves, the Company has identified further mineral deposits as either extensions of or additions to its existing operations that are subject to ongoing exploration and evaluation.

# Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources for Mining Operations

There are differences in reporting regimes for reserve estimates between the JORC Code (2012) and SAMREC Code on the one hand, each of which are used by Vedanta, and the United States reporting regime under the requirements as adopted by the SEC in its Industry Guide 7 — Description of Property by Issuers Engaged or to be Engaged in Significant Mining Operations ("Industry Guide 7") on the other hand. The principal difference is the absence under Industry Guide 7 of any provision for the reporting of estimates other than proved (measured) or probable (indicated) reserves. There is, therefore, no equivalent for "resources" or "Mineral Resources" under the SEC's Industry Guide 7.

The SEC has applied the following reporting definitions to reserves under Industry Guide 7:

A "reserve" is "that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Reserves are customarily stated in terms of "ore" when dealing with metalliferous minerals; when other materials such as coal, oil, shale, tar, sands, limestones, etc. are involved, an appropriate term such as "recoverable coal" may be substituted."

"Proven (measured) reserves" are "reserves for which:

- (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling; and
- (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established."

"Probable (indicated) reserves" are "reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation."

This Offering Circular, including Annex A — "Life of Mines", uses the term "resources", which are comprised of "measured," "indicated" and "inferred" Mineral Resources. United States investors are advised that while such terms are recognised by some investors, the SEC does not recognise them. "Inferred" Mineral Resources have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an "inferred" Mineral Resource will ever be upgraded to a higher category. Under SEC rules, estimates of "inferred" Mineral Resources may not form the basis of feasibility or other economic studies. Investors should not assume that all or any part of "measured" or "indicated" resources will ever be converted into Ore Reserves. Investors are also cautioned not to assume that all or any part of an "inferred" Mineral Resource exists or is economically or legally mineable.

# UNITED STATES INVESTORS ARE ADVISED THAT THE REPORTING OF MINERAL RESOURCES IN THIS OFFERING CIRCULAR IS ACCORDINGLY NOT COMPLIANT WITH INDUSTRY GUIDE 7.

# Oil, Condensate and Marketable Gas Reserves and Contingent Resources

Estimates of Proved, Probable, and Possible reserves and Contingent resources of Cairn India have been prepared according to the Petroleum Resources Management System ("PRMS") approved in March 2007 by the Society of Petroleum Engineers, the World Petroleum Council, the American Association of Petroleum Geologists, and the Society of Petroleum Evaluation Engineers. The PRMS standard is a referenced standard in published guidance notes of the London Stock Exchange. The Proved, Probable, and Possible oil, condensate, and marketable gas Reserves and the Contingent Resources were independently estimated by DeGolyer and MacNaughton as of 31 March 2017.

The Contingent Resources estimated herein are those volumes of oil or gas that are potentially recoverable from known accumulations but which are not currently considered to be commercially recoverable because development is either pending or is under evaluation or is currently not considered viable under existing technical/commercial conditions. Because of the uncertainty of commerciality and the lack of sufficient exploration drilling, the Resources estimated herein cannot be classified as Reserves. The Resources estimates herein are provided as a means of comparison to other resources and do not provide a means of direct comparison to Reserves.

The Company retained DeGolyer and MacNaughton to conduct independent reviews of the Proved, Probable, and Possible oil, condensate, and marketable gas Reserves and the Contingent Resources as of 31 March 2017.

### Reserves and Production

In this Offering Circular, unless expressly stated otherwise, references to reserves and production are to total reserves and total production, respectively. For example, total Ore Reserves and total production mean that part of the Ore Reserves from a mine and that part of the production at mines and operations, respectively, that subsidiaries of the Company have an interest in or rights to. The Company does not wholly own certain of its subsidiaries and therefore total reserves and total production include reserves and production, respectively, attributable to third-party interests in controlled subsidiaries. Rounding adjustments have been made in calculating some of the reserves and production information included in this Offering Circular. As a result, numerical figures shown as totals in some tables may not be exact arithmetic aggregations of the figures that precede them.

# Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources for Oil and Gas Programmes

There are principal differences between the reporting regimes under the PRMS approved in March 2007 by the Society of Petroleum Engineers, the World Petroleum Council, the American Association of Petroleum Geologists, and the Society of Petroleum Evaluation and in the United States under the requirements as adopted by the SEC in its Industry Guide 4 — Prospectus Relating to Interests in Oil and Gas Programmes and Subpart 1200 of Regulation S-K (together "Industry Guide 4").

Evaluations of oil and gas reserves involve various uncertainties and require exploration and production companies to make extensive judgments as to future events based upon the information available. The crude oil and natural gas reserves data are estimates based primarily on internal technical analyses using standard industry practices. Such estimates reflect Vedanta's best judgment at the time of their preparation, based on geological and geophysical analyses and appraisal work (which are dynamic processes), and may differ from previous estimates. Reserves estimates are subject to various uncertainties, including those relating to the physical characteristics of crude oil and natural gas fields. These physical characteristics are difficult to estimate and, as a result, actual production may be materially different from current estimates of reserves. Factors affecting Vedanta's reserve estimates include: the outcome of new production or drilling activities; assumptions regarding future performance of wells and surface facilities; the results of field reviews; an ability to acquire new reserves from discoveries or extensions of existing fields; an ability to apply improved recovery techniques; and changed economic conditions.

UNITED STATES INVESTORS ARE ADVISED THAT THE REPORTING REGIMES USED IN THIS OFFERING CIRCULAR ARE ACCORDINGLY NOT COMPLIANT WITH INDUSTRY GUIDE 4.

### **SUMMARY**

This summary highlights information contained elsewhere in this Offering Circular and does not contain all of the information that you should consider before investing in the Bonds. You should read this entire document, including "Risk Factors" and the financial statements included elsewhere in this Offering Circular, before making an investment decision. This Offering Circular includes forward-looking statements that involve risks and uncertainties. See "Special Note regarding Forward-Looking Statements" for further information.

### **Business Overview**

Vedanta is an LSE-listed globally diversified metals and mining, oil and gas and power generation company. Its businesses are principally located in India. India is one of the fastest growing large economies in the world with a 7.1% increase in GDP during fiscal 2017 (at constant fiscal 2012 prices), according to the Central Statistical Organisation of the GoI's Ministry of Statistics and Programme Implementation. In addition, Vedanta has assets and operations in jurisdictions such as Zambia, Namibia, South Africa and UAE and a workforce of 70,000 people worldwide. Vedanta is primarily engaged in oil and gas, zinc, copper, iron ore, aluminium and commercial power generation businesses and is also developing port operation businesses and infrastructure assets. Vedanta has experienced significant growth in recent years through the expansion of projects for its oil and gas, copper, zinc, aluminium and iron ore businesses. Vedanta believes its experience in operating and expanding its businesses in India will allow it to capitalise on attractive growth opportunities arising from India's large mineral reserves, relatively low cost of operations and large and inexpensive labour and talent pools.

For fiscal years 2015, 2016 and 2017, Vedanta reported total revenue of \$12,878.7 million, \$10,737.9 million and \$11,520.1 million, respectively, and Vedanta EBITDA of \$3,741.2 million, \$2,336.4 million and \$3,191.1 million, respectively.

The board of directors of Vedanta Limited and Cairn India on 14 June 2015 announced the merger of Cairn India with Vedanta Limited pursuant to a scheme of arrangement under Indian law ("Scheme"). The Scheme was sanctioned by the Mumbai Bench of the National Company Law Tribunal on 23 March 2017 and an in-principle approval was granted by the Ministry of Petroleum and Natural Gas, GoI on 27 March 2017. Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the fiscal 2017. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017 and Vedanta's equity interest in Vedanta Limited reduced to 50.1% from 62.9%. As per the terms of the scheme, upon the merger becoming effective, non-controlling i.e. public shareholders of Cairn India Limited received, one equity share in Vedanta Limited of face value Re 1 each and four 7.5% Redeemable Preference Shares in Vedanta Limited with a face value of Rs. 10 each for each equity share held in Cairn India Limited. No shares were issued to Vedanta Limited or any of its subsidiaries for their shareholding in Cairn India Limited.

### **Competitive Strengths**

Vedanta believes it has the following strengths:

- Large, low cost and diversified asset base.
- Attractive commodity mix.
- Ideally positioned to capitalise on India's growth and natural resource potential.
- Well-invested assets driving cash flow growth.
- Strong financial profile.
- Proven track record

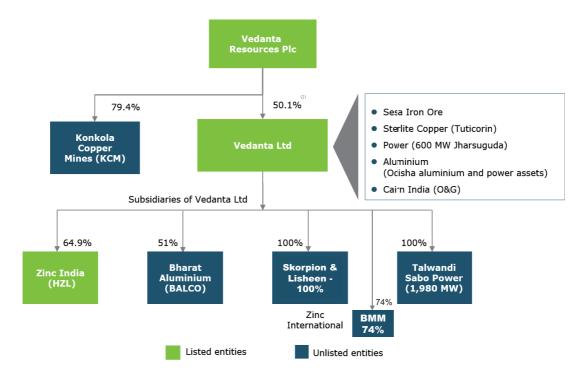
# Strategy

Vedanta has the following key strategic priorities:

- Production growth and asset optimisation.
- De-leveraging the balance sheet.
- Creating sustainable value for all stakeholders.
- Simplifying group structure.
- Identifying next generation resources.

### Corporate Structure

The following corporate structure shows the subsidiaries of the Company as of 31 March 2017.



Notes:

### **About the Company**

The Company was incorporated and registered in England and Wales as a private company limited by shares under the name Angelchange Limited on 22 April 2003 and with registered number 04740415. On 26 June 2003, the Company changed its name to Vedanta Resources Limited. On 20 November 2003, the Company re-registered as a public limited company under the United Kingdom Companies Act 1985 and changed its name to Vedanta Resources plc. The principal legislation under which the Company operates is the Companies Act, 2006 (the "Companies Act").

Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the Fiscal year 2017 as shown in the corporate structure above. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017 and Vedanta's holding in Vedanta Limited became 50.1% which was earlier 62.9%.

The registered office of the Company is 5th floor, 6 st Andrew Street, London, EC4A 3AE. The head office of the Company is at 16 Berkeley Street, Mayfair, London W1J 8DZ, telephone number +44 (020) 7499-5900. The Company's website address is www.vedantaresources.com. Information on the Company's website does not constitute a part of this Offering Circular.

# **Recent Developments**

### Term loans

The Company has received commitments from global and Indian banks for term loan facilities (including debt securities) for an amount totalling to \$840 million. The term loan facilities will be availed by the Company or by its 100% subsidiaries with a corporate guarantee from the Company. The proceeds from these facilities would be used for refinancing the existing indebtedness of the Company.

### Loans repaid in the three months ended 30 June 2017

During the three months ended 30 June 2017, Vedanta repaid \$1.4 billion of total debt, out of which \$1.0 billion was at Vedanta Limited and its subsidiaries. As of 30 June 2017, the total indebtedness of Vedanta was \$16,786.1 million. For further details, see "Description of Material Indebtedness" and "Capitalisation and Indebtedness."

# Production Release for the three months ended 30 June 2017

On 26 July 2017, Vedanta announced its unaudited production results for the three months ended 30 June 2017. The following table presents a summary of the production results for the periods presented. You should read the following information in conjunction with the detailed production release included as Annex D in this Offering Circular.

# Production Summary (Unaudited)

(In '000 tonnes, except as stated)

Particulars	Three months period ended 30 June 2017		Three months period ended 31 March 2017		Full Year ended 31 March 2017	
	Fiscal year 2018	Fiscal year 2017	% Change YoY	Fiscal year 2017	% Change QoQ	Fiscal year 2017
OIL AND GAS						
Average Daily Total Gross Operated Production (boepd) <sup>1</sup> .	196,656	206,455	(5)%	194,343	1%	199,574
Average Daily Gross Operated Production (boepd)	187,203	196,861	(5)%	184,585	1%	189,926
Rajasthan	159,351	166,943	(5)%	157,338	1%	161,571
Ravva	18,361	19,637	(6)%	17,769	3%	18,602
Cambay	9,491	10,281	(8)%	9,477	0%	9,753
Average Daily Working Interest Production						
(boepd)	119,473	125,391	(5)%	117,926	1%	121,186
Rajasthan	111,546	116,860	(5)%	110,137	1%	113,100
Ravva	4,131	4,418	(6)%	3,998	3%	4,185
Cambay	3,796	4,113	(8)%	3,791	0%	3,901

Particulars	Three months	s period ended	30 June 2017	Three months	_	Full Year ended 31 March 2017
	Fiscal year 2018	Fiscal year 2017	% Change YoY	Fiscal year 2017	% Change QoQ	Fiscal year 2017
Total Oil and Gas						
(million boe)						
Oil & Gas — Gross	17.0	17.9	(5)%	16.6	3%	69.3
Oil & Gas-Working						
Interest	10.9	11.4	(5)%	10.6	2%	44.2
Zinc India						
Mined metal content.	233	127	84%	312	(25)%	907
Refined Zinc —	104	102	000	215	(10)0/	672
Total  Refined Zinc —	194	102	90%	215	(10)%	672
Integrated	194	101	92%	215	(10)%	670
Refined Zinc —	171	101	7270	213	(10)/0	070
Custom	_	1	_	_	_	2
Refined Lead —						
Total <sup>2</sup>	35	25	42%	45	(23)%	139
Refined Lead —						
Integrated	35	25	42%	45	(23)%	139
Refined Lead —						
Custom	_	_	_		_	
Silver — Total (in mn ounces) 3	3.70	2.85	30%	4.47	(17)%	14.55
Silver — Integrated	3.70	2.03	30%	4.47	(17)%	14.33
(in mn ounces)	3.70	2.85	30%	4.47	(17)%	14.55
Silver — Custom (in		_,,,			(),	
mn ounces)	_	_		_	_	_
Zinc International	32	43	(25)%	41	(22)%	156
Zinc — Refined						
—Skorpion	14	24	(42)%	21	(36)%	85
Mined metal content —						
BMM	18	19	(4)%	20	(7)%	70
IRON ORE  (in million dry metric tonnes, or as stated)						
Sales	2.3	2.6	(12)%	3.0	(24)%	10.2
Goa	1.9	2.1	(11)%	2.3	(19)%	7.4
Karnataka	0.4	0.5	(15)%	0.7	(40)%	2.7
Production of						
Saleable Ore	3.2	3.2	1%	3.7	(12)%	10.9
Goa	2.2	2.4	(10)%	3.7	(42)%	8.8
Karnataka	1.1	0.8	36%	_	_	2.1
Pig Iron	163	181	(10)%	182	(10)%	708
COPPER — INDIA						
Copper — Cathodes	90	100	(10)%	103	(12)%	402
Tuticorin Power						
Plant Sales	20	<i>(</i> 0	(51)01	C 1	(EA) 01	200
(MU)	30	60	(51)%	64	(54)%	200

Particulars	Three months period ended 30 June 2017			Three months period ended 31 March 2017		Full Year ended 31 March 2017	
	Fiscal year 2018	Fiscal year 2017	% Change YoY	Fiscal year 2017	% Change QoQ	Fiscal year 2017	
COPPER — ZAMBIA							
Mined metal	20	29	(30)%	15	35%	94	
Copper — Total	47	45	5%	51	(7)%	180	
Integrated	21	28	(26)%	19	9%	96	
Custom	27	17	56%	32	(17)%	84	
Aluminium							
Alumina-Lanjigarh	303	275	10%	313	(3)%	1,208	
Total Aluminium							
Production	352	244	44%	353	0%	1,213	
Jharsuguda-I	92	129	(29)%	132	(30)%	525	
Jharsuguda-II <sup>4</sup>	120	28	_	100	20%	261	
Korba-I	63	63	0%	64	(2)%	256	
Korba-II <sup>5</sup>	77	24	_	57	35%	171	
Balco 270 MW	_	_	_	_	_	_	
Jharsuguda 1800 MW (Surplus Power Sales)	_	355	_	_	_	511	
POWER (in million units)		333				311	
Total Power Sales	1,838	3,010	(39)%	3,462	(45)%	12,916	
Jharsuguda 600 MW.	564	892	(37)%	952	(41)%	3,328	
TSPL	563	1,272	(56)%	1,596	(61)%	6,339	
BALCO 600 MW	551	607	(9)%	793	(31)%	2,609	
MALCO	4	90	(96)%	46	(93)%	190	
HZL Wind Power	156	148	5%	75	_	448	
TSPL — Availability	20%	72%	_	85%	_	79%	
Ports — VGCB (in million tonnes) <sup>6</sup>							
Cargo Discharge	1.2	1.6	(23)%	0.8	53%	4.3	
Cargo Dispatches	1.1	1.5	(28)%	0.8	34%	4.4	

<sup>1.</sup> Including Internal Gas consumption

<sup>2.</sup> Excluding Captive consumption of 1,956 tonnes in three months ended 30 June 2017 vs 1,084 tonnes in three months ended 30 June 2016 and 1,633 tonnes in the three months ended 31 March 2017.

<sup>3.</sup> Excluding Captive consumption of 3,28,077 ounces in three months ended 30 June 2017 vs 1,77,000 ounces in three months ended 30 June 2016 and 2,78,000 ounces in three months ended 31 March 2017.

<sup>4.</sup> Including Trial Run production of 19 kt in the three months ended 30 June 2017 vs 13 kt in the three months ended 30 June 2016 and 28 kt in the three months ended 31 March 2017.

<sup>5.</sup> Including Trial Run production of 15 kt in the three months ended 30 June 2017 vs 6 kt in the three months ended 30 June 2016 and 19 kt in the three months ended 31 March 2017.

<sup>6.</sup> VGCB refers to Vizag General Cargo Berth

# SUMMARY OF THE OFFERING

The following is a general summary and should not be relied on as a complete description of the Terms and Conditions of the Bonds (the "Conditions"). This summary is derived from, and should be read in conjunction with, the full text of the Conditions and the Trust Deed constituting the Bonds, which prevail to the extent of any inconsistency with the terms set out in this summary. Capitalised terms used herein and not otherwise defined have the respective meanings given to such terms in the relevant Conditions.

Issuer	Vedanta Resources plc.
Issue	\$1,000,000,000 6.125% Bonds due 2024.
Maturity Date	The Bonds will mature on 9 August 2024.
Issue Price	The Bonds will be issued at 100% of their principal amount, plus accrued interest, if any, on the Closing Date.
Interest and Payment Dates	The Bonds will bear interest at the rate of 6.125% per annum. The Bonds will bear interest on and from the Closing Date, payable semi-annually in arrears on 9 February and 9 August, commencing 9 February 2018.
Status of the Bonds	The Bonds constitute senior, unsubordinated, direct, unconditional and (subject to Condition 3(a)) unsecured obligations of the Company and shall at all times rank pari passu and without any preference among themselves. The payment obligations of the Company under the Bonds shall, save for such exceptions as may be provided by applicable legislation and subject to Condition 3(a), at all times rank at least equally with all of its other present and future unsecured and unsubordinated obligations. The Bonds will be structurally subordinated to claims of holders of debt securities and other creditors of subsidiaries of the Company. See "Risk Factors — Risks Relating to the Bonds — The Bonds will be structurally subordinated to the debt held by the Company's subsidiaries".
Use of Proceeds	The net proceeds from this offering, after deduction of underwriting fees, discounts and commissions and other estimated expenses associated with this offering, are expected to be approximately \$992 million. The Company intends to use the net proceeds from this offering primarily to fund the Company's Tender Offers for any and all of its outstanding U.S.\$774,772,000 6.00% Bonds due 2019 (the "2019 Bonds") and U.S.\$900,000,000 8.25% Bonds due 2021 (the "2021 Bonds"), and to repay other existing indebtedness of the Company. In the event the Tender Offers are not completed for any reason, the Company intends to use the net proceeds from this offering primarily to repay outstanding borrowings drawn down under its credit facilities. The net proceeds from this offering shall be used in accordance with applicable law. See "Use of Proceeds" for further details.

Certain of the Joint Bookrunners and/or their affiliates have and will continue to have additional relationships with the Company as described in "Plan of Distribution". In particular, certain of the Joint Bookrunners and/or their affiliates act as arrangers and lenders under our loan facilities and may receive a portion of the proceeds of the offering of the Bonds in connection with the repayment thereof. See "Use of Proceeds."

Tender Offers .....

Concurrently with this offering, Vedanta is conducting conditional Tender Offers for any and all of its 2019 Bonds and 2021 Bonds.

Optional Redemption .....

At any time and from time to time prior to 9 August 2021, the Bonds may be redeemed, in whole or in part, at the option of the Issuer at a redemption price equal to 100% of the principal amount of the Bonds being redeemed, plus the Applicable Premium, plus accrued and unpaid interest, if any, to (but excluding) the redemption date.

At any time and from time to time on or after 9 August 2021, the Bonds may be redeemed, in whole or in part, at the option of the Issuer at the following redemption prices (expressed as percentages of the principal amount of the Bonds at maturity) plus accrued and unpaid interest, if any, to (but excluding) the redemption date:

### Twelve-Month Period Commencing

on 9 August in	Redemption Price
2021	103.06250%
2022	101.53125%
2023	100.00000%

Repurchase of Bonds upon
a Change of Control
Triggering Event .....

Upon the occurrence of a Change of Control Triggering Event (as defined in the Conditions), the Company must make an offer to purchase all of the Bonds outstanding at a purchase price equal to 101% of their principal amount plus accrued and unpaid interest, if any, to (but excluding) the purchase date.

Redemption for Taxation.....

The Bonds may be redeemed at the option of the Company at any time in whole, but not in part, at a redemption price equal to the principal amount of the Bonds, together with accrued and unpaid interest, if any, to (but excluding) the redemption date in the event of certain changes affecting taxes of the United Kingdom.

Covenants	The Company has agreed to comply with certain covenants limiting its ability and the ability of certain of its subsidiaries to, among other things, create any security interests over assets, create any restrictions on the ability of certain subsidiaries to pay dividends, incur additional borrowings, distribute proceeds from certain asset sales or sell its ownership interest in certain subsidiaries and has agreed to certain other covenants. See "Terms and Conditions of the Bonds — Covenants".
	These covenants are subject to important exceptions and qualifications. In addition, the Company and certain of its subsidiaries will not be subject to certain covenants which limit their ability to incur additional borrowings and distribute proceeds from certain asset sales, at any time after the Bonds achieve investment grade ratings from any two of Moody's, Standard & Poor's and Fitch. See "Terms and Conditions of the Bonds — Covenants — Covenant Suspension".
Selling Restrictions	There are restrictions on the offer, sale and/or transfer of the Bonds in certain jurisdictions. For a description of the selling restrictions on offers, sales and transfers of the Bonds, see "Plan of Distribution" and "Transfer Restrictions".
Form and Denomination of the Bonds	The Bonds will be issued in registered form in the denomination of \$200,000 each and in integral multiples of \$1,000 in excess thereof. Upon issue, the Regulation S Bonds will be represented by the Unrestricted Global Certificate and the Rule 144A Bonds will be represented by the Restricted Global Certificate, each in registered form. On the Closing Date, the Unrestricted Global Certificate will be deposited with a custodian for, and registered in the name of Cede & Co., as nominee of DTC for the accounts of Euroclear and Clearstream and the Restricted Global Certificate will be deposited with a custodian for, and registered in the name of Cede & Co., as nominee of DTC.
Listing	Approval in-principle has been received for the listing and quotation of the Bonds on the Official List of the SGX-ST.

Approval in-principle has been received for the listing and quotation of the Bonds on the Official List of the SGX-ST. The Bonds will trade on the SGX-ST in a minimum board lot size of \$200,000 so long as any of the Bonds remain listed on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or information contained in this Offering Circular. Approval in-principle for the listing and quotation of the Bonds on the SGX-ST is not to be taken as an indication of the merits of the offering, the Company or the Bonds.

Further Issues ..... The Company may from time to time, without the consent of the Bondholders, create and issue further securities either having the same terms and conditions as the Bonds in all respects (or in all respects except for the first payment of interest on them) so that such further issue shall be consolidated and form a single series with the Bonds or upon such terms as the Company may determine at the time of their issue. See "Terms and Conditions of the Bonds — Further Issues". The Bonds and the Trust Deed, and all non-contractual Governing Law..... matters arising from or connected with the Bonds and the Trust Deed, will be governed by and construed in accordance with English law. Trustee ..... Citicorp International Limited. Principal Paying Agent ..... Citibank, N.A., London Branch. Registrar and Transfer Agent .... Citigroup Global Markets Deutschland AG. Global Certificates ..... For as long as the Bonds are represented by the Global Certificates, payments of principal and interest in respect of the Bonds will be made without presentation or if no further payment is made in respect of the Bonds against presentation and surrender of the Global Certificates to or to the order of the Principal Agent (as defined below) for such purpose. While the Bonds are represented by the Global Certificates, they will be transferable only in accordance with the rules and procedures for the time being of the relevant clearing system. Except as described herein, individual certificates will not be issued in exchange for interests in the Global Certificates. Rating of the Bonds ..... The Company currently has corporate credit ratings of "B+" with a stable outlook by S&P and "B1" with a stable outlook by Moody's. Currently, the long term debt rating by Moody's is "B3." The Bonds are expected, on the Closing Date, to be rated "B3" by Moody's, "B+" by S&P. These ratings may be reviewed by the rating agencies from time to time and subject to change. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organisation. Trust Deed ..... The Bonds will be issued under the Trust Deed to be dated on or about the Closing Date between the Company and the Trustee (as defined herein). Withholding Tax..... All payments of principal and interest in respect of the Bonds shall be made free and clear of any withholding or deduction for United Kingdom withholding taxes to the extent set forth herein. See "Terms and Conditions of the Bonds — Taxation". Events of Default..... For a description of certain events that will permit the Bonds to become immediately due and payable at their principal amount, together with accrued interest, see "Terms and Conditions of the Bonds — Events of Default".

Lock-up Ag	reement
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Neither the Company, nor any person acting on its behalf, will, from the date of this Offering Circular until the date 30 days after the date of this Offering Circular, without the prior written consent of the Joint Bookrunners, issue, offer, sell, contract to sell, pledge or otherwise dispose of (or publicly announce any such issuance, offer, sale or disposal) non-equity-linked debt securities issued or guaranteed (other than guarantees in respect of Indian rupee denominated non-equity linked debt securities and other than any debt securities that may be issued in connection with the refinancing described in "Summary — Recent Development — Term loans") by the Company and having a maturity of more than one year from the date of issue, subject to certain exceptions. See "Plan of Distribution".

CUSIP...... Regulation S Bonds: G9328D AP5

Rule 144A Bonds: 92241T AM4

ISIN ...... Regulation S Bonds: USG9328DAP53

Rule 144A Bonds: US92241TAM45

Rule 144A Bonds: 163545721

Prospective purchasers should refer to the section entitled "Risk Factors" for a discussion of certain risks involved in investing in the Bonds.

# SUMMARY CONSOLIDATED FINANCIAL INFORMATION

The following tables present the summary historical consolidated financial information for the Company for the periods ended and at the dates indicated below. The summary historical consolidated financial information as of and for fiscal years ended 2015, 2016 and 2017 been derived from the consolidated financial statements included elsewhere in this Offering Circular. The Company's annual consolidated financial statements have been prepared and presented in accordance with IFRS as adopted by the EU.

You should read the following information in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Annual Financial Statements and the notes thereto included elsewhere in this Offering Circular.

### **Consolidated Income Statement**

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
Continuing operations			
Revenue	12,878.7	10,737.9	11,520.1
Cost of sales	(10,463.9)	(9,241.1)	(8,789.2)
Gross profit	2,414.8	1,496.8	2,730.9
Other operating income	104.0	101.7	73.4
Distribution costs	(245.2)	(223.8)	(274.9)
Administrative expenses	(538.1)	(493.5)	(368.8)
Special items	(6,744.2)	(5,210.1)	(17.3)
Operating (loss)/profit	(5,008.7)	(4,328.9)	2,143.3
Investment revenues	832.6	697.8	642.6
Finance costs	(1,387.2)	(1,280.4)	(1,382.2)
Other gains and losses (net)	(76.9)	(72.5)	(23.8)
Profit before taxation	(5,640.2)	(4,984.0)	1,379.9
Tax credit/(charge) — special items	2,205.1	1,737.4	(4.9)
Tax expense — others	(352.6)	(255.5)	(495.4)
Profit/(Loss) for the year	(3,787.7)	(3,502.1)	879.6
Attributable to:			
Equity holders of the parent	(1,798.6)	(1,837.4)	(22.7)
Non-controlling interests	(1,989.1)	(1,664.7)	(902.3)
Profit/(loss) for the year	(3,787.7)	(3,502.1)	879.6
VEDANTA EBITDA <sup>(1)</sup>	3,741.2	2,336.4	3,191.1

Vedanta EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax. The Company's Vedanta EBITDA may not be comparable to similarly titled measures reported by other companies due to potential inconsistencies in the method of calculation. The Company has included its Vedanta EBITDA because the Company believes it is an indicative measure of the Company's operating performance and is used by investors and analysts to evaluate companies in the same industry. The Company's Vedanta EBITDA should be considered in addition to, and not as a substitute for, other measures of financial performance and liquidity reported in accordance with IFRS. The Company believes that the inclusion of supplementary adjustments applied in the Company's presentation of Vedanta EBITDA are appropriate because the Company believes it is a more indicative measure of the Company's baseline performance as it excludes certain charges that the Company's management considers to be outside of its core operating results. In addition, the Company's Vedanta EBITDA is among the primary indicators that the Company's management uses as a basis for planning and forecasting of future periods. The following table reconciles net income to Vedanta EBITDA.

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
Profit/(loss) for the year	(3,787.7)	(3,502.1)	879.6
Adjusted for:			
Net tax expense/(credit)	(1,852.5)	(1,481.9)	500.3
Other gains & losses (net)	76.9	72.5	23.8
Finance costs	1,387.2	1,280.4	1,382.2
Investment revenues	(832.6)	(697.8)	(642.6)
Special Items*	6,744.2	5,210.1	17.3
Depreciation and amortisation	2,005.7	1,455.2	1,030.5
VEDANTA EBITDA	3,741.2	2,336.4	3,191.1

# **Consolidated Balance Sheet Data**

	As of 31 March		
	2015	2016	2017
		(\$ million)	
Cash and cash equivalents	353.7	428.3	1,682.2
Liquid investments	7,856.1	8,508.2	8,043.0
Total assets	36,988.9	30,319.3	31,503.4
Short-term borrowings	(3,179.2)	(3,726.6)	(7,658.5)
Medium and long-term borrowings	(12,385.6)	(11,949.5)	(10,570.2)
Convertible bonds*	(1,103.0)	(587.2)	
Total equity	12,257.4	6,852.4	6,014.6

# Consolidated Cash Flow Data

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
Net cash from operating activities	2,505.8	2,401.7	1,457.6
Net cash from/(used in) investing activities	(1,591.7)	(1,862.3)	72.8
Net cash (used in) financing activities	(928.0)	(446.8)	(343.2)
Purchases of property, plant and equipment and intangibles.	(2,289.1)	(872.4)	(873.9)

<sup>\*</sup> Special Items are defined in Note 5 to the Annual Financial Statements. Special Items include Impairment of oil & gas assets, Impairment of mining reserves and assets, Voluntary retirement schemes, Provision for receivables, Provision for investment in coal blocks, Acquisition and restructuring related costs, Provision for contractor dispute, Land regularisation fees and special tax items.

<sup>\*</sup> Includes the current and non-current portion.

# RISK FACTORS

This Offering Circular contains forward-looking statements that involve risks and uncertainties. Vedanta's actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of factors, including those described in the following risk factors and elsewhere in this Offering Circular. You should consider the following risk factors carefully in evaluating Vedanta and its business before investing in the Bonds. If any of the following risks actually occur, Vedanta's business, financial condition and results of operations could suffer, the trading price of the Bonds could decline and you may lose all or part of your investment.

### Risks Relating to Business

Commodity prices and the copper treatment and refinery charges or TcRc may be volatile, which may have a material adverse effect on Vedanta's revenue, results of operations and financial condition.

Historically, the international commodity prices for oil and gas, zinc, copper, iron ore and aluminium, and the prevailing market TcRc rate for copper have been volatile and subject to wide fluctuations in response to relatively minor changes in the supply of, and demand for, such commodities, market uncertainties, the overall performance of world or regional economies, the related cyclicality in industries Vedanta directly serves and a variety of other factors beyond the control of Vedanta. Commodity prices and the market TcRc rate for copper may continue to be volatile and subject to wide fluctuations in the future for a variety of reasons.

For example, during fiscal year 2016 and fiscal year 2017, the average prices of zinc, lead, silver, Brent and aluminium increased by 29.5%,13.4%,17.1%, 2.3%, and 6.2% respectively while the average prices of copper decreased by 1.1%. Historically, international prices for crude oil and natural gas have fluctuated as a result of many macro-economic, geo-political and regional factors.

The units of power generated by Vedanta's commercial power generation business are also subject to price volatility. A decline in the prices Vedanta receives for its oil, gas, zinc lead, copper, iron ores or aluminium, or for its power, or in the market TcRc rate for copper would adversely affect Vedanta's revenue and results of operations, and a sustained drop would have a material adverse effect on its revenue, results of operations and financial condition.

Similarly, for the portion of Vedanta's alumina requirements sourced internally, Vedanta's profitability is dependent upon the LME price of aluminium, less the cost of production, which includes the cost of mining bauxite, the refining of bauxite into alumina, transportation of bauxite and alumina and smelting of alumina into aluminium. Further, the units of power generated by Vedanta's commercial power generation business are also subject to price volatility.

The crude oil produced at Block RJ-ON-90/1 (the "Rajasthan Block") is benchmarked to Bonny Light, an international low sulphur crude oil published in Platt's Crude Oil Market Wire on a daily basis. The pricing formula also adjusts for differences in yield and quality. Any change in the prices of Bonny light would impact the revenue from Vedanta's oil and gas business.

The implied price realisation of crude oil generally lies between 8% to 13% discount to Dated Brent for Rajasthan and 3% to 6% to Dated Brent for Cambay, due to the prevailing oil market conditions. Movements in discount affect Vedanta's revenue realisation and any increase in quality differentials may adversely impact Vedanta's revenues and profits.

Vedanta's businesses currently depend upon third party suppliers for a substantial portion of its raw material requirements and their segment results and segment margins depend upon the market prices for such raw materials.

Vedanta sources a majority of its copper concentrate and a substantial proportion of its alumina requirements for its copper and aluminium businesses, respectively, from third parties. For example, in fiscal year 2017, Vedanta sourced approximately 97.5% of its copper concentrate and 53.9% of its alumina requirements from third parties. For the portion of Vedanta's aluminium business where the required alumina is sourced internally, profitability is dependent upon the LME price of aluminium less the cost of production, which includes the costs of bauxite mining at BALCO's mines, the refining of bauxite into alumina at Vedanta Limited's refinery and the smelting of alumina into aluminium. For the portion of Vedanta's alumina requirements sourced from third parties, its profitability is dependent upon the LME price of aluminium, less the cost of the sourced alumina and the cost of smelting. During fiscal year 2017, 56.1% of BALCO's alumina requirement and 48.2% of Vedanta Limited's alumina requirement came from third parties.

As a result, Vedanta EBITDA and segment margins of Vedanta's copper and aluminium businesses depend upon its ability to obtain the required copper concentrate and alumina at prices that are low relative to the market prices of the copper and aluminium products that it sells. The market prices of the copper concentrate and alumina that Vedanta purchases from third parties and the market prices of the copper and aluminium metals that it sells have experienced volatility in the past, and any increases in the market price of the raw material relative to the market prices of the metal that Vedanta sells would adversely affect the segment results and segment margins of Vedanta's copper and aluminium businesses, which could have a material and adverse effect on its business, financial condition, results of operations and prospects.

Vedanta Limited is operating its Sonshi iron ore mine that is leased by the state of Goa to third parties through an ore raising arrangement. Under the contract, Vedanta Limited, as a contractor, is responsible for extracting the ore, which it then purchases back from the relevant third party owners. During fiscal year 2017, approximately 1.4 mmt of Vedanta's crude iron ore production (or approximately 15.3% of total iron ore production) was derived from its operation of third party mines. As part of Vedanta's contract arrangements, Vedanta generally pays such third party owners a purchase price per tonne of iron ore, which is linked to the market price of iron ore. This contract is valid till March 31, 2018. However, there is no assurance that the third party mine owners will further renew the contract on the same or otherwise favourable terms, or at all. There is also no assurance that, where such mine is owned by a third party under a lease, the third party will apply for a renewal of such lease in a timely fashion prior to its expiry, or be successful in obtaining such renewals. Any failure to renew material contracts or significant increases in royalty payments may adversely affect Vedanta's business, financial condition, results of operations and prospects.

The primary raw material for Vedanta's commercial power operations is coal, which is subject to the GoI's coal allocation policies. Vedanta also relies on imported sources to meet part of its coal requirements.

Further, in common with many exploration and production companies, Vedanta and the operators of assets often contract or lease services and equipment from third party providers. Such services and equipment can be scarce and may not be readily available at the times and places required. In addition, the costs of third party services and equipment have increased significantly over recent years and may continue to rise. Scarcity of services and equipment and increased prices may in particular result from any significant increase in regional exploration and development activities, which in turn may be the consequence of increased or continued high hydrocarbon or mineral prices. The scarcity of such services and equipment, as well as their potentially high costs, could delay, restrict or lower the profitability and viability of projects which may have a material adverse effect on Vedanta's businesses, prospects, financial condition or results of operations.

Vedanta's iron ore business is largely dependent on export sales of iron ore to China. As a result, any downturn in the rate of economic growth in China or negative changes in international relations between India and China or negative changes in Chinese regulatory or trade policies relating to the import of iron ore, could have a material adverse effect on its results of operations and financial condition.

Vedanta's iron ore business is largely dependent on export sales of iron ore to China. For instance in fiscal year 2017, 100% of sales to external customers for Goa was from exports to customers in China. As a result, the performance and growth of Vedanta's iron ore business is necessarily dependent on the health of the Chinese economy, which may be materially and adversely affected by political instability or regional conflicts, economic slowdown elsewhere in the world or otherwise. In addition, any worsening of international relations between India and China, any negative changes in Chinese regulatory or trade policies relating to the import of iron ore or other limitations, restrictions or negative changes in Vedanta's ability to export iron ore to China, could have a material adverse effect on its business, financial condition, results of operations and prospects.

There is no certainty that the PSC relating to Vedanta's group company, Cairn India's participating interest in the Rajasthan Block will be renewed or that any renewal will be on favourable terms, which could have a material adverse effect on Vedanta's businesses, operating results or financial condition.

Vedanta's current reserves and production are significantly dependent on the Rajasthan block in India. The current production sharing contract for the block is valid till May, 2020. If the production sharing contract does not get extended, or gets extended on unfavourable terms (e.g. government of India seeking a higher profit share), this could result in a substantial loss of value and could have a material adverse effect on our results of operations and financial condition. Estimates of reserves and values provided herein are based only on that production that is estimated to be recoverable before the expiration date of the production sharing contract. No reserves or value have been considered for quantities that might be produced after the expiration date of the Rajasthan production sharing contract or the other production sharing contract-based properties owned by us. The Ministry of Petroleum and Natural Gas vide notification No.O-19025/07/2014-ONG-D-V dated April 7, 2017, has issued a policy for the grant of extension to the production sharing contracts signed by the GoI awarding Pre-New Exploration Licensing Policy (Pre-NELP) Exploration Blocks ("Pre-NELP Extension Policy"). The Pre-NELP Extension Policy defines the framework for granting of extension for Pre-NELP blocks and covers both the Rajasthan and Cambay fields. As per the above policy, the Government share of profit petroleum during the extended period of contract would be at higher slabs for these fields.

Consistent with the terms of the PSC, Cairn India has been requesting an extension of the tenure of the Rajasthan Block PSC for a period of up to ten years, i.e., until May 2030. ONGC, Cairn India's joint venture partner in the Rajasthan Block, is technically aligned on the recoverable resources potential of the Rajasthan Block beyond the PSC period, until the proposed extension period up to 2030. Cairn India has been making regular requests to MoPNG for the extension of the tenure of the Rajasthan Block PSC for the past few years. However, apart from seeking further technical and financial details, the MoPNG has not yet made a final decision in the matter. Cairn India has approached the High Court of Delhi against MoPNG's delay in making their decision on extending Cairn India's tenure of the Rajasthan Block PSC. See "Business — Litigation — Writ petition filed in the Delhi High Court by Cairn India Limited relating to extension of tenure of the Production Sharing Contract for the Rajasthan block" for further information. On March 22, 2017, the Cabinet Committee on Economic Affairs (CCEA), GoI approved a new policy for the grant of extension to (New Exploration Licensing Policy) PSCs, including RJ block. DGH vide its letter dated April 12, 2017

communicated about the aforesaid extension policy specifying that Cairn should apply thereunder. GOI has also filed an affidavit communicating the aforesaid extension policy and the High Court of Delhi has granted time to Cairn to file its affidavit before the High Court of Delhi. Whilst Vedanta is in continuous dialogue with the GoI and relevant stakeholders, challenges in extending the PSC beyond 2020, or an extension on less favourable terms, could have a material adverse effect on Vedanta's businesses, operating results, financial condition and/or prospects.

Cairn India's PSCs do not permit it to export crude oil, which could restrict its ability to monetise its reserves, and the sale of crude oil by Cairn India is subject to risks that arise from various arrangements with third parties which could have a material adverse effect on Vedanta's and Cairn India's business, operating results or financial condition.

The majority of Cairn India's oil and gas production is sourced from its interests in a limited number of PSCs or concessions. Problems in any one PSC or concession could have a material adverse impact upon Vedanta's businesses and financial condition. More particularly, under the terms of Cairn India's PSCs, it is obliged to sell its entitlement to crude oil in the domestic market until such time as the total availability of the crude oil and condensate from all domestic petroleum production activities meets the total national demand and India achieves self-sufficiency. There is currently a mismatch between the demand and the supply for crude oil in India, with the demand outweighing the domestic production of crude oil, and this mismatch is expected to continue in the long term. However, to the extent Cairn India's Indian blocks yield crude oil that is not suitable for processing by refineries in India, it may be difficult to monetise such domestic crude oil reserves and this could have a material adverse effect on the Vedanta's respective businesses, prospects, financial condition or results of operations. Cairn India's application for exporting crude oil was denied by the GoI and Cairn India challenged this decision before the High Court of Delhi, which is still pending in appeal before the division bench of the High Court of Delhi. See "Business - Litigation - Writ petition filed in the Delhi High Court by Cairn India Limited relating to export of crude oil from RJ Block" for further information.

Vedanta is subject to the risk of delayed off-takes or payment for delivered production volumes or counterparty default. Stoppage of off-take or supply could result if the buyers fail to take delivery of volumes anticipated by these sales agreements. Additionally, four buyers accounted for 90% of the total sales of the Oil and gas business in the financial year ended 31 March 2017. Any unforeseen disruption at these buyer's facilities would affect sales volume and therefore revenue generation. Any of these could have a material adverse effect on Cairn India's business, operating results, financial condition and/or prospects.

Cairn India has entered into agreements with a number of other contractual counterparties in relation to the sale and supply of their respective hydrocarbon production volumes and is, therefore, subject to the risk of delayed off takes or payment for delivered production volumes or counterparty default. In certain cases, the relevant counterparty, either legally or as a result of geographic, infrastructure or other constraints or factors, is in practice the sole potential purchaser of the relevant production output. This is particularly the case for sales of gas which rely upon the availability or construction of transmission and other infrastructure facilities, enabling the supply of gas produced to be supplied to end users. The absence of competitors for the transmission or purchase of gas produced by Vedanta may expose it to offtake and production delays, adverse pricing or other contractual terms or may restrict the availability of transmission or other necessary infrastructure. Such delays or defaults or adverse pricing or other contractual terms or restricted infrastructure availability could have a material adverse effect on the Vedanta's respective businesses, prospects, financial condition or results of operations.

Vedanta is subject to covenants under its credit facilities including term loans and working capital facilities that limit its flexibility in managing its business.

Vedanta's financing agreements contain certain restrictive covenants and events of default that limit its ability to undertake certain types of transactions or ability to expand, any of which could adversely affect its business. These covenants require Vedanta to maintain certain financial ratios and in certain cases, obtain the prior consent of its lenders for various activities, including, among others,

- any change in its capital structure,
- issue of equity, preferential capital or debentures,
- raising any loans and deposits from the public,
- undertaking any new project,
- effecting any scheme of acquisition, merger, amalgamation or reconstitution,
- implementing a new scheme of expansion or creation of a subsidiary.

Vedanta's future borrowings may also contain similar restrictive provisions. Low commodity prices may adversely impact Vedanta's profitability and therefore its ability to meet the financial covenants and ratios. If Vedanta fails to meet its debt service obligations or covenants (or receive approvals from its lenders to undertake certain transactions) provided under the financing agreements, the relevant lenders could declare Vedanta to be in default under the terms of its agreements, accelerate the maturity of its obligations or take over the financed project or other security made available to the lenders. However no consent is required for this offering. Vedanta cannot assure you that, in the event of any such acceleration, it will have sufficient resources to repay borrowings. In such an event, Vedanta may be forced to renegotiate its financing agreements with its lenders on terms that may not be favourable to Vedanta.

Vedanta depends on the experience and management skill of certain of its key employees. In addition, certain key employees may have claims pending against them from prior employment which, if adversely determined, may impact Vedanta's reputation.

Vedanta's efforts to continue its growth will place significant demands on its management and other resources, and Vedanta will be required to continue to improve operational, financial and other internal controls, both in and outside India across all locations. Vedanta's ability to maintain and grow its existing business and integrate new businesses will depend on its ability to maintain the necessary management resources and on its ability to attract, train and retain personnel with skills that enable it to keep pace with growing demands and evolving industry standards. Vedanta is in particular dependent to a large degree on the continued service and performance of the senior management team of Vedanta and other key team members in its business units. These key personnel possess technical and business capabilities that are difficult to replace. The loss or diminution in the services of Vedanta's executive management or other key team members, or its failure otherwise to maintain the necessary management and other resources and grow its business, could have a material adverse effect on its business, results of operations, financial condition and prospects. In addition, as Vedanta's business develops and expands, Vedanta believes that its future success will depend on its ability to attract and retain highly skilled and qualified personnel, which is not guaranteed.

Mining, metal refining, metal smelting and fabrication operations and oil and gas extraction, require a skilled and experienced labour force. If Vedanta experiences a shortage of skilled and experienced labour, its labour productivity could decrease and costs could increase, Vedanta's operations may be interrupted or it may be unable to maintain its current production or increase its production as otherwise planned, which could have a material adverse effect on Vedanta's results of operations, financial condition and business prospects.

In addition, certain key employees of Vedanta may have claims pending against them from their prior employment. None of these claims relate to any activity by any of these employees in their engagement with Vedanta. While these claims have no impact on Vedanta, an adverse outcome of these claims against any of the key employees may impact Vedanta's reputation.

Material changes in the regulations that govern Vedanta and its businesses, or the interpretation of recent legislation, could have a material adverse effect on its business, financial condition and result of operations.

Mining is subject to a complex and comprehensive set of laws and regulatory requirements. See "Business — Indian Regulatory Matters — Mining Laws". These laws and regulatory requirements are subject to change. For example, the Indian Mines (Amendment) Bill, 2011 ("Mines Bill") proposes several amendments to the Mines Act, 1952, including significant enhancement to the monetary penalties and terms of imprisonment for violations under the Mines Act, 1952. The Indian Ministry of Mines has also prepared the Mines and Minerals (Development and Regulations) Bill, 2011 ("Mining Bill") which provides that with respect to which minerals vest, the holder of a mining lease or prospecting licence shall be liable to pay reasonable compensation to the stakeholders holding occupation, usufruct or traditional rights of the surface of the land over which the licence and lease has been granted, as mutually agreed (failing which the relevant State government will determine compensation payable). If Vedanta is affected, directly or indirectly, by the application or interpretation of any such statute, as and when notified, including any enforcement proceedings initiated under it and any adverse publicity that may be generated due to prosecution, it may have a material adverse effect on its business, financial condition and result of operations.

In addition, Cairn India is subject to complex and comprehensive oil and gas regulations in India. New or changed regulations could require changes to the manner in which Cairn India conducts its business, and result in an increase in compliance costs, which could have a material adverse effect on Vedanta's business, financial condition and results of operation.

For example, upon the expiry of oil and gas licences, contractors are generally required, under the terms of relevant licences or local law, to dismantle and remove equipment, cap or seal wells and generally make good production sites. There can, however, be no assurance that Vedanta will not in the future incur decommissioning charges in excess of those currently provided for, since local or national governments may require decommissioning to be carried out in circumstances where there is no express obligation to do so, particularly in case of future oil and gas licence renewals.

GST has been implemented with effect from 1 July 2017 and has replaced the indirect taxes on goods and services such as central excise duty, service tax, central sales tax, state VAT and surcharge currently being collected by the central and state governments. The GST is expected to increase tax incidence and administrative compliance. Given the limited availability of information in the public domain concerning the GST, we are unable to provide any assurance as to the tax regime following implementation of the GST. The implementation of this new structure may be affected by any disagreement between certain state Governments, which could create uncertainty. Any such future amendments may affect our overall tax efficiency, and may result in significant additional taxes becoming payable.

The provisions of Chapter X-A (sections 95 to 102) of the Income Tax Act, 1961, relating to General Anti-Avoidance Rules (GAAR) are applicable with effect from assessment year 2019 (fiscal 2018). The GAAR provisions propose to identify any arrangement with the primary purpose or one of the main purposes of such arrangement is to obtain a tax benefit, and satisfies at least one of the following tests (i) creates rights, or obligations, which are not ordinarily created between persons dealing at arm's length; (ii) results, directly or indirectly, in misuse, or abuse, of the provisions of the Income Tax Act, 1961; (iii) lacks commercial substance or is deemed to lack commercial substance,

in whole or in part; or (iv) is entered into, or carried out, by means, or in a manner, that is not ordinarily engaged for bona fide purposes. If GAAR provisions are invoked, the tax authorities will have wider powers, including denial of tax benefit or a benefit under a tax treaty. In the absence of any precedents on the subject, the impact of the application of these provisions is uncertain.

The costs, liabilities and requirements associated with complying with existing and future laws and regulations, within India or in other jurisdictions may also be substantial and time-consuming and may delay the commencement or continuation of exploration, oil and gas, mining or production activities, which could also have a material adverse effect on Vedanta's results of operation and financial condition.

Vedanta's operations are subject to extensive governmental, health and safety and environmental regulations, which require it to obtain and comply with the terms of various approvals, licenses and permits. Any failure to obtain, renew or comply with the terms of such approvals, licenses and permits in a timely manner may have a material adverse effect on its results of operations and financial condition.

Numerous governmental permits, approvals and leases are required for Vedanta's operations as the industries in which it operates and seeks to operate are subject to numerous laws and extensive regulation by national, state and local authorities in jurisdictions including India, Zambia, Namibia, South Africa and UAE and any other jurisdictions where Vedanta may operate in the future. Vedanta's operations are also subject to laws and regulations relating to employment, the protection of the health and safety of employees as well as the environment, including conservation and climate change. For instance, Vedanta is required to obtain various environmental and labour-related approvals in connection with its operations in India, including clearances from the Ministry of Environment and Forest (the "MoEF"), GoI and from the relevant Pollution Control Boards in the various states in India in which Vedanta operates, and registration under the Factories Act, 1948 of India (the "Factories Act") in order to establish and operate its facilities. Certain of such approvals are valid for stipulated periods of time and require periodic renewals, such as the consents to operate under the Air (Prevention and Control of Pollution) Act, 1981 of India (the "Air Act"), and the Water (Prevention and Control of Pollution) Act, 1974 of India (the "Water Act") from the relevant Pollution Control Boards, which are generally granted for a period of one year. See "Business — Indian Regulatory Matters" for more information.

Further, Vedanta's exploration, oil and gas and mining activities depend on the grant, renewal or continuance in force of various exploration and production licenses and contracts and other regulatory approvals that are valid for a specific period of time. In addition, such licenses and contracts contain various obligations and restrictions, including restrictions on assignment or any other form of transfer of a mining lease or on the employment of a person who is not an Indian national. For instance, in connection with Vedanta's mining operations in India, mining leases are typically granted for a period of 20 to 30 years and stipulate conditions including approved limits on extraction. Similarly, in connection with Vedanta's oil and natural gas operations in India, Cairn India is required to enter into a PSC and obtain an exploration licence, which typically extends seven or eight years, following the award of a block before it can commence exploration activities, and, if exploration is successful, Cairn India is then required to procure a petroleum mining lease from the relevant government authority, which typically extends for 20 years, in order to conduct extraction operations for oil and natural gas.

Government approval is also required, generally, for the continuation of mining as well as oil and gas exploration and production activities in India and other jurisdictions, and such approval can be revoked for a variety of circumstances by the GoI, Indian courts or other authorities. Any general suspension of mining activities by the government of a jurisdiction containing mining operations of Vedanta could have the effect of closing or limiting production from its operations.

For example, revenue from Vedanta's iron ore business declined from \$1,688.9 million in fiscal year 2012 (pre ban period) to \$326.5 million in fiscal year 2015 due to suspension of mining activities in Goa by the State of Goa and Karnataka. The suspension orders were withdrawn by the state government in 2015 and operations have recommenced. However, Vedanta may be subject to increased

royalty payments and/or other penalties, if the recommendations of the audit committee appointed in 2014, are implemented. Such an outcome or any other adverse outcome could result in a material adverse effect on Vedanta's financial condition and results of operations. For further details see "Business — Description of the Business — Iron Ore Business".

Similarly, Vedanta's iron ore mining operations in Karnataka were suspended due to the suspension order issued by the Supreme Court of India in 2011 and the subsequent expiry of the forest clearance in 2013. Mining operations in Karnataka recommenced only in February 2015. See "Business — Description of the Business — Iron Ore Business" for further details.

Furthermore, regulation of greenhouse gas emissions in the jurisdictions of Vedanta's major customers and in relation to international shipping could also have an adverse effect on the demand for Vedanta's products. Vedanta's smelting and mineral processing operations are energy intensive and depend heavily on fossil fuels. Increasing regulation of climate change issues such as greenhouse gas emissions, including the progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets, may raise energy costs and costs of production over the next decade.

Vedanta's global presence exposes it to a number of jurisdictions in which regulations or laws have been or are being considered to limit or reduce emissions. These changes can results into increase in the cost for fossil fuels, imposition of levies for emissions in excess of certain permitted levels and increased administrative costs for monitoring and reporting. Increasing regulation of greenhouse gas (GHG) emissions, including the progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets, can result into increased costs and reduced demand growth.

Failure by Vedanta to comply with applicable laws, regulations or recognised international standards, or to obtain or renew the necessary permits, approvals and leases may result in the loss of the right to operate its facilities or continue its operations, the imposition of significant administrative liabilities, or costly compliance procedures, or other enforcement measures that could have the effect of closing or limiting production from its operations. If Vedanta were to fail to meet environmental requirements or to have a major accident or disaster, it may also be subject to administrative, civil and criminal proceedings by governmental authorities, as well as civil proceedings by environmental groups and other individuals, which could result in substantial fines, penalties and damages against it as well as orders that could limit or halt or even cause closure of its operations, any of which could have a material adverse effect on its business, results of operations and financial condition. For example, the closure of the Tuticorin plant, pursuant to an order of TNPCB for alleged release of pollutants. See "Business — Litigation — Writ petitions filed against Vedanta alleging violation of certain air, water and hazardous waste management regulations at Vedanta's Tuticorin plant". Similarly, in 2015, Zambian villagers filed a class action suit against KCM in Zambia, for alleged release of pollutants and causing environment damage. See "Business - Litigation Class actions against KCM on behalf of Zambian nationals" for further details.

# Vedanta is exposed to the political, legal, regulatory and social risks of the countries in which it operates.

Vedanta has operations in India, Zambia, Namibia, South Africa and UAE. Vedanta is exposed to the political, economic, legal, regulatory and social risks of the countries in which it operates or intends to operate. These risks potentially include expropriation (including "creeping" expropriation) and nationalisation of property, instability in political, economic or financial systems, uncertainty arising from underdeveloped legal and regulatory systems, corruption, civil strife or labour unrest, acts of war, armed conflict, terrorism, outbreaks of infectious diseases, prohibitions, limitations or price controls on hydrocarbon exports and limitations or the imposition of tariffs or duties on imports of certain goods.

For example, the Ebola epidemic in Liberia resulted in stoppage of drilling and exploration work for iron ore during fiscal year 2015. Vedanta Limited evacuated staff in Liberia owing to the Ebola risk in 2015. In consideration of the suspension of exploration in Liberia, low iron ore prices, geo-political factors and no plans for any substantive expenditure resulting in continued uncertainty in the project, an impairment charge of \$227.5 million has been recognised for Vedanta in fiscal year 2016.

Countries in which Vedanta has operations or intends to have operations have transportation, telecommunications and financial services infrastructures that may present logistical challenges not associated with doing business in more developed locales. Furthermore, Vedanta may have difficulty ascertaining its legal obligations and enforcing any rights it may have. Political, legal and commercial instability or community disputes in the countries and territories in which Vedanta operates could affect the viability of its operations. Some of Vedanta's current and potential operations are located in or near communities that may regard such operations as having a detrimental effect on their environmental, economic or social circumstances.

The consequences of community reaction could also have a material adverse impact on the cost, profitability, ability to finance or even the viability of an operation. Such events could lead to disputes with national or local governments or with local communities and give rise to material reputational damage. If Vedanta's operations are delayed or shut down as a result of political and community instability, its revenue growth may be constrained and the long-term value of its business could be adversely impacted.

Once Vedanta has established operations in a particular country, it may be expensive and logistically burdensome to discontinue such operations should economic, political, physical or other conditions subsequently deteriorate. All of these factors could have a material adverse effect on Vedanta's businesses, results of operations, financial condition or prospects.

# If Vedanta's planned expansions and new projects are delayed, Vedanta's results of operation and financial condition may be materially and adversely affected.

Vedanta and its subsidiaries have, over the past few years initiated or may implement expansion plans for its existing operations and planned greenfield projects, which may involve significant capital expenditure. Although several of these initiatives have been completed, substantial work remains. The timing, implementation and cost of such expansions are subject to a number of risks, including the failure to obtain necessary leases, licences, permits, consents and approvals, or funding for the expansions.

For example, Vedanta does not currently have all of the leases, licences, permits, consents and approvals that are or will be required for its planned expansions and new projects. There can be no assurance that Vedanta or its subsidiaries will be able to obtain or renew all necessary leases, licenses, permits, consents and approvals in a timely manner. For example, as environmental approvals were challenged before the National Green Tribunal (NGT), the expansion plans of Vedanta's aluminia refinery at Lanjigarh were affected. The matter is still pending before the Tribunal, however the grant of the clearances and approvals haven't been stayed by the Tribunal. In addition, MoEF has rejected Vedanta's forest clearance application in 2010 and 2014 and mining operations in Niyamgiri Hills have been suspended. See "Business — Litigation — Proceedings against Vedanta relating to Niyamgiri mining project and expansion plans of refinery in Lanjigarh". Vedanta is currently in discussions with government authorities to access bauxite once an adequate supply of bauxite has been secured.

Similarly, Vedanta is currently undertaking exploration programmes in its Rajasthan and other oil blocks and any delays in this exploration programme or shortfall in achieving the necessary output levels could materially and adversely affect Vedanta's operations and financial condition. In fiscal 2013, HZL announced an expansion of zinc-lead mine capacity to 1.2 mtpa, which involved the sinking of underground shafts and developing underground mines. Benefits from these growth projects

started in fiscal year 2016, even though project activities will continue until fiscal year 2019. Any delays in the execution of the expansion plans or any shortfall in achievement of the expansion objectives may adversely affect Vedanta's business, financial condition and results of operations. See "Business — Description of the Businesses — Zinc Business" for further details.

Furthermore, the GoI is contemplating a proposal to demarcate certain forest areas in India, based on the permissibility of using such land for mining purposes. The identification of designated areas where mining activities will, or will not, be permitted will be based on mapping forest and coal reserves as well as field-level studies. While this proposal remains in discussion, the MoEF has denied the grant of environmental and forest diversion clearances applied for in certain areas identified as restricted areas. In the event the proposal is implemented, Vedanta's current and any future mining activities and related expansion plans and new projects may be affected, which would adversely affect Vedanta's business prospects and results of operations or otherwise hinder its borrowing capabilities.

Any delay in completing planned expansions, revocation of existing clearances, failure to obtain or renew regulatory approvals, non-compliance with applicable regulations or conditions stipulated in the approvals obtained, suspension of current projects, or cost overruns or operational difficulties once the projects are commissioned may have a material adverse effect on Vedanta's business, results of operations or financial condition. Any delay in completing planned expansions could have a material adverse effect on Vedanta's credit rating, which may increase its borrowing costs.

# Vedanta may fail to realise the financial flexibility, margin benefits, cost savings and other objectives anticipated from, or may incur unanticipated costs associated with the Cairn India Merger.

There is no assurance that the Cairn India Merger will achieve the financial flexibility, cost savings and other objectives Vedanta anticipates. These expected objectives may not develop or may be materially lower than anticipated and other assumptions (including the value of the recoverable assets) upon which the Vedanta has determined the terms of the Cairn India Merger may prove to be incorrect. As such, the financial flexibility, cost savings and other objectives anticipated by Vedanta to result from the Cairn India Merger may not be achieved as expected, or at all, or may be delayed, which could have a material adverse effect on the Vedanta's business, operating results, financial condition and/or prospects.

### Vedanta's future expansions and acquisitions and its ability to refinance its existing indebtedness are dependent upon its ability to obtain funding.

Vedanta will require capital for, among other purposes, refinancing its existing indebtedness, expanding its operations, making acquisitions, managing acquired assets, acquiring new equipment, maintaining the condition of its existing equipment and maintaining compliance with environmental laws and regulations. To the extent that cash generated internally and cash available under Vedanta's existing credit facilities may not be sufficient to fund Vedanta's capital requirements. Vedanta may require additional debt or equity financing, which may not be available on favourable terms, or at all. Future debt financing, if available, may result in increased finance charges, increased financial leverage, decreased income available to fund further acquisitions and expansions and the imposition of restrictive covenants on Vedanta's businesses and operations.

## Reorganisation of 2013 has been challenged before the courts in India and Vedanta may not be able to benefit from it.

At the time of announcing the reorganisation in 2013, Vedanta estimated tax efficiencies arising from the transaction. The expected efficiencies may not be realised or may be materially lower than estimated and the extent to which any of the other benefits will actually be achieved, if at all, or the timing of any such benefits, cannot be predicted with certainty. If Vedanta Limited is prevented from

taking advantage of the anticipated tax efficiencies, there could be a material adverse effect on Vedanta's business, financial condition or results of operations. Further, subsequent to the effectiveness of the Amalgamation and Re-organisation Scheme, a special leave petition challenging the orders of the High Court of Bombay at Goa was filed before the Supreme Court of India by the Commissioner of Income Tax, Goa and the Ministry of Corporate Affairs in July 2013 and April 2014, respectively. Further, a creditor and a shareholder challenged the Amalgamation and Re-organisation Scheme in the High Court of Madras in September 2013. These petitions are pending for hearing and admission. See "Business — Litigation — The Amalgamation and Re-organisation Scheme has been challenged by the Indian tax authorities and others" for further information.

There is no assurance that the special leave petitions will be determined in Vedanta Limited's favour, and accordingly, there is no assurance that the Courts will negate the effectiveness of the reorganisation. In such circumstance, Vedanta may not be able to achieve financial, operational, strategic and other potential benefits from the consolidation pursuant to the reorganisation.

Third party interests in the Vedanta's subsidiary companies and restrictions due to stock exchange listings of the Vedanta's subsidiary companies will restrict the Vedanta's ability to deal freely with its subsidiaries which may have a material adverse effect on its results of operations and financial condition.

Vedanta does not wholly own any of its operating subsidiaries, although it holds majority stakes in all of its subsidiary businesses. Although Vedanta has direct or indirect management control of Vedanta Limited, BALCO, HZL, KCM and Black Mountain Mining, each of these companies has other shareholders who, in some cases, hold substantial interests. As a result of the non-controlling interests in the Vedanta's subsidiaries and affiliates and the Indian stock exchanges and/or NYSE listings of Vedanta Limited and HZL, these subsidiaries may be subject to additional legal or regulatory requirements, or Vedanta may be prevented from taking certain courses of action without the prior approval of a particular or a specified percentage of shareholders and/or regulatory bodies (under shareholders' agreements, relationship agreements or by operation of law). The existence of minority or other interests in, and stock exchange listings of, Vedanta's subsidiaries may limit its ability to increase its equity interests in these subsidiaries, combine similar operations, utilise synergies that may exist between the operations of different subsidiaries, move funds among the different parts of its businesses or reorganise the structure of Vedanta's business in a tax efficient manner, which may have a material adverse effect on its results of operations and financial condition.

ONGC amongst others is Vedanta's joint operation partner with respect to all operating assets of Vedanta's oil and gas business, and Vedanta Limited operates all of its oil and gas assets except KG-ONN-2003/1. Accordingly, any mismanagement of an oil and gas asset by Vedanta Limited may give rise to liabilities to its joint operation partners in respect of such asset. There is also a risk that other parties with interests in Vedanta's assets may elect not to participate in certain activities relating to those assets which require such party's consent. In such circumstances, it may not be possible for such activities to be undertaken by Vedanta alone or in conjunction with other participants at the desired time or at all. In addition, other joint operation partners may default in their obligations to fund capital or other funding obligations in relation to the assets. In certain circumstances, Vedanta may be required under the terms of the relevant operating agreement to contribute all or part of any such funding shortfall, which could adversely impact Vedanta's business, financial condition or results of operations.

### Vedanta is exposed to competitive pressures in the various businesses in which it operates.

The mines and minerals, commercial power generation, and oil and gas industries are highly competitive. Vedanta will continue to compete with other industry participants in the search for and acquisition of mineral and oil and gas assets and licences. Competitors include companies with, in many cases, greater financial resources, local contacts, staff and facilities than those of Vedanta.

Competition for exploration and production licences as well as for other investment or acquisition opportunities may increase in the future. This may lead to increased costs in the carrying out of Vedanta's activities, reduced available growth opportunities and may have a material adverse effect on its businesses, financial condition, results of operations and prospects.

# Currency fluctuations among the Indian Rupee and other currencies and the US dollar could have a material adverse effect on Vedanta's results of operations.

Although substantially all of Vedanta's revenue is tied to commodity prices that are typically priced by reference to the US dollar, most of its expenses are incurred and paid in Indian Rupees and, to a lesser extent, in South African Rands, Zambian Kwachas and Namibian dollars. In addition, in fiscal year 2017, 58.3%, of Vedanta's revenue from sales within India was derived from commodities that was sold to customers within India. The exchange rates between the Indian Rupee and the US dollar and between other currencies and the US dollar have changed substantially in recent years and may fluctuate substantially in the future. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Exchange Rate Risk" for further details. Vedanta's results of operations or financial condition could be adversely affected if the US dollar depreciates against the Indian Rupee or other currencies. Vedanta seeks to mitigate the impact of short-term movements in currency on its businesses by hedging its short-term exposures progressively based on their maturity. However, large or prolonged movements in exchange rates may have a material adverse effect on Vedanta's results of operations and financial condition.

#### Any business acquisitions by Vedanta entail significant risks.

Vedanta may continue to pursue acquisitions to expand its business. There can be no assurance that Vedanta will be able to identify suitable acquisition, strategic investment or joint venture opportunities, obtain the financing necessary to complete and support such acquisitions, investments or joint ventures, integrate such businesses, investments or joint ventures or that any business acquired will be profitable. If Vedanta's Indian subsidiaries attempt to acquire non-Indian companies, they may not be able to satisfy certain Indian regulatory requirements for such acquisitions and may need to obtain prior approval of the RBI, which they may not be able to obtain. The funding of such acquisitions by Vedanta may require certain approvals from regulatory authorities in India.

In addition, acquisitions and investments involve a number of risks, including possible adverse effects on Vedanta's operating results, diversion of management's attention, loss of goodwill on account of change in ownership, failure to retain key personnel, risks associated with unanticipated events or liabilities, including environmental liabilities, and difficulties in the assimilation of the operations, technologies, systems, services and products of the acquired businesses or investments. Any failure to achieve successful integration of such acquisitions or investments could have a material adverse effect on Vedanta's business, results of operations or financial condition.

### Vedanta's insurance coverage may prove inadequate to satisfy future claims against it.

Vedanta maintains insurance which it believes is typical in the respective industries in which it operates and in amounts which it believes to be commercially appropriate. Nevertheless, Vedanta may become subject to liabilities, including liabilities for pollution or other hazards, against which it has not insured adequately or at all, or cannot insure. Vedanta's insurance policies contain certain customary exclusions and limitations on coverage which may result in its claims not being honoured to the full extent of the losses or damages it has suffered. In addition, Vedanta's operating entities in India can only seek insurance from domestic insurance companies or foreign insurance companies operating in joint ventures with Indian companies and these insurance policies may not continue to be available at economically acceptable premiums. The occurrence of a significant adverse event, the risks of which are not fully covered or honoured by such insurers, could have a material adverse effect on Vedanta's results of operations or financial condition.

Defects in title or loss of any leasehold interests in Vedanta's properties could limit its ability to conduct operations on such properties or result in significant unanticipated costs.

Vedanta's ability to mine the land on which it has been granted mining lease rights and to make use of its other industrial and office premises is dependent on its acquisition of surface rights. Surface rights and title to land are required to be negotiated separately with landowners, although there is no guarantee that these rights will be granted. Any delay outside of the ordinary course of business in obtaining or inability to obtain or any challenge to its title or leasehold rights to surface rights could negatively affect its financial condition and results of operations.

In addition, there may be certain irregularities in title in relation to some of Vedanta's owned and leased properties. For example, some of the agreements for such arrangements may not have been duly executed and/or adequately stamped or registered in the land records of the local authorities or the lease deeds may have expired and not yet been renewed. Since registration of land title in India is not centralised and has not been fully computerised, the title to land may be defective as a result of a failure on Vedanta's part, or on the part of a prior transferee, to obtain the consent of all such persons or duly complete stamping and registration requirements. The uncertainty of title to land may impede the processes of acquisition, independent verification and transfer of title, and any disputes in respect of land title that Vedanta may become party to may take several years and considerable expense to resolve if they become the subject of court proceedings. Further, certain of these properties may not have been constructed or developed in accordance with local planning and building laws and other statutory requirements, or it may be alleged that such irregularities exist in the construction and development of the built up properties. For example BALCO has 1,804.67 acres of government land out of which 1,751 acres is situated in forest land which was given on lease by the state government. The lease deed has not been executed as on date as a petition was filed in the Supreme Court against BALCO in relation to the alleged encroachment of land on which the Korba smelter is situated. Any such dispute, proceedings or irregularities may have an impact on the operations of Vedanta. See "Business — Litigation — BALCO is involved in litigation in relation to the illegal felling of trees situated on forest land" for further details.

#### **Operating Risks**

Vedanta's oil and gas business is substantially dependent upon its Rajasthan oil and gas fields, and any interruption in the operations at those fields could have a material adverse effect on Vedanta's results of operations and financial condition.

Vedanta's results of operations have been and are expected to continue to be substantially dependent on the reserves, production and the cost of production at certain of its key assets, and any interruption in the operations, exploration and development activities at those assets for any reason could have a material adverse effect on the results of operations and financial condition. For example, the Rajasthan block produced 85.1% of Vedanta's average daily net operated production from the oil and gas business in fiscal year 2017 and oil and gas from the Rajasthan block constituted 91.2% of Vedanta's net aggregate proved plus probable oil and gas reserves and 2C resources on a barrel of oil equivalent basis as of 31 March 2017. Vedanta's ongoing capital expenditure programme has focused on development and exploration activities across all the assets with approximately 78.9% of the capital expenditure for fiscal year 2017 having been invested in the Rajasthan block. Vedanta's results of operations have been and are expected to continue to be substantially dependent on the reserves and production of the Rajasthan Block, and any interruption in the operations or exploration and development activities at those oil and gas fields for any reason could have a material adverse effect on Vedanta's results of operations and financial condition.

Vedanta's oil and gas operations may be subject to operating risks which may have a material adverse effect on the financial condition or results of operations of Vedanta.

Vedanta has in place operating and maintenance procedures to maintain the integrity of its production facilities but there is a risk that unplanned events, inadequate application of these procedures or higher levels of corrosion than expected could cause disruption to production, which would have an adverse impact on oil sales, which ultimately could materially and adversely affect the financial condition and/or operating results of Vedanta.

The waxy nature of the crude oil requires Vedanta to use hot water injection as the recovery technique at these fields and ensure that the crude oil is transported through the main 24 inch insulated oil pipeline which maintain the required temperature of the crude oil. If the temperature of the injection water is not maintained at the required level, the required injection rate may not be able to be maintained, therefore the overall field production rate and ultimate recovery may be adversely impacted. Similarly, if the specialised heating system does not perform as expected and/or there are problems associated with the performance of the heating stations and/or there are problems supplying fuel to the power generation systems at these heating stations, the temperature of the crude oil may not be maintained at the required temperature, which would have an adverse impact on the rates at which oil can be transported through the pipeline network. Any reduction in its crude oil production and/or estimates of ultimate recovery may have a material adverse effect on Vedanta's business, results of operations and financial condition.

Currently, the power generation and heating requirements are being supplied by a power plant that has been installed and commissioned at the Mangala processing terminal (the "MPT"). The power plant has been designed to use associated natural gas from the Mangala field supplemented as required by natural gas from the Raageshwari Deep gas field which is located in the Rajasthan Block approximately 80 km from the MPT. Further, this has been augmented by alternative energy source in form of grid power supply of 14 MW capacity. Sustained failure of power systems due to unavailability of fuel supply and/or grid power availability could lead to operations disruption, having a material adverse effect on our results of operations and financial condition.

Vedanta is using hot water injection to maintain reservoir pressure and to optimise crude oil recovery at the Mangala, Bhagyam and Aishwariya fields. The source water for these fields is being, and will continue to be, provided from water production wells drilled in the Thumbli saline aquifer in the Barmer basin and connected to the MPT.

Extraction of saline water also requires the approval of the relevant authority. There can be no assurance that the estimated impact of the expected water extraction from the Thumbli groundwater flow is accurate. A failure to extract and transport the required amount of water during the production life of the existing and currently planned developments, or an inaccurate prediction of the impact on the groundwater flow of our activities, or revocation of the authorities' approval to extract saline water, may require us to access alternative water sources resulting in increased capital expenditure.

In addition, there can be no assurance that the local community will not seek to hold Cairn India responsible for any invasion of the fresh water supply by saline groundwater from the aquifer. Although the appropriate authority has given its consent for the extraction of saline groundwater from Thumbli, it is possible that we will be perceived by the local Barmer community to be directly or indirectly responsible for any shortage of fresh water or deterioration in water quality. In such an event, local authorities, who have given permission to use the saline groundwater, may require us to access alternative water sources, which could impose additional cost and logistical/operational challenges, thereby having a material adverse effect on our business, operating results and financial condition.

The field development plans for the Northern Fields assume, or are expected to assume, the use of enhanced oil recovery or EOR techniques to extract an additional incremental percentage of the estimated oil in place in the reservoirs. EOR screening studies of the Northern Fields have concluded that polymer flooding or alkaline surfactant polymer or ASP flooding, two common EOR techniques, are the preferred EOR options. Risks associated with the project include inadequate processing of produced fluids thereby impacting performance of surface facilities and continuous sourcing of polymer for ongoing operations. Further, if the polymer is not maintained at the correct temperature in the reservoir and the desired viscosity, then it may degrade and not function correctly, thereby reducing the incremental amount of crude oil that is expected to be recovered. There is also a risk that the polymer handling facilities at the surface may perform at lower efficiency than designed, which may lead to degradation of the polymer and ultimately its higher consumption. All of these factors could have a material adverse effect on Vedanta's business, results of operations, financial condition or prospects.

The MPT facilities, which are designed to separate oil, gas, and water in the produced fluid, may not function as designed over the producing life of the fields whose production is processed at the MPT facilities. This may result in the crude oil not meeting pipeline export specifications, which may mean that any such crude oil either cannot be sold or will be sold at a significant discount to the agreed crude oil sales price, which could have a material adverse effect on Vedanta's business, operating results and financial condition.

### Future production from Vedanta's assets may vary from the forecast.

Vedanta estimates the annual metal production and the mine life through a detailed mine plan for both open pit and underground mines and the oil and gas production rates and field life through the field development plans. These mine plans and field development plans are prepared based on Vedanta's estimates of future mine and field performance. Future performance is subject to a number of risks including geological conditions being more complex than originally predicted, ore grade being different from estimates, future producer or injector well performance, plant operating efficiencies being less than originally forecast, inadequate power, water or utility supplies, and other constraints. Vedanta's zinc and lead mining operations in India are currently transitioning from open pit mining operations to underground mining operations. Difficulties in managing this transition may result in challenges in achieving stated business milestones. Any material fall in production from the current production level or from the estimates due to some or all of the risks detailed above may adversely impact Vedanta's business, financial condition or results of operations.

Plateau production rates from the Rajasthan fields may be less than forecast. The estimates of production rates and field life contained in the field development plans for the Mangala, Bhagyam, Aishwariya, Raageshwari, Saraswati, NI and NE fields which were submitted to, and approved by, the Rajasthan Block PSC management committee are based on Vedanta's estimates of future field performance. Where any estimates of future production rates are in excess of the existing approved field plateau production rates, the consent of the joint venture partner, the appropriate regulatory authorities and the GoI will be required before any of the fields can be produced at these enhanced estimates of future production rates. In the event consent of the joint venture partner is delayed or not obtained, production would be limited to the rate set out in the FDP, which would have a detrimental impact on Vedanta's operating results. Future field performance is subject to a number of risks that are beyond the control of Vedanta. See "— There are uncertainties inherent in estimating Vedanta's Ore Reserves and Mineral Resources and oil, condensate and sales-gas reserves, and if the actual amounts of such reserves and resources are less than estimated, its results of operations and financial condition may be materially and adversely affected".

Vedanta's zinc business is substantially dependent upon its Rampura Agucha lead-zinc mine, and any interruption in the operations at that mine could have a material adverse effect on Vedanta's results of operations and financial condition.

The Rampura Agucha lead-zinc mine produced 75.1% of HZL's total mined metal in concentrate produced in fiscal year 2017 and its zinc and lead metal content constituted 45.6% of the aggregate Proved and Probable Ore Reserves of HZL as of 31 March 2017. Vedanta's India zinc business provided 44.6% of its Vedanta EBITDA in fiscal year 2017. Vedanta's results of operations have been and are expected to continue to be substantially dependent on the Ore Reserves and low cost of production of the Rampura Agucha mine, and any interruption in the operations at that mine for any reason could have a material adverse effect on Vedanta's results of operations and financial condition.

There are uncertainties inherent in estimating Vedanta's Ore Reserves and Mineral Resources and oil, condensate and sales-gas reserves, and if the actual amounts of such reserves and resources are less than estimated, its results of operations and financial condition may be materially and adversely affected.

There are uncertainties inherent in estimating the quantity of Ore Reserves and Mineral Resources and in projecting future rates of production, including factors beyond the control of Vedanta. Estimating the amount of Ore Reserves and Mineral Resources is a subjective process, and the accuracy of any estimate is a function of the quality of available data and engineering and geological interpretation and judgment. Estimates of different Competent Persons/Experts may vary, and results of exploration, mining and production subsequent to the date of an estimate may lead to revision of estimates. For example, fluctuations in the market price of ore and other commodities, reduced recovery rates or increased production costs due to inflation or other factors may render Proven and Probable Ore Reserves containing relatively lower grades of mineralisation uneconomic to exploit and may ultimately result in a restatement of Ore Reserves. If the assumptions upon which estimates of Ore Reserves or Resources have been based prove to be incorrect, or if Ore Reserve estimates differ materially from mineral quantities or grades that Vedanta may actually recover, estimates of mine or field life may prove inaccurate and market price fluctuations and changes in operating and capital costs may render certain Ore Reserves, mineral deposits or oil and gas deposits uneconomical to extract.

For example, there are differences between Cairn India's estimates of its reserves and contingent resources and the estimates of DeGolyer and MacNaughton, independent petroleum engineering consultants, due to their different methodologies. Please see "Business — Description of the Businesses — Oil and Gas Business — DeGolyer and MacNaughton's Estimates of Reserves and Contingent Resources" for further details.

This Offering Circular, including Annex A — "Life of Mines" and Annex B — "Mineral Resources (exclusive reporting basis)", uses the term "resources," which are comprised of "measured," "indicated" and "inferred" Mineral Resources. See Annex B — "Mineral Resources (exclusive reporting basis)". United States investors are advised that while such terms are recognised by some investors, the SEC does not recognise them. There is a great amount of uncertainty as to the existence of "inferred" Mineral Resources and uncertainty as to their technical, economic and legal feasibility. It cannot be assumed that all or any part of an "inferred" Mineral Resource will ever be upgraded to a higher category. Under SEC rules, estimates of "inferred" Mineral Resources may not form the basis of feasibility or other economic studies. Investors should not assume that all or any part of "measured" or "indicated" Mineral Resources will ever be converted into Ore Reserves and are also cautioned not to assume that all or any part of an "inferred" Mineral Resource exists or is economically or legally mineable. See "Presentation of Information — Basis of Presentation of Reserves and Resources — Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources for Mining Operations".

As a result, the Ore Reserves and Mineral Resources data contained in this Offering Circular are subject to material assumptions and uncertainties. In the event that any of these assumptions and estimates turns out to be incorrect, Vedanta may need to revise its estimates downwards and this may adversely affect its business plans and the total value of its asset base, which could increase its costs and decrease profitability. If this occurs, Vedanta's results of operations and financial condition may be materially and adversely affected.

In addition, Annex B — "Mineral Resources (exclusive reporting basis)" contains management's life of mine estimates based on Mineral Resource plus Ore Reserves and current production rates. The reporting methodology for Mineral Resources differs from that of Ore Reserves under international reporting codes as certain factors (termed "Modifying Factors", such as mining losses and dilution) are included in the reporting of Ore Reserves, whereas Mineral Resources are reported on an in-situ basis. Accordingly, the two numbers are not added together under international reporting codes such as JORC (2012) and SAMREC (2009). Consequently, considerable caution should be exercised when considering life of mine estimates based on Mineral Resource plus Ore Reserves. Life of mine estimates which include Mineral Resources have been undertaken by the Company and have not been subject to review by the Independent Consultants named in the Offering Circular. See "Presentation of Information — Basis of Presentation of Reserves and Resources — Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources for Mining Operations".

Although Vedanta provides certain life of mine estimates on the basis of Ore Reserves and Mineral Resources, investors are cautioned to use the life of mine estimates based solely on Ore Reserves in Annex A — "Life of Mines" as the base case for any assessment of the life of a mine.

#### KCM has in the past faced operating challenges.

KCM has faced operating challenges in the past, with respect to reducing its cost of production and increasing its production due to various factors. While Vedanta is taking various actions to turnaround KCM's operations, there is no certainty that KCM operations would turnaround positively. In case Vedanta is not able to turnaround operations at KCM, it may have an adverse effect on Vedanta's results of operation and financial condition.

#### Litigation

In addition to the risks discussed in this section, please see "Business — Litigation" for additional details regarding litigation matters involving Vedanta.

Vedanta is involved in several litigation matters, both civil and criminal in nature, which could together have a material adverse effect on its business, results of operations, financial condition and prospects.

Vedanta is involved in several legal and regulatory proceedings, including criminal matters, property disputes, labour disputes, alleged violations of environmental and tax laws, alleged violation of the provisions of the Indian Takeover Code, and alleged price manipulation of Vedanta Limited's equity shares on the Indian stock exchanges. Claims on account of disputes concerning sales tax, income tax, excise tax and electricity duty amounted to \$4,661.7 million, of which \$34.5 million was recorded as current liabilities, as of 31 March 2017. Other claims amounted to \$1,275.0 million as of 31 March 2017, of which \$137.5 million was recorded as current liabilities.

Further, certain Subsidiaries of Vedanta are eligible for certain tax exemptions, incentives and benefits under local tax legislations, owing their nature of business operations. Whilst the respective Subsidiaries of Vedanta claim for such tax benefits, incentives and exemptions, as applicable, the tax

authorities in several cases dispute and disallow such claims, which typically leads to tax litigation between respective Subsidiary of Vedanta and the tax authorities ("Disputes"). We cannot assure that we will able to successfully defend such Disputes, and any disallowance of claim amount in the final outcome of a Dispute may adversely affect our financial performance and position.

Cairn India has received a tax demand from the Indian tax authorities for not withholding tax on payments made while acquiring a subsidiary which, if payable, could have a material adverse effect on Cairn India's businesses, operating results, financial condition and/or prospects.

In March 2015, Cairn India received a notice from the Tax Authorities alleging failure by Cairn India to withhold tax on the consideration paid to Cairn UK Holdings Limited ("CUHL"), its then holding company, in the financial year ended 31 March 2007 in connection with a purchase of shares. The relevant purchase of shares relates to the acquisition of the shares of CIHL, a 100% subsidiary as of 31 March 2017 of Cairn India, from CUHL during the financial year ended 31 March 2007, which was part of a group reorganisation by the then ultimate parent company, Cairn Energy plc ("Cairn Energy").

Based upon the retrospective amendment(s) made in the year 2012 by inserting explanation 5 of section 9(1)(i) of the Income Tax Act 1961 of India (the "Income Tax Act"), the Tax Authorities, by an order dated 11 March 2015, have raised a demand of approximately INR 204,947 million (US\$3,160.3 million) (comprising tax of approximately INR 102,474 million (US\$1,580.2 million) and interest of an equivalent amount) for not withholding tax on the consideration paid to CUHL in connection with the acquisition of shares of CIHL. The Tax Authorities have stated in the order that a short term capital gain of INR 245,035 million (US\$3,778.5 million) accrued to CUHL on the transfer of the shares of CIHL to Cairn India in the financial year ended 31 March 2007, on which tax should have been withheld by Cairn India. The Company understands that a tax demand has also been raised by the Tax Authorities on CUHL with respect to taxability of alleged capital gain earned by CUHL.

On 27 March 2015, Vedanta filed a Notice of Claim against the GoI under the UK-India bilateral investment treaty (the "BIT") in order to protect its legal position and Shareholder interests. The Company is of the opinion that it has a good case to defend as per provisions of BIT, the benefit of which would ultimately accrue to Cairn India.

In the opinion of Vedanta, there should be no liability on Cairn India on account of not withholding the taxes in the financial year ended 31 March 2007 based on provisions of law prevailing at the time of transaction as the aforesaid retrospective amendment has cast an obligation on Cairn India to deduct tax by having to predict and anticipate that the retrospective amendment will be made by legislature on a future date. Cairn India has approached the Honourable Delhi High Court against the order referred to above and has also filed an appeal before the Commissioner of Income Tax (Appeals) to defend its position. The next hearing date is scheduled on 17 August 2017. See "Business — Litigation — Cairn received a show cause notice from the Indian Tax authorities for not withholding tax on payments made while acquiring a subsidiary" for further detail. In the event that these liabilities materialise as a result of legal proceedings being determined against Cairn India, Cairn India's financial condition may be adversely affected.

## The GoI has disputed Vedanta Limited's exercise of the call option to purchase its remaining 29.5% ownership interest in HZL.

Arbitration is on-going in relation to a dispute between the GoI and Vedanta Limited, with respect to Vedanta Limited's exercise of its second call option to acquire the remaining shares in HZL held by the GoI, pursuant to the shareholders' agreement between the parties. The GoI has refused to act upon the second call option, stating that Vedanta Limited's second call option violates the provisions of the Indian Companies Act, 1956, by restricting the right of the GoI to transfer its shares. The next date of hearing by the arbitral tribunal is on 21 April 2018. In a related proceeding, the Supreme Court on 19 January 2016 ordered the status quo be maintained with respect to the proposed

disinvestment of government interest in HZL until further orders are passed by the court. See "Business — Litigation — Vedanta Limited has commenced proceedings against the GoI, which has disputed Vedanta Limited's exercise of the call option to purchase its remaining 29.5% ownership interest in HZL" for further details.

The arbitral proceedings might not result in a favourable outcome for Vedanta Limited. In such an event, Vedanta Limited may be delayed in its purchase of, or may be unable to purchase, the GoI's remaining 29.5% interest in HZL or may be required to pay a purchase price in excess of the market value or fair value of those shares, which may have a material adverse effect on Vedanta's operational flexibility, results of operations and financial condition.

## The GoI has disputed Vedanta Limited's exercise of the call option to purchase its remaining 49.0% ownership interest in BALCO.

There are certain proceedings that are currently ongoing with respect to the exercise of a call option to acquire the remaining shares of BALCO held by the GoI, in accordance with the terms of the shareholders' agreement between the GoI and us. The amount claimed under this proceeding is presently unquantifiable. The arbitration tribunal formed under the directions of the High Court of Delhi declared an award rejecting BALCO's claim regarding the exercise of the option on 25 January 2011. According to the award, certain clauses of the shareholders' agreement were held to be void, ineffective and inoperative as being in violation of sub section (2) of Section 111A of the Companies Act, 1956. Vedanta Limited filed an application before the High Court of Delhi to set aside this award under Section 34 of the Arbitration and Conciliation Act, 1996. The application is scheduled for hearing on 17 October 2017. See "Business — Litigation — Vedanta Limited has commenced proceedings against the GoI which has disputed Vedanta Limited's exercise of the call option to purchase it remaining 49.0% ownership interest in BALCO", for further details.

There is no assurance that the outcome of our challenge of the award will be in the favour of Vedanta. In such an event, Vedanta may be unable to purchase the GoI's remaining 49.0% interest in BALCO or may be required to pay a higher purchase price, should it decide to consummate such purchase, which may have a material adverse effect on our business, financial condition and results of operations.

### The Securities and Exchange Board of India has brought proceedings alleging that Vedanta has violated regulations prohibiting fraudulent and unfair trading practices.

In 2001, SEBI brought certain proceedings relating to alleged violations by Vedanta Limited of regulations prohibiting fraudulent and unfair trading practices. See "Business — Litigation — Appeal proceedings in the High Court of Bombay brought by SEBI to overrule a decision by the Securities Appellate Tribunal of India that Vedanta Limited has not violated regulations prohibiting fraudulent and unfair trading practices."

In addition to the civil proceedings, SEBI also initiated criminal proceedings in 2001 before the Court of the Metropolitan Magistrate, Mumbai, against Vedanta Limited, Vedanta's Executive Chairman, Mr. Anil Agarwal, Vedanta Limited's Director of Finance, Mr. Tarun Jain, and the chief financial officer of MEL at the time of the alleged price manipulation. When SEBI's order was overturned in October 2001, Vedanta Limited filed a petition before the High Court of Bombay to defend those criminal proceedings on the grounds that the Securities Appellate Tribunal of India had overruled SEBI's order on price manipulation. An order has been passed by the High Court of Bombay in Vedanta Limited's (then Sterlite) favour, granting an interim stay of the criminal proceedings.

If any of the above matters are held against Vedanta Limited, it may be prohibited from accessing the Indian capital market for a specified period of time and/or may become liable to pay penalties. If Vedanta Limited and the individuals named in the criminal proceedings do not prevail, Vedanta's business and operations may be materially and adversely affected.

The GoI may allege a breach of a covenant by Vedanta and seek to exercise a put or call right with respect to shares of HZL, which may result in substantial litigation and serious financial harm to Vedanta's business, results of operations, financial condition and prospects.

Under the terms of the shareholders' agreement between the GoI and erstwhile SIIL, Vedanta Limited agreed that it would ensure that HZL would implement a 1 mmtpa greenfield zinc smelter plant at Kapasan in the state of Rajasthan (the "Kapasan Project"), within 5 years from 11 April 2002.

In 2003, HZL notified the GoI that the Kapasan Project would not be undertaken and that a report of an independent expert may not be required. While Vedanta Limited has not received any notice of breach under the provisions of the shareholders' agreement between the GoI and Vedanta with respect to HZL, the GoI may claim that Vedanta Limited has breached the covenant related to the Kapasan Project as mentioned in the shareholders' agreement triggering an event of default. The GoI, under the terms of the shareholders' agreement, may become entitled to the right, which is exercisable at any time within 90 days from the day it became aware of such event of default, to either sell any or all of the shares of HZL held by the GoI to Vedanta Limited at a price equivalent to 150.0% of the market value of such shares, or purchase any or all of the shares of HZL held by us at a price equivalent to 50.0% of the market value of such shares.

If the GoI were to assert that an event of default occurred under the shareholders' agreement and seek to exercise a put or call right with respect to shares of HZL, Vedanta Limited may face expensive and time-consuming litigation over the matter, uncertainty as to the future of Vedanta Limited's zinc business, an inability to enforce Vedanta's call option to acquire the GoI's remaining 29.5% ownership interest in HZL and the possibility of serious financial harm if HZL were unsuccessful in litigation, any of which may have a material adverse effect on Vedanta's business, results of operations, financial condition and prospects. See "Material Contracts — HZL call option" for further details.

#### Tax Risks

Vedanta may be liable for additional taxes if the tax holidays, exemptions and tax deferral schemes which it currently benefits from expire without renewal, or if tax laws change.

Vedanta currently benefits from significant tax holidays, exemptions and tax deferral schemes, which apply for limited periods. For example, HZL's captive power plant at Dariba, Chanderiya, and Zawar benefits from tax exemptions on the profits generated from transfers of power to HZL's other units, which are expected to generate substantial savings. Vedanta Limited also have wind mills located in states such as Gujarat, Karnataka, Tamil Nadu, Maharashtra and Rajasthan and melting and casting plants at Pantnagar which are also eligible for tax exemption.

There can be no assurance that these and other tax holidays or exemptions will be renewed when they expire or that any application Vedanta makes for new tax holidays or exemptions will be successful. The expiry or loss of existing tax holidays, exemptions and tax deferral schemes or the failure to obtain new tax holidays, exemptions or tax deferral schemes will likely increase Vedanta's tax obligations, which could have a material adverse effect on its results of operation or financial condition.

In addition, Vedanta Limited is subject to a Minimum Alternate Tax ("MAT") which sets a minimum amount of tax that must be paid each year based on Vedanta Limited's book profits. The effective MAT rate is currently 21.3%, after applying surcharge and education cess, for Indian companies. The MAT prevents Vedanta Limited from taking full advantage of any tax holidays, exemptions or tax deferral schemes that may be available to Vedanta Limited.

Vedanta/its other non-Indian subsidiaries could be considered as Indian tax residents and be taxable in India on their global profits if their 'place of effective management' is in India in the relevant year.

Changes in tax laws could also result in additional taxes payable by Vedanta. Vedanta pays royalties and cess in relation to our oil and gas business, to the state governments and the central government in India at rates determined by the respective governments, linked to the volume/value of oil that Vedanta produces. Any adverse changes in these fiscal terms may have an adverse effect on Vedanta's costs, results of operations and financial condition. Cess earlier being levied on volume was adversely affecting the net realisation in a declining oil price scenario. In the budget of fiscal year 2016, levy of cess was made ad valorem basis which will have an adverse impact on Vedanta with increase in prices.

Further, the GoI has enacted the Goods and Service Tax ("GST") regime with effect from July 1, 2017, which is a unified, state of the art taxation system, intended to integrate the Indian economy into a single unified market. The GST regime replaces the existing indirect tax regime consisting of central excise law and Service Tax law at the central level and respective state value added tax law, entry tax law and luxury tax law at the state level. Pursuant to the GST regime, the central government has enacted and notified in the Official Gazette, the Central Goods and Service Tax Act, 2017, the Integrated Goods and Service Tax Act, 2017, the Goods and Service Tax (Compensation to Sates) Act, 2017 and notifications, clarifications, orders, press releases under the aforementioned laws. Further, the state governments have also enacted and notified the respective state goods and service tax laws including the notifications, clarifications, orders, and press releases under these laws. The enactment of the GST regime and consequent enactments passed by the central and state governments have necessitated changes and alignment in the other laws such as the Legal Metrology Act, foreign trade policies and Tariff rates under Customs Act.

#### **Industry Risks**

If Vedanta cannot secure additional Reserves of oil and gas, copper, zinc, bauxite and iron ore that can be mined at competitive costs or cannot mine ore existing Ore Reserves at competitive costs, its profitability and operating margins could decline.

If Vedanta's existing copper, zinc and bauxite Ore Reserves cannot be mined at competitive costs or if Vedanta cannot secure additional reserves that can be mined at competitive costs, Vedanta may become more dependent upon third parties for copper concentrate, zinc concentrate and alumina. If Vedanta's existing iron Ore Reserves cannot be mined at competitive costs, the Vedanta iron ore business may become unprofitable. Because Vedanta's Ore Reserves decline as it mines the ore, Vedanta's future segment results and segment margins depend upon its ability to access Ore Reserves with geological characteristics that allow mining at competitive costs. Replacement reserves may not be available when required or, if available, may not be of a quality capable of being mined at costs comparable to the existing or exhausted mines.

Vedanta may not be able to accurately assess the geological characteristics of any Ore Reserves that it acquires, which may adversely affect its results of operations and financial condition. Because the value of Ore Reserves depends on that part of its mineral deposits that are economically and legally exploitable at the time of the reserve calculation, a decrease in metal prices may result in a reduction in the value of Ore Reserves that Vedanta obtains as less of the mineral deposits contained therein would be economically exploitable at the lower prices. Exhaustion of reserves at particular mines may also have an adverse effect on Vedanta's operating results that is disproportionate to the percentage of overall production represented by such mines. Further, with the depletion of reserves, Vedanta may face higher unit extraction costs per mine.

Vedanta's ability to obtain additional reserves in the future could be limited by restrictions under Vedanta's existing or future debt agreements, competition from its competitors, lack of suitable acquisition candidates, government regulatory and licencing restrictions, difficulties in obtaining mining leases and surface rights or the inability to acquire such properties on commercially reasonable terms, or at all. In addition, Vedanta is subject to various government limitations on its ability to mine. To increase production from Vedanta's existing copper, bauxite, lead-zinc and iron ore mines, it must apply for governmental approvals which it may not be able to obtain in a timely manner, or at all.

Changes in tariffs, royalties, customs duties and government assistance may reduce the domestic premium that Vedanta receives, which would adversely affect its profitability and results of operations.

Copper, zinc and aluminium are sold in the Indian market at a premium to the international market prices of these metals due to tariffs payable on the import of such metals. Between March 2003 and February 2011, basic customs duties on imported copper, zinc, lead and aluminium decreased cumulatively from 25.0% to 5.0%, and have remained at 5.0% since February 2011. With effect from 1 March 2016 basic custom duty on imported aluminium increased to 7.5%. The GoI may reduce customs duties in the future, although the timing and extent of such reductions cannot be predicted. As Vedanta sells the majority of the commodities it produces in India, any further reduction in Indian tariffs on imports will decrease the premiums it receives in respect of those sales. Vedanta's profitability depends in part on the continuation of import duties, any reduction of which would have a material adverse effect on its results of operations and financial condition.

Vedanta pays royalties to the state governments of Chhattisgarh, Rajasthan, Goa and Karnataka based on the extraction of bauxite, lead-zinc and Iron ore. Most significant of these is the royalty that HZL is required to pay to the state government of Rajasthan, where all of HZL's mines are located, at a rate of 10.0%, with effect from 1 September 2014 (the rate was 8.4% from 13 August 2009 to 31 August 2014) of the zinc LME price payable on the zinc metal contained in the concentrate produced, 14.5% (the rate was 12.7% from 13 August 2009 to 31 August 2014) of the lead LME price payable on the lead metal contained in the concentrate produced and at a rate of 7.0% of silver LME price chargeable on silver-metal produced. Any upward revision to the royalty rates being charged currently may adversely affect Vedanta Limited's profitability. Additionally, the Department of Mines and Geology of the State of Rajasthan has raised additional demands for payment through several show cause notices to HZL for mining minerals associated with lead and zinc such as cadmium and silver.

Similarly, Cairn India pays royalties and cess to the state governments and the Central government in India at rates determined by the respective governments, linked to the volume or value of oil produced. Any adverse changes in these fiscal terms may adversely affect its profitability. Cess earlier being levied on volume was adversely affecting the net realisation in a declining oil price scenario. In the recent budget, levy of cess was made on an ad valorem basis. Vedanta also pays royalties to the government from Vedanta's Zinc International business. In Vedanta's iron ore business, it pays royalty on iron ore to the state governments of Goa at 15% of the average price declared periodically by the Indian Bureau of Mines and in Karnataka, royalty/Special Purpose Vehicle contribution at 15% is borne by buyer. Export duty on export of iron ore was paid at the rate of 30% ad valorem on the FOB value of exports with effect from 30 December 2011 (the rate being 20% prior to 30 December 2011) and the GoI had reduced the rate of export duty on iron ore fines of less than 58 grade from 30% to 10% which is effective from 30 April 2015. The duty was further reduced to nil duty effective 1 March 2016, on exports of iron ore less than 58 grade. In April 2014, the Supreme Court of India ordered to create the Iron Ore Goa Permanent Fund, wherein all lease holders have to contribute 10% of sales value to this fund. Changes in tax laws could also result in additional taxes payable by us.

Towards end of fiscal year 2015, the MMDRA is notified which brings greater transparency in granting of mineral concessions through an e-auction process. It also removes certain uncertainties relating to automatic renewals of mine leases for future periods. However for existing mining leases, it notifies an amount not exceeding royalty, to be contributed to District Mineral Foundation or DMF for the benefit of people affected by mining and an additional amount equivalent to 2% of royalty to National Mineral Exploration Trust. DMF contribution has now been notified at 30% of the base royalty rate in September 2015. Indian exports of copper, alumina, aluminium and zinc receive assistance premiums from the GoI, which have been reduced since fiscal year 2002 and may be further reduced in the future. Any reduction in these premiums will decrease the revenue Vedanta receives from export sales and may have a material adverse effect on its results of operations or financial condition.

There are general risks relating to the operation of Vedanta's commercial power generation business.

Vedanta has been building and managing captive power plants in India since 1997, some of which sell their surplus power on the market to third parties. In addition to these captive power plants, Vedanta also owns and operates several commercial power plants, the largest of which is Vedanta Limited's 2,400 MW thermal coal-based power plant in Jharsuguda.

Operating power plants on a stand-alone basis involves many operational risks which are unique to the commercial power generation business as compared to Vedanta's other businesses, including the following:

Dependence on third parties. Third parties must be hired for the construction, delivery and commissioning of power facilities, the supply and testing of equipment and transmission and the distribution of any electricity Vedanta generates and there are associated risks. For instance, contractors hired may not be able to complete construction and installation on time, within budget, or to the specifications in the contracts with them, or such contractors may otherwise cause delays in meeting project milestones or achieving commercial operation by the scheduled completion date, which could in turn cause forecast budgets to be exceeded or result in delayed payment by customers, invoke liquidated damages or penalty clauses or performance guarantees or result in termination of contracts. In addition, as a result of increased industrial development in India in recent years, the demand for contractors with specialist design, engineering and project management skills and services has increased, resulting in a shortage of and increasing costs of services of such contractors. There can be no assurance that such skilled and experienced contractors will continue to be available at reasonable rates, and Vedanta may be exposed to risks relating to the cost and quality of their services, equipment and supplies.

Dependence on coal. Vedanta may not receive the coal block allocations that it expects or, may not be allowed to use such allocations for its commercial power generation business. Any coal block allocations that Vedanta receives may not be sufficient for its planned operations and Vedanta may not be successful in procuring sufficient supply of coal at economically attractive prices, or at all. Additionally, the coal block allocation letters contain certain restrictive covenants which Vedanta is subject to, including specified end use and submission of mining plans within a certain specified period.

Power purchase agreements. The power purchase agreements ("PPAs") and other agreements that Vedanta has entered into, or may enter into, may require it to guarantee certain minimum performance standards, such as plant availability and generation capacity, to the power purchasers. If Vedanta's facilities do not meet the required performance standards, the power purchasers may not reimburse Vedanta for any increased costs arising as a result of its plants' failure to operate within the agreed norms, which may in turn have a material adverse effect on Vedanta's results of operations and financial condition.

Power transmission. Lack of strong power transmission infrastructure could restrict our power generation volumes. For example, the effective plant load factor for all the four units of our commercial power plant at Jharsuguda was constrained at 39% in fiscal year 2015 on account of the limited power transmission infrastructure available in India and the delay in ramp up of Smelter II.

Regulatory compliance. Power generation in India is a comprehensively regulated industry. See "Business — Indian Regulatory Matters — Power Sector" for more details. In particular, national and State regulatory bodies and other statutory and government mandated authorities may from time to time impose minimum performance standards upon Indian power generation facilities (including Vedanta's facilities). Failure to meet these requirements could expose facility operators to the risk of financial penalties, the quantum of which will depend on the severity of non-compliance and, in severe cases of non-compliance, involve plant shut downs.

Any of the above results or any strikes or accidents at the site, could have a material and adverse effect on Vedanta's business, financial condition and results of operations.

Vedanta's metals and mining operations are subject to operating risks common to the industries in which they operate that could result in decreased production, increased cost of production and increased cost of or disruptions in transportation, which could adversely affect its business, results of operations and financial condition.

The success of each of Vedanta's businesses is subject to operating conditions and events common to the industry in which it operates which are beyond its control that could, among other things, increase its mining, transportation or production costs, disrupt or halt operations at its mines and production facilities permanently or for varying lengths of time, or interrupt the transportation of Vedanta's products to its customers. These conditions and events include:

Disruptions in mining, drilling and production due to equipment failures, unexpected maintenance problems and other interruptions. All of Vedanta's operations are vulnerable to disruptions. Metal processing plants are especially vulnerable to interruptions, particularly where an event causes a stoppage which necessitates a shut down in operations. Stoppages in certain types of Vedanta's smelters, even if lasting only a few hours, can cause the contents of furnaces or cells to solidify, resulting in a plant closure for a significant period and necessitating expensive repairs, any of which could materially and adversely affect its results of operations or financial condition. For example, Vedanta aluminium smelters have suffered due to a pot failure incident during fiscal 2017 resulting in part stoppage of smelter and cost of repairs. Drilling may involve unprofitable efforts, not only with respect to dry wells, but also with respect to wells that are productive but do not produce sufficient net revenues to return a profit after drilling, operating and other costs.

Availability of raw materials for energy requirements. Any shortage of or increase in the prices of the raw materials needed to satisfy Vedanta's energy requirements may interrupt its operations or increase its cost of production. Vedanta is particularly dependent on coal which is used in many of its captive power plants. Vedanta's aluminium business, which has high energy consumption due to the energy intensive nature of aluminium smelting, is significantly dependent on receiving allocations from Coal India, the government owned coal monopoly in India.

Availability of water. The mining operations of Vedanta's zinc and aluminium businesses and its captive power plants depend upon the supply of a significant amount of water. There is no assurance that the water required for these operations will continue to be available for Vedanta in sufficient quantities or that the cost of water will not increase.

Disruptions to or increased costs of transport services. Vedanta depends upon seaborne freight, inland water transport, rail, trucking, overland conveyor and other systems to transport bauxite, alumina, zinc concentrate, copper concentrate, iron ore, oil, natural gas, metallurgical coke, pig iron, coking coal and other supplies to its operations and to deliver its products to customers. Any disruption to or increase in the cost of these transport services, including as a result of fuel cost increases, interruptions that decrease the availability of these transport services or increases in demand for transport services from Vedanta's competitors or from other businesses, or any failure of these transport services to be expanded in a timely manner to support an expansion of Vedanta's operations, could have a material adverse effect on its business, results of operations and financial condition.

Accidents at mines, smelters, refineries, cargo terminals and related facilities, including as a result of the occurrence of natural disasters. Any accidents or explosions, including as a result of the occurrence of natural disasters, causing personal injury, property damage or environmental damage at or to Vedanta's mines, smelters, refineries, cargo terminals and related facilities may result in significant losses, expensive litigation, imposition of penalties and sanctions or suspension or revocation of permits and licences. Risks associated with open-pit mining operations include flooding of the open-pit and collapses of the open-pit wall. Risks associated with underground mining

operations include underground fires and explosions (including those caused by flammable gas), cave-ins or ground falls, discharges of gases or toxic chemicals, flooding, sinkhole formation and ground subsidence. Injuries to and deaths of workers at Vedanta's mines and facilities have occurred in the past and may occur in the future.

Strikes and industrial actions or disputes. The majority of Vedanta's workforce is unionised. Strikes and industrial actions or disputes have occurred in the past and may occur in the future, which may lead to business interruptions and halts in production for Vedanta.

Additionally, while Vedanta has in place operating and maintenance procedures to maintain the integrity of its production facilities, unplanned events, such as theft and industrial damage could adversely affect operations.

Tailings dam failure. A release of waste material from tailings dams of any of Vedanta's production facilities may lead to loss of life, injuries, environmental damage, reputational damage, financial costs and production impacts. Tailings dam failure is considered to be a catastrophic risk, which is a very high severity but very low frequency event that must be treated with the highest priority.

The occurrence of any one or more of these conditions or events could have a material adverse effect on Vedanta's business, results of operations and financial condition.

Oil and gas exploration and production operations by Cairn India or operators of assets in which it has an interest will involve risks normally incidental to such activities, such as natural disasters and geological uncertainties, over which Vedanta has no control.

Oil and gas exploration and production operations by Cairn India or operators of assets in which it has an interest will involve risks normally incidental to such activities, including blowouts, oil spills, gas leaks, explosions, fires, equipment damage or failure, natural disasters, unexploded ordinance, geological uncertainties, unusual or unexpected rock formations and abnormal pressures. Offshore operations are also subject to natural disasters as well as to hazards inherent in marine operations and damage to pipelines, platforms, facilities and sub-sea facilities from trawlers, anchors and vessels. Cairn India's producing fields are located in areas that can be subject to extreme weather conditions, flooding, earthquake and other natural disasters.

Additionally, Cairn India or the operators of assets in which it has an interest may face interruptions or delays in the availability of equipment or infrastructure, including seismic survey vessels, rigs, pipelines and storage tanks, on which oil and gas exploration and production activities are dependent. Such interruptions or delays could result in disruptions to exploration activities, production, oil and gas off-take arrangements, increased costs, and may have a material adverse effect on Vedanta's businesses, prospects, financial condition or results of operations.

The occurrence of any of these events could result in environmental damage, injury to persons and loss of life, production delays, failure to produce oil or gas in commercial quantities or an inability to exploit fully discovered reserves.

Consequent delays to seismic, drilling or production activities and declines from normal field operating conditions can be expected to lead to increased costs or adversely affect revenue and cash flow levels to varying degrees. The majority of Cairn India's oil and gas production is sourced from its interests in a limited number of PSCs or concessions. Problems in any one PSC or concession could have a material adverse impact upon Vedanta's businesses and financial condition.

### Oil and gas exploration activities are capital intensive and inherently uncertain in their outcome.

Oil and gas exploration activities are capital intensive and inherently uncertain in their outcome. There is a risk that Vedanta or the operators of assets in which it has an interest will undertake exploration activities and incur significant costs in so doing with no assurance that such expenditure will result in the discovery of hydrocarbons, whether or not in commercially viable quantities.

### There are particular risks and hazards associated with underground mining.

Hazards associated with Vedanta's underground mining operations include underground fires and explosions, including those caused by flammable gas, cave-ins or ground falls, discharges of gases and toxic chemicals, flooding, sinkhole formation and ground subsidence and other accidents and conditions resulting from drilling and removing and processing material from an underground mine. If any of these hazards or accidents result in significant injury to employees and damage to equipment or other property, Vedanta may experience unexpected production delays, increased production costs, and increased capital expenditures to repair or replace equipment or property, as well as claims from affected employees and environmental and other authorities for any alleged breaches of applicable laws or regulations. Disruptions to mining, delays and costs on account of such hazards or accidents could have a material adverse effect on Vedanta's business, financial condition and results of operations.

#### The results of appraising discoveries and estimating Ore Reserves are uncertain.

The results of appraising discoveries are uncertain, which may result in reductions in projected reserves and production declines and may involve unprofitable efforts, not only from dry wells, but also from wells that are productive but uneconomic to develop. Furthermore, as Vedanta's Ore Reserves decline as it mines the ore, Vedanta's future segment results and segment margins depend upon its ability to access Ore Reserves with geological characteristics that allow mining at competitive costs and replacement reserves may not be available when required. Appraisal and development activities may be subject to delays in obtaining governmental approvals or consents, shut-ins of connected wells, insufficient storage or transportation capacity or exhaustion and depletion of reserves or other geological and mechanical conditions all of which may result in a material increase of Vedanta's costs of operations or delay anticipated revenues.

### Adverse changes in general economic, political and market conditions in the Middle East and North Africa region may affect global conditions.

Wars, acts of terrorism and uncertain political or economic prospects or instability in the Middle East and North Africa or MENA may adversely impact global financial markets and an increase in the price of crude oil. Recent protests in North Africa and the Middle East may continue and broaden across the MENA region and lead to significant political uncertainties in a number of countries.

# Vedanta may incur significant costs or loss of reputation in case of leakage of business sensitive information.

Like many other global organisations, Vedanta's reliance on computers and network technology is increasing. These systems could be subject to security breaches resulting in theft, disclosure or corruption of key/strategic information. Any significant breach or failure of Company's digital infrastructure and/ or cyber security attacks due to negligence or IT security failure or any other reason could result in misappropriation of funds, loss or misuse of data or sensitive information, disruption to business, damage to assets, legal or regulatory breaches and potentially legal liability. A cyber security breach could result in significant costs and/ or reputational consequences.

#### Risks Relating to Investments in India

## A substantial portion of Vedanta's assets and operations are located in India and Vedanta is subject to regulatory, economic, social and political uncertainties in India.

A substantial portion of Vedanta's assets and employees are located in India, and Vedanta intends to continue to develop and expand its facilities in India. Consequently, Vedanta's financial performance will be affected by changes in exchange rates and controls, interest rates, commodity prices, subsidies and controls, changes in government policies, including taxation policies, social and civil unrest and other political, social and economic developments in or affecting India.

The GoI exercises significant influence over many aspects of the Indian economy. Since 1991, successive Indian governments have pursued policies of economic liberalisation, including by significantly relaxing restrictions on the private sector. Nevertheless, the role of the Indian Central and State governments in the Indian economy as producers, consumers and regulators has remained significant and these liberalisation policies might not continue. The rate of economic liberalisation could change, and specific laws and policies affecting natural resources companies, foreign investments, currency exchange rates and other matters affecting investment in India could change as well. For instance, recently, the GoI and the RBI has declared that '500 and Rs. 1,000 denominations of bank notes have ceased to be legal tender. Pursuant to this currency demonetisation, these high denomination notes have no value and cannot be used for transactions or exchange purposes with effect from 9 November 2016. These notes have been replaced with a new series of bank notes. The process of demonetisation and replacement of these high denomination notes has reduced the liquidity in the Indian economy which has significant reliance on cash. These factors had resulted in reduction of purchasing power, and alteration in consumption patterns of the economy in general. While the comprehensive and long-term impact of this currency demonetisation measure cannot be ascertained at the moment, there has been a slowdown in the economic activities in India, at least in the short term, given the demonetisation impacts a majority quantity of the cash currency in circulation. Such a slowdown can adversely affect the Indian economy, in turn affecting the operations of Vedanta's business in India.

### As the domestic Indian market constitutes a significant source of Vedanta's revenue, a downturn in the rate of economic growth in India will be detrimental to Vedanta's results of operations.

In fiscal year 2017, 58.3% of Vedanta's revenue was derived from commodities that were sold within India. The performance and growth of Vedanta's businesses are necessarily dependent on the health of the Indian economy which may be materially and adversely affected by political instability or regional conflicts, economic slowdown elsewhere in the world. The Indian economy also remains largely driven by the performance of the agriculture sector which depends on the quality of the monsoon which is difficult to predict. The Indian economy has grown significantly over the past few years. Past slowdowns in the Indian economy have harmed manufacturing industries, including companies engaged in the copper, zinc, aluminium and iron ore sectors, as well as customers of manufacturing industries due to a reduction in demand for industrial production. Any slowdown in the Indian economy could have a material adverse effect on demand for the commodities that Vedanta produces and, as a result, on its financial condition and results of operations.

Terrorist attacks and other acts of violence involving India or neighbouring countries could adversely affect Vedanta's operations directly, or may result in a more general loss of customer confidence and reduced investment in these countries that reduces demand for Vedanta's products, which would have a material adverse effect on Vedanta's business, results of operations, financial condition and cash flows.

Terrorist attacks and other acts of violence or war involving India or other neighbouring countries may adversely affect the Indian markets and the worldwide financial markets. The occurrence of any of these events may result in a loss of business confidence, which could potentially lead to economic recession and generally have a material adverse effect on Vedanta's businesses, results of operations, financial condition and cash flows. In addition, any deterioration in international relations may result in investor concern regarding regional stability which could adversely affect the price of the Bonds.

South Asia has also experienced instances of civil unrest and hostilities among neighbouring countries from time to time, especially between India and Pakistan. Such activity or terrorist attacks could adversely affect the Indian economy by disrupting communications and making travel more difficult. Resulting political tensions could create a greater perception that investments in Indian companies involve a high degree of risk. Furthermore, if India were to become engaged in armed hostilities, particularly hostilities that were protracted or involved the threat or use of nuclear weapons, Vedanta might not be able to continue its operations.

If natural disasters or environmental conditions in India, including floods and earthquakes, affect Vedanta's mining and production facilities, its revenues could decline.

Vedanta's mines and production facilities are spread across India, and Vedanta's sales force is spread throughout the country. Natural calamities such as floods, rains, heavy downpours (such as heavy downpours in Tuticorin in 2008 which caused the closure of Vedanta's Tuticorin facilities for two to three days, as well as the rains in Mumbai and other parts of the State of Maharashtra in 2005 and other states in 2006) and earthquakes could disrupt Vedanta's mining and production activities and distribution chains and damage Vedanta's storage facilities. Unusually heavy rains during the monsoon season in 2006 and 2013 in the states of Rajasthan and Gujarat triggered floods and caused destruction in these states. The area in which the Mangala field is located experienced flooding which directly affected existing well-sites and roads. Other regions in India have also experienced floods, earthquakes, tsunamis and droughts in recent years.

Substantially all of Vedanta's facilities and employees are located in India and could be affected by natural disasters. For example, the pipeline to transport crude oil from the northern fields of the Rajasthan block to Salaya, and thereafter to the Bhogat terminal in Gujarat, passes near Bhuj, which was the epicentre of an earthquake measuring 6.9 on the richter scale in 2001 and that resulted in the deaths of approximately 30,000 people as well as damage to the infrastructure in the region. Although Vedanta's Rajasthan block crude oil production plans assume that the proposed pipeline will withstand damage from fire, earthquakes, floods, storms and similar events, the pipeline might not withstand damage from such events. In addition, if there were a drought or general water shortage in India or any part of India where Vedanta's operations are located, the GoI or local, State or other authorities may restrict water supplies to Vedanta and other industrial operations in order to maintain water supplies for drinking and other public necessities, which would cause Vedanta to reduce or cease operations. Vedanta's business and operating activities could be disrupted if it does not respond, or are perceived not to respond, in an appropriate manner to any major crisis or if it is not able to restore or replace critical operational capacity.

If India's inflation worsens or the prices of coal, oil or other raw materials continue to rise, Vedanta may not be able to pass the resulting increased costs to its customers and this may have a material adverse effect on Vedanta's profitability or cause Vedanta to suffer operating losses.

India has experienced wholesale price inflation in recent years compared to historical levels due to higher demand than supply. In addition, international prices of crude oil and natural gas have recently experienced significant volatility. Inflation, increased transportation costs and an increase in energy prices generally, which may be caused by a rise in the price of oil, or an increase in the price of thermal coking coal in particular, could cause Vedanta's costs for raw material inputs required for production of Vedanta's products to increase, which may have a material adverse effect on its results of operations and financial condition if Vedanta cannot pass these added costs on to customers.

### Stringent labour laws in India may adversely affect Vedanta's profitability.

India has stringent labour legislation that protects the interests of workers, including legislation that sets forth detailed procedures for industrial dispute resolution and employee compensation for injury or death sustained in the course of employment, and imposes financial obligations on employers upon employee layoffs. This may make it difficult for Vedanta to maintain flexible human resource policies, discharge employees or downsize, which may have a material adverse effect on Vedanta's business, financial condition and results of operations.

Restrictions on foreign investment in India may prevent Vedanta from making future acquisitions or investments in India, which may have a material adverse effect on Vedanta's results of operations, financial condition and cash flows.

India regulates ownership of Indian companies by foreigners, as well as external commercial borrowing by Indian companies, although restrictions on foreign investment and external commercial borrowing have been relaxed significantly in recent years. These regulations and restrictions may apply to acquisitions by Vedanta, or other members of Vedanta who are not resident in India, of shares in Indian companies or the provision of funding by Vedanta or any other non-Indian resident entity to Indian companies. There can be no assurance that Vedanta will be able to obtain any required approvals for future acquisitions or investments in India, or that Vedanta will be able to obtain such approvals on satisfactory terms.

# A slowdown in economic growth in India and other countries in which Vedanta operates could cause its business to suffer.

The Indian securities market and the Indian economy are influenced by economic and market conditions in other countries. Although economic conditions are different in each country, investors' reactions to developments in one country can have adverse effect on the securities of companies in other countries, including India. A loss of investor confidence in the financial systems of other emerging markets may cause volatility in Indian financial markets and, indirectly, in the Indian economy in general. Any worldwide financial instability could also have a negative impact on the Indian economy, including the movement of exchange rates and interest rates in India. Any slowdown in the Indian economy, or future volatility in global commodity prices, could adversely affect the growth of Vedanta's India business.

The Indian economy and financial markets are also significantly influenced by worldwide economic, financial and market conditions. Any financial turmoil, especially in the United States, United Kingdom, Europe or China, may have a negative impact on the Indian economy. Although economic conditions differ in each country, investors' reactions to any significant developments in one country can have adverse effects on the financial and market conditions in other countries. A loss in investor confidence in the financial systems, particularly in other emerging markets, may cause increased volatility in Indian financial markets.

For instance, on 23 June 2016, the United Kingdom held a referendum on its membership of the European Union and voted to leave (Brexit). There is significant uncertainty at this stage as to the impact of Brexit on general economic conditions in the United Kingdom and the European Union and any consequential impact on global financial markets. For example, Brexit could give rise to increased volatility in foreign exchange rate movements and the value of equity and debt investments. A lack of clarity over the process for managing the exit and uncertainties surrounding the economic impact could lead to a further slowdown and instability in financial markets. This and any prolonged financial crisis may have an adverse impact on the Indian economy, thereby resulting in a material adverse effect on Vedanta's business, financial condition and results of operations.

# Vedanta may be affected by competition law in India and any adverse application or interpretation of the Competition Act could adversely affect its business.

The Competition Act, 2002, as amended (the "Competition Act"), regulates practices having an appreciable adverse effect on competition in the relevant market in India. Under the Competition Act, any formal or informal arrangement, understanding or action in concert, which causes or is likely to cause an appreciable adverse effect on competition is considered void and results in the imposition of substantial monetary penalties. Further, any agreement among competitors which, directly or indirectly, involves the determination of purchase or sale prices, limits or controls production, supply,

markets, technical development, investment or provision of services, shares the market or source of production or provision of services by way of allocation of geographical area, type of goods or services or number of clients in the relevant market or, directly or indirectly, results in bid-rigging or collusive bidding is presumed to have an appreciable adverse effect on competition. The Competition Act also prohibits abuse of a dominant position by any enterprise. The Competition Commission of India (the "CCI"), has extra-territorial powers and can investigate any agreements, abusive conduct or combination occurring outside India if such agreement, conduct or combination has an appreciable adverse effect on competition in India. The Indian operations of Vedanta are currently not subject to any outstanding proceedings under the Competition Act. However, if the Indian operation of Vedanta is affected, directly or indirectly, by the application or interpretation of any provision of the Competition Act, or any enforcement proceedings initiated by the CCI, or any adverse publicity that may be generated due to scrutiny or prosecution by the CCI or if any prohibition or substantial penalties are levied under the Competition Act, it would adversely affect Vedanta's business, cash flows and results of operation.

# The filing of an insolvency petition under the new bankruptcy code in India by the creditors of the Indian subsidiaries of the Company may affect the Company's revenues and financial condition.

The Insolvency and Bankruptcy Code, 2016 (Bankruptcy Code) was notified on 5 August 2016. The Bankruptcy Code encompassing all companies, partnerships and individuals (other than financial firms) allows creditors to assess the viability of a debtor as a business decision, and agree upon a plan for its revival or a speedy time bound liquidation. The Bankruptcy Code creates a new institutional framework, consisting of a regulator, insolvency professionals, information utilities and adjudicatory mechanisms, which will facilitate a formal and quicker insolvency resolution and liquidation process. Under the Bankruptcy Code, any financial or operational creditor may approach the national company law tribunal (NCLT) to initiate a corporate insolvency resolution process against a debtor upon default in repayment of at least Rs. 100,000 equivalent to approximately \$1550. On receipt of an application from a creditor, the NCLT is required to either admit or reject the application within a period of 14 days from the date of the application. In the event the application is admitted, an interim resolution professional is appointed for managing the affairs of the debtor and a moratorium is declared for a period of 180 days prohibiting, inter alia, institution/continuation of suits against the debtor and transfer/disposal of assets of the debtor. The committee of creditors formed by the interim resolution professional is required to formulate a resolution plan to be approved by the NCLT. If no resolution plan is agreed by the creditors or if the NCLT rejects the resolution plan, liquidation proceedings are commenced against the debtor. If the Bankruptcy Code provisions are invoked against any of the Company's material subsidiaries by any of its creditors, it may adversely and materially affect the Company's revenues and financial conditions.

### Risks Relating to the Bonds

As a holding company, the Company's financial condition is entirely dependent on the financial condition, including cash available for distribution, and operating results of its subsidiaries.

The Company's results of operations and financial condition are entirely dependent on the financial condition and operating results of its subsidiaries. The Company's ability to pay interest and principal on the Bonds will depend upon the level of distributions, interest payments and loan repayments, if any, received from its operating subsidiaries and associated undertakings, any amounts received on asset disposals and the level of cash balances. Certain of the Company's operating subsidiaries and associated undertakings are and may, from time to time, be subject to restrictions on their ability to make distributions and loans including as a result of restrictive covenants in loan agreements, foreign exchange and other regulatory restrictions and agreements with the other shareholders of such subsidiaries or associated undertakings. The Company's net leverage ratios described in this Offering Circular, including Net Debt/Capitalisation and Net Debt over Vedanta EBITDA, are reported on a consolidated basis and do not take into account such restrictions on the

Company's ability to access cash at its subsidiaries or the Company's economic percentage holding in its subsidiaries and should therefore not be exclusively relied upon as measures of the Company's ability to repay debt. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources".

In addition, all dividends paid by Indian companies are currently subject to dividend distribution tax at a rate of 15% (plus a surcharge of 12.0% and education cess at the rate of 3%), payable by the company is paying the dividend, which results into an effective tax rate of 20.35% on the net dividend paid. The credit of dividend distribution tax paid by the Indian company may not be available for the credit under the Indo-UK Double Taxation Avoidance Agreement. There can be no assurance that the GoI will not further increase the surcharges or dividend taxes it imposes or reintroduce withholding tax on dividends declared, distributed or paid. There can be no assurance that such restrictions and taxes will not have a material adverse effect on Vedanta's results of operations or financial condition or on Vedanta's ability to make payments of interest and principal on the Bonds.

#### The Bonds will be structurally subordinated to the debt held by the Company's subsidiaries.

The Company's operations are principally conducted through its subsidiaries. Accordingly, the Company is, and after this offering will continue to be, dependent on its subsidiaries' operations and cash flows to service its indebtedness, including the Bonds. The Bonds will be structurally subordinated to the claims of all holders of debt securities and other creditors, including trade creditors, of its subsidiaries, and to all of its secured creditors. In the event of an insolvency, bankruptcy, liquidation, reorganisation, dissolution or winding-up of the business of any subsidiary of the Company, creditors of such subsidiary will generally have the right to be paid in full before any distribution is made to the Company.

In this regard, it should be noted that the subsidiaries of the Company, including Vedanta Limited, BALCO, HZL, TSPL, CIHL, VGCB, FGF and KCM have raised debt, which is currently outstanding and repayable over the term of the Bonds. Moreover, some of this debt is secured by a first charge on assets and properties of the respective companies and/or a first charge on current assets including stocks and book debts, which may affect Vedanta's ability to pay the holders of the bond (the "Bondholders"). As of 31 March 2017, Vedanta had total debt of \$18,228.7 million of which \$13,880.4 million existed at the Company's subsidiaries.

#### The Company may not be able to repurchase the Bonds upon a change of control.

The Company will agree in the Conditions that it will timely repay all borrowings, or obtain consents as necessary under, or terminate, agreements or instruments that would otherwise prohibit a change of control offer required to be made pursuant to the Trust Deed. Notwithstanding this agreement, if the Company is unable to repay (or cause to be repaid) all of the borrowings, if any, that would prohibit the repurchase of the Bonds or if the Company is unable to obtain the requisite consents of the holders of such borrowings, or terminate any agreements or instruments that would otherwise prohibit a change of control offer, the Company would continue to be prohibited from purchasing the Bonds. In that case, the Company's failure to purchase the tendered Bonds would constitute an event of default under the Conditions.

Certain of the events constituting a change of control under the Bonds will also constitute an event of default under certain other debt instruments. Future debt of the Company may also: (i) prohibit it from purchasing the Bonds in the event of the occurrence of a change of control; (ii) provide that the occurrence of a change of control is a default; or (iii) require repurchase of such debt upon the occurrence of a change of control. Moreover, the exercise by the Bondholders of their right to require the Company to purchase the Bonds could cause a default under other borrowings, even if the change of control itself does not, due to the financial effect of the purchase on the Company. The Company's ability to pay cash to the Bondholders following the occurrence of a change of control may be limited by its then existing financial resources. There can be no assurance that sufficient funds will be available when necessary to make the required purchase of the Bonds.

### There is no existing market for the Bonds.

There can be no assurance regarding the future development of a market for the Bonds, or the ability of Bondholders to sell their Bonds, or the price at which such holders may be able to sell their Bonds. If a market for the Bonds were to develop, the Bonds could trade at prices that may be higher or lower than the initial issue price depending on many factors, including prevailing interest rates, Vedanta's operating results, the market for similar securities, and the rating of the Bonds or the Company given by rating agencies.

The Bonds will be a new issue of securities with no existing trading market. Approval in-principle has been received for the listing and quotation of the Bonds on the Official List of the SGX-ST. However, the Company can not make any assurances that the Bonds will ultimately be listed on the exchange or that a liquid trading market will develop for the Bonds.

### The market price of the Bonds may be volatile.

The market price of the Bonds could be subject to wide fluctuations in response to numerous factors, many of which are beyond the control of Vedanta. These factors include, among other things, actual or anticipated variations in operating results, earnings releases by Vedanta and its competitors, changes in financial estimates by securities analysts, market conditions in the industry and the general state of the securities markets, governmental legislation or regulation, currency and exchange rate fluctuations, interest rates, the rating of the Bonds or Vedanta given by the rating agencies, as well as general economic and market conditions, such as recessions.

### The Bonds may not be a suitable investment for all investors.

Each potential investor in the Bonds must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- have sufficient knowledge and experience to make a meaningful evaluation of the Bonds, the merits and risks of investing in the Bonds and the information contained in this Offering Circular;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the Bonds and the impact such investment will have on its overall investment portfolio;
- have sufficient financial resources and liquidity to bear all of the risk of an investment in the Bonds, including where the currency for principal or interest payments is different from the potential investor's currency;
- understand thoroughly the terms of the Bonds and be familiar with the behaviour of any relevant financial markets; and
- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

A potential investor should not invest in the Bonds, which are complex financial instruments, unless it has the expertise (either alone or with a financial adviser) to evaluate how the Bonds will perform under changing conditions, the resulting effects on the value of the Bonds and the impact this investment will have on the potential investor's overall investment portfolio.

### Early redemption may adversely affect the Bondholders' return on the Bonds.

The Bonds may be redeemed only in full and not in part, at the option of the Company at any time. This feature of the Bonds may limit their market value. During the period when the Company may elect to redeem the Bonds, the market value of the Bonds generally will not rise substantially above the price at which they can be redeemed. The Company may be expected to exercise its option to redeem the Bonds when its cost of borrowing is lower than the interest rate on the Bonds.

Further, in the event that the Company would be obliged to pay additional amounts in respect of any Bonds due to any withholding or deduction for or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the United Kingdom or any authority therein or thereof having power to tax, the Company may redeem in whole, but not in part, the Bonds in accordance with the Conditions. In either of these circumstances, an investor may not be able to reinvest the redemption proceeds in a comparable security with an effective rate equal to that of the Bonds.

#### Risks relating to change of law.

The Conditions of the Bonds will be based on English law as of the date of this Offering Circular. No assurance can be given as to the impact of any possible judicial decision or change to English law or any administrative practice thereof after the date of this Offering Circular.

### Developments in other markets may adversely affect the market price of the Bonds.

The market price of the Bonds may be adversely affected by declines in the international financial markets and world economic conditions. Global financial markets, to varying degrees, are influenced by economic and market conditions in other markets. Although economic conditions are different in each country, investors' reactions to developments in one country can affect the securities markets and the securities of issuers in other countries. If adverse developments occur in the international financial markets in the future, the market price of the Bonds could be adversely affected.

### No voting rights.

Bondholders do not have any right to vote at any shareholders' meetings of the Company. Consequently, Bondholders cannot influence any decisions by the Board or any decisions by shareholders concerning the Company's capital structure, including the declaration of dividends in respect of the Company's ordinary shares.

### Bondholders are bound by decisions of defined majorities in respect of any modification, waivers and substitution.

The Conditions of the Bonds contain provisions for calling meetings of Bondholders to consider matters affecting their interests generally. These provisions permit defined majorities to bind all Bondholders, including Bondholders who did not attend and vote at the relevant meeting and Bondholders who voted in a manner contrary to the majority.

#### Interest rate risks.

The Bonds are fixed interest rate securities. Subsequent changes in market interest rates may adversely affect the value of the Bonds.

# A downgrade in Vedanta's credit ratings or the ratings assigned to the Bonds may adversely affect Vedanta's ability to access capital.

Vedanta's current Issuer rating is "B+" with a stable outlook by S&P and "B1" with a stable outlook by Moody's. Currently, the long term debt rating by Moody's is "B+". A downgrade may adversely affect Vedanta's ability to access capital and would likely result in more stringent covenants and higher interest rates under the terms of any new indebtedness.

In addition, the Bonds are expected, on the Closing Date, to be rated "B3" by Moody's, "B+" by S&P. These ratings of the Bonds may be reviewed and changed at any time by one or more of these agencies, and they may be lowered or withdrawn entirely in the future. A suspension, reduction or withdrawal at any time of the ratings assigned to the Bonds may adversely affect the market price of the Bonds.

#### Credit ratings may not reflect all risks.

One or more independent credit rating agencies may assign credit ratings to the Bonds or the Company's senior unsecured indebtedness. The ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed above, and other factors that may affect the value of the Bonds. A credit rating is not a recommendation to buy, sell or hold Bonds and may be revised or withdrawn by the rating agency at any time.

### The Trustee may not take action on behalf of the Bondholders.

The Conditions and the terms of the Trust Deed provide that, in certain circumstances, the Trustee may take action on behalf of the Bondholders, but only if the Trustee is indemnified and/or secured (including by way of payment in advance) to its satisfaction. It may not, depending on the particular circumstances at the relevant time, be possible for the Trustee to take certain actions in relation to the Bonds and accordingly, in such circumstances, the Trustee will be unable to take such actions, notwithstanding the provision for an indemnity and/or security to it and, as a result and if possible, it will be up to the Bondholders to take such action directly.

Holders of Bonds held through DTC, Euroclear and Clearstream, Luxembourg must rely on procedures of those clearing systems to effect transfers of Bonds, receive payments in respect of Bonds and vote at meetings of Bondholders.

Bonds will be represented on issue by one or more Global Certificates that may be deposited with a common depositary for Euroclear and Clearstream, Luxembourg or may be deposited with a nominee for DTC (each as defined under "Summary of Provisions Relating to the Bonds While in Global Form"). Except in the circumstances described in each Global Certificate, investors will not be entitled to receive Bonds in definitive form. Each of DTC, Euroclear and Clearstream, Luxembourg and their respective direct and indirect participants will maintain records of the beneficial interests in each Global Certificate held through it. While the Bonds are represented by a Global Certificate, investors will be able to trade their beneficial interests only through the relevant clearing systems and their respective participants.

While the Bonds are represented by Global Certificates, the Company will discharge its payment obligation under the Bonds by making payments through the relevant clearing systems. A holder of a beneficial interest in a Global Certificate must rely on the procedures of the relevant clearing system and its participants to receive payments under the Bonds. The Company has no responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in any Global Certificate. Holders of beneficial interests in a Global Certificate will not have a direct right to vote in respect of the Notes so represented. Instead, such holders will be permitted to act only to the extent that they are enabled by the relevant clearing system and its participants to appoint appropriate proxies. If definitive Notes are issued, holders should be aware that definitive Notes that have a denomination that is not an integral multiple of the minimum specified denomination may be illiquid and difficult to trade.

### **USE OF PROCEEDS**

The net proceeds from this offering, after deduction of underwriting fees, discounts and commissions and other estimated expenses associated with this offering, are expected to be approximately \$992 million. The Company intends to use the net proceeds from this offering primarily:

- to fund the Company's Tender Offers for any and all of its outstanding US\$774,772,000 6% Bonds due 2019 and US\$900,000,000 8.25% Bonds due 2021; and
- to repay other existing indebtedness of the Company.

In the event either or both of the Tender Offers are not completed for any reason, Vedanta intends to use the net proceeds from this offering primarily to repay outstanding borrowings drawn down under its credit facilities. The net proceeds from this offering shall be used in accordance with applicable law.

Certain of the Joint Bookrunners and/or their affiliates have and will continue to have additional relationships with the Company as described in "Plan of Distribution". In particular, certain of the Joint Bookrunners and/or their affiliates act as arrangers and lenders under our loan facilities and may receive a portion of the proceeds of the offering of the Bonds in connection with the repayment thereof.

### RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth the Company's ratio of earnings to fixed charges for the periods indicated.

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
EARNINGS/(LOSS)			
Profit/(loss) before taxation (excluding share in			
consolidated profit of associate)	(5,640.2)	(4,984.0)	1,379.9
Add: Fixed charges	1,520.3	1,356.0	1,481.9
Less: Capitalisation of borrowing costs <sup>(1)</sup>	(133.1)	(75.6)	(99.7)
Total Earnings/(Loss)	(4,523.0)	(3,703.6)	2,762.1
FIXED CHARGES <sup>(2)</sup>			
Total interest cost	1,474.3	1,352.7	1,414.9
Unwinding of discount on provisions	36.8	13.5	13.0
Interest on defined benefit arrangements	9.2	10.4	12.4
Gain on buyback of convertible bond		(20.6)	41.6
Total Fixed Charges	1,520.3	1,356.0	1,481.9
Ratio of Earnings to Fixed Charges	_		1.9

<sup>(1)</sup> Amortisation/depreciation on interest capitalised in prior years has not been added back to the earnings/(loss)

<sup>(2)</sup> The interest element of operating lease rentals is immaterial and has not been included in fixed charges.

### CAPITALISATION AND INDEBTEDNESS

The following table sets out the consolidated cash and cash equivalents, capitalisation and indebtedness of the Company as of 31 March 2017:

- (1) on a historical basis; and
- (2) The "as adjusted" data set forth below gives effect to the issuance of the Bonds after deduction of underwriting fees, discounts and commissions and other estimated expenses associated with this offering and the concurrent repurchase of the outstanding ay and all 2019 Bonds and 2021 Bonds through the Tender Offers and repayment of the Company's other existing indebtedness. See "Use of Proceeds" for further details.

This table should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations", "Use of Proceeds" and Annual Financial Statements as at 31 March 2017 prepared in accordance with IFRS as adopted by the EU, the related notes and other financial information contained elsewhere in this Offering Circular.

	As of 31 March 2017	
	Actual	As Adjusted <sup>(1)</sup>
	(\$ million)	
Cash and Cash Equivalents	9,725.2	9,909.8(2)
Share Capital	30.1	30.1
Share premium	201.5	201.5
Treasury shares	(557.9)	(557.9)
Share based payment reserve	28.2	28.2
Hedging reserve	(90.9)	(90.9)
Other reserves	140.5	140.5
Retained earnings	(160.0)	(160.0)
Equity attributable to equity holders of the parent	(408.5)	(408.5)
Non-Controlling interests	6,423.1	6,423.1
Total Equity	6,014.6	6,014.6
Term loans — secured — (repayable < 1 year)	181.9	181.9
Term loans — unsecured — (repayable < 1 year)	1,402.5	1,402.5
Term loans — secured — (repayable > 1 year)	3,320.7	3,320.7
Term loans — unsecured — (repayable > 1 year)	1,690.5	1,690.5
Other borrowings and indebtedness — secured — (repayable < 1 year)	2,249.8	2,249.8
Other borrowings and indebtedness — unsecured — (repayable < 1	2.024.2	2.024.2
year)	3,824.3	3,824,3
Other borrowings and indebtedness — secured — (repayable > 1 year)	1,633.8	1,633.8
Other borrowings and indebtedness — unsecured — (repayable	2.025.2	2 172 0
> 1 year)	3,925.2	3,172.8
Bonds offered hereby		1,000.0
Total Indebtedness	18,228.7	<u>18,476.3</u>
Total Capitalisation	24,243.2	24,490.9

Does not give effect to the term loan facilities availed by Vedanta, as described under "Summary — Recent Developments — Term loan".

Reflects the balance net proceeds after deducting \$807.4 million to be used to pay for the purchase of the 2019 Bonds and the 2021 Bonds in the Tender Offers. The Company will use the balance net proceeds in the manner specified under "Use of Proceeds".

### **EXCHANGE RATES**

Substantially all of Vedanta's revenue is denominated or paid with reference to US dollars and most of Vedanta's expenses are incurred and paid in Indian Rupees, South African Rand and Zambian Kwacha. The Company reports its financial results in US dollars. The exchange rates among the Indian Rupee and the US dollar have changed substantially in recent years and may fluctuate substantially in the future. The results of the Company's operations are affected as the Indian Rupee appreciates or depreciates against the US dollar and, as a result, any such appreciation or depreciation may affect the market price of the Bonds.

The following table sets forth, for the periods indicated, information concerning the exchange rates between Indian Rupees and US dollars based on the RBI Reference Rate for the periods indicated:

	Period End	Average <sup>(1)</sup>	High	Low
Fiscal Year:				
2013	54.39	54.45	57.22	50.56
2014	60.10	60.50	68.36	53.74
2015	62.59	61.15	63.75	58.43
2016	66.33	65.46	68.78	62.16
2017	64.84	67.09	68.73	64.84
Month:				
April 2017	64.22	64.51	65.04	64.00
May 2017	64.55	64.46	64.99	64.02
June 2017	64.73	64.44	64.73	64.25
July 2017 (through 26 July 2017)	64.42	64.51	64.82	64.32

Although the Company has translated selected Indian Rupee amounts in this Offering Circular into US dollars for convenience, this does not mean that the Indian Rupee amounts referred to represent US dollar amounts could have been or could be converted to US dollars at any particular rate, the rates stated above, or at all. Unless otherwise stated herein, all translations in this Offering Circular from Indian Rupee into US dollars are based on the RBI Reference Rate on 31 March 2017 which was Rs. 64.84 = \$1.

<sup>(1)</sup> Represents the average of the RBI Reference Rate on the last day of each month during the period for all fiscal years presented and the average of the RBI Reference Rates for all days during the period for all months presented.

The following table sets forth, for the periods indicated, information concerning the exchange rates between South African Rand and US dollars based on the Noon Buying Rate in New York City for cable transfers in South African Rand as certified by the Federal Reserve Bank of New York:

	$\underline{ \begin{array}{c} Period \ End^{(1)} \end{array} }$	Average <sup>(1)(2)</sup>	High	Low
Fiscal Year:				
2013	9.18	8.55	9.32	7.63
2014	10.53	10.11	11.25	8.90
2015	12.14	11.06	12.47	10.30
2016	14.71	13.75	16.88	11.72
2017	13.41	14.07	15.87	12.44
Month:				
April 2017	13.37	13.44	13.88	12.99
May 2017	13.12	13.26	13.64	12.87
June 2017	13.09	12.89	13.09	12.59
July 2017 (through 21 July 2017)	12.94	13.19	13.60	12.91

Although the Company has translated selected South African Rand amounts in this Offering Circular into US dollars for convenience, this does not mean that the South African Rand amounts referred to represent US dollar amounts or have been, could have been or could be converted to US dollars at any particular rate, the rates stated above, or at all. Unless otherwise stated herein, all translations in this Offering Circular from South African Rand to US dollars are based on the Noon Buying Rate on 31 March 2017 which was Rand 1 = \$13.41.

<sup>(1)</sup> The Noon Buying Rate at each period end and the average Noon Buying Rate for each period may have differed from the exchange rates used in the preparation of financial statements included elsewhere in this Offering Circular.

<sup>(2)</sup> Represents the average of the Noon Buying Rates on the last day of each month during the period for all fiscal years presented and the average of the Noon Buying Rates for all days during the period for all months presented.

The following table sets forth, for the periods indicated, information concerning the exchange rates between Zambian Kwachas and US dollars based on the spot rates provided by Bloomberg:

	Period End(1)	Average <sup>(1)(2)</sup>	High	Low
Fiscal Year:				
2013	5,366	5,169	5,420	4,725
2014	6.386	6160	7.042	5.467
2015	11.000	8.653	14.250	6.377
2016	9.875	10.335	11.390	9.260
2017	9.665	9.940	11.005	9.260
Month:				
April 2017	9.312	9.450	9.675	9.302
May 2017	9.237	9.266	9.340	9.165
June 2017	9.142	9.256	9.358	9.142
July 2017 (through 24 July 2017)	8.848	8.965	9.163	8.768

Although the Company has translated selected Zambian kwacha amounts in this Offering Circular into US dollars for convenience, this does not mean that the Zambian kwacha amounts referred to represent US dollar amounts or have been, could have been or could be converted to US dollars at any particular rate, the rates stated above, or at all. Unless otherwise stated herein, all translations in this Offering Circular from Zambian kwachas to US dollars are based on the spot rates provided by Bloomberg on 31 March 2017, which was ZMW 9.665 per \$1.00.

<sup>(1)</sup> The last price at each period end and the average last price for each period may have differed from the exchange rates used in the preparation of financial statements included elsewhere in this Offering Circular.

<sup>(2)</sup> Represents the average of the last price on the last day of each month during the period for all fiscal years presented and the average of the last price for all days during the period for all months presented.

<sup>(3)</sup> Zambian Kwacha was rebased with effect from 1 January 2013. As a result the currency code for Zambian Kwacha changed from ZMK to ZMW and the currency value was divided by 1,000. The exchange rates for fiscal 2013 given above are as per the earlier currency values.

### SELECTED CONSOLIDATED FINANCIAL INFORMATION

The following tables present the selected historical consolidated financial information for the Company for the periods ended and at the dates indicated below. The selected historical consolidated financial information as of and for fiscal years ended 2015, 2016 and 2017 been derived from the consolidated financial statements included elsewhere in this Offering Circular. The Company's annual consolidated financial statements have been prepared and presented in accordance with IFRS as adopted by the EU.

You should read the following information in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations", the Annual Financial Statements and the notes thereto included elsewhere in this Offering Circular.

### **Consolidated Income Statement**

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
Continuing operations			
Revenue	12,878.7	10,737.9	11,520.1
Cost of sales	(10,463.9)	(9,241.1)	(8,789.2)
Gross profit	2,414.8	1,496.8	2,730.9
Other operating income	104.0	101.7	73.4
Distribution costs	(245.2)	(223.8)	(274.9)
Administrative expenses	(538.1)	(493.5)	(368.8)
Special Items	(6,744.2)	(5,210.1)	(17.3)
Operating (loss)/profit	(5,008.7)	(4,328.9)	2,143.3
Investment revenue	832.6	697.8	642.6
Finance costs	(1,387.2)	(1,280.4)	(1,382.2)
Other gains and (losses) (net)	(76.9)	(72.5)	(23.8)
Profit/(Loss) before taxation	(5,640.2)	(4,984.0)	1,379.9
Tax credit/(charge) special items	2,205.1	1,737.4	(4.9)
Tax expense - others	(352.6)	(255.5)	(495.4)
Profit/(Loss) for the year	(3,787.7)	<u>(3,502.1)</u>	<u>879.6</u>
Attributable to:			
Equity holders of the parent	(1,798.6)	(1,837.4)	(22.7)
Non-controlling interests	(1,989.1)	(1,664.7)	902.3
Profit/(Loss) for the year	(3,787.7)	(3,502.1)	879.6
Basic earnings per ordinary share	(654.5)	(665.8)	(8.2)
Diluted earnings per ordinary share	(654.5)	(665.8)	(8.2)

### **Consolidated Balance Sheet**

	As of 31 March		
	2015	2016	2017
		(\$ million)	
ASSETS			
NON-CURRENT ASSETS			
Goodwill	16.6	16.6	16.6
Intangible assets	101.9	92.2	95.6
Property, plant and equipment	23,352.0	16,647.8	16,806.1
Financial asset investments	4.2	6.5	10.7
Non-current tax assets	394.0	361.7	434.6
Other non-current assets	156.0	237.9	544.4
Financial instruments (derivatives)	0.2	0.8	0.6
Deferred tax assets	1,252.6	1,255.4	1,111.0
	25,277.5	18,618.9	19,019.6
C112 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			
CURRENT ASSETS	1 605 7	1.265.0	1 (50 1
Inventories	1,605.7	1,365.8	1,670.1
Trade and other receivable	1,839.2	1,344.3	1,084.8
Financial instruments (derivatives)	16.6	18.3	1.6
Current tax assets	40.1	35.5	2.1
Liquid investments	7,856.1	8,508.2	8,043.0
Cash and cash equivalents	353.7	428.3	1,682.2
	11,711.4	11,700.4	12,483.8
TOTAL ASSETS	<u>36,988.9</u>	30,319.3	31,503.4
LIABILITIES			
CURRENT LIABILITIES			
Short term borrowings	(3,179.2)	(3,726.6)	(7,658.5)
Convertible bonds	_	(587.2)	_
Trade and other payables	(4,730.0)	(5,876.1)	(6,223.4)
Financial instruments (derivatives)	(45.7)	(67.7)	(126.9)
Retirement benefits	(12.7)	(4.9)	(7.5)
Provisions	(140.8)	(132.1)	(17.5)
Current tax liabilities	(74.2)	(17.0)	(37.8)
	(8,182.6)	(10,411.6)	(14,071.6)
NET CURRENT ASSETS/(LIABILITIES)	3,528.8	1,288.8	(1,587.8)

	As of 51 Water		
	2015	2016	2017
		(\$ million)	
NON-CURRENT LIABILITIES			
Medium and long term borrowings	(12,385.6)	(11,949.5)	(10,570.2)
Convertible bonds	(1,103.0)	_	_
Trade and other payables	(194.3)	(223.5)	(68.5)
Financial instruments (derivatives)	(0.1)	(1.2)	(8.6)
Deferred tax liabilities	(2,588.7)	(620.2)	(371.1)
Retirement benefits	(61.9)	(61.6)	(59.6)
Provisions	(203.4)	(187.4)	(327.3)
Non-equity non-controlling interests	(11.9)	(11.9)	(11.9)
	(16,548.9)	(13,055.3)	(11,417.2)
TOTAL LIABILITIES	(24,731.5)	(23,466.9)	(25,488.8)
NET ASSETS	12,257.4	6,852.4	6,014.6
EQUITY			
Share capital	30.0	30.1	30.1
Share premium	198.5	201.5	201.5
Treasury shares	(556.9)	(557.2)	(557.9)
Share based payment reserve	27.4	29.9	28.2
Convertible bond reserve	38.4	6.0	_
Hedging reserve	(74.7)	(87.7)	(90.9)
Other reserves	339.9	(1.4)	140.5
Retained earnings	1,600.5	(334.0)	(160.0)
Equity attributable to equity holders of the parent	1,603.1	(712.8)	(408.5)
Non-controlling interests	10,654.3	7,565.2	6,423.1
TOTAL EQUITY	12,257.4	6,852.4	6,014.6

As of 31 March

### **Consolidated Cash Flow Statement**

	Fiscal	Fiscal year Ended 31 March			
	2015	2016	2017		
		(\$ million)			
Operating activities					
Profit (Loss) before taxation	(5,640.2)	(4,984.0)	1,379.9		
Adjustments for:					
Depreciation and amotisation	2,005.7	1,455.2	1,030.5		
Investment revenues	(832.6)	(697.8)	(642.6)		
Finance costs	1,387.2	1,280.4	1,382.2		
Other gains and (losses) (net)	76.9	72.5	23.8		
(Profit)/Loss on disposal of property plant and equipment	4.6	1.5	5.2		
Write-off of unsuccessful exploration costs	128.7	4.5	6.5		
Share based payment charge	28.6	15.6	13.4		
Impairment charge	6,694.4	5,187.0	17.3		
Other non-cash items	40.8	2.7	3.5		
Operating cash flows before movements in working					
capital	3,894.1	2,337.6	3,219.7		
(Increase)/decrease in inventories	40.0	163.7	(266.7)		
(Increase)/decrease in receivables	(134.5)	343.3	18.8		
Increase in payables	225.2	657.4	522.3		
Cash generated from operations	4,024.8	3,502.0	3,494.1		
Dividends received	0.3	0.3	0.1		
Interest income received	587.7	633.1	298.0		
Interest paid	(1,334.0)	(1,268.4)	(1,417.5)		
Income taxes paid	(601.7)	(354.7)	(778.7)		
Dividends paid	(171.3)	(110.6)	(138.4)		
Net cash inflow from operating activities	2,505.8	2,401.7	1,457.6		

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
Purchases of property, plant, equipment and intangibles	(2,289.1)	(872.4)	(873.9)
Proceeds on disposal of property, plant and equipment	25.7	10.0	25.2
Sale/(purchase) of liquid investments	671.7	(999.9)	921.5
Sale of financial asset investments	_	_	_
Net cash used in investing activities	(1,591.7)	(1,862.3)	72.8
Cash flows from financing activities			
Issue of ordinary shares	0.2	0.1	0.0
Purchase of shares under DSBP scheme	_	(0.9)	(2.0)
Dividends paid to non-controlling interests of subsidiaries	(340.4)	(325.5)	(1,393.3)
Acquisition of additional interests in subsidiaries/share			
buyback by subsidiary	(819.1)	_	(18.5)
(Decrease)/increase in short-term borrowings	(818.8)	(1,022.1)	578.9
Proceeds from medium and long-term borrowings	3,748.1	2,383.2	2,146.4
Repayment of medium and long-term borrowings	(2,698.0)	(958.0)	(1,064.4)
Buyback/Repayment of convertible bond		(523.6)	(590.3)
Net cash from/(used in) financing activities	(928.0)	(446.8)	(343.2)
Net increase in cash and cash equivalents	(13.9)	92.6	1,187.20
Effect of foreign exchange rate changes	(1.8)	(18.0)	66.7
Cash and cash equivalents at beginning of year	369.4	353.7	428.3

Cash and cash equivalents at end of year .....

353.7

428.3

1,682.2

Proceeds from redemption/purchase of liquid investments as well as proceeds from and repayment of short term borrowings have been presented on a net basis.

# Consolidated Business Segments Data

	Fiscal year Ended 31 March		
	2015	2016	2017
		(\$ million)	
External revenues:			
Oil and gas	2,397.5	1,322.3	1,222.7
Zinc			
— India	2,357.0	2,111.0	2,521.9
— International	586.9	391.5	332.4
Copper			
— India/Australia	3,682.7	3,196.8	3,131.4
— Zambia	883.5	966.7	830.1
Iron ore	311.4	341.8	609.3
Aluminium	2,078.1	1,692.3	2,037.1
Power	552.8	691.7	822.6
Others	28.8	23.8	12.6
Total	12,878.7	10,737.9	11,520.1
Vedanta EBITDA (1)			
Oil and gas	1,476.8	570.4	597.2
Zinc			
— India	1,192.5	995.0	1,423.2
— International	180.8	68.1	138.3
Copper			
— India/Australia	281.0	336.6	252.2
— Zambia	(3.8)	(17.9)	5.9
Iron ore	31.4	73.4	194.2
Aluminium	415.5	106.7	344.2
Power	153.8	196.3	244.8
Others	13.2	7.8	(8.9)
Total	3,741.2	2,336.4	3,191.1
Other Data and Ratios			
Net Debt/Capitalisation (%)	40.8%	51.7%	58.6%
Interest Coverage Ratio (Times)	6.6	3.9	4.0
Net Debt/Vedanta EBTIDA (1) Times	2.3	3.1	2.7
Debt/Vedanta EBITDA <sup>(1)</sup> (Time)	4.5	7.0	5.7

<sup>(1)</sup> Vedanta EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax. The Company's Vedanta EBITDA may not be comparable to similarly titled measures reported by other companies due to potential inconsistencies in the method of calculation. The Company has included its Vedanta EBITDA because the Company believes it is an indicative measure of its operating performance and is used by investors and analysts to evaluate companies in the same industry. The Company's Vedanta EBITDA should be considered in addition to, and not as a substitute for, other measures of financial performance and liquidity reported in accordance with IFRS. The Company believes that the inclusion of supplementary adjustments applied in its presentation of Vedanta EBITDA are appropriate because the Company believes it is a more indicative measure of its baseline performance as it excludes certain charges that the Company's management considers to be outside of its core operating results. In addition, the Company's Vedanta EBITDA is among the primary indicators that its management uses as a basis for planning and forecasting of future periods. The following table reconciles profit for the year on a consolidated basis to Vedanta EBITDA.

	2015	5 2016 (\$ million)	2017
•			
Profit (Loss) for the year	(3,787.7)	(3,502.1)	879.6
Adjustments for:			
Net tax expense/credit	(1,852.5)	(1,481.9)	500.3
Other gains & losses (net)	76.9	72.5	23.8

1,387.2

2,005.1

6,744.2

3,741.2

(832.6)

Fiscal year Ended 31 March

1,280.4

1,455.2

5,210.1

2,336.4

(697.8)

1,382.2

1,030.5

3,191.1

17.3

(642.6)

Special Items are disclosed in Note 5 to the Annual Financial Statements. Special Items include Impairment of oil & gas assets, Impairment of mining reserves and assets, Voluntary retirement schemes, Provision for receivables, Provision for investment in coal blocks, Acquisition and restructuring related costs, Provision for contractor dispute, Land regularisation fees and special tax items.

Finance costs .....

Investment revenue ..... Depreciation and amortisation .....

Special items<sup>(1)</sup> .....

Vedanta EBITDA

# MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of the financial condition and results of operations of Vedanta should be read in conjunction with the Annual Financial Statements herein and with the information relating to the business of Vedanta included elsewhere in this Offering Circular. This discussion involves forward-looking statements that reflect the current view of management and involve risks and uncertainties. The actual results of Vedanta could differ materially from those contained in any forward-looking statements as a result of factors discussed below and elsewhere in this Offering Circular, particularly in "Risk Factors." Investors should read the whole of this Offering Circular and not rely just on summarised information.

The Annual Financial Statements for Vedanta have been prepared in accordance with IFRS as adopted by the EU.

#### Introduction

#### Overview

Vedanta is an LSE-listed globally diversified metals and mining, oil and gas and power generation company. Its businesses are principally located in India, one of the fastest growing large economies in the world with a 7.1% increase in GDP during fiscal 2017 (at constant (2011-12) prices), according to the Central Statistical Organisation of the GoI's Ministry of Statistics and Programme Implementation. In addition, Vedanta has assets and operations in jurisdictions such as Zambia, Namibia, South Africa and UAE a workforce of 70,000 people worldwide. Vedanta is primarily engaged in oil and gas, zinc, copper, iron ore, aluminium and commercial power generation businesses and is also developing port operation businesses and infrastructure assets. Vedanta has experienced significant growth in recent years through the ramp up of expansion projects for its oil and gas, copper, zinc, aluminium and iron ore businesses.

The board of directors of Vedanta Limited and Cairn India, on 14 June 2015, announced the merger of Cairn India with Vedanta Limited pursuant to the Scheme. The Scheme was sanctioned by the Mumbai Bench of the National Company Law Tribunal on 23 March 2017 and an in-principle approval was granted by the Ministry of Petroleum and Natural Gas, GoI on 27 March 2017. Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the fiscal 2017. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017. As per the terms of the scheme, upon the merger becoming effective, non-controlling i.e. public shareholders of Cairn India Limited received, one equity share in Vedanta Limited of face value Re 1 each and four 7.5% Redeemable Preference Shares in Vedanta Limited with a face value of Rs. 10 each for each equity share held in Cairn India Limited. No shares were issued to Vedanta Limited or any of its subsidiaries for their shareholding in Cairn India Limited. At 31 March 2017, Vedanta held equity interests in Vedanta Limited of 50.1%. Vedanta believes its experience in operating and expanding its businesses in India will allow it to capitalise on attractive growth opportunities arising from India's large mineral reserves, relatively low cost of operations and large and inexpensive labour and talent pools.

Vedanta has the ability to manage and increase the dividend payments from the operating subsidiaries it controls when there are sufficient distributable reserves. For fiscal year 2017, HZL declared a dividend of Rs. 124,224 million (US\$1,915.9 million), and Vedanta Limited declared a dividend of Rs. 70,989 million (US\$1,094.8 million) (all of which exclude taxes on dividends).

Vedanta's Operating profit was at \$2,143.3 million in fiscal year 2017 compared to a loss of \$4,328.9 million in fiscal year 2016. Revenue and operating profit before special items increased from \$10,737.9 million and \$881.2 million, respectively, in fiscal year 2016, to \$11,520.1 million and \$2,160.6 million, respectively, in fiscal year 2017, driven by firmer commodity prices; the ramp-up at our Aluminium and Power businesses, higher volumes at Iron Ore and cost efficiencies across businesses.

Vedanta EBITDA changed from \$3,741.2 million in fiscal year 2015 to \$2,336.4 million in fiscal year 2016 and \$3,191.1 million in fiscal year 2017. An operating loss of \$4,328.9 million in fiscal year 2016 increased to an operating profit of \$2,143.3 million in fiscal year 2017 driven by prior year impairment charges of US\$5.2 billion predominantly related to Cairn India.

The following table sets out the Vedanta EBITDA for each of Vedanta's business segments as set out in Note 3 to the Annual Financial Statements.

	Fiscal	March	
	2015	2016	2017
		(\$ million)	
Vedanta EBITDA <sup>(1)</sup> :			
Oil and gas business	1,476.8	570.4	597.2
Zinc			
— India	1,192.5	995.0	1,423.2
— International	180.8	68.1	138.3
Copper			
— India/Australia	281.0	336.6	252.2
— Zambia	(3.8)	(17.9)	5.9
Iron ore	31.4	73.4	194.2
Aluminium	415.5	106.7	344.2
Commercial power generation	153.8	196.3	244.8
Others	13.2	7.8	(8.9)
Total	3,741.2	2,336.4	3,191.1

<sup>(1)</sup> Vedanta EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax. Vedanta EBITDA may not be comparable to similarly titled measures reported by other companies due to potential inconsistencies in the method of calculation. Vedanta EBITDA has been included because Vedanta believes it is an indicative measure of its operating performance and is used by investors and analysts to evaluate companies in the industry. Vedanta EBITDA should be considered in addition to, and not as a substitute for, other measures of financial performance and liquidity reported in accordance with IFRS. Vedanta believes that the inclusion of supplementary adjustments applied in its presentation of Vedanta EBITDA.

Fiscal year Ended 31 March

	2015	2016	2017
		(\$ million)	
Profit for the year	(3,787.7)	(3,502.1)	879.6
Adjusted for:			
Tax expense	(1,852.5)	(1,481.9)	500.3
Other gains & losses (net)	76.9	72.5	23.8
Finance costs	1,387.2	1,280.4	1,382.2
Investment revenue	(832.6)	(697.8)	(642.6)
Special Items <sup>(1)</sup>	6,744.2	5,210.1	17.3
Depreciation and amortisation	2,005.7	1,455.2	1,030.5
Vedanta EBITDA	3,741.2	2,336.4	3,191.1

#### Oil and gas

Vedanta's oil and gas business is owned and operated by Cairn India, one of the largest independent oil and gas exploration and production companies and the largest private sector producer of crude oil in India. Cairn India Group has a diversified asset base with seven blocks: one in Rajasthan, one on the west coast of India, four on the east coast of India, and one in South Africa.

Revenue from Vedanta's oil and gas business decreased from \$1,322.3 million in fiscal year 2016 to \$1,222.7 million in fiscal year 2017 mainly due to lower production volumes. Gross oil and gas production was 77.3 mboe, 74.6 mboe and 69.3 mboe, and working interest production was 48.4 mboe, 46.9 mboe and 44.2 mboe, respectively in the fiscal years 2015, 2016 and 2017. Reduction in fiscal year 2017 was primarily due to natural decline in Ravva & Cambay Blocks, reservoir underperformance at Bhagyam and Aishwariya fields and planned maintenance shutdown at MPT in November 2016 which was partially offset by the successful execution of the polymer Enhanced oil recovery (EOR) project at Mangala and the maximisation of liquid handling capacity.

## Zinc

Vedanta's zinc business is divided into two segments, namely (i) the fully integrated India zinc business, comprising HZL's mining and production operations, and (ii) the international zinc business, also referred to as "Zinc International," comprising mainly mining operations in Namibia, South Africa and Ireland. Vedanta's zinc mining operations in Ireland are no longer in operation due to the mine's closure in December, 2015.

Vedanta's total zinc and lead production decreased from 985,886 tonnes in fiscal year 2016 to 896,424 tonnes in fiscal year 2017. However, revenue of Vedanta's zinc business increased from \$2,502.5 million in fiscal year 2016 to \$2,857.4 million in fiscal year 2017, mainly driven by improved LME prices of zinc, lead and silver. The LME price for zinc increased from \$1,829 per tonne in fiscal year 2016 to \$2,368 per tonne in fiscal year 2017. The LME price for Lead increased from \$1,768 per tonne in fiscal year 2016 to \$2,005 per tonne in fiscal year 2017. The LME price for silver increased from \$15.2 per ounce in fiscal year 2016 to \$17.8 per ounce in fiscal year 2017.

<sup>(1)</sup> Special Items are disclosed in Note 5 to the Annual Financial Statements. During the fiscal year 2017, Group has recognised US\$29.9 million impairment charge relating to certain old items of capital work-in-progress at the Alumina refinery operations partly offset by impairment reversal of US\$12.6 million relating to Rajasthan block. Special Items in fiscal year 2016 and fiscal year 2015 primarily relates to impairment charge in Oil & Gas business.

The production was lower at Zinc India due to lower availability of mined metal in first half of the year due to cyclical pattern of the Rampura Agucha open cast mine. Substantially higher mined metal production in second half of the year resulted in accretion of inventory, leaving 80 thousand tonnes closing stock at year end which will get converted into refined metal in fiscal year 2018. Production at the Lisheen mine decreased from 81 thousand tonnes in fiscal year 2016 to Nil in fiscal year 2017, due to its closure in December 2015.

#### India Zinc Business

Vedanta's fully integrated India zinc business is owned and operated by HZL. As of 31 March 2017, Vedanta controls HZL through its 50.1% ownership interest in Vedanta Limited, which owns 64.9% of the share capital in HZL. The remainder of HZL is owned by GoI (29.5%) and institutional and public shareholders (5.6%). HZL's business includes five zinc-lead mines, one rock phosphate mine, four hydro metallurgical zinc smelters, two lead smelters, one zinc-lead smelter, seven sulphuric acid plants, one silver refinery and six captive power plants in the State of Rajasthan in northwest India. Additionally, HZL has processing and refining facilities for zinc at Haridwar and for zinc, lead and silver at Pantnagar, both in the State of Uttarakhand in northern India.

Vedanta's India zinc total metal production decreased from 903,857 tonnes in fiscal year 2016 to 810,997 tonnes in fiscal year 2017 due to lower availability of mined metal in first half of the year caused by cyclical pattern of the Rampura Agucha open cast mine. Revenue of Vedanta's India zinc business increased from \$2,111.0 million in fiscal year 2016 to \$2,525.0 million in fiscal year 2017 due to improved LME prices of zinc, lead and silver partly offset by the decrease in production.

#### International Zinc Business

As of 31 March 2017, Vedanta's international zinc business comprises (i) 100% ownership by Vedanta Limited of Skorpion, which owns the Skorpion mine and refinery in Namibia, (ii) 74% stake ownership by Vedanta Limited in Black Mountain Mining, which owns the Black Mountain mine and the Gamsberg project, in South Africa, and (iii) 100% ownership by Vedanta Limited of Lisheen, which owns the Lisheen mine in Ireland. The mine in Ireland is no longer in operation due to its closure in December 2015.

Vedanta's international zinc total metal production decreased from 225,966 tonnes in fiscal year 2016 to 155,905 tonnes in fiscal year 2017 due to the closure of Lisheen mine in December 2015. Production at Skorpion and BMM was higher by 3 thousand tonnes and 7 thousand tonnes respectively driven by better grades and recoveries. Revenue from the international zinc business was \$332.4 million in fiscal year 2017, a decrease of \$59.1 million, or 15.1%, from \$391.5 million in fiscal year 2016.

#### Copper

#### Overview

Vedanta's copper business comprises three major operations divided into two segments, namely (i) the India and Australia copper business, comprising Vedanta Limited's custom smelting operations in India and CMT's mining operations in Australia, which is currently suspended and is under care and maintenance since July 2014, and (ii) the Zambia copper business, comprising KCM's mining and smelting operations in Zambia. Vedanta's primary products in these business segments are copper cathodes and copper rods.

Vedanta's total copper cathode production has increased from 565,720 tonnes in fiscal year 2016 to 582,567 tonnes in fiscal year 2017, representing an annual growth rate of 3%, and its total copper rod production decreased from 210,800 tonnes in fiscal year 2016 to 207,530 tonnes in fiscal year 2017. Revenue of Vedanta's total copper business decreased from \$4,169.7 million in fiscal year 2016 to \$4,008.0 million in fiscal year 2017, due to decrease in copper prices partially offset by increase in production.

#### India and Australia Copper Business

In India, Vedanta Limited is one of only two custom copper smelters with a primary market share of 36% by sales volume in fiscal year 2017, according to the International Copper Promotion Council, India. Vedanta Limited's copper operations include a smelter, refinery, phosphoric acid plant, sulphuric acid plant, copper rod plant and three captive power plants at Tuticorin in southern India, a refinery and two copper rod plants at Silvassa in western India, a precious metal refinery that produces gold and silver, a doré anode plant, and a copper rod plant at Fujairah in the UAE. As of 31 March 2017, Vedanta owns 50.1% of the Copper India business through its holding in Vedanta Limited.

Vedanta Limited's wholly owned subsidiary, CMT, owns a copper mine in Tasmania, Australia, which is suspended and is under care and maintenance since July 2014.

#### Zambia Copper Business

KCM is largely an integrated copper producer with various facilities at Konkola, Nchanga, Nkana and Nampundwe, Zambia including mines, concentrators, smelters, acid plants, a tailings leach plant ("TLP") and a refinery. As of 31 March 2017, Vedanta owned 79.4% of the share capital of KCM. The remaining 20.6% was owned by ZCCM Investments Holdings Plc, a Lusaka and Euronext listed company which is 77.53% owned by the Zambian Government and 22.47% publicly held.

#### Iron Ore

Vedanta's iron ore business is owned and operated by Vedanta Limited, India's largest exporter of iron ore in the private sector by volume since 2003, according to the Federation of Indian Mineral Industries.

Vedanta also owns iron ore assets in Liberia, comprising WCL. The Ebola epidemic in Liberia resulted in stoppage of drilling and exploration work for iron ore during fiscal year 2015 and the staff had to be evacuated. In consideration of the suspension of exploration in Liberia, low iron ore prices, geo-political factors and no plans for any substantive expenditure resulting in continued uncertainty in the project, an impairment charge of \$227.5 million was recognised in fiscal year 2016. Vedanta Limited is in discussions with the government to extend the Mineral Development Agreement to make this project more sustainable.

Vedanta's total saleable iron ore production was 0.6 million dmt in fiscal year 2015, 5.2 million dmt in fiscal year 2016 and 10.9 million dmt in fiscal year 2017. Revenue increased from \$350.0 million in fiscal year 2016 to \$615.4 million in fiscal year 2017 due to higher volumes at Goa operations.

# Aluminium

Vedanta's aluminium business is in Chhattisgarh and Odisha. Vedanta operates the business in the state of Chhattisgarh through BALCO, and aluminium operations in Odisha is a division of Vedanta Limited. Vedanta's primary products in this business segment are aluminium ingots, wire rods, billet and rolled products.

BALCO's operations include two bauxite mines, three captive power plants and, smelting and fabrication facilities in central India. Vedanta Limited's operations include two aluminium smelter and two captive power plants at Jharsuguda and an alumina refinery and a captive power plant at Lanjigarh in the State of Odisha in eastern India.

Mining operations in Niyamgiri Hills have been on hold since 20 October 2010, because the environmental approval was rendered non-operational by the MoEF. On 20 November 2015, the MOEF granted environmental clearance for the expansion of the alumina refinery up to 4 MTPA and environmental clearance up to 6 MTPA will be received as an amendment to existing environmental clearance after the completion of the land acquisition of the balance area of 666.03 HA. Further, consent to establish 6 MTPA and consent to operate 2 MTPA have also been obtained. However the environmental clearance for the expansion of the alumina refinery at Lanjigarh was challenged by an individual, Prafulla Samantra, before the National Green Tribunal, where the MoEF, the Odisha State Pollution Control Board and Vedanta Limited have been made parties, in November 2015.

As of 31 March 2017, Vedanta controls BALCO through its 50.1% ownership interest in Vedanta Limited. Vedanta Limited owns a 51.0% ownership interest in BALCO. The remainder is owned by the GoI. Vedanta has a 50.1% ownership interest in Vedanta's aluminium operations in the state of Odisha, which is a division of Vedanta Limited.

Vedanta's total aluminium ingot production increased from 923,343 tonnes of aluminium in fiscal year 2016 to 1,213,402 tonnes in fiscal year 2017, representing an annual growth rate of 31.4%. Revenues from Vedanta's aluminium business increased from \$1,694.3 million in fiscal year 2016 to \$2,040.0 million in fiscal year 2017 due to an increase in LME prices of aluminium and volume ramp-up which was partially offset by pot failure incident at Balco and Vedanta Aluminium in the fiscal year 2017.

#### Commercial Power Generation

Vedanta's commercial power generation business in India is comprised of the operations of Vedanta Limited, TSPL, MEL and wind power plants operated by HZL.

Vedanta owns and operates several commercial power plants, namely Vedanta Limited's 600 MW coal-based thermal power plant in Jharsuguda, MEL's 106.5 MW coal-based thermal power plant in Mettur Dam, HZL's wind power plants in Gujarat, Karnataka, Maharashtra, Tamil Nadu and Rajasthan aggregating 274.2 MW, BALCO's 600 MW coal-based thermal power plant and TSPL's 1,980 MW coal-based thermal power plant at Talwandi Sabo.

The three units of 600 MW each of coal-based thermal power plants in Jharsuguda have been converted from commercial power plants to captive power plants from 1 April 2016 and is now part of the aluminium business.

Sales of units of power increased from 12,121 million units in fiscal year 2016 to 12,916 million units of power in fiscal year 2017, representing an annual growth rate of 6.6%. The increase in sales drove revenue from Vedanta's commercial power generation business from \$707.5 million in fiscal year 2016 to \$835.9 million in fiscal year 2017, partially offset by a decrease in power sale realisations.

## Factors Affecting Vedanta's Results of Operations

Vedanta's results of operations are primarily affected by commodity prices, costs of production and efficiency, production output and mix, government policy in India and Zambia and exchange rates. Each of these key factors is discussed below.

Generally, the metals Vedanta sells in India are sold at a premium to the LME market price due to a number of factors, including the customs duties levied on imports by the GoI, the costs to transport metals to India and regional market conditions. See "— Indian Government Policy". As a result, Vedanta endeavours to sell as large a quantity of its products as possible in India.

Vedanta has historically engaged in hedging strategies to a limited extent to partially mitigate its exposure to fluctuations in commodity prices, as further described in "Market Risk Disclosure — Commodity Price Risk".

#### Commodity Prices

Vedanta's results of operations are significantly affected by the commodity prices of the natural resources that Vedanta produces, which are based on LME prices of metals produced, benchmark prices of oil, gas and iron ore and by the TcRc of Vedanta's copper business. While natural resource producers are unable to influence the commodity or benchmark prices directly, events such as changes in copper smelting or commodity production capacities, temporary price reductions or other attempts to capture market share by individual natural resources producers, including by Vedanta, may have an effect on market prices.

Moreover, the prices realised by Vedanta can, to some extent, be affected by the particular terms Vedanta is able to negotiate for the contractual arrangements it enters into with buyers. Price variations and market cycles have historically influenced, and are expected to continue to influence, Vedanta's financial performance. During fiscal year 2017, firmer commodity prices positively impacted the revenue and operating profit of Vedanta.

#### Crude oil and natural gas

Fiscal Year 2017 saw a substantial recovery in crude oil prices compared with the record lows at the beginning of the calendar year 2016. The Brent crude oil price averaged at US\$48.6 per barrel in fiscal year 2017 compared to US\$47.5 per barrel in fiscal year 2016. The year marked the landmark deal wherein the Organisation of the Petroleum Exporting Countries (OPEC) surprised the market by announcing a production cut of 1.2 million barrels a day, for the first time since 2008. This action by OPEC signalled a return to focus on active market management in order to stabilise crude oil prices.

The following table sets out the price of Dated Brent, an international benchmark oil blend, according to Platts, McGraw Hill Financial ("Platts"), as of 31 March 2015, 2016 and 2017:

<u>-</u>	As of 31 March			
-	2015	2016	2017	_
		(\$ per barrel)		
	85.4	47.5	48.6	

## Zinc

The revenue of Vedanta's zinc business fluctuates based on the volume of sales and the LME price of zinc and lead and LBMA price for silver. Vedanta's India zinc business is fully integrated, so its profitability is dependent upon the difference between the LME price of zinc, lead and silver and the cost of production, which includes the costs of mining and smelting.

The following table sets out the daily average zinc, lead and silver LME prices for each of fiscal years 2015, 2016 and 2017:

_	Year Ended 31 March		
_	2015	2016	2017
	(\$ per tonne, except for silver which		
		\$/ounce)	
Zinc LME	2,177	1,829	2,368
Lead LME	2,021	1,768	2,005
Silver LBMA	18.1	15.2	17.8

#### Copper

The revenue of the copper India business fluctuates based on the volume of sales and the LME price of copper. Vedanta's copper India business is custom smelting and refining. As a result, Vedanta Limited's profitability is significantly dependent upon the market rate of the TcRc. Vedanta Limited purchases copper concentrate at an LME-linked copper price for the relevant quotation period less a TcRc that it negotiates with its suppliers but which is influenced by the prevailing market rate for the TcRc. The market rate for the TcRc is significantly dependent upon the availability of copper concentrate, worldwide copper smelting capacity and transportation costs. The TcRc that Vedanta Limited is able to negotiate is also substantially influenced by the TcRc terms established by certain large Japanese custom smelters. The profitability of Vedanta's copper India business is thus dependent upon the amount by which the TcRc Vedanta Limited is able to negotiate exceeds its smelting and refining costs. The profitability of Vedanta's copper India operations is also affected by the prices it receives upon the sale of by-products, such as sulphuric acid and precious metals, which are generated during the copper smelting and refining process. The prices Vedanta receives for by-products can vary significantly, including as a result of changes in supply and demand and local market factors in the location the by-product is produced. See "Risk Factors — Risks Relating to Business — Vedanta's businesses currently depend upon third party suppliers for a substantial portion of its raw material requirements and their segment results and segment margins depend upon the market prices for such raw materials".

The following table sets out the average TcRc that Vedanta's Copper India business realised for each of fiscal years 2015, 2016 and 2017:

_	Year Ended 31 March			
_	2015	2016	2017	
	(US cents per lb)			
Copper TcRc	21.4	24.1	22.4	

The LME price of copper significantly affects the revenues and profitability of KCM's copper business as it is fully integrated.

The following table sets out the daily average copper LME price for each of fiscal years 2015, 2016 and 2017:

	Year Ended 31 March			
_	2015	2016	2017	
		(\$ per tonne)		
Copper LME	6,558	5,211	5,152	

The revenue of Vedanta's aluminium business fluctuates based on the volume of sales and the LME price of aluminium. In fiscal year 2017, 54% of BALCO's alumina requirement and 48.2% of Vedanta Limited's alumina requirement came from third parties, with the rest supplied by Vedanta's alumina refinery at Lanjigarh. For the portion of Vedanta's aluminium business where the required alumina is sourced internally, profitability is dependent upon the LME price of aluminium less the cost of production, which includes the costs of bauxite mining at BALCO's mines, the refining of bauxite into alumina at Vedanta's aluminium refinery and the smelting of alumina into aluminium. For the portion of the aluminium business where alumina is sourced from third parties, profitability is dependent upon the LME price of aluminium less the cost of the sourced alumina and the cost of smelting. See "Risk Factors — Risks Relating to Business — Vedanta's businesses currently depend upon third party suppliers for a substantial portion of its raw material requirements and their segment results and segment margins depend upon the market prices for such raw materials".

The following table sets out the daily average aluminium LME prices for each of fiscal years 2015, 2016 and 2017:

_	Year Ended 31 March		
_	2015	2016	2017
		(\$ per tonne)	
Aluminium LME	1,890	1,590	1,688

Iron ore

The revenue of the iron ore business fluctuates based on the volume of sales and the market price of iron ore. Vedanta sells iron ore under long-term price contracts as well as under ruling spot prices. The prices for iron ore are significantly dependent upon the global and regional imbalances between the demand for and supply of iron ore, worldwide steel-making capacity and transportation costs. Long-term contract prices fluctuate based on the expected supply of and demand for iron ore and the expected steelmaking capacity for a period exceeding one year or more, whereas spot prices fluctuate based on short term imbalances between demand and supply. Every quarter, Vale, Rio Tinto plc ("Rio Tinto") and BHP Billiton negotiate with major steel manufacturers and set a benchmark price upon which the rest of the world bases its pricing.

# Production Costs and Efficiency

The results of operations of Vedanta are, to a significant degree, dependent upon its ability to efficiently run its operations and maintain low costs of production. Efficiencies relating to recovery of metal from ore, process improvements, by-product management and increasing productivity help drive costs down. Costs associated with mining and metal production include energy costs, ore extraction and processing costs at the captive mines, labour costs and other manufacturing expenses.

The cost of production also includes the cost of alumina for Vedanta's aluminium business. It does not include the cost of copper concentrate for Vedanta's copper business, though such cost is included in its cost of sales.

In the oil and gas business, production costs consist of expenditure incurred towards the production of crude oil and natural gas including statutory levies, such as cess, royalties and production payments payable pursuant to the PSCs as well as operational expenditures such as costs relating to repairs on, and maintenance of, facilities, power generation and fuel for such facilities, water injection, insurance, and storage, transportation and freight of crude oil and natural gas, among others.

Energy cost is the most significant component of the cost of production of Vedanta's metal production businesses. Most of Vedanta's power requirements are met by captive power plants which are primarily coal-fuelled. Thermal coal, diesel fuel and fuel oil, which are used to operate Vedanta's power plants, and metallurgical coke, which is used in the zinc smelting process, are currently sourced from a combination of long-term and spot contracts. The aluminium business has high energy consumption due to the power-intensive nature of aluminium smelting. Coal is sourced from linkage coal, import and domestic purchase. Any change in coal prices or the mix of coal that is utilised, primarily whether the coal is sourced locally or imported, can affect the cost of generating power.

For the zinc and iron ore businesses and the portions of the copper and aluminium businesses where ore is sourced from Vedanta's own mines, ore extraction and processing costs affect the cost of production. In the zinc and iron ore businesses, the ore extraction and processing costs to produce concentrates are generally a small percentage of the overall cost of production.

In the aluminium business, alumina costs represents approximately one-third of the cost of production of aluminium. In addition, a significant cost of production in the zinc business is the royalty that HZL pays on the lead-zinc ore that is mined. The royalty is a function of the LME prices of zinc and lead. See "— Indian Government Policy — Taxes and royalties". In the iron ore business, the principal activities are ore extraction, processing and sales. The cost of transporting ore from the mines to the port and the ore extraction cost account for a majority of the total cost of production for Vedanta Limited.

In the commercial power generation business, production costs are mainly coal costs, and the coal is sourced domestically.

Labour costs are principally a function of the number of employees and increases in compensation from time to time. Improvements in labour productivity in recent years have resulted in a decrease in the per-unit labour costs. The majority of BALCO's mining operations, a substantial portion of HZL's and Vedanta's iron ore mining operations and Cairn India's oil and gas operations and a limited number of functions at Vedanta's copper, zinc and aluminium smelting operations are outsourced to third-party contractors.

Other manufacturing expenses include, among other things, additional materials and consumables that are used in the production processes and routine maintenance to sustain ongoing operations. None of these represents a significant portion of Vedanta's costs of production.

Cost of production as reported for Vedanta's metal products includes an offset for any amounts Vedanta receives upon the sale of the by-products from the refining or smelting processes. The cost of production is divided by the daily average exchange rate for the year to calculate the US dollar cost of production per lb or tonne of metal as reported.

Production costs and costs per unit are also significantly affected by changes in production volumes and variable costs. Therefore, Vedanta's production levels and variable costs are key factors in determining its overall cost competitiveness.

Costs of production for each of fiscal years 2015, 2016 and 2017 are reflected in the following table:

-	Year Ended 31 March		
_	2015	2016	2017
Oil and Gas (Opex) (\$ per boe)	6.2	6.5	6.2
Zinc business (India) (\$ per tonne) <sup>(1)(2)</sup>	1,093	1,045	1,154
Zinc business (India) (International) (\$ per tonne) <sup>(1)(2)</sup>	1,393	1,431	1,417
Iron Ore <sup>(3)</sup>	134.9	24.6	18.0
Copper India business (US cents per lb) <sup>(4)</sup>	4.2	3.2	5.0
Copper Zambia business (US cents per lb) <sup>(1)</sup>	329.1	261.0	278.9
Aluminium business (\$ per tonne) <sup>(5)</sup>	1,755	1,572	1,463

- (1) Cash costs per unit for mining, smelting and refining operations (net of by-products).
- (2) Includes royalties \$225 per tonne, \$241 per tonne, \$324 per tonne in fiscal years 2015, 2016 and 2017, respectively.
- (3) Cost of production for iron ore recorded was at \$24.6 per tonne for the fiscal year ended 31 March 2016 compared to \$134.9 per tonne in fiscal year 2015. This was primarily due to production recommencement of production in Goa after obtaining necessary approvals during the year and the implementation of a rigorous plan focusing on operational efficiency and reduction is commercial spend reduction expenditures. As part of the Company's cost reduction initiatives, logistics contracts have been optimised across transportation routes, modes and rates. Iron ore sourcing from nearby mines has been maximised to reduce freight cost. Also, a change in the blend and mix of coking coal has contributed to better improved cost efficiency. Cost of production \$24.6 per tonne for fiscal year ended 31 March 2016 can't be compared with comparative prior period i.e. \$134.9 per tonne for fiscal year ended 31 March 2015.
- (4) Cash costs per unit for smelting and refining operations (net of by-products).
- (5) Cash costs per unit (net of by-products).

#### Production Volume and Mix

Production volume has a substantial effect on Vedanta's results of operations. Vedanta is generally able to sell all of the products it produces, so its revenue generally fluctuates as a result of changes in production volume. Production volume is dependent on production capacity, which has increased in recent years across all of Vedanta's businesses. For Vedanta's mining operations, production volume is also dependent upon the quality and consistency of the ore. Per unit production costs are also significantly affected by changes in production volume in that higher volumes of production generally reduce the per unit production costs. Therefore, production levels are a key factor in determining Vedanta's overall cost competitiveness. Vedanta has benefited from significant economies of scale as it has generally increased production volumes in recent years.

The following table summarises the production volumes for Vedanta's primary products in each of fiscal years 2015, 2016 and 2017:

		Year Ended 31 March		
	Product	2015	2016	2017
		(Tonnes	unless otherwis	se stated)
Segment				
Oil and gas business	Oil & Gas — Gross (mboe)	77.3	74.6	69.3
	Oil & Gas — Working	48.4	46.9	44.2
	Interest (mboe)			
Zinc business				
— HZL		733,803	758,938	671,988
	Lead <sup>(1)</sup>	127,143	144,919	139,009
	Silver $(m.oz)^{(2)}$	10.53	13.65	14.55
— Skorpion	Zinc	102,188	82,029	85,427
— Black Mountain Mining	Zinc in Concentrate	27,022	29,272	28,708
	Lead in Concentrate	32,142	34,114	41,770
— Lisheen	Zinc in Concentrate	130,897	71,825	
	Lead in Concentrate	19,265	8,726	
Copper business				
— Vedanta Limited	Copper	362,372	384,047	402,730
— KCM	Copper	168,923	181,673	179,837
	Total copper	531,295	565,720	582,567
— Vedanta Limited	Copper rods	170,339	210,800	207,530
Iron ore business	Saleable ore (dry million tonnes)	0.6	5.2	10.9
Aluminium business				
— BALCO	Aluminium	323,921	331,618	427,079
— Vedanta Limited	Alumina	976,915	970,893	1,207,957
	Aluminium	553,338	591,725	786,323
	Total aluminium	877,259	923,343	1,213,402
Commercial power generation Business	Power sold (million units)	9,859	12,121	12,916

Periodically, Vedanta's facilities are shut down for planned and unplanned repairs and maintenance which temporarily reduces production volume. In addition, the mix of products Vedanta produces can have a substantial impact on its results of operations as it has different margins in each of its segments, and within each segment its margins vary between the lower margins of primary metals and the higher margins of value-added products such as copper rods and aluminium rolled products. For example, copper cathodes are converted in the copper rod plant into copper rods, a value-added product which has a higher margin than copper cathodes. As copper rods have higher margins, Vedanta endeavours to sell as large a percentage of copper rods as possible. As the production

<sup>(1)</sup> Excludes lead contained in lead with a high content of silver (high silver lead) produced from the pyro metallurgical lead-zinc smelter for captive use, which was 7,755 tonnes, 6,657 tonnes and 5,285 tonnes in fiscal years 2015, 2016 and 2017, respectively.

<sup>(2)</sup> Excludes silver contained in lead with high content of silver (high silver lead) produced from pyro metallurgical zinc-lead smelter for captive use which was 1.42 moz, 1.22 moz and 0.88 moz in fiscal years 2015, 2016 and 2017, respectively.

volume of its various products fluctuates primarily based on market demand and production capacity for such products, the percentage of revenue from those products will also fluctuate between higher and lower margin products, which will in turn cause Vedanta's operating profit and operating margins fluctuations.

## **Indian Government Policy**

#### India customs duties

Vedanta sells its products in India at a premium to the LME price, due in part to the customs duties payable on imported products. Profitability is affected by the levels of customs duties as Vedanta prices its products sold in India generally on an import-parity basis.

Vedanta also pays a premium on certain raw materials that it imports or which are sourced locally but which are priced on an import-parity basis as a result of customs duties, with copper concentrate, coal, petroleum products, alumina, carbon and caustic soda being the primary examples.

The following table sets forth the customs duties that were applicable for the periods indicated:

	March 1, 2011 to August 12, 2013	August 13, 2013 to February 29, 2016	March 1, 2016 to Present
Copper	5.0%	5.0%	5.0%
Copper concentrate	2.5%	2.5%	2.5%
Zinc	5.0%	5.0%	5.0%
Lead	5.0%	5.0%	5.0%
Silver	6.0%	10.0%	10.0%
Aluminium	5.0%	5.0%	7.5%

Vedanta is liable to pay an additional surcharge, presently at the rate of 3% of the total customs duty payable.

As Vedanta sells the majority of the commodities it produces in India, Vedanta's profitability is dependent to a certain extent on the continuation of import duties and any reduction may have a material adverse effect on its results of operations and financial condition.

## India export duties

The GoI levies duty on the export from India of certain products mentioned under the second schedule of the Customs Tariff Act 1975, including iron ore and concentrates, at a specified rate (ad valorem on the Free on Board or FOB value of exports).

Effective from 30 December 2011, the GoI raised export duty on iron ore fines and lumps from 20% to 30%, ad valorem on the FOB value of exports. Effective from 30 April 2015, the export duty on iron ore fines with Fe content less than 58% is 10%. With effect from 1 March 2016, the export duty on iron ore lumps (below 58% Fe content) has been reduced from 30% to nil and iron ore fines (below 58% Fe content) has been reduced from 10% to nil.

## Indian export incentives

The GoI provides a variety of export incentives to Indian companies. Indian exports of copper, zinc and aluminium receive assistance premia in the form of drawback from the GoI, which have been progressively reduced since 2002, consistent with similar reduction in custom duties. Export incentives do not outweigh the Indian market price premia. Accordingly, notwithstanding the export incentives, Vedanta endeavours to sell as large a quantity of its products as possible domestically.

In fiscal years 2015, 2016 and 2017, exports accounted for 26.9%, 25.0% and 27.0%, respectively, of Vedanta's India zinc business revenue. The following table sets out the export assistance premiums (all industry rates for duty drawbacks), as a percentage of the FOB value of exports, on zinc concentrate, zinc ingots and lead concentrate for the periods indicated:

	9 October,	21 September,	22 November,	
	2012 to 20	2013 to 21	2014 to 14	
	September,	November,	November,	15 November
	2013	2014	2016	2016 to date
	(Percentage of FOB value of exports)			
Zinc concentrate	1.50%	1.30%	1.00%	Nil
Zinc ingots	2.00%	1.70%	1.90%	1.50%
Lead concentrate	1.50%	1.30%	1.00%	Nil

In fiscal years 2015, 2016 and 2017, exports accounted for 41.8%, 38.0% and 53%, respectively, of Vedanta's Indian copper business revenue. The export assistance premiums, as a percentage of the FOB value of exports, on copper cathode and copper rods for the periods between 1 October 2011 to 20 September 2013 was 2.0% each. For the period from 21 September 2013 to 21 November 2014, the export assistance premiums (all India rates for duty drawbacks) for copper cathode and copper rods was 1.7% each which was revised to 1.9% effective from 22 November 2014 till date.

Further, with effect from 1 April 2015, the New Merchandise Exports from India Scheme was introduced in place of Market linked focus product scheme. In the new scheme, export incentive have been notified for few copper products.

In fiscal years 2015, 2016 and 2017, exports accounted for 33.7%, 39.7% and 41%, respectively, of Vedanta's aluminium business revenue. The following table sets out the export assistance premiums, as a percentage of the FOB value of exports, on aluminium ingots, aluminium rods and aluminium rolled products for the periods indicated:

	1 October 2011 to 20 September 2013	21 September 22 November 2013 to 21 2014 to 14			
			November 2016	15 November 2016 to date	
		ercentage of FO			
Aluminium ingots	2.0%	1.7%	1.9%	1.0%	
Aluminium Rods	2.0%	1.7%	1.9%	1.0%	
Aluminium billets	2.0%	1.7%	1.9%	1.0%	
Aluminium rolled products	3.0%	3.0%	1.9%	1.5%	

The GoI may further reduce export incentives in the future, which may have a material adverse effect on Vedanta's results of operations and financial condition.

## Taxes and royalties

Income tax on Indian companies is presently charged at a statutory rate of 30%, plus an applicable surcharge of 7% or 12% (depending on the income) on the tax and has an additional tax by way of higher and secondary education cess of 3%, on the tax including surcharge, which results

in an effective statutory tax rate of 34.6%. Vedanta effective tax rate is lower than the statutory rate, benefiting from tax incentives on infrastructure projects in specific locations. Vedanta has in the past had an effective tax rate lower than the statutory rate, benefiting from tax incentives on infrastructure projects in specific locations and project in a specific economic zone.

Profits of companies in India are subject to either regular income tax or a MAT, whichever is greater. The effective MAT rate is currently 21.3%, after applying surcharge and education cess, for Indian companies. The excess of amounts paid as MAT over the regular income tax amount during the year may be carried forward and applied towards regular income taxes payable in any of the succeeding fifteen years subject to certain conditions.

The tax rates imposed on us in respect of dividends paid in prior periods have varied. According to the Finance Act, 2014, dividend distribution tax is to be levied on distributable surplus grossed up with dividend distribution tax. This has resulted in an increase in the dividend distribution tax of more than 20% from 17.0% in the earlier year. Further, the Finance Act 2015 has increased the surcharge from 10% to 12%, which resulted in effective tax rate of 20.4% with effect from fiscal year 2016. As per provisions of Section 1150 of the Income Tax Act, 1961, dividend distribution tax is payable by the company declaring or distributing or paying the dividends. Dividends from Vedanta's subsidiaries to Vedanta are also subject to this tax. However, as per exemption provisions contained in Section 10(34) of the Income tax Act, 1961, Vedanta being the shareholder of such subsidiary declaring dividends is not liable to pay income tax in India upon the receipt of any such dividends. Separately, when Vedanta further declares dividend then it is not liable to pay dividend distribution tax on the amount of dividends to the extent received from subsidiaries during the same financial year. Provisions of Section 115O of The Income Tax Act provide that if a company receives a dividend from any of its Indian subsidiaries (where the company holds more than 50% shares in the said subsidiary) during the year and such subsidiary has paid a tax on its dividends, then the dividend distributed by the parent company to the extent of dividend received from the Indian subsidiary shall not be subject to dividend tax.

Service tax is applicable at 14% with effect from 1 June 2015. Further, an additional "Swacch Bharat Cess" at 0.5% with effect from 14 November 2015 and "Krishi Kalyan Cess" at 0.5% with effect from 1 June 2016 on the value of taxable services has been made applicable. Accordingly, the effective service tax rate is payable at 15%.

Vedanta pays service tax in India as a service provider and service recipient.

Service Provider: Vedanta pay service tax as a service provider in the range of 12.36% to 15.0% under the following categories:

- Business Support Services;
- Oil Transfer Service:
- Port Service; and
- Management Consultant Service.

Service Recipient: Vedanta pay service tax as a service recipient under following categories:

• Foreign Service Providers: Indian subsidiaries are responsible for paying service tax directly to tax authorities in the case of foreign service providers who do not have any permanent establishment in India. In the case of service providers having a permanent establishment in India, they are responsible for recovering the applicable service taxes and paying them to tax authorities. Indian subsidiaries are also paying service tax the as recipient of services on the Company overheads payable to Vedanta;

- Service tax on fees payable to directors of company: Vedanta is paying service tax on the fees payable to non-executive/independent directors of Indian companies. The fee includes director sitting fees and/or any commission payable to the directors;
- Other services: In case of services received from any goods transport agency and payments towards any sponsorship, Vedanta is responsible for paying service tax directly to tax authorities as per the applicable rates; and
- Domestic Service Providers: In case of certain services received from non-company domestic service providers, liability of payment of service tax has been placed on the recipient of services with effect from 1 July 2012 under Notification No. 30/2012-Service Tax dated 20 June 2012 as per the applicable rates.

GST

The present indirect tax regime envisages levy of multiple federal and state taxes with respect to the operations undertaken by businesses. Transition from the existing regime to GST regime is a tax reform, which is aimed at addressing the existing anomalies and strengthening the concept of unified market. GST is a supply driven concept and would therefore apply on supply of goods and services. Towards the end, most central and state levies (such as excise duty, service tax, CVD & special additional duty, central sales tax and value added tax will be subsumed into GST). Therefore, the existing taxable events will be replaced by a single taxable event of supply of goods and services under GST. Basic customs duty (BCD) and related customs cess would continue to be applicable on import of goods.

Taxes under GST would apply as under:

- Central goods and service tax and State goods and services tax will be simultaneously levied on intra-state supply of goods and services
- Integrated goods and service tax will be levied on imports and inter-state supply of goods and services.
- In addition, compensation cess would also apply on certain specified goods and services.

The general rate of GST on our output supplies would be 18.0%. However, supply of iron ore would attract GST at the rate of 5.0%, whereas silver would attract GST at 3.0%. Further, crude oil & natural gas will attract GST from the date to be notified by GST council and therefore, till the time GST council notifies inclusion of these products in GST, they would continue to attract existing indirect tax levies. Goods procured for the purposes of "petroleum operations" would be subject to integrated service tax at 5.0% as per Notification No. 50/2017-Customs, dated June 30, 2017, S.No.-404 condition no-48. BCD will continue to be exempt. Similar exemption notification has also been issued to tax inter-state & intra-state supplies of goods for petroleum operations at effective rate of 5.0%. Procurement of coal would attract GST compensation cess at Rs. 400 per ton in addition to GST rate of 5.0%. Effective July 1, 2017, CVD & SAD will be subsumed in IGST which will be applicable at the rates as mentioned in below table:-

	Integrated Service Tax rate from	
	July 1, 2017	
Copper	18.0%	
Copper concentrate	5.0%	
Zinc	18.0%	
Lead	18.0%	
Silver	3.0%	
Aluminium	18.0%	

Vedanta currently pays an excise duty of 12.5% with effect from 1 March 2015 (for the period from 17 March 2012 to 28 February 2015, the excise duty was 12% and an additional charge of 3.0% on the excise duty based) on all of Vedanta's domestic production intended for domestic sale. Vedanta charges the excise duty and additional charge to its domestic customers. Vedanta Limited pays excise duty on metallurgical coke at the rate 6.0% and on pig iron of 12.5%. HZL pays excise duty on silver at the rate of 8.5% effective from 1 March 2016 (8.0% prior to that) and an additional charge of 3.0% on the excise duty has been eliminated with effect from 1 March 2015. Goods procured for the purposes of "Petroleum Operations" and which are exempt from customs duty are also exempt from excise duty under notification 12/2012-Central Excise dated 17 March 2012, Sr. No 336 provided conditions as provided have been satisfied, all goods supplied under international competitive bidding and are exempt from customs duty.

Vedanta is also subject to government royalties. It pays royalties to the State Governments of Chhattisgarh, Rajasthan, Goa and Karnataka in India based on its extraction of bauxite, lead-zinc ore and iron ore. Most significant of these is the royalty that HZL is currently required to pay to the State of Rajasthan, where all of HZL's mines are located, at a rate of 10% with effect from 1 September 2014 (the rate was 8.4% from 13 August 2009 to 31 August 2014) of the zinc LME price payable on the zinc metal contained in the concentrate produced, 14.5% (the rate was 12.7% from 13 August 2009 to 31 August 2014) of the lead LME price payable on the lead metal contained in the concentrate produced and at a rate of 7.0% of silver LME price chargeable on silver-metal produced. In addition, a further amount of royalty effective from January 12, 2015, for DMF at 30% of base royalty and NMET at 2% of base royalty, has been notified. The royalties paid by BALCO on the extraction of bauxite are not material to Vedanta's results of operations. Vedanta Limited pays royalties at 15% of pit mouth value (PMV) declared by Indian Bureau of Mines on monthly basis for its iron ore business.

Royalty is also payable at Cairn India to the state government of Rajasthan, Andhra Pradesh and Gujarat for the extraction of crude oil and natural gas. Cairn India also pays cess to the GoI. Generally in respect of oil and gas operations, royalty and cess payments are made by the joint operation partners in proportion to their participating interest and are cost recoverable.

For the Rajasthan block, entire royalty payments are made by ONGC at the rate of 20% of well-head value for crude oil and 10% of well-head value for natural gas and are cost recoverable. Until February 2016, cess is paid at the rate of Rs. 4500/MT for crude oil; pursuant to amendments in the Finance Act 2016, cess is paid at the rate of 20% ad-valorem from March 2016 onwards. National Calamity Contingent Duty (NCCD) is paid at the rate of Rs. 50. Sales tax payments are made at the rate of 2% (central sales tax) on sale of both crude oil and natural gas.

For the Block PKGM-1 (the "Ravva Block"), royalty is Rs. 481/MT and cess is fixed at Rs. 900/MT on crude oil. Royalty on natural gas is 10% of well-head value of gas. Sales tax payments stand at 2% (central sales tax) or 5% (value added tax) on crude oil and 14.5% on natural gas.

For the Cambay block, the entire royalty and cess payments are made by ONGC and are not cost recoverable. Vedanta only participate in the payment of NCCD at the rate of Rs. 50./T Sales tax payments (central sales tax) are made at a rate of 2% on crude oil and 15% (value added tax) on natural gas.

For all the above blocks, education surcharge was paid at 3% of applicable cess value, which has been discontinued as per Ministry of Finance circular with effect from December 2013.

Royalties in Zinc International business are as follows:

• 3.0% of sale value of the products for Skorpion;

- 7.0% of turnover for BMM. The royalty rate applied on the turnover is 0.5% if the adjusted earnings before interest and tax ("adjusted EBIT") is negative, and in the event the adjusted EBIT is positive, the royalty rate applied on the turnover is 0.5% plus the rate computed at 100/9 times the adjusted EBIT upon turnover. In any event, the maximum royalty rate is capped at 7.0%; and
- 3.5% of turnover for Lisheen. The turnover is identified as gross revenue less smelter deductions, treatment charges, freight and marine insurance charges on a semi-annual basis.

There are several tax incentives available to companies operating in India, including the following:

- profits from newly established units in special economic zones and specified geographic locations are entitled to a tax holiday for a specified period;
- profits from newly constructed power plants (including for captive use) benefit from a tax holiday for a specified period;
- profits from newly constructed industrial undertakings engaged in production of oil and gas benefit from a tax holiday for a specified period;
- renewable energy devices being windmills installed on or before 31 March 2012 are eligible for accelerated depreciation at 80%. However, units that have opted for generation based incentive are not eligible for the said accelerated depreciation; and
- there are tax benefits on investments in mutual funds for holdings beyond 12 months and tax exemption on interest on specified public sector bonds subject to certain conditions.

Vedanta has benefited from these tax incentives. Such benefits have resulted in lower effective tax rates in some of its operating subsidiaries such as Cairn India, Vedanta Limited, BALCO, and HZL. Vedanta Limited, BALCO, and HZL have considerable investments in captive power plants enjoying tax exemptions, and HZL has also benefited from establishing wind energy generating projects. HZL also benefits from a tax holiday exemption with respect to its zinc processing and refining unit at Haridwar and its zinc, lead and silver processing and refining unit in Pantnagar in the State of Uttarakhand in northern India. In addition, a large part of Vedanta Limited's, Cairn India's and HZL's investments of their surplus cash is in tax-efficient or tax-exempt instruments. The commercial power business also enjoys a tax exemption on their independent power plants for ten years from the commencement of their operations. The Vizag port is also subject to favourable tax treatment.

#### Zambian Government Policy

KCM's results of operations are significantly impacted by a number of Zambian and foreign governmental policies, including fiscal and economic policy, industrial policy, infrastructure spending policy, mining policy, direct and indirect taxes and export-import policy. Such governments may at any time effect a change in any of these policies, which may adversely affect KCM's results of operations.

KCM signed a Development Agreement with the Zambian Government in 2000 (the "Development Agreement"). The Development Agreement was subsequently amended in 2004. The Development Agreement provided for legislative and taxation certainty for an agreed period. The existence of the Development Agreement was provided for by the Mines and Minerals Act 1995 which was repealed on 1 April 2008.

The tax rate on profit generated out of integrated operations and custom smelting currently stands at 30% with tax rate on hedge at 35%.

The loss from integrated operations cannot be carried forward beyond ten subsequent years after the year in which the loss is incurred. The set off of loss in a particular year is allowed up to a maximum of fifty percent of the income of that year.

Tax deductions for mining capital expenditure are available at the rate of 25% on a straight line basis.

In addition, Amendments to The Zambia's Mines & Mineral Development Act 2015 were formalised on 6 June 2016 which provides for a 'sliding scale' royalty rate with effect from 1 June 2016. Accordingly, there is a 4% royalty at a copper LME of < US\$4,500 per tonne, 5% royalty at a copper LME between US\$4,500 and US\$6,000 per tonne and 6% royalty at a copper LME >US\$6,000 per tonne as against the rates prescribed earlier at 9% for open pits and 6% for underground mining operations.

# Exchange Rates

Vedanta's financial statements are presented in US dollars. However, its operating costs are influenced by the currencies of those countries where Vedanta's mines, fields and plants are located. A majority of its mines, fields and plants are located in India and, hence, the Indian Rupee is the currency in which most of its costs are incurred and whose fluctuation against the US dollar may have a significant impact on its financial results. When the Indian Rupee depreciates against the US dollar, Vedanta's financial results can improve as its costs of production become lower relative to the price it can obtain for its products in the global marketplace, especially as compared to competitors with costs of production that are denominated in a currency that has not depreciated against the US dollar. Conversely, when the Indian Rupee appreciates against the US dollar, Vedanta's financial results can be negatively impacted. Vedanta also has capital expenditure and services denominated in currencies other than the Indian Rupee. For example, KCM's functional currency is the US dollar with its cost base having a mix of the Zambian Kwacha and the US dollar. See "Risk Factors — Risks Relating to Business — Currency fluctuations among the Indian Rupee and other currencies and the US dollar could have a material adverse effect on Vedanta's results of operations" for additional information.

Vedanta's borrowings are predominantly denominated in US dollars while a large portion of its cash and liquid investments are held in other currencies, mainly in Indian Rupees. Some financial assets and liabilities of its subsidiaries are not held in the functional currency of such subsidiaries. As a result, Vedanta is exposed to movements in the functional currency of those entities.

Vedanta's exposure to various currencies means that currency fluctuations may have a large impact on Vedanta financial results. It is subject to currency risks affecting the underlying cost bases in its operating subsidiaries, and also the translation of the cost of production, income statement and balance sheet (including non-US dollar denominated borrowings) in the consolidated financial statements, where the functional currency is not the US dollar.

# **Results of Operations**

#### Overview

The following table sets out Vedanta's historical operating results as a percentage of revenue for each of fiscal years 2015, 2016 and 2017:

	Year Ended 31 March		
	2015	2016	2017
		(\$ million)	
Revenue	12,878.7	10,737.9	11,520.1
Cost of sales	(10,463.9)	(9,241.1)	(8,789.2)
Gross Profits	2,414.8	1,496.8	2,730.9
Other operating income	104.0	101.7	73.4
Distribution costs	(245.2)	(223.8)	(274.9)
Administration expenses	(538.1)	(493.5)	(368.8)
Special Items	(6,744.2)	(5,210.1)	(17.3)
Operating profit/(loss)	(5,008.7)	(4,328.9)	2,143.3
Investment revenue	832.6	697.8	642.6
Finance costs	(1,387.2)	(1,280.4)	(1,382.2)
Other gains and losses (net)	(76.9)	(72.5)	(23.8)
Profit/(loss) before taxation	(5,640.2)	(4,984.0)	1,379.9
Tax credit — special items	2,205.1	1,737.4	(4.9)
Tax expense — others	(352.6)	(255.5)	(495.4)
Profit/(Loss) for the year	(3,787.7)	<u>(3,502.1)</u>	<u>879.6</u>

## Revenue by Geographic Location

Vedanta's operations are located in India, Zambia, Namibia, South Africa and UAE. The primary markets for its products are India, China, Far East Asia (others) and the Middle East. Vedanta endeavours to sell as large a quantity of its products as possible in India due to the Indian market premium that it receives on sales in India. The following table sets out Vedanta's revenue from each of its primary markets in each of fiscal years 2015, 2016 and 2017:

	Year Ended 31 March					
	2015		2016		2017	%
	(\$ in millions, except percentages)					
India	7,872.0	61.1%	6,807.8	63.4%	6,712.1	58.3%
China	1,314.2	10.2%	747.8	7.0%	1,501.9	13.0%
Middle East	1,143.7	8.9%	1,075.1	10.0%	974.2	8.5 %
Others <sup>(3)</sup>	2,548.8	19.8%	2,107.2	19.6%	2,331.9	20.2 %
Total	12,878.7	<u>100.0%</u>	10,737.9	<u>100.0%</u>	11,520.1	100.0%

Others include the Europe, Africa, UK, Korea, Thailand, Singapore, Mauritius, Sri Lanka, Bangladesh, Nepal, Pakistan United States, Australia, New Zealand and a number of countries that are not classified in the other available categories.

# Results of Operations: Fiscal Year 2017 compared to Fiscal Year 2016

Vedanta's revenue was \$11,520.1 million in fiscal year 2017, an increase of \$782.2 million, or 7.3%, from \$10,737.9 million in fiscal year 2016. The increase was primarily driven by improved zinc and aluminium metal prices; improved volumes on account of our aluminium ramp-up; full year operation at Iron Ore post resumption in August 2015; and all three units being operational at Talwandi Saboo. This was partially offset by lower volumes at Zinc India (in accordance with mine plan), Cairn India due to natural decline, Copper Zambia due to issues pertaining to lower equipment availability, and mine closure at Lisheen.

Vedanta's copper business contributed 34.8%, oil and gas 10.6%, zinc 24.8%, iron ore 5.3%, aluminium 17.7% and power 7.3% to the total revenue in fiscal year 2017.

#### Oil and Gas

Revenue from the oil and gas business was \$1,222.7 million in fiscal year 2017, a decrease of \$99.6 million, or 7.5%, from \$1,322.3 million in fiscal year 2016. The decrease in revenue was primarily contributed by lower entitlement interest sales volume mainly on account of temporary suspension of gas sales from October to mid-February partly offset by improved Brent prices. Specifically:

- The daily average oil & gas price realisation increased from \$40.9 per boe, in fiscal year 2016 to \$43.3 per boe, in fiscal year 2017, an increase of 5.9%;
- Entitlement interest sales decreased from 90,788 boepd in fiscal year 2016 to 77,769 boepd in fiscal year 2017, a decrease of 13,019 boepd or 14.3%.

Average exchange rate increased by 2.5% from Rs. 65.5 per \$1.0 in fiscal year 2016 to Rs. 67.1 per \$1.0 in fiscal year 2017.

# Zinc (India)

Revenue from the zinc business was \$2,525.0 million in fiscal year 2017, an increase of \$414.0 million, or 19.6%, from \$2,111.0 million in fiscal year 2016. This increase was primarily driven by higher LME prices of zinc and lead and LBMA price for silver, higher silver volumes. The increase was partially offset by lower integrated metal volumes.

#### Specifically:

- Zinc ingot production decreased from 758,938 tonnes in fiscal year 2016 to 671,988 tonnes in fiscal year 2017, a decrease of 11.5%. Production during the first half of fiscal year 2017 was lower than the second half of year, caused by cyclical pattern of production at Rampura Agucha open pit mine. Substantially higher mined metal production in second half of the year resulted in increase in mined metal inventory, despite metal in concentrate sales of 26 thousand tonnes during fourth quarter. Zinc ingot sales also decreased in line with the lower production, from 760,400 tonnes in fiscal year 2016 to 696,001 tonnes in fiscal year 2017, a decrease of 8.5%.
- Zinc ingot sales in the domestic market decreased from 525,763 tonnes in fiscal year 2016 to 472,824 tonnes in fiscal year 2017, a decrease of 10.1%. The domestic sales as a percentage of total sales slightly decreased from 69.1% in fiscal year 2016 to 67.9% in fiscal year 2017. The export sales also decreased from 234,637 tonnes of zinc in fiscal year 2016 to 223,176 tonnes of zinc in fiscal year 2017, a decrease of 4.9%.
- The daily average zinc cash settlement price on the LME increased from \$1,829 per tonne in fiscal year 2016 to \$2,368 per tonne in fiscal year 2017, an increase of 29.5%.

- Lead ingot production decreased from 144,919 tonnes in fiscal year 2016 to 139,009 tonnes in fiscal year 2017, a decrease of 4.1%. Lead ingot sales decreased from 145,417 tonnes in fiscal year 2016 to 138,253 tonnes in fiscal year 2017, a decrease of 4.6%, due to decrease in production.
- The daily average lead cash settlement price on the LME increased from \$1,768 per tonne in fiscal year 2016 to \$2,005 per tonne in fiscal year 2017, an increase of 13.4%.
- Silver ingot production increased from 424,578 kilograms in fiscal year 2016 to 452,543 kilograms in fiscal year 2017, an increase of 6.6% driven by higher grades and greater volumes from Sindesar Khurd mine. Sale of silver ingots increased from 425,685 kilograms in fiscal year 2016 to 448,891 kilograms in fiscal year 2017, an increase of 5.5% in line with silver production.
- The daily average silver London Bullion Market Association prices increased from \$15.2 per ounce in fiscal year 2016 to \$17.8 per ounce in fiscal year 2017, an increase of 16.7%.

## Zinc (International)

Revenue from the international zinc business was \$332.4 million in the fiscal year 2017, a decrease of \$59.1 million, or 15.1%, from \$391.5 million in the fiscal year 2016. The decrease in revenue was primarily due to the closure of the Lisheen mine in Ireland in December 2015 after 17 years in operation, maintenance shutdown and partial industrial action at Skorpion and lower commodity prices. This was partially offset by higher volumes from Skorpion and Black Mountain Mines. Specifically:

- Production of refined zinc metal at Skorpion registered a increase from 82,029 tons in fiscal year 2016 to 85,427 tons in fiscal year 2017, an increase of 3,398 tons or 4.1%. This was despite several challenges faced during the year mainly due to wet ore mined and technical issues at the acid plant. The ore grades were better than the previous year and the successful ramp-up of the plant post the shutdown in the third quarter of fiscal year 2016 prevailed throughout the 2017 fiscal year.
- Production of zinc metal in concentrate from the Lisheen decreased by 100% due to the planned closure of the Lisheen mine in December 2015. Production from BMM mines of lead metal in concentrate increased from 48,091 tons to 59,518 tons, an increase of 11,427 tons or 23.7%. This increase was primarily due to better ore grades and change in mining methods. Production from BMM mines of zinc metal in concentrate decreased from 59,006 tons to 58,005 tons, a decrease of 1,001 tons or 1.7% due to decline in ore grades.
- The daily average zinc cash settlement price on the LME increased from \$1,829 per ton in fiscal year 2016 to \$2,125 per ton in fiscal year 2017, an increase of 16.2%.
- The daily average Lead cash settlement price on the LME increased from \$1,768 per ton in fiscal year 2016 to \$1,9 per ton in fiscal year 2016, a decrease of 12.5%.

## Copper (India/Australia)

Revenue from the copper business in India and Australia was \$3,133.7 million in the fiscal year 2017, a decrease of \$63.5 million, or 2.0%, from \$3,197.2 million in the fiscal year 2016. This decrease was primarily due to lower LME realisation for the period, lower TC/RC partially offset by better volume. Specifically:

• Copper cathode production increased from 384,047 tonnes in fiscal year 2016 to 402,730 tonnes in fiscal year 2017, an increase of 4.9%. In fiscal year 2017, production was at

record level, despite lower copper grade and a few unplanned outages during the year. Our plant utilisation touched a record level of 94%. Copper cathode sales increased from 166,957 tonnes in fiscal year 2016 to 192,200 tonnes in fiscal year 2017, an increase of 15.1%.

- Production of copper rods decreased from 210,800 tonnes in fiscal year 2016 to 207,530 tonnes in fiscal year 2017, a decrease of 1.6%. Copper rod sales decreased from 210,285 tonnes in fiscal year 2016 to 207,073 tonnes in fiscal year 2017, a decrease of 1.5% in line with the decrease in production.
- Sales of copper in the Indian market decreased from 238,916 tonnes in fiscal year 2016 to 233,699 tonnes in fiscal year 2017, a decrease of 2.2%, and the exports increased from 138,326 tonnes in fiscal year 2016 to 165,575 tonnes in fiscal year 2017, an increase of 19.7%. Domestic sales as a percentage of total sales decreased from 63.3% in fiscal year 2016 to 58.5% in fiscal year 2017.

## Copper (Zambia)

Revenue from KCM in Zambia was \$874.3 million in fiscal year 2017, a decrease of \$98.2 million, or 10.1%, from \$972.5 million in fiscal year 2016. The decrease was mainly due to lower volumes primarily on account of lower production from Nchanga underground mine, which was placed under care and maintenance in third quarter of the year, as well as lower availability of trackless equipment at the Konkola deep mine and lower metal prices. Specifically,

- Copper mined metal production decreased from 122,968 tonnes in fiscal year 2016 to 94,130 tonnes in fiscal year 2017, a decrease of 23.5%. This was primarily driven by lower volumes from Nchanga underground mine which was placed under care and maintenance, at Konkola deep mine due to equipment availability issues and at Tailings Leach Plant due to maintenance breakdowns at the Tailings trails and lower feeds.
- Copper sales decreased from 183,845 tonnes in fiscal year 2016 to 171,722 tonnes in fiscal year 2017, a decrease of 6.6%.
- The daily average copper LME price decreased from \$5,211 per tonne in fiscal year 2016 to \$5,152 per tonne in fiscal year 2017, a decrease of approximately 1.1%.

#### Iron ore

Revenue from the iron ore business was \$615.4 million in fiscal year 2017, an increase of \$265.4 million, or 75.8%, from \$350.0 million in fiscal year 2016. The increase was primarily due to resumption of mining in Goa and increase in pig iron production and realisation price. Specifically:

- Saleable iron ore production increased from 5.2 million tonnes in the fiscal year 2016 to 10.9 million tonnes in fiscal year 2017, a sharp increase of 5.7 million tonnes due to a removal of mining ban in the state of Goa during fiscal year 2016. At Karnataka, production recommenced on February 28, 2015, and in Goa it started slowly from August 2015 following receipt of all requisite clearances and approvals.
- The production of pig iron was higher by 8.2% from 654,362 tonnes to 708,342 tonnes whereas, metallurgical coke marginally reduced from 485,054 to 481,218, or by 0.8% from fiscal year 2016 to fiscal year 2017, respectively.

#### Aluminium

Revenue from the aluminium business was \$2,040.0 million in fiscal year 2017, an increase of \$345.7 million, or 20.4%, from \$1,694.3 million in fiscal year 2016. The increase was primarily due to volume ramp-up, higher average LME prices of aluminium partially offset by lower premium on metal.

# Specifically:

- Aluminium production increased from 923,343 tonnes in fiscal year 2016 to 1,213,402 tonnes in fiscal year 2017, an increase of 31.4%. We achieved record annual production of 1.2 million tonnes of aluminium in fiscal 2017, with an exit run-rate of 1.4 million tonnes per annum (excluding trial run production) in March 2017. Production of value added products decreased from 52.8% in fiscal year 2016 to 40.4% in fiscal year 2017.
- Aluminium sales increased from 926,950 tonnes in fiscal year 2016 to 1,209,416 tonnes in fiscal year 2017, an increase of 30.5% in line with the increase in production from new smelter in Korba and Jharsuguda. Sales of aluminium ingots increased from 429,366 tonnes in fiscal year 2016 to 676,571 tonnes in fiscal year 2017, an increase of 57.5%. Wire rod sales increased from 357,203 tonnes in fiscal year 2016 to 323,437 tonnes in fiscal year 2017, and rolled product sales decreased from 20,660 tonnes in fiscal year 2016 to 17,996 tonnes in fiscal year 2017, a decrease of 12.9%. Billets sales increased from 110,859 tonnes in fiscal year 2016 to 144,871 tonnes in fiscal year 2017, representing an increase of 30.7%. Hot metal sales increased from 8,892 tonnes during fiscal year 2016 to 46,541 tonnes in fiscal year 2017.
- Aluminium sales in the domestic Indian market decreased from 635,192 tonnes in fiscal year 2016 to 599,873 tonnes in fiscal year 2017, a decrease of 5.6%. Domestic sales decreased in fiscal year 2017 due to market factors and lower premia. Aluminium exports increased from 291,758 tonnes in fiscal year 2016 to 609,543 tonnes in fiscal year 2017 driven by ramp-up of volume at Jharsugudua-II smelter. Domestic sales as a percentage of total sales (excluding export sales from SEZ) decreased from 76.3% in fiscal year 2016 to 74.1% in fiscal year 2017.
- The daily average aluminium cash settlement price on the LME decreased from \$1,590 per tonne in fiscal year 2016 to \$1,688 per tonne in fiscal year 2017, an increase of 6.2%.

#### Commercial Power Generation

Revenue from the commercial power generation business was \$835.9 million in the fiscal year 2017, an increase of \$128.4 million, or 18.1% from \$707.5 million in the fiscal year 2016 primarily due to the commencement of additional units at TSPL and BALCO during the year. With these units, entire 9,000 MW of power capacity became operational as of March 2016. Specifically:

- At the Talwandi Sabo power plant, the third 660MW unit commenced commercial production in August 2016. The plant achieved full ramp up and had a record availability of 85% in quarter four of the year and supplied 6,339 million units to the Punjab State Electricity Board or PSEB. TSPL's Power Purchase Agreement with PSEB compensates according to the availability of the plant.
- The Jharsugada 600MW power plant operated at a lower Plant Load Factor (PLF) of 68% during fiscal year 2017, due to a weak power market compared to PLF of 71% during fiscal year 2016.
- The 600 MW BALCO IPP units (2x300MW) operated at a PLF of 58% in FY2017, due to the weak power market.

The average power realisation decreased from Rs. 2.91 per unit in fiscal year 2016 to Rs.2.83 per unit in fiscal year 2017, a decrease of 3% (excluding power from TSPL 1980 MW power plant). The decrease is on account of the reduced deficit in supply and demand in the nation.

Cost of generation at the power business (excluding power from the TSPL 1980 MW power plant) decreased from Rs. 2.15 per unit in fiscal years 2016 to Rs. 2.10 in fiscal year 2017, marginal decrease of 2%.

## Operating profit

Vedanta's operating profit was \$2,143.3 million in fiscal year 2017 compared to an operating loss of \$4,328.9 million in fiscal year 2016. Vedanta's operating profit before special items was \$2,160.6 million in fiscal year 2017, an increase of \$1,279.4 million, from an operating profit before special items of \$881.2 million in fiscal year 2016. The special items for fiscal year 2017 includes US\$29.9 million impairment charge relating to certain old items of capital work-in-progress at the Alumina refinery operations partly offset by impairment reversal of US\$12.6 million relating to Rajasthan block. Special Items in fiscal year 2016 and fiscal year 2015 primarily relates to impairment charge in Oil & Gas business. The increase in operating profit before special items is primarily driven by strong operational performance on account of ramp-up of capacities at our Aluminium and Power business, full year operations at Iron Ore business, cost efficiencies across business as well as the upturn and positive sentiment in commodity prices. Operating margin before special item increased to 18.8% in fiscal year 2017 from 8.2% in fiscal year 2016.

Contributing factors to Vedanta's consolidated operating profit were as follows:

- Cost of sales decreased from \$9,241.1 million in fiscal year 2016 to \$8,789.2 million in fiscal year 2017, a decrease of \$451.9 million, or 4.9%. The decrease is primarily due to lower amortisation expenses of \$244.6 million primarily on account of impairment charge in Oil & Gas business in previous years, lower depreciation charge of \$180.1 million driven by lower entitlement interest volume at Cairn India and lower charge at Copper Zambia as Nchanga underground assets were fully depreciated in fiscal year 2016.
- Other operating income decreased from \$101.7 million in fiscal year 2016 to \$73.4 million in fiscal year 2017, a decrease of \$28.3 million, or 27.8%.
- Distribution expenses increased from \$223.8 million in fiscal year 2016 to \$274.9 million in fiscal year 2017, an increase of \$51.1 million, or 22.8%, Distribution expense as a percentage of revenue increased from 2.1% in fiscal year 2016 to 2.4% in fiscal year 2017.
- Administration expenses decreased from \$493.5 million in fiscal year 2016 to \$368.8 million in fiscal year 2017, a decrease of \$124.7 million, or 25.3%. Administration expenses as a percentage of revenue decreased from 4.6% in fiscal year 2016 to 3.2% in fiscal year 2017.

## Oil and Gas

The Vedanta EBITDA for the oil and gas business was \$597.2 million in fiscal year 2017, an increase of \$26.8 million, or 4.7%, from \$570.4 million in fiscal year 2016. The increase in Vedanta EBITDA is driven by improved crude prices, lower quality discount to brent, cess reduction, lower opex partially offset by lower volumes. Crude price in fiscal year 2017 was \$48.6 in comparison to \$47.5 in fiscal year 2016. Rajasthan operating cost has been reduced from \$5.2 per barrel in fiscal year 2016 to \$4.3 per barrel in fiscal year 2017, or 17%.

# Zinc (India)

The Vedanta EBITDA for the India zinc business was \$1,423.2 million in fiscal year 2017, an increase of \$428.2 million, or 43.0%, from \$995.0 million in fiscal year 2016. The increase was on account of improved commodity prices, one-off provision provided in previous year partially offset by lower volumes. The cost of production of zinc including royalty increased (net of by-product revenue) from \$1,045 per tonne in fiscal year 2016 to \$1,154 per tonne in fiscal year 2017 and cost of production excluding royalty increased from \$804 per tonne in fiscal year 2016 to \$830 per tonne in fiscal year 2017 mainly due to lower volume of integrated production, higher coal and metcoke prices. Cost of production of lead including royalty (net of by-product revenue) increased from \$1,031 per tonne in fiscal year 2016 to \$1,103 per tonne in fiscal year 2017.

## Zinc (International)

The Vedanta EBITDA for the international zinc business was \$138.3 million in fiscal year 2017, an increase of \$70.2 million, from \$68.1 million in fiscal year 2016. The increase in Vedanta EBITDA was primarily driven by improved LME prices, one-off royalty refund at Black Mountain Mining and an insurance receipt at Skorpion against the fire incident in early 2015, partially offset by lower volumes.

## Copper (India/Australia)

The Vedanta EBITDA for the India and Australia copper business was \$252.2 million in fiscal year 2017, a decrease of \$84.4 million, or 25.1%, from \$336.6 million in fiscal year 2016. The decrease in Vedanta EBITDA was primarily due to lower treatment and refining charges (TC/RC), by-product credits, acid volumes and margin, and a one-off Target Plus Scheme (TPS) benefit of \$26 million in fiscal year 2016. In particular:

- TcRc rates decreased from an average of 24.1 ¢/lb realised in fiscal year 2016 to an average of 22.4 ¢/lb realised in fiscal year 2017.
- Cost of production net of by-product and free copper revenue, which consists of cost of smelting and refining costs, increased from 3.2 ¢/lb in fiscal year 2016 to 5.0 ¢/lb in fiscal year 2017, primarily due to lower by-product credits due to lower average net realisation of sulphuric acid of Rs. 2,117 per tonne in fiscal year 2017 compared with 3,019 per tonne in fiscal year 2016.

# Copper (Zambia)

Vedanta EBITDA for KCM was \$5.9 million in fiscal year 2017, compared to a loss of \$(17.9) million in fiscal year 2016. The increase in Vedanta EBITDA for KCM was mainly due to local currency appreciation on VAT Receivables and lower costs partially offset by lower integrated volumes.

## Iron ore

The Vedanta EBITDA for the iron ore business was \$194.2 million in fiscal year 2017, an increase of \$120.8 million from \$73.4 million in fiscal year 2016. The increase was primarily due to increase in volume at Goa operations.

#### Aluminium

The Vedanta EBITDA for the aluminium business was \$344.2 million in fiscal year 2017, an increase of \$237.5 million, from \$106.7 million in fiscal year 2016. This was primarily due to ramp-up of capacities, higher LME prices and cost efficiencies partly offset by lower metal premia.

The Vedanta EBITDA for the commercial power generation business was \$244.8 million in fiscal year 2017, an increase of \$48.5 million, or 24.7%, from \$196.3 million in fiscal year 2016. The increase in segment result was primarily as a result of sales from commissioned additional units at TSPL and BALCO.

Investment revenue, finance costs and other gains/(losses)

Vedanta's investment revenue was \$642.6 million in fiscal year 2017, a decrease of \$55.2 million, or 7.9%, from \$697.8 million in fiscal year 2016 mainly at Zinc India and Cairn India. Primarily due to lower cash and liquid investments at Zinc India due to a special dividend pay-out in April-2016, partially offset by mark-to-market (MTM) gains accruing in a falling interest rate environment in India where most of Vedanta's cash and investments reside. The average post tax return on investment of Vedanta was 7.55% (7.2% in fiscal year 2016).

Vedanta's finance costs were \$1,382.2 million in fiscal year 2017, an increase of \$101.8 million, or 8.0%, from \$1,280.4 million in fiscal year 2016. This was due to commissioning of new capacities in the Aluminium and Power business, an increase in INR-denominated borrowings in the borrowing mix, and a one-off impact of c.\$40 million for bond buy-back activity in line with our strategy of extending the near-term maturities. The same was partially offset by the accounting treatment of interest at the Jharsuguda-II smelter, which was earlier expensed when the project start-up was temporarily on hold, and is now being capitalised as and when aluminium capacities are ramped-up. The average borrowing cost of Vedanta was 7.5% (7.3% in fiscal year 2016).

Other gains/(losses) in fiscal year 2017 was \$(23.8) million, compared to \$(72.5) million in fiscal year 2016. This includes the impact of MTM on foreign currency borrowings, primarily at Vedanta's Indian businesses and the restatement of Indian Rupee assets in dollar ledger at the Oil & Gas business. The Indian rupee appreciated against the US Dollar during FY2017 by 2% (66.33 to 64.84), compared with a 6% fall in FY2016 (62.59 to 66.33).

Income tax expense and non-controlling interests

Net tax expense was \$495.4 million in fiscal year 2017, an increase of \$239.9 million, from \$255.5 million in fiscal year 2016. The effective tax rate for fiscal year 2017 after excluding special item and dividend distribution tax was 18%, compared to 3.1% in fiscal year 2016 driven by phasing out of tax holiday benefits from 100% to 30% at Zinc India and expiry of tax holiday benefit at Oil & Gas business.

Income tax expense special items in fiscal year 2017 were \$4.9 million compared to credit of \$1,737.4 million in fiscal year 2016.

Tax special items in fiscal year 2016 include a credit of \$1,903.3 million relating to the corresponding non-cash impairment charge. In addition, the tax special items in fiscal year 2016 of \$173.8 million charge arose in Copper Zambia on restoration of deferred tax liabilities on mining operations at 30%, mineral processing activities at 35%, and changes in legislation restricting the use of past losses.

The profit attributable to non-controlling interests in fiscal year 2017 was \$902.3 million in comparison to a loss of \$1,664.7 million in fiscal year 2016. The profits attributable to non-controlling interests without special items in fiscal year 2017 was \$908.6 million in comparison to \$363.5 million in fiscal year 2016.

# Results of Operations: Fiscal Year 2016 compared to Fiscal Year 2015

#### Revenue

Vedanta's revenue was \$10,737.9 million in fiscal year 2016, a decrease of \$2,140.8 million, or 16.62%, from \$12,878.7 million in fiscal year 2015. The decrease was primarily driven by lower LME, lower Brent prices, premia and currency movement was 21.9% year-on-year, which was partly offset by improved operational performance at Zinc India, ramp up in power units, cost savings and marketing initiatives across the businesses of 5.3% resulting in an overall revenue reduction by 16.6% year-on-year. Vedanta's copper business contributed 38.8%, oil and gas 12.3%, zinc 23.3%, iron ore 3.2%, aluminium 15.8% and power 6.4% to the total revenue in fiscal year 2016.

#### Oil and Gas

Revenue from the oil and gas business was \$1,322.3 million in fiscal year 2016, a decrease of \$1,075.2 million, or 44.8%, from \$2,397.5 million in fiscal year 2015. The decrease in revenue was primarily contributed by the significant fall in average Brent prices realisation partially offset by higher entitlement interest sales volumes and higher average exchange rate. Specifically:

- The daily average oil and gas price realisation decreased from \$75.8 per boe, in fiscal year 2015 to \$40.9 per boe, in fiscal year 2016, a significant decrease of 46.2%.
- Entitlement interest sales increased from 87,560 boepd in fiscal year 2015 to 90,788 boepd in fiscal year 2016, an increase of 3,228 boepd or 3.7%.
- Average exchange rate increased by 7% from Rs. 61.1 per \$1.0 in fiscal year 2015 to Rs. 65.5 per \$1.0 in fiscal year 2016.

# Zinc (India)

Revenue from the zinc business was \$2,111.0 million in fiscal year 2016, a decrease of \$246.0 million, or 10.4%, from \$2357.0 million in fiscal year 2015. This decrease was primarily driven by lower LME prices of zinc and lead and LBMA price for silver and premia, as well as statutory headwinds like clean energy cess on coal and renewable power obligations, amongst others in fiscal year 2016. The decrease was partially offset by increased integrated metal volumes and higher silver production. Specifically:

- Zinc ingot production increased from 733,803 tonnes in fiscal year 2015 to 758,938 tonnes in fiscal year 2016, an increase of 3.4%. Production during the second half of fiscal year 2016 was lower than the first half of year, due mainly to reduced output from Rampura Agucha open pit, particularly in fourth quarter of fiscal year 2016 as per the mine plan. This was partially offset by record production from all the underground mines, and in particular the Sindesar Khurd and Kayad mines, which also resulted in higher lead and silver volumes. Zinc ingot sales also increased in line with the higher production, from 735,783 tonnes in fiscal year 2015 to 760,400 tonnes in fiscal year 2016, an increase of 3.3%.
- Zinc ingot sales in the domestic market increased from 483,361 tonnes in fiscal year 2015 to 525,763 tonnes in fiscal year 2016, an increase of 8.8%. The domestic sales as a percentage of total sales slightly increased from 65.7% in fiscal year 2015 to 69.1% in fiscal year 2016. Vedanta endeavour to sell large quantities of Vedanta's products domestically, where an Indian market premium is received. The export sales also decreased from 252,422 tonnes of zinc in fiscal year 2015 to 234,637 tonnes of zinc in fiscal year 2016, a decrease of 7.0%.
- The daily average zinc cash settlement price on the LME decreased from \$2,177 per tonne in fiscal year 2015 to \$1,829 per tonne in fiscal year 2016, a decrease of 16.0%.

- Lead ingot production increased from 127,143 tonnes in fiscal year 2015 to 144,919 tonnes in fiscal year 2016, an increase of 14.0% in line with mined metal production. Lead ingot sales increased from 128,752 tonnes in fiscal year 2015 to 145,417 tonnes in fiscal year 2016, an increase of 12.9%, due to increase in production.
- The daily average lead cash settlement price on the LME decreased from \$2,021 per tonne in fiscal year 2015 to \$1,768 per tonne in fiscal year 2016, a decrease of 12.5%.
- Silver ingot production increased from 327,508 kilograms in fiscal year 2015 to 424,578 kilograms in fiscal year 2016, an increase of 29.6% on account of higher production from Sindesar Khurd mine. Sale of silver ingots increased from 327,230 kilograms in fiscal year 2015 to 425,685 kilograms in fiscal year 2016, an increase of 30.1% in line with silver production.
- The daily average silver London Bullion Market Association prices decreased from \$18.1 per ounce in fiscal year 2015 to \$15.2 per ounce in fiscal year 2016, a decrease of 16.0%.

#### Zinc (International)

Revenue from the international zinc business was \$391.5 million in the fiscal year 2016, a decrease of \$195.4 million, or 33.3%, from \$586.9 million in the fiscal year 2015. The decrease in revenue was primarily due to the closure of the Lisheen mine in Ireland in December 2015 after 17 years in operation, maintenance shutdown and partial industrial action at Skorpion and lower commodity prices. This was partially offset by higher volumes from Black Mountain Mines. Specifically:

- Production of refined zinc metal at Skorpion registered a decrease from 102,188 tonnes in fiscal year 2015 to 82,029 tonnes in fiscal year 2016, a decrease of 20,159 tonnes or 19.7%. This was mainly due to the temporary industrial action during second quarter, the planned refinery maintenance extended shutdown in third quarter of fiscal year 2016, a slower than anticipated ramp-up post the shutdown, and a decline in the mine grade. During fourth quarter of fiscal year 2016 Skorpion production volumes were back to normal, following a planned maintenance shutdown in the third quarter, and it recorded 27,000 tonnes in the fourth quarter.
- Production of zinc metal in concentrate from the Lisheen and BMM mines decreased from 157,919 tonnes in fiscal year 2015 to 101,097 tonnes in fiscal year 2016, a fall of 36.0%. Production of lead metal in concentrate also decreased from 51,407 tonnes to 42,840 tons, a decrease of 8,566 tonnes or 16.7%. This decrease was primarily due to the planned closure of the Lisheen mine in December 2015 whereas BMM mined metal production is higher by 7.1% due to better ore grades and change in mining methods.
- The daily average zinc cash settlement price on the LME decreased from \$2,177 per tonne in fiscal year 2015 to \$1,829 per tonne in fiscal year 2016, a decrease of 15.9%.
- The daily average lead cash settlement price on the LME decreased from \$2,021 per tonne in fiscal year 2015 to \$1,768 per tonne in fiscal year 2016, a decrease of 12.5%.

## Copper (India/Australia)

Revenue from the copper business in India and Australia was \$3,196.8 million in the fiscal year 2016, a decrease of \$485.9 million, or 13.2%, from \$3,682.7 million in the fiscal year 2015. This decrease was primarily due to lower LME realisation for the period, partially offset by increased volume and higher TcRc. Specifically:

- Copper cathode production increased from 362,372 tonnes in fiscal year 2015 to 384,047 tonnes in fiscal year 2016, an increase of 6.0%. In fiscal year 2016, production was at record level, despite a few unplanned outages during the year that included 3-days stoppage on account of flood incident due to heavy rains. The smelter is now producing at a normalised plant capacity level. The fiscal year 2015 production was lower due to the biennial 23-days planned maintenance shutdown in quarter one of fiscal year 2015, therefore the year on year performance is not comparable. Copper cathode sales decreased from 190,872 tonnes in fiscal year 2015 to 166,957 tonnes in fiscal year 2016, a decrease of 12.5%, due to higher rod production.
- Production of copper rods increased from 170,339 tonnes in fiscal year 2015 to 210,800 tonnes in fiscal year 2016, an increase of 23.8%, reflecting the increase in the cathode production and higher market demand. Copper rod sales increased from 170,742 tonnes in fiscal year 2015 to 210,285 tonnes in fiscal year 2016, an increase of 23.2% in line with the increase in production.
- Sales of copper in the Indian market increased from 194,747 tonnes in fiscal year 2015 to 238,916 tonnes in fiscal year 2016, an increase of 22.7%, and the exports decreased from 166,868 tonnes in fiscal year 2015 to 138,326 tonnes in fiscal year 2016, a decrease of 17.1%. Domestic sales as a percentage of total sales increased from 53.9% in fiscal year 2015 to 63.3% in fiscal year 2016.

## Copper (Zambia)

Revenue from KCM in Zambia was \$966.7 million in fiscal year 2016, an increase of \$83.2 million, or 9.4%, from \$883.5 million in fiscal year 2015. This increase was mainly due to increased volume, improvements in external customer base and with a partial offset from lower metal prices. Specifically,

- Copper mined metal production increased from 116,242 tonnes in fiscal year 2015 to 122,968 tonnes in fiscal year 2016, an increase of 5.8% mainly in Konkola deep underground mine.
- Copper sales increased from 163,222 tonnes in fiscal year 2015 to 183,845 tonnes in fiscal year 2016, an increase of 12.6%.
- The daily average copper LME price decreased from \$6,558 per tonne in fiscal year 2015 to \$5,211 per tonne in fiscal year 2016, a decrease of approximately 20.5%.

#### Iron ore

Revenue from the iron ore business was \$341.8 million in fiscal year 2016, an increase of \$30.4 million, or 9.8%, from \$311.4 million in fiscal year 2015. The increase was primarily due to resumption of mining in Goa, higher volumes of sales from Karnataka in the comparable period and increase in pig iron production offset by decrease in realisation price of pig iron. Specifically:

- Saleable iron ore production increased from 0.6 million tonnes in the fiscal year 2015 to 5.2 million tonnes in fiscal year 2016, a sharp increase of 4.6 million tonnes due to a removal of mining ban in the state of Goa during fiscal year 2016. At Karnataka, production recommenced on February 28, 2015, and in Goa it started slowly from August 2015 following receipt of all requisite clearances and approvals.
- The production of pig iron was higher by 9.6% from 604,860 tonnes to 662,955 tonnes whereas, metallurgical coke was reduced from 499,919 to 485,794, or by 3% from fiscal year 2015 to fiscal year 2016, respectively. During the year, production of pig iron ramped up to a record production level with available rated capacity of 772,000 tonnes. Reduction in metallurgical coke production was mainly due to breakdown in plant.

#### Aluminium

Revenue from the aluminium business was \$1,692.3 million in fiscal year 2016, a decrease of \$385.8 million, or 18.6%, from \$2,078.1 million in fiscal year 2015. This decrease was primarily due to lower average LME prices of aluminium and premium on metal partially offset by increased volume in fiscal year 2016 compared to fiscal year 2015. Specifically:

- Aluminium production increased from 877,259 tonnes in fiscal year 2015 to 923,343 tonnes in fiscal year 2016, an increase of 5.3%. Production of value added products marginally decreased from 53.4% in fiscal year 2015 to 52.8% in fiscal year 2016.
- Aluminium sales increased from 877,549 tonnes in fiscal year 2015 to 926,950 tonnes in fiscal year 2016, an increase of 5.6% in line with the increase in production from new smelter in Korba and Jharsuguda. Sales of aluminium ingots increased from 405,300 tonnes.
- in fiscal year 2015 to 429,335 tonnes in fiscal year 2016, an increase of 8.1%. Wire rod sales increased from 310,446 tonnes in fiscal year 2015 to 357,203 tonnes in fiscal year 2016, and rolled product sales decreased from 46,165 tonnes in fiscal year 2015 to 20,660 tonnes in fiscal year 2016, a decrease of 55.2%, due to temporary suspension of high-cost rolled product facility at BALCO. Billets sales decreased from 115,639 tonnes in fiscal year 2015 to 110,859 tonnes in fiscal year 2016, representing a decrease of 4.1%. Hot metal sales during fiscal year 2016 were 8,892 tons.
- Aluminium sales in the domestic Indian market increased from 519,920 tonnes in fiscal year 2015 to 635,192 tonnes in fiscal year 2016, an increase of 22.2%. Domestic sales increased in fiscal year 2016 due to improved domestic demand and improved market share. Aluminium exports decreased from 357,629 tonnes in fiscal year 2015 to 291,758 tonnes in fiscal year 2016. Domestic sales as a percentage of total sales increased from 59.2% in fiscal year 2015 to 68.5% in fiscal year 2016.

• The daily average aluminium cash settlement price on the LME decreased from \$1,890 per tonne in fiscal year 2015 to \$1,590 per tonne in fiscal year 2016, a decrease of 15.9%.

#### Commercial Power Generation

Revenue from the commercial power generation business was \$691.7 million in the fiscal year 2016, an increase of \$138.9 million, or 25.1% from \$552.8 million in the fiscal year 2015 primarily due to the commencement of additional units at TSPL and BALCO during the year. With these units, entire 9,000 MW of power capacity became operational as of March 2016. Specifically:

- At the Talwandi Sabo power plant, the second 660MW unit commenced commercial production in December 2015. The two operating units operated at 80% availability and supplied 2,792 million units to the Punjab State Electricity Board or PSEB. TSPL's Power Purchase Agreement with PSEB compensates according to the availability of the plant. The third 660MW unit was synchronised in March 2016 and started commercial production from September 2016.
- The Jharsugada 2,400MW power plant operated at a lower Plant Load Factor (PLF) of 39% during fiscal year 2016, due to a weak power market and power evacuation constraints for open access power sales. During fiscal year 2017, power from one 600MW unit is being supplied to the grid and the remaining 1,800MW (3X600MW) will supply power to the Jharsuguda-II smelter with sales of surplus power on the open market. Accordingly, capacity utilisation is expected to increase significantly.
- At BALCO, the first 300MW IPP unit of the 1200MW power plant commercial production in July 2015.
- The average power realisation decreased from Rs. 3.25 per unit in fiscal year 2015 to Rs. 2.91 per unit in fiscal year 2016, a decrease of 10.4% (excluding power from TSPL 1980 MW power plant). The decrease is on account of a drop in spot rates from Rs. 3.04 per unit in fiscal year 2015 to Rs. 2.46 per unit in fiscal year 2016 due to the reduced deficit in supply and demand in the nation.
- Cost of generation at the power business (excluding power from the TSPL 1980 MW power plant) increased from Rs. 2.14 per unit in fiscal years 2015 to Rs. 2.15 in fiscal year 2016, marginal increase of 0.5%.

#### Operating profit

Vedanta's operating loss was \$4,328.9 million in fiscal year 2016, a decrease of \$679.8 million, or 13.6%, from an operating loss of \$5,008.7 million in fiscal year 2015. Vedanta's operating profit before special items was \$881.2 million in fiscal year 2016, a decrease of \$854.3 million or 49.2%, from an operating profit before special items of \$1,735.5 million in fiscal year 2015. The special items primarily relates to assets impairment of \$5,187 million in fiscal year 2016, this largely relates to the Oil & gas business which was adversely impacted by the lower Brent price. The reduction in operating profit excluding impairment was primarily due to lower sales realisation in the oil and gas business which was impacted by the significant fall in average oil prices, decrease in the average LME prices of zinc and other metals, which were partially offset by the Iron Ore business which was ramped up in August 2015 after obtaining all necessary approvals from the state government, strong operational performance at Zinc India and ramp-up in power units. Operating margin before special item decreased to 8.2% in fiscal year 2016 from 13.5% in fiscal year 2015 primarily due to lower Brent and metal prices.

Contributing factors to Vedanta's consolidated operating profit were as follows:

- Cost of sales including special items decreased from \$17,208.1 million in fiscal year 2015 to \$14,451.2 million in fiscal year 2016, a decrease of \$2,756.9 million, or 16.0%. The decrease is primarily due to lower impairment charge of \$1,507.4 million. Cost of sales excluding impairment for fiscal year 2016 was \$9,241.1 million, a decrease of \$1,222.8 million, or 11.7%. Vedanta deployed several measures to optimise cost spends. These included clean-sheet-costing for negotiations, alternate material, new source of supply, tightening efficiency in logistics and quality control. The decrease was also due to softened key input commodity prices including alumina, coal and others; and fuel costs across Vedanta's business in fiscal year 2016 as compared to fiscal year 2015.
- Other operating income decreased from \$104.0 million in fiscal year 2015 to \$101.7 million in fiscal year 2016, a decrease of \$2.3 million, or 2.2%.
- Distribution expenses decreased from \$245.2 million in fiscal year 2015 to \$223.8 million in fiscal year 2016, a decrease of \$21.4 million, or 8.7%, Distribution expense as a percentage of revenue increased from 1.9% in fiscal year 2015 to 2.1% in fiscal year 2016 due to lower revenue in fiscal year 2016.
- Administration expenses decreased from \$538.1 million in fiscal year 2015 to \$493.5 million in fiscal year 2016, a decrease of \$44.6 million, or 8.3% as a percentage of revenue. Administration expenses as a percentage of revenue increased from 4.2% in fiscal year 2015 to 4.6% in fiscal year 2016 due to lower revenue in fiscal year 2016.

## Oil and Gas

The Vedanta EBITDA for the oil and gas business was \$570.4 million in fiscal year 2016, a decrease of \$906.4 million, or 61.4%, from \$1,476.8 million in fiscal year 2015. The decrease in Vedanta EBITDA is driven by weaker crude and marginal decrease in volume which has been offset by decrease in unit cost. Crude price in fiscal year 2016 was \$47.5 in comparison to \$85.4 in fiscal year 2016. Rajasthan operating cost has been reduced from \$5.8 per barrel in fiscal year 2015 to \$5.2 per barrel in fiscal year 2016.

# Zinc (India)

The Vedanta EBITDA for the India zinc business was \$995.0 million in fiscal year 2016, a decrease of \$197.5 million, or 16.6%, from \$1,192.5 million in fiscal year 2015. Operating profit was negatively affected by lower zinc, lead and silver prices, and premia as well as statutory headwinds in fiscal year 2016. However, these were partially offset by higher volumes, lower cost of production and rupee depreciation. The cost of production of zinc including royalty decreased (net of by-product revenue) from \$1,093 per tonne in fiscal year 2015 to \$1,045 per tonne in fiscal year 2016 and cost of production excluding royalty decreased from \$868 per tonne in fiscal year 2015 to \$804 per tonne in fiscal year 2016 mainly due to higher volume of integrated production, better smelter efficiencies, reduced coal and commodity prices, higher by-product credit and cost reduction initiatives. Cost of production of lead including royalty (net of by-product revenue) decreased from \$1,076 per tonne in fiscal year 2015 to \$1,031 per tonne in fiscal year 2016. Decrease in depreciation by \$13.3 million in fiscal year 2016 as compared to fiscal year 2015 partially offset the impact of lower operating profit.

## Zinc (International)

The Vedanta EBITDA for the international zinc business was \$138.3 million in fiscal year 2017, an increase of \$70.2 million, or 103.1%, from \$68.1 million in fiscal year 2016. The increase in Vedanta EBITDA was primarily due to higher commodity prices as well once off insurance refund in Skorpion and a once off royalty refund in Black Mountain Mines.

# Copper (India/Australia)

The Vedanta EBITDA for the India and Australia copper business was \$336.6 million in fiscal year 2016, an increase of \$55.6 million, or 19.8%, from \$281.0 million in fiscal year 2015. The increase in operating profit was primarily due to an increase in volume in fiscal year 2016 as production in fiscal year 2015 was impacted by lower volumes on account of planned maintenance shutdown, and higher TcRc rates in line with the market conditions. In particular:

- TcRc rates increased from an average of 21.4 ¢/lb realised in fiscal year 2015 to an average of 24.1 ¢/lb realised in fiscal year 2016.
- Cost of production net of by-product and free copper revenue, which consists of cost of smelting and refining costs, decreased from 4.2 ¢/lb in fiscal year 2015 to 3.2 ¢/lb in fiscal year 2016, primarily due to higher volumes, lower input commodity costs (fuel and power) and higher average realisation on the sale of sulphuric acid, a by-product, from Rs. 2,779 per tonne in fiscal year 2015 to Rs. 3,019 per tonne in fiscal year 2016.

#### Copper (Zambia)

KCM's Vedanta EBITDA loss was \$(17.9) million in fiscal year 2016, an increase in loss by \$(14.1) million, compared to \$(3.8) million in fiscal year 2015. The increase in loss was mainly due to lower metal prices with a partial offset from increased volume. Excluding the impact of Kwacha depreciation on VAT receivable, Vedanta EBITDA was \$44 million in fiscal year 2016.

#### Iron ore

The Vedanta EBITDA for the iron ore business was \$73.4 million in fiscal year 2016, an increase of \$42.0 million from \$31.4 million in fiscal year 2015. The increase was primarily due to the recommencement of the Goa operations and volume ramp-up.

#### Aluminium

The Vedanta EBITDA for the aluminium business was \$106.7 million in fiscal year 2016, a decrease of \$308.8 million, or 74.3%, from \$415.5 million in fiscal year 2015. This was primarily as a result of lower sales realisation due to a decrease in average LME prices of aluminium and lower premium.

### Commercial power generation

The Vedanta EBITDA for the commercial power generation business was \$196.3 million in fiscal year 2016, an increase of \$42.5 million, or 27.6%, from \$153.8 million in fiscal year 2015. The increase in segment result was primarily as a result of sales from commissioned additional units at TSPL and BALCO.

Investment revenue, finance costs and other gains/(losses)

Vedanta's investment revenue was \$697.8 million in fiscal year 2016, a decrease of \$134.8 million, or 16.2%, from \$832.6 million in fiscal year 2015 mainly at Zinc India and Cairn India. Primarily due to significant mark-to-market (MTM) gains accruing in fiscal year 2015 in a falling interest rate environment in India where most of Vedanta's cash and investments reside. The average post tax return on investment of Vedanta was 7.2% (9.3% in fiscal year 2015).

Vedanta's finance costs were \$1,280.4 million in fiscal year 2016, a decrease of \$107 million, or 8%, from \$1,387.2 million in fiscal year 2015. This was due to benefit of lower cost refinancing, the previous year impact of unamortised costs written off and using cash to repay convertible bonds in the copper business during second half of fiscal year 2015.

Other gains/(losses) in fiscal year 2016 was \$(72.5) million, compared to \$(76.9) million in fiscal year 2015. This includes the impact of foreign exchange losses on foreign currency borrowings, primarily at Vedanta's Indian rupee denominated businesses resulting in a loss in fiscal year 2016 was \$72.5 million against fiscal year 2015 \$76.9 million.

Income tax expense and non-controlling interests

Income tax expense — others was \$255.5 million in fiscal year 2016, a decrease of \$97.1 million, or 27.5%, from \$352.6 million in fiscal year 2015. The effective tax rate for fiscal year 2016 after excluding special item was 113.0%, compared to 31.9% in fiscal year 2015 driven by significantly higher dividend distribution tax (DDT) owing to the special dividend declared by Zinc India in March 2016. Excluding incremental DDT, the effective tax rate was 33% during fiscal year 2016. This is driven by a lower tax rate in Zinc India due to tax efficient investment income partly offset by higher ETR in Cairn India driven by lower deferred tax liability creation given significantly lower exploration and development spend.

Income tax credit special items in fiscal year 2016 were \$1,737.4 million compared to fiscal year 2015 \$2,205.1 million. Tax special items include a credit of \$1,903.3 million relating to the corresponding non-cash impairment charge. In addition, the tax special items in fiscal year 2016 of \$173.8 million charge arose in Copper Zambia on restoration of deferred tax liabilities on mining operations at 30%, mineral processing activities at 35%, and changes in legislation restricting the use of past losses.

The loss attributable to non-controlling interests in fiscal year 2016 was \$(1,664.7) million in comparison to fiscal year 2015 \$(19,89.1) million. The profits attributable to non-controlling interests without special items in fiscal year 2015 was \$363.5 million in comparison to fiscal year 2015 \$826.1 million.

# Liquidity and Capital Resources

### Capital Resources

Overview

As of 31 March 2017, Vedanta's cash and cash equivalents and liquid investments were \$9,725.2 million, the majority of which were denominated in Indian Rupees. Of this, \$1,682.2 million was cash and cash equivalents and \$8,043.0 million was liquid investments. Liquid investments consist of investments in mutual funds and bank deposits with maturities of more than 90 days. Vedanta's investment policy is to invest in funds and banks with a low credit risk and high credit ratings.

Vedanta funds its operations primarily with its current cash and liquid investments, together with cash flows from operations and borrowings under working capital and term loan facilities from banks and/or other financial institutions, and Vedanta expects that these sources will continue to be its principal sources of cash in the next few years. The Company believes that its current working capital is sufficient for its present capital requirements.

Vedanta's principal financing requirements include:

- repayment of debts maturing during the year;
- capital expenditures towards the maintenance, upgrading and expansion of capacity in existing businesses;
- consolidation of ownership in various subsidiaries;

- acquisitions of complementary businesses that Vedanta determines to be attractive opportunities; and
- working capital.

Vedanta evaluates its funding requirements regularly in light of its cash flow from its operating activities, the progress of its capital expenditure projects, acquisition initiatives and market conditions. To the extent it does not generate sufficient cash flow from operating activities, Vedanta may rely on other debt or equity financing activities, subject to market conditions. More specifically, Vedanta has from time to time considered, and may pursue in the future, equity offerings or additional listings by its partially owned but controlled subsidiaries. For example, Vedanta has in the past considered public equity offerings of KCM and Vedanta Limited.

The following table sets out selected cash flow data and the cash and cash equivalents for each of fiscal years 2015, 2016 and 2017:

	Year ended 31 March			
_	2015	2016	2017	
		(\$ million)		
Net cash from operating activities	2,505.8	2,401.7	1,457.6	
Net cash from/(used in) investing activities	(1,591.7)	(1,862.3)	72.8	
Net cash (used in) financing activities	(928.0)	(446.8)	(343.2)	
Net increase/(decrease) in cash and cash equivalents	(13.9)	92.6	1,187.2	
Effect of foreign exchange rate changes	(1.8)	(18.0)	66.7	
Cash and cash equivalents at beginning of year	369.4	353.7	428.3	
Cash and cash equivalents at end of year	353.7	428.3	1,682.2	

# Net Cash From Operating Activities

Net cash from operating activities was \$1,457.6 million in fiscal year 2017, primarily comprised of profit before tax of \$1,379.9 million and the add back for impairment charges of mining reserves and oil and gas assets of \$17.3 million and depreciation and amortisation of \$1,030.5 million and less \$778.7 million in income tax paid. Movement in working capital was primarily comprised of a \$522.3 million increase in payables net of \$266.7 million increase in inventories.

Net cash from operating activities was \$2,401.7 million in fiscal year 2016, primarily comprised of profit before tax of \$4,984.0 million and the add back for impairment of mining reserves and oil and gas assets of \$5,187 million and depreciation and amortisation of \$1,455.2 million, less \$1,268.4 million in interest paid and \$354.7 million in income tax paid. Movement in working capital was primarily comprised of a \$657.4 million increase in payables.

Net cash from operating activities was \$2,505.8 million in fiscal year 2015, primarily comprised of loss before tax of \$5,640.2 million and the add-back for impairment of mining reserves and oil and gas assets of \$6,694.4 million and depreciation and amortisation of \$2,005.7 million, less \$1,334.0 million in interest paid and \$601.7 million in income tax paid. Movement in working capital was primarily comprised of a \$225.2 million increase in payables.

### Net Cash Used in Investing Activities

Net cash from investing activities was \$72.8 million in fiscal year 2017, primarily on account of purchases of property, plant and equipment amounting to \$873.9 million and net proceeds of liquid investments amounting to \$921.5 million.

Net cash used in investing activities was \$1,862.3 million in fiscal year 2016, primarily on account of purchases of property, plant and equipment amounting to \$872.4 million and net purchases of liquid investments amounting to \$999.9 million.

Net cash used in investing activities was \$1,591.7 million in fiscal year 2015, primarily on account of purchases of property, plant and equipment amounting to \$2,289.1 million.

# Net Cash From or Used in Financing Activities

Net cash used in financing activities was \$343.2 million in fiscal year 2017, primarily as a result of dividend to non-controlling interest of subsidiaries of \$1,393.3 million, buy back and repayment of convertible and non convertible bond of \$1,448.8 million offset by proceeds from long-term borrowings by \$1,940.5 million and short term borrowings by \$532.8 million.

Net cash used in financing activities was \$446.8 million in fiscal year 2016, primarily as a result of a decrease in short-term borrowings of \$1,022.1 million and repayment of long-term borrowings by \$958.0 million.

Net cash used in financing activities was \$928.0 million in fiscal year 2015, primarily as a result of repayment of long-term borrowings of \$2,698.0 million and a decrease in short term borrowings by \$818.8 million.

### **Borrowings**

Vedanta had undrawn committed borrowing facilities of \$911.0 million available to it as of 31 March 2017.

Vedanta taps both the Indian and offshore markets for its long-term funding needs. In addition, it has sizeable imports and exports and can therefore access both import and export credits, based on cost effectiveness, both in Indian Rupees and in foreign currencies, to finance its short-term working capital requirements. Vedanta has in place both secured and unsecured borrowings, with its secured borrowings being generally Indian Rupee denominated bonds.

Vedanta has tapped different segments of borrowing resources, including banks and capital markets, both in India and overseas. The Company currently has corporate credit ratings of "B+" with a stable outlook by S&P and "B1" with a stable outlook by Moody's. Vedanta has not had, and does not currently expect to have, material difficulty in gaining access to short-term and long-term financing sufficient to meet its current requirements.

The following table shows total borrowings of Vedanta as of 31 March 2015, 2016 and 2017:

	As of 31 March			
	2015 2016		2017	
		(\$ million)		
Bank loans	11,474.9	11,587.9	12,183.4	
Bonds	4,075.4	4,074.6	5,566.7	
Convertible bonds	1,103.0	587.2	_	
Other loans	14.5	13.6	14.4	
Preference Shares	_	_	464.2	
Total	16,667.8	16,263.3	18,228.7	
Borrowings are repayable:				
Within one year (shown as current liabilities)	3,179.2	4,313.8	7,658.5	
More than one year	13,488.6	11,949.5	10,570.2	
Total borrowings	16,667.8	16,263.3	18,228.7	
Less: payable within one year	3,179.2	4,313.8	7,658.5	
Medium and long-term borrowings	13,488.6	11,949.5	10,570.2	

As at 31 March 2017, Vedanta had access to funding facilities (both fund based and non-fund based) of \$19,400.8 million, of which \$911.0 million of fund based and \$710.8 million of non-fund based, was not yet drawn.

Funding Facilities	<b>Total Facility</b>	Drawn	Undrawn
		(\$ million)	
Less than one year	8,341.6	6,786.0	1,555.6
One to two years	3,791.7	3,791.7	_
Two to five years and above	7,267.5	7,201.3	66.2
Total	19,400.8	17,779.0	1,621.8

A summary of the principal loans held by Vedanta and its group companies as of 31 March 2017 is contained in Note 24 to the Company's consolidated financial statements.

Vedanta and its subsidiaries have various finance facilities that contain various financial covenants. The lending banks of Vedanta Resources plc have consented to certain changes requested by the Company to its covenants under the terms of the relevant debt facilities effective from 31 March 2016 until the period ending 30 September 2018. The Company is in compliance with its covenants relating to all facilities for the testing period ended 31 March 2017. These covenants require Vedanta to maintain certain financial ratios and seek the prior permission of the relevant banks and financial institutions for various activities including, amongst others any changes in its capital structure, issue of equity, preferential capital or debentures, raising any loans, undertaking any new project, effecting any scheme of acquisition, merger, amalgamation or reconstruction, implementing a new scheme of expansion or creation of a subsidiary.

### **Project Capital Expenditures**

The following table shows the capital expenditures for Vedanta in fiscal years 2015, 2016 and 2017:

_	Ye	ar ended 31 Mai	rch	_		
_	2015	2016	2017	_		
		2016 2017 (\$ million) 566 668				
xpenditure	1,531	566	668			

In fiscal year 2015, significant capital expenditure was incurred on development and exploration activities at Cairn India, HZL's underground mine expansion project, TSPL's 1,980 MW coal-based thermal power plant at Talwandi Sabo, and BALCO Korba-II 325 ktpa smelter & 1200 MW coal based thermal power plant in the state of Chhattisgarh.

In fiscal year 2016, capital expenditure was incurred on development and exploration activities at Cairn India, HZL's underground mine expansion project, ramp up of aluminium & power capacities at Vedanta Limited, BALCO & TSPL.

The following table sets out details regarding Vedanta's capital expenditure as of 31 March 2017, for projects in progress and capex with flexibility.

Capex in Progress	Status	Total Capex Approved	Cumulative Spend up to 31 March 2017	Spend in fiscal year 2017	Unspent as at 31 March 2017
		(\$ in million)			
Cairn India RDG, Mangala Infill, EOR, Aishwariya Barmer Hill, Liquid handling & others)		306	56	56	250
Aluminium Sector					
BALCO — Korba-II 325ktpa Smelter and 1200MW power plant					
(4x300MW) <sup>(1)</sup>	Smelter: fully operational and to be capitalised in Q1 Power — All 4 units operational	1,872	1,965	76	(93)
Jharsuguda 1.25mtpa					
smelter	Line 4: Fully Capitalised (316 pots operational) Line 3: 2 section capitalised	2,920	2,746	178	174
Power Sector					
Talwandi 1980MW IPP	Completed	2,150	2,113	60	37
Zinc Sector					
Zinc India (Mines					
Expansion)	Phase-wise by FY2020	1,600	1,015	225	585
Others		150	12	12	138
Zinc International					
Gamsberg Mining		400	62	10	227
Project	First production by mid 2018	400	63	42	337
Capex Flexibility					
Metals and Mining					
Lanjigarh Refinery (Phase					
II) — 4mtpa	Subject to Bauxite availability	1,570	822	10	748
Tuticorin Smelter 400ktpa. Skorpion Refinery	Under evaluation	367	139	7	228
Conversion	Currently deferred	156	14	3	142

<sup>(1)</sup> Cost over-run on account of changes in exchange rate. Total over-run expected to be US\$120 million up to fiscal years 2018 and 2019.

Vedanta may undertake additional capital expenditures as opportunities or needs arise. In addition, Vedanta may increase, reduce or suspend its planned capital expenditures or change the timing and use of its capital expenditures from what is currently planned in response to market conditions or for other reasons.

Vedanta's ability to maintain and grow its revenues, net income and cash flows depends upon continued capital spending. Vedanta's current and future projects may be significantly delayed by the failure to receive regulatory approvals or renewal of approvals in a timely manner, failure to obtain sufficient funding, technical difficulties, human resources constraints, technological or other resource constraints or for other unforeseen reasons, events or circumstances. See "Risk Factors — Risks Relating to Business". Vedanta adjusts its capital expenditure plans and investment budget periodically, based on factors deemed relevant by it. Therefore Vedanta's actual capital expenditures and investments are likely to be different from its current planned amounts, and such differences may be significant.

# Contractual Obligations

The following table sets out Vedanta's total future commitments to settle contractual obligations as of 31 March 2017:

Payment due by period	< 1 year	1-3 years	3-5 years	> 5 years	Total
Trade and other payables	5,046.8	38.3	_	30.2	5,115.3
Bank and other borrowings <sup>(1)</sup>	8,560.5	5,387.9	4,508.7	2,735.0	21,192.1
Derivative liabilities	126.9	8.6			135.5
Total	13,734.2	<u>5,434.8</u>	4,508.7	2,765.2	26,442.9

Vedanta's total future commitments to settle contractual obligations, as of 31 March 2017, were \$26,442.9 million.

Vedanta also has commitments to purchase copper concentrate for its copper custom smelting operations. These commitments are based on future LME copper spot prices which are not ascertainable as of the date of this Offering Circular.

#### **Off-Balance Sheet Arrangements**

Vedanta has no off-balance sheet entities. In the normal course of business, it enters into certain commitments for capital and other expenditures and certain performance guarantees. The aggregate amount of indemnities and other guarantees was \$677.9 million as of 31 March 2017.

Details of Vedanta's indemnities and other guarantees are set out in "— Guarantees". Details of Vedanta's capital commitments and contingencies are set out below.

# Capital Commitments Contracted But Not Provided

Vedanta has a number of continuing operational and financial commitments in the normal course of business. Capital commitments contracted but not provided as of 31 March 2017 amounted to \$1,351.5 million, related primarily to capacity expansion projects, including the construction of new facilities and the expansion of existing facilities.

# **Contingencies**

As is typical for a Group of its size and complexity, Vedanta is consistently subject to litigation. Certain of its operating subsidiaries have been named as parties to legal actions by third-party claimants and by the Indian sales tax, excise and related tax authorities for additional sales tax, excise and indirect duties. These claims primarily relate either to the assessable values of sales and purchases or to incomplete documentation supporting its tax returns. Vedanta has ongoing disputes with income tax authorities relating to the tax treatment of certain items.

These mainly include disallowed expenses, tax treatment of certain expenses claimed by Vedanta as deductions, and the computation or eligibility of certain tax incentives or allowances. Some of the disputes relate to the year in which the tax consequences of financial transactions were recognised, and in the event these disputes are not resolved in Vedanta's favour, the tax consequences may be reflected in the tax year as required by the income tax authorities and there are therefore timing differences. Most of these disputes and disallowances, being repetitive in nature, have been raised by the tax authorities consistently in most of the years. Vedanta has a right of appeal to the High Court or the Supreme Court of India against adverse initial assessments by the appellate authorities for

<sup>(1)</sup> Includes contractual interest payment based on interest rate prevailing at the end of the reporting period.

matters involving questions of law. The tax authorities have similar rights of appeal. The total claims related to these tax liabilities, which are all income-tax related, are \$4,375.6 million as of 31 March 2017. Vedanta has evaluated these contingencies and estimate that it is probable that some of these claims may result in loss contingencies and hence have recorded \$23.3 million as current liabilities as of 31 March 2017.

The amount under dispute with other tax authorities, relating to matters such as sales tax, income tax, excise tax and electricity duty and third party claimants, as of 31 March 2017 is \$286.1 million against which liability of \$11.2 million have been recorded based on Vedanta's estimate that none of these claims would become liabilities. Vedanta intends to vigorously defend these claims as necessary. Although the results of legal actions cannot be predicted with certainty, it is the opinion of the management, after taking appropriate legal advice, that the resolution of these actions will not have a material adverse effect, if any, on Vedanta's business, financial condition or results of operations. Therefore, Vedanta has not recorded any additional liability in relation to litigation matters in the accompanying consolidated financial statements.

#### Inflation

According to Inflation.eu, India's annual overall inflation rate was approximately 5.9%, 6.3% and 2.2% for calendar years 2014, 2015 and 2016, respectively. Inflation in India has not significantly impacted Vedanta's results of operations in recent years.

#### Guarantees

Companies within Vedanta provide guarantees within the normal course of business. Guarantees have also been provided in respect of certain short-term and long-term borrowings.

As of 31 March 2017, \$351.6 million of guarantees were advanced to banks in the normal course of business. Vedanta has also entered into guarantees advanced to the customs authorities in India of \$326.3 million relating to the export and payment of import duties on purchases of raw material and capital goods including export obligations.

# **Export obligations**

The Indian entities of Vedanta have export obligations of \$2,016.7 million as of 31 March 2017 on account of concessional rates received on import duties paid on capital goods under the Export Promotion Capital Goods Scheme and on raw materials under the Advance Licence Scheme enacted by the GoI.

In the event Vedanta fails to meet its obligations, Vedanta's liability would be \$261.7 million, reduced in proportion to actual exports. This liability is backed by a bond executed in favour of the Indian customs department amounting to \$258.5 million.

# Environmental and terminal benefits ("ETB") cash reserve account — KCM

Pursuant to the terms of the shareholders' agreement between Vedanta Resources Holdings Limited ("VRHL") and Zambia Copper Investments Limited or ZCI dated 5 November 2004, KCM is expected to contribute a minimum of \$10 million (and not more than a maximum of \$18 million) in any fiscal year to ensure that the amount of ETB liabilities is covered by a cash reserve when the life of the Konkola Ore Body comes to an end. The ETB liabilities refer to KCM's obligations in relation to environmental and any terminal benefits payable to its employees. As of 31 March 2017, ETB liabilities provided for were \$13.1 million, although these liabilities are likely to fluctuate at each future reporting date.

### Market Risk Disclosure

Vedanta is exposed to market risk from changes in foreign exchange rates, interest rates, counterparty and concentration of credit, and commodity prices.

Vedanta uses derivative instruments as part of its management of exposure to fluctuations in foreign currency exchange rates, interest rates and commodity prices. Vedanta does not acquire or issue derivative financial instruments for trading or speculative purposes. Vedanta does not enter into complex derivative transactions to manage the treasury and commodity risks. Both treasury and commodities derivative transactions are normally in the form of forward contracts and interest rate and currency swaps and these are subject to Vedanta guidelines and policies.

# **Exchange Rate Risk**

The results of Vedanta's operations may be affected by fluctuations in the exchange rates between the Indian Rupee, South African Rands, Zambian Kwachas, Namibian dollars and Liberian dollars against the US dollar. Exposures on foreign currency loans are managed through the foreign exchange hedging policy which is reviewed periodically to ensure that the risk from fluctuating currency exchange rates is appropriately managed. Natural hedges available in the business are identified at each entity level and hedges are placed only for the net exposure. Short term net exposures are hedged progressively based on their maturity. Longer exposures beyond one year for trade and other current account transactions are reviewed and hedges taken accordingly. However, all new exposures on account of long-term borrowing are being hedged.

Hedging activities in India are governed by the RBI with whose policies Vedanta must comply. The policies under which the RBI regulates these hedging activities can change from time to time and these policies may affect the effectiveness with which Vedanta manages exchange rate risk.

Vedanta has in the past held or issued instruments such as options, swaps and other derivative instruments for purposes of mitigating exposure to exchange rate risk. Vedanta does not enter into hedging instruments for speculative purposes.

Vedanta's exposure to foreign currency arises where a Group company holds monetary assets and liabilities denominated in a currency different to the functional currency of that entity with USD (US dollar) being the major foreign currency exposure of Vedanta's main operating subsidiaries. Set out below is the impact of a 10% change in the US dollar on profit/(loss) and equity arising as a result of the revaluation of Vedanta's foreign currency financial instruments.

	31 March 2017			
		Effect of 10%	Effect of 10%	
	strengthenin		strengthening	
		of US dollar	of US dollar	
	Closing	on net	on total	
Currency	exchange rate	earnings	equity	
Indian Rupee	64.8386	(317.3)	(317.1)	
Kwacha	9.6570	(2.2)	(2.2)	

The sensitivities are based on financial assets and liabilities held at 31 March 2017 where balances are not denominated in the functional currency of the respective subsidiaries. The sensitivities do not take into account Vedanta's sales and costs and the results of the sensitivities could change due to other factors such as changes in the value of financial assets and liabilities as a result of non-foreign exchange influenced factors. A 10% depreciation of the US dollar would have an equal and opposite effect on Vedanta's financial instruments.

### **Interest Rate Risk**

Vedanta is exposed to the interest rate risk on short-term and long-term floating rate instruments and also on the refinancing of fixed rate debt. The policy is to maintain a balance of fixed and floating interest rate borrowings. The proportion of fixed and floating rate debt is determined by current market interest rates. As of 31 March 2017, 55% of its total debt was at a fixed rate and the balance was at a floating rate.

The USD floating rate debt is linked to US dollar LIBOR and INR floating rate debt to Bank's base rate. Vedanta also aims to opt for a higher proportion of long-term debt to fund growth projects to extend its maturity profile. Vedanta invests cash and liquid investments in short-term deposits and debt mutual funds, some of which generate a tax-free return, to achieve Vedanta's goal of maintaining liquidity, carrying manageable risk and achieving satisfactory returns.

Floating rate financial assets are largely mutual fund investments which have debt securities as underlying assets. The returns from these financial assets are linked to market interest rate movements; however the counterparty invests in the agreed securities with known maturity tenure and return and hence has manageable risk. Additionally, the investments portfolio is independently reviewed by CRISIL Limited, and Vedanta's investment portfolio has been rated as 'Very Good', meaning highest safety.

Considering the net debt position as at 31 March 2017 and the investment in bank deposits, corporate bonds and debt mutual funds, any increase in interest rates would result in a net loss and any decrease in interest rates would result in a net gain.

Borrowing and interest rate hedging activities in India are governed by the RBI and as a result, Vedanta has to comply with the RBI's regulations. The policies under which the RBI regulates these borrowing and interest rate hedging activities can change from time to time and can impact the effectiveness with which Vedanta manages its interest rate risk.

The below table illustrates the impact of a 0.5% to 2.0% change in interest rate of borrowings on profit/(loss) and equity and represents management's assessment of the possible change in interest rates for the year ended 31 March 2017:

	Effect on loss	Effect on
Movement in Interest Rates	for the year	total equity
	(\$ million)	(\$ million)
0.5%	41.3	41.3
1.0%	82.5	82.5
2.0%	165.1	165.1

### Counterparty and Concentration of Credit Risk

Vedanta is exposed to credit risk from trade receivables, cash and cash equivalents, liquid investments and other financial instruments. Vedanta has clearly defined policies to mitigate counterparty risks. Cash and liquid investments are held primarily in debt schemes of mutual funds, bonds and bank deposits with good credit ratings. Defined limits are in place for exposure to individual counterparties in case of mutual fund houses and banks.

The large majority of receivables due from third parties are secured. Moreover, given the diverse nature of Vedanta's businesses, trade receivables are spread over a number of customers with no significant concentration of credit risk. During the year ended 31 March 2017 no single customer accounted for 10% or more of Vedanta's net sales or for any of Vedanta's primary businesses. During the year ended 31 March 2016, other than the exception of a single customer in Vedanta's Oil & Gas

business, no single customer accounted for 10% or more of Vedanta's net sales or for any of Vedanta's primary businesses. The history of trade receivables shows a negligible provision for bad and doubtful debts. Therefore, Vedanta does not expect any material risks on account of non-performance by any of Vedanta's counterparties.

Vedanta's maximum gross exposure to credit risk as of 31 March 2017 is \$10,589.3 million compared to \$9,886.0 million as of 31 March 2016.

# **Commodity Price Risk**

Vedanta is exposed to the movement of base metal commodity prices on the London Metal Exchange. Any decline in the prices of the base metals that Vedanta produces and sells will have an immediate and direct impact on the profitability of the business. As a general policy, Vedanta aims to sell the products at prevailing market prices. The commodity price risk in the import of copper concentrate and alumina is hedged on back-to-back basis ensuring no price risk for the businesses. Entities with integrated operations aim to achieve the monthly average of the commodity prices for sales realisation. Hedging is used primarily as a risk management tool to secure future cash flows in cases of high volatility by entering into forward contracts or similar instruments. The hedging activities are subject to strict limits set out by the Board and to a strictly defined internal control and monitoring mechanism. Decisions relating to hedging of commodities are taken at the Executive Committee level and with clearly laid down guidelines for their implementation by the subsidiaries.

Whilst Vedanta aims to achieve average LME prices for a month or a year, average realised prices may not necessarily reflect the LME price movements because of a variety of reasons such as uneven sales during the year and timing of shipments.

Vedanta is also exposed to the movement of international crude oil price and the discount in the price of Rajasthan crude oil to Brent price.

# Copper

Vedanta's custom smelting copper operations at Tuticorin is benefited by a natural hedge except to the extent of a possible mismatch in quotational periods between the purchase of concentrate and the sale of finished copper. Vedanta's policy on custom smelting is to generate margins from TC/RCs, improving operational efficiencies, minimising conversion cost, generating a premium over LME on sale of finished copper, sale of by-products and from achieving import parity on domestic sales. Hence, mismatches in quotational periods are managed to ensure that the gains or losses are minimised. Vedanta hedges this variability of LME prices through forward contracts and tries to make the LME price a pass-through cost between purchases of copper concentrate and sales of finished products, both of which are linked to the LME price. TC/RCs are a major source of income for the Indian copper smelting operations. Fluctuations in TC/RCs are influenced by factors including demand and supply conditions prevailing in the market for mine output. Vedanta's Copper business has a strategy of securing a majority of its concentrate feed requirement under long-term contracts with mines. KCM is largely an integrated copper producer and whenever hedging is done it is with an intention to protect Vedanta from price fluctuations in copper. KCM also does hedging for its custom smelting operations in line with Vedanta's policy on custom smelting at Tuticorin, as explained above.

#### Aluminium

The requirement of the primary raw material, alumina, is partly met from own sources and the rest is purchased primarily on negotiated price terms. Sales prices are linked to the LME prices. At present Vedanta on selective basis hedges the aluminium content in imported alumina to protect its margins. Vedanta also enters into hedging arrangements for its aluminium sales to realise month of sale LME prices.

### Zinc and lead

The sales prices are linked to the LME prices. Vedanta also enters into hedging arrangements for its zinc and lead sales to realise month of sale LME prices.

#### Iron ore

Vedanta sells its iron ore production from Goa on the prevailing market prices and from Karnataka through e-auction route as mandated by State Government of Karnataka in India.

Hedging activities in India are governed by the RBI and as a result, Vedanta has to comply with its regulations. The policies under which the RBI regulates these hedging activities can change from time to time and can have an impact on the effectiveness with which Vedanta manages commodity price risk.

Vedanta has in the past held or issued derivative instruments such as forwards, options and other derivative instruments for purposes of mitigating its exposure to commodity price risk. Vedanta does not enter into hedging instruments for speculative purposes.

# Provisionally priced financial instruments

On 31 March 2017, the value of net financial liabilities linked to commodities (excluding derivatives) accounted for on provisional prices was a liability of \$465.5 million (2016: liability of \$416.3 million). These instruments are subject to price movements at the time of final settlement and the final price of these instruments will be determined in the financial year beginning 1 April 2016.

Set out below is the impact of a 10% increase in LME prices on profit/(loss) for the year and total equity as a result of changes in value of Vedanta's commodity financial instruments as at 31 March 2017:

(US\$ million except as stated)

		Effect on profit/(loss) of a	Effect on total equity of a
	Closing LME as at 31	10% increase in the LME	10% increase in the LME
Commodity price sensitivity March 2017		31 March 2017	31 March 2017
	US\$	(US\$ million)	(US\$ million)
Copper	5,849.0	(54.3)	(54.3)
Zinc	2,782.5	0.5	0.5
Lead	2,310.0	1.1	1.1

(US\$ million except as stated)

		Effect on profit/(loss) of a	Effect on total equity of a
	Closing LME as at 31	10% increase in the LME	10% increase in the LME
Commodity price sensitivity	March 2016	31 March 2016	31 March 2016
	US\$	(US\$ million)	(US\$ million)
Copper	4,855.5	(44.5)	(44.5)
Zinc	1,785.0	0.2	0.2
Lead	1,704.5	0.6	0.6

The above sensitivities are based on volumes, costs, exchange rates and other variables and provide the estimated impact of a change in LME prices on profit and equity assuming that all other variables remain constant. A 10% decrease in LME prices would have an equal and opposite effect on Vedanta's financial instruments.

Further, the impact of a 10% increase in closing copper LME for provisionally priced copper concentrate purchased at Vedanta Limited Copper division custom smelting operations is \$48.2 million (2016: \$50.0 million), which is pass through in nature and as such will not have any impact on the profitability.

# Management's Judgment and Estimation

The discussion and analysis of Vedanta's financial condition and results of operations are based upon Vedanta's consolidated financial statements, which have been prepared in accordance with IFRS as adopted by the EU. In the course of preparing these financial statements, the management has made estimates based on and assumptions that impact the amounts recognised in the consolidated financial statements. For a discussion of the significant accounting policies, see note 2(a) to the consolidated financial statements of Vedanta for fiscal year 2017 incorporated in this Offering Circular. Vedanta's critical accounting judgements and estimation uncertainty are described in note 2(b) of the consolidated financial statements of Vedanta for fiscal year 2017.

# **OVERVIEW OF INDUSTRIES**

Unless otherwise indicated, all data relating to the copper, zinc, aluminium and iron ore industries contained in this Offering Circular is primarily derived from Wood Mackenzie. Unless otherwise indicated, all data relating to the power industry in this Offering Circular is primarily derived from the GoI and its various ministries and from various multilateral institutions. Unless otherwise indicated, all data relating to the oil and gas industry contained in this Offering Circular is primarily derived from International Energy Agency ("IEA") World Energy Outlook 2017, the BP Statistical Review of World Energy June 2017 (the "BP Statistical Review") and other industry sources.

#### Oil and Gas Overview

# Global Crude Oil and Gas Reserves and Resources

According to the BP Statistical Review, global oil reserves have increased significantly by 22.9% compared to the end of 2006, reaching 1,707 billion barrels at the end of 2016. Most of the increase in oil reserves has come from the Orinoco reserves upgrades in Venezuela and reserve revisions in other OPEC countries (mainly Iran and Iraq), and reserve revisions in Kazakhstan and the U.S. outside of the OPEC countries. The global Reserves-to-Production ("R/P") ratio was 50.6 years as of the end of 2016, and has been steadily decreasing over the last five years.

Global natural gas reserves have increased by 17.9% since the end of 2006 to 187 trillion m<sup>3</sup> as of the end of 2016, indicating an R/P ratio of 52.5 years. Turkmenistan and Iran gas reserves upgrade and the US shale gas discoveries contributed most to this increase.

Distribution of proved oil reserves in 1996, 2006 and 2016

Distribution of proved gas reserves in 1996, 2006 and 2016

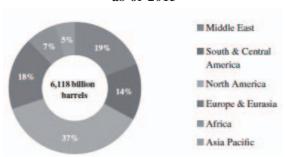


Source: BP Statistical Review 2017

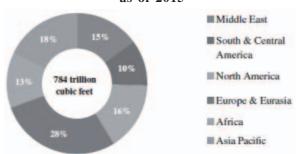
According to the estimates by IEA, as of the end of 2015, the remaining recoverable resources for oil worldwide amounted to approximately 6,118 billion barrels, of which approximately 55.1% were classified as unconventional (extra-heavy oil and bitumen, kerogen oil and tight oil). North America holds the largest volume of unconventional oil resources, totalling 1,909 billion barrels.

The IEA estimates that as of end of 2015, remaining recoverable resources for natural gas worldwide were 784 trillion m<sup>3</sup>. Of the total remaining recoverable resources, conventional gas resources were up to 434 trillion m<sup>3</sup> in 2015. The remainder of approximately 349 trillion m<sup>3</sup> was estimated as unconventional (shale gas, tight gas and coal-bed methane).

Distribution of proved oil resources as of 2015



Distribution of proved gas resources as of 2015



Source: IEA World Energy Outlook 2016

# Global Oil and Gas Markets

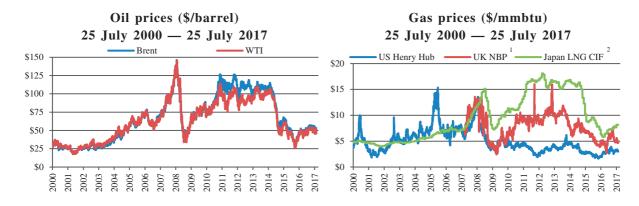
Global oil and gas demand growth has been mainly driven by the non-OECD countries, with growth in the Asia-Pacific region being the strongest. The BP Statistical Review estimates that in 2015 oil demand from the non-OECD countries increased by 1.9 million barrels per day vs. 2014 levels, or 2.6%, with the largest volume gains in oil uses from China, India and the U.S..

Natural gas consumption worldwide grew by 1.7% in 2015, with the largest volume gains in gas uses from the U.S., Iran and China. Gas demand grew by 1.5% in OECD countries vs. 1.9% in non-OECD countries.

Oil and gas prices have significantly fallen since 2014 as a result of higher production globally, primarily driven by the development of unconventional hydrocarbons in the U.S. (the U.S. became the largest oil producing country as its oil production rose by 26.3% between 2013 and 2015; the U.S. gas production rose by 11.9% over the same period) and the absence of production cut agreements between OPEC countries until November 2016. After falling as low as \$28 in January 2016, Brent crude price traded at \$50.2 as of 25 July 2017 (Source: Bloomberg).

Although natural gas prices tend to be set locally and regionally outside of the U.S., gas prices have decreased alongside oil prices. Gas prices in continental Europe and long-term contracted LNG prices in the Asia-Pacific region are predominantly indexed to oil prices. In the U.S., the substantial production growth has resulted in lower gas prices, with gas price at Henry Hub trading at \$2.94 as of 25 July 2017 (Source: Bloomberg).

The non-OECD economies are expected to continue to drive changes in future global oil and gas demand. IEA estimates that oil demand from non-OECD countries is expected to grow from 43.6 million barrels per day in 2015 to 52.2 million barrels per day in 2025 and 62.5 million barrels per day in 2040. Natural gas usage in the non-OECD economies is expected to expand rapidly, with China experiencing the largest growth in gas demand, indicating a CAGR of 4.6% from 2014 to 2040.



Source: Bloomberg as of 25 July 2017

Note: 1 Starting September 2007; 2 CIF — cost, insurance and freight

### **Indian Oil and Gas Industry**

### History

The oil and gas industry in India has traditionally been, and continues to be, dominated by public sector companies. In 1955, the GoI entered the oil and gas sector with the establishment of the Oil and Gas Directorate (the predecessor to ONGC), and formed joint venture agreements with domestic and foreign operators.

Till the early 1990s, the Indian oil and gas industry had been dominated by state-owned entities under a series of policies of nationalisation, including taking over the operations from foreign operators, and regulations in pricings. As India's reliance on oil imports increased, the Indian government embarked on a series of reforms aimed at reducing India's dependence on imports, deregulating the industry, improving efficiency, and encouraging private and foreign investment.

In 1997, the New Exploration Licensing Policy ("NELP") was implemented in order to encourage growth of the domestic exploration and production ("E&P) sector. Successful bidders are required to enter into PSCs with the Indian government. Historically, and in an effort to promote licensing rounds and encourage potential bidders, PSCs have contained comparatively favourable terms, including, for example, 100% costs recovery, and income tax holiday. In addition, under the NELP, private sector companies have marketing rights of crude oil and natural gas in the domestic market subject to overall government policy guidelines.

As a result of the NELP, there have been significantly increased level of participations from the private sectors in the domestic E&P space. Seismic activities were also very strong in the early part of this decade, as was the level of exploration drilling, which led to some of India's largest discoveries being made.

### Supply and Demand

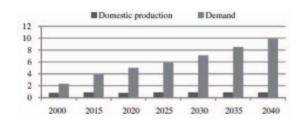
India is the second most populous country in the world with a population of approximately 1.3 billion. Rapid economic growth in India has led to a significant increase in demand for crude oil and natural gas. According to the BP Statistical Review, in 2015, India's world share of oil and gas consumption was 4.6% and 1.4% respectively.

India is a net importer of crude oil and natural gas. The BP Statistical Review estimates that in 2016, India domestically produced 0.9 million barrels per day, representing 19.1% of the total crude consumption which was 4.5 million barrels per day. Similarly, in 2016, India natural gas consumption was 50.1 billion m<sup>3</sup>, but the country produced only 29.2 billion m<sup>3</sup> of gas, representing 55.1% of the total gas consumption.

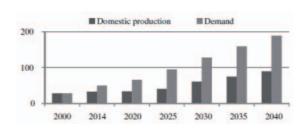
IEA estimates that India's oil consumption will surge from 3.9 million barrels per day in 2015 to 9.9 million barrels per day in 2040, at a CAGR of 3.8%. In contrast, domestic crude production is estimated to remain stable at 0.9 million barrels per day between 2015 and 2035, as most domestic producing fields are already in long-term decline and the fields that have been found in recent years are generally small.

Gas demand in India is expected to grow rapidly. By 2040, IEA estimates that annual natural gas demand will rise to 189 billion m<sup>3</sup>, indicating a CAGR of 5.2% from 50 billion m<sup>3</sup> in 2014 whilst domestic gas production is expected to meet approximately 47.1% of the total demand in 2040.

# Oil domestic production / demand in India (million barrels per day)



Gas domestic production / demand in India (billion m<sup>3</sup>)



Source: IEA World Energy Outlook 2016

Zinc

#### Global Zinc Market

Background

Zinc is one of the most commonly produced metals globally, valued as an anti-corrosion agent. Annual mine production for the year ended 31 December 2016 has been estimated by Wood Mackenzie at approximately 12.4 million tonnes.

According to Wood Mackenzie, the principal use for zinc in the western world is galvanising, which involves coating steel with zinc to guard against corrosion. Galvanising, including sheet, tube, wire and general galvanising, accounted for approximately 60% of world consumption of zinc. The main end-use industries for galvanised steel products are the automobile manufacturing, domestic appliance manufacturing and construction industries, and it is these industries on which zinc consumption ultimately depends. Other major uses for zinc include die-casting alloys (14%), brass semis and castings (10%) and oxides and chemicals (9%). Alloys are principally used in toys, vehicles and hardware.

The end-user market is dominated by the construction industry with 50% of global end-use zinc consumption, followed by the sectors of transport (21%), infrastructure (16%), industrial machinery (7%) and consumer products (6%), according to Wood Mackenzie.

The zinc industry has three broad categories of producers:

- Miners, which mine the lead-zinc ore and produce zinc concentrate for sale to smelters, and usually receive payment for 85% of the zinc contained in the concentrate less a treatment charge ("Tc");
- Smelters, which purchase concentrate and sell refined metal, with some smelters also having some integrated production downstream; and
- Integrated producers, which are involved in both the mining and smelting of zinc.

For custom smelters, treatment and refining charges ("TcRc") for zinc concentrates have a significant impact on profitability as prices for zinc concentrate are equal to the LME price net of TcRc and prices of finished zinc products are equal to the LME price plus a premium. A significant proportion of zinc concentrates are sold under frame contracts and TcRc are negotiated annually. The main conditions of the contract which are subject to negotiation are the TcRcs that are expressed in US dollars per dry metric tonne of concentrate being the Tc and in cents per pound of payable zinc being the Rc and, until recently (under long-term contracts) price participation. The TcRc rates are influenced by the demand-supply situation in the concentrate market, prevailing and forecasted LME prices and mining and freight costs.

#### Global Zinc Reserves

Global zinc reserves were estimated to be, as of 31 December 2016, 223 million tonnes, according to preliminary estimates by the U.S. Geological Survey ("USGS"). Australia, China, Peru, Mexico and the United States collectively account for 70% of world reserves.

The following table shows world zinc reserves by country:

	Reserves
	(in million tonnes)
Australia	63.0
China	40.0
Peru	25.0
Mexico	17.0
United States	11.0
Kazakhstan	11.0
India	10.0
Canada	5.7
Bolivia	4.0
Sweden	3.0
Ireland	1.1
Other countries	32.0
World total (rounded)	222.8

Source: U.S. Geological Survey (USGS), Mineral Commodity Summaries, January 2017

# Zinc consumption

According to Wood Mackenzie, global zinc consumption rose by 2.5% to 14.2 million tonnes in 2016, following 6 years of strong growth after the 2010 low post economic crisis as refined zinc consumption grew by 41.4% between 2009 and 2016. China, Europe and North America together accounted for 73.4% of global zinc consumption in 2016. With a CAGR of 7.6% between 2009 and 2016, China has been the fastest growing zinc market in the world. Driven by continuing growth in China and India, strong growth in Asia is expected to continue over the next few years.

The following table shows the regional consumption pattern of refined zinc from 2013 to 2016:

	Year Ended 31 December							
	2013 2014			2015		2016		
Region	Volume	%	Volume		Volume	%	Volume	
	(thousands of tonnes, except percentages)							
China	6,047	45.6%	6,384	46.4%	6,615	47.6%	6,838	48.0%
Europe	2,232	16.8%	2,286	16.6%	2,342	16.8%	2,365	16.6%
Rest of Asia	1,946	14.7%	2,032	14.8%	1,992	14.3%	2,020	14.2%
US & Canada	1,200	9.1%	1,242	9.0%	1,199	8.6%	1,253	8.8%
India	639	4.8%	649	4.7%	634	4.6%	685	4.8%
Latin America	629	4.7%	625	4.5%	584	4.2%	599	4.2%
Russia & Caspian	264	2.0%	248	1.8%	232	1.7%	233	1.6%
Africa	138	1.0%	140	1.0%	161	1.2%	144	1.0%
Oceania	157	1.2%	141	1.0%	143	1.0%	108	0.8%
Total	13,253	100.0%	13,747	100.0%	13,902	100.0%	14,244	100.0%

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

### Zinc supply

According to Wood Mackenzie, the five largest zinc mining countries in 2016 are China (39.5%), Peru (9.8%), Australia (7.2%), the United States (6.1%), and Mexico (5.2%), which together accounted for 67.8% of total zinc mined worldwide. The five largest zinc mining companies are Glencore (8.2%), Teck (5.4%), HZL (5.3%), Votorantim (2.8%), and Boliden (2.6%) which together accounted for about 24.3% of the total refined zinc produced worldwide.

The following table shows the regional production pattern of zinc mines from 2013 to 2016:

Year Ended 31 December 2013 2014 2015 2016 Region Volume Volume % Volume Volume % % % (thousands of tonnes, except percentages) 39.5% China ..... 4,653 36.3% 4,862 37.6% 4,844 36.8% 4,889 Latin America..... 2,700 20.5% 2,520 19.7% 2,594 20.0% 2,605 21.1% US & Canada ..... 1,139 8.8% 1,081 8.2%1,076 8.7% 1,174 9.2% Oceania ..... 1,481 11.5% 1,516 11.7% 1,599 12.1% 887 7.2% 892 911 901 869 7.0%Europe..... 7.0% 7.0% 6.8%Russia & Caspian ..... 619 4.8%596 4.6% 639 4.8% 710 5.7% 827 6.4%India..... 716 5.5% 821 6.2% 656 5.3% 325 2.5% 328 2.5% 308 2.3% 344 2.8% Africa..... 335 2.7%Rest of Asia ..... 334 2.6% 284 2.2% 282 2.1% 100.0% 12,946  $100.0\,\%$  $100.0\,\%$ 12,370  $100.0\,\%$ Total ..... 12,825 13,173

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes
Middle East

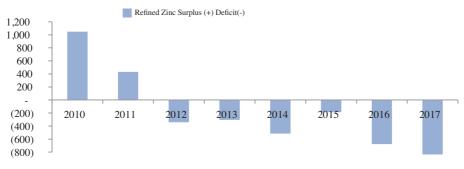
Zinc smelting is slightly less geographically concentrated than zinc mining. Zinc smelter production declined to 13.6 million tonnes in 2016 from 13.7 million tonnes in 2015, a 1.1% decrease. China is the largest single refined zinc-producing country in the world with a production of 6.0 million tonnes in 2016, representing a 44.0% global market share. The other major refined zinc producing countries include South Korea (7.5%), Canada (5.1%), India (4.7%), and Japan (3.9%). The top five countries account for approximately 65.6% of total global refined zinc production. The five largest refined zinc producing companies are Korea Zinc (8.5%), Nyrstar (7.1%), Glencore (6.9%), HZL (4.2%), and Votorantim (4.2%), which together accounted for about 31.0% of the total refined zinc produced worldwide.

The following table shows the regional production pattern of refined zinc from 2013 to 2016:

	Year Ended 31 December									
	2013		20	2014		2015		2016		
Region	Volume	%	Volume	<b>%</b>	Volume	<b>%</b>	Volume	%		
			(thousand	ls of tonnes.	, except perc	entages)				
China	5,214	40.3%	5,627	42.5%	5,925	43.2%	6,025	44.4%		
Europe	2,113	16.3%	2,215	16.7%	2,226	16.2%	2,178	16.1%		
Rest of Asia	1,715	13.3%	1,714	13.0%	1,737	12.7%	1,791	13.2%		
Latin America	976	7.5%	940	7.1%	946	6.9%	934	6.9%		
US & Canada	907	7.0%	785	5.9%	859	6.3%	817	6.0%		
India	801	6.2%	736	5.6%	850	6.2%	641	4.7%		
Russia & Caspian	572	4.4%	599	4.5%	599	4.4%	625	4.6%		
Oceania	499	3.9%	484	3.7%	489	3.6%	464	3.4%		
Africa	139	1.1%	134	1.0%	83	0.6%	94	0.7%		
Total	12,935	100.0%	13,233	100.0%	13,715	100.0%	13,568	100.0%		

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East The global refined zinc market is in deficit due to mine closures in 2015 and 2016.



Source: Wood Mackenzie Zinc LTO Q2 2017, June 2017

### Pricing

Zinc is traded on the LME. Although prices are determined by LME price movements, producers normally charge a regional premium that is market driven. Significant price decrease in 2015 has resulted in a number of mine production cuts, which, along with the closure of mines reaching end of production, pushed the zinc price to \$2,090 per tonne in 2016, an increase of 8.4% over 2015.

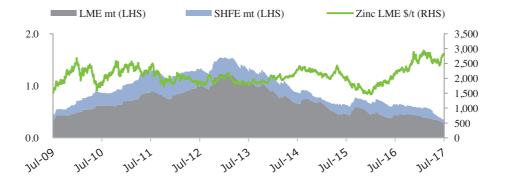
The following table shows the movement in zinc prices from 2007 to 2016:

		Year Ended 31 December									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
		(\$ per tonne, except percentages)									
Zinc LME cash price.	3,248	1,870	1,658	2,158	2,190	1,946	1,909	2,164	1,928	2,090	
% change	(0.7)	(42.4)	(11.3)	30.1	1.5	(11.1)	(1.9)	13.4	(10.9)	8.4	

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

The last closing LME zinc cash price was \$2,834 per tonne as of 25 July 2017 (Source: Bloomberg).

Inventory levels at the LME and SHFE are at 6-year lows. These fundamental and structural factors have continued to support the zinc prices.



Low treatment charges reflect the tightness in the concentrate market.



Source: Wood Mackenzie Zinc STO June 2017

### Indian Zinc Market

### Background

India holds substantial zinc resources — according to the Indian Minerals Yearbook 2015, India held around 35.9 million tonnes in zinc resources as of 1 April 2013. The USGS estimates that India's zinc reserves to be around 10 million tonnes, making it the seventh largest country in terms of zinc reserves globally. The Indian zinc industry is dominated fully by Vedanta's majority-owned subsidiary, HZL, which had a 100% market share in India in fiscal 2015 for zinc ingots, according to the Indian Minerals Yearbook 2015. The other producer is Binani Zinc, with a 2% Indian market share in terms of sales volume in fiscal 2014 but had no sales in fiscal 2015.

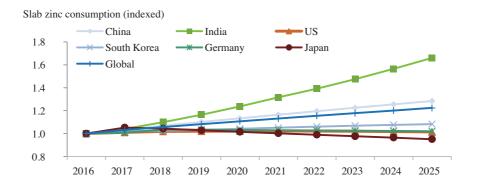
### Production

Based on Wood Mackenzie data, refined zinc production in India decreased 24.6% from 850 thousand tonnes in 2015 to 641 thousand tonnes in 2016, but will rise to 856 thousand tonnes in 2017 before stabilising at 843 thousand tonnes per year from 2018 onwards.

# Consumption

According to Wood Mackenzie, consumption of refined zinc in India reached 685 thousand tonnes during 2016. The principal use of zinc in the Indian market is in the galvanising sector, which is primarily used for tube, sheet and structural products. The other significant end-user of zinc in India is the alloys sector, similar to western world consumption trends, which has seen an increased demand for die-casting alloys. With expected infrastructure development such as roads, irrigation, construction, oil and gas and ports, there is expected to be increased demand for steel, thus providing significant opportunities for zinc in India. Wood Mackenzie forecasts Indian refined zinc demand to increase at a CAGR of 5.8% from 685 thousand tonnes in 2016 to 1,137 thousand tonnes in 2025.

India's zinc consumption is expected to grow rapidly over the next decade



Source: Wood Mackenzie Zinc LTO Q2 2017

Pricing and tariff

Indian zinc prices track global prices as the metal is priced on the basis of the landed costs of imported metal.

The following table shows the customs duties that were applicable on zinc for the periods indicated:

	22 January 2007 to	29 April 2008 to 2	3 January 2009 to 29	1 March 2016 to	
	28 April 2008	January 2009	February 2016	present	_
Zinc	5.0%	0.0%	5.0%	5.0%	

In addition, the Finance Act (2 of 2004) of India levies an additional surcharge at the rate of 3% of the total customs duty payable, which is an increase from 2% prior to 1 March 2007.

#### Market Outlook

Global zinc outlook

According to Wood Mackenzie, global zinc demand will continue to grow over the next few years, at a CAGR of 2.6% between 2016 and 2020, to reach 15.8 million tonnes in 2020. Growth will be led by developing economies in Asia, while zinc consumption will remain broadly stable in Europe, the United States and Canada (which together have a 0.1% CAGR over the same period).

China's zinc consumption will continue to drive the global zinc demand growth based on Wood Mackenzie's forecast. The total consumption of slab zinc in China is expected to grow from 6.8 million tonnes in 2016 to 7.7 million tonnes in 2020. That would translate to China's consumption growth at a CAGR of 3.2% between 2016 and 2020, which compares to global consumption growth excluding China at an expected CAGR of 2.1% for the same period.

According to Wood Mackenzie, between 2017 and 2035, 32 new zinc mines will enter production adding 1.2 million tonnes per annum at peak output. The average size of these operations is quite modest at around 36 thousand tonnes per annum. Expansions or production creep at 73 mines globally will add 4.4 million tonnes per annum by 2025. The 151 existing producers are forecast to close on reserve depletion by 2035 for the loss of 5.8 million tonnes per annum. And 27 mines which are expected to produce 2.2 million tonnes per annum in 2019 will produce only 1.9 million tonnes per annum by 2035 for a loss of 0.3 million tonnes per annum output by attrition.

#### Indian zinc outlook

The Indian market is expected to remain positive, with strong growth in key user segments such as sheet galvanising and zinc alloys for the construction segment. Indian zinc demand is expected to grow in the next few years based on a positive GDP forecast, at a CAGR of 8.3% between 2016 and 2021 based on Economist Intelligence Unit. The key components for growth are the ongoing and upcoming infrastructure projects, telecom and power projects and automobile sector.

# Copper

# Global Copper Market

# Background

Copper is a non-magnetic, reddish-coloured metal with a high electrical and thermal conductivity (second only to silver in electrical conductivity among all pure metals at room temperature), high tensile strength and resistance to corrosion.

The copper market is geographically diverse in terms of both production and consumption. The different geographical locations of the copper mines and the smelting and refining facilities have led to the development of "custom smelters/refineries", which tend to be heavily reliant on imported concentrates.

Copper consumption can be divided into three main product groups: copper wire rods, copper products and copper alloy products. According to Wood Mackenzie, the predominant use of copper has been the production of copper wire rods, which accounted for an estimated 74% of total global consumption in 2016. Wire rod is consumed in five main wire and cable markets which include general and industrial cable, utility power cable, telecommunication cable, other insulated wire and winding wire.

In the global copper consumer market, the construction segment accounted for 31% of copper consumption, followed by the electrical and electronic products segment (23%), the transportation equipment segment (11%), the industrial machinery segment (10%) and the consumer products segment (24%), as estimated by Wood Mackenzie for 2016.

The copper industry has three broad categories of producers:

- Miners, which mine the copper ore and produce copper concentrate;
- Custom smelters, which smelt and refine copper concentrate to produce copper metal; and
- Integrated producers, which mine copper ore from captive mines and produce copper metal either through smelting and refining or through leaching.

# Global Copper Reserves

Global copper reserves were estimated to be, as of 31 December 2016, 720 million tonnes, according to preliminary estimates by the U.S. Geological Survey ("USGS"). Chile, Australia, Peru, Mexico and the United States collectively account for 64% of world reserves.

	Reserves
	(in million tonnes)
Chile	210.0
Australia	89.0
Peru	81.0
Mexico	46.0
United States	35.0
China	28.0
Russia	30.0
Congo	20.0
Zambia	20.0
Canada	11.0
Other countries	150.0
World total (rounded)	720.0

Source: U.S. Geological Survey (USGS), Mineral Commodity Summaries, January 2017

# Refined copper consumption

Global refined copper demand increased from 21.9 million tonnes in 2015 to 22.5 million tonnes in 2016, an increase of 2.5%, according to Wood Mackenzie data.

Refined consumption grew in China, India, the rest of Asia, and Europe in 2016, but declined in the United States, Latin America, Russia & Caspian as well as Oceania. China was the largest end user of copper in 2016 with a 47.6% market share globally, providing Asia with a combined market share of 67.9%, followed by Europe (16.8%), the United States and Canada (8.8%), and Latin America (3.7%). Previously Europe and North America accounted for approximately 60% of copper consumption during the 1980s, but strong growth in Asia, led by China and Japan, has since significantly changed global consumption patterns. This trend of Asia's growing dominance in copper consumption is expected to continue.

The following table shows the regional consumption pattern of refined copper from 2013 to 2016:

Year Ended 31 December

	2013		2014		2015		2016	
Region	Volume	%	Volume		Volume		Volume	%
			(thousand	ls of tonnes,				
China	9,165	44.4%	9,836	45.5%	10,196	46.5%	10,700	47.6%
Rest of Asia	3,712	18.0%	3,926	18.2%	4,002	18.2%	4,075	18.1%
Europe	3,467	16.8%	3,608	16.7%	3,713	16.9%	3,761	16.7%
US & Canada	1,952	9.4%	1,982	9.2%	2,003	9.1%	1,977	8.8%
Latin America	934	4.5%	927	4.3%	877	4.0%	834	3.7%
India	422	2.0%	431	2.0%	486	2.2%	498	2.2%
Russia & Caspian	716	3.5%	653	3.0%	422	1.9%	402	1.8%
Africa	208	1.0%	219	1.0%	224	1.0%	215	1.0%
Oceania	85	0.4%	22	0.1%	11	0.0%	11	0.0%
Total	20,660	100.0%	21,604	100.0%	21,933	100.0%	22,472	100.0%

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

### Copper supply

Global mine production is the principal source of copper, with scrap recycling accounting for only a minor part of the aggregate supplies.

According to Wood Mackenzie's data, the five largest copper mining countries were Chile (28.1%), Peru (11.5%), China (7.3%), the United States (7.3%) and Congo DR (5.2%), which together accounted for approximately 59.4% of the total copper mined worldwide in 2016. The five largest copper mining companies were Codelco (9.1%), Freeport-McMoran (8.6%), Glencore (6.4%), BHP Billiton (5.6%), and Southern Copper (4.4%).

The major smelting locations include China (36.8%), Japan (8.4%), Chile (8.0%), Russia (4.3%) and India (4.2%), which together accounted for 61.7% of global production in 2016. The five largest copper smelting companies were Glencore (5.9%), Codelco (5.4%), Jiangxi Copper (5.4%), Tongling (4.4%), and Aurubis (3.6%).

The five largest refined copper producing countries were China (34.4%), Chile (11.5%), Japan (6.9%), the United States (5.4%) and Russia (3.8%), which together accounted for about 62.0% of the total refined copper produced worldwide in 2016. The five largest copper refining companies were Codelco (6.3%), Freeport-McMoran (5.3%), Aurubis (4.8%), Glencore (4.7%), and Tongling (4.6%).

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

Global refined copper production increased from 22.0 million tonnes in 2015 to 22.8 million tonnes in 2016, an increase of 3.7%.

The following table shows the regional production pattern of refined copper from 2013 to 2016:

	Year Ended 31 December									
	2013		2014		20	2015		2016		
Region	Volume		Volume %		Volume		Volume			
			(thousan	ds of tonnes	, except per	centages)				
China	6,330	30.4%	6,880	31.7%	7,049	32.1%	7,835	34.4%		
Latin America	3,752	18.0%	3,724	17.2%	3,721	16.9%	3,651	16.0%		
Rest of Asia	2,779	13.4%	2,841	13.1%	2,778	12.7%	3,015	13.2%		
Europe	2,870	13.8%	2,926	13.5%	2,912	13.3%	2,845	12.5%		
U.S. & Canada	1,353	6.5%	1,398	6.4%	1,456	6.6%	1,519	6.7%		
Russia & Caspian	1,330	6.4%	1,270	5.8%	1,376	6.3%	1,393	6.1%		
Africa	1,292	6.2%	1,398	6.4%	1,406	6.4%	1,260	5.5%		
India	619	3.0%	762	3.5%	791	3.6%	778	3.4%		
Oceania	483	2.3%	506	2.3%	467	2.1%	466	2.0%		
Total	20,808	100.0%	21,717	100.0%	21,957	100.0%	22,762	100.0%		

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia &Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

#### Pricing

Copper is traded on the LME. Although prices are determined by LME price movements, producers normally charge a regional premium that is market driven. Copper price fell by 37.6% between 2011 and 2015 on the back of slowing Chinese growth and increasing production due to continued investments, and continued to decrease in 2016, falling another 11.5% to \$4,862 per tonne as a result of strong supply and elevated stocks. However Q4 2016 saw prices rise back as Chinese demand turned out to be stronger than expected in 2016 and inventories started decreasing.

The following table shows the movement in copper prices from 2007 to 2016:

	Year Ended 31 December										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
		(\$ per tonne, except percentages)									
Copper LME cash											
price	7,125	6,951	5,163	7,539	8,810	7,949	7,322	6,862	5,494	4,862	
% change	5.9	(2.4)	(25.7)	46.0	16.9	(9.8)	(7.9)	(6.3)	(19.9)	(11.5)	

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

The last closing LME copper cash price was \$6,197 per tonne as of 25 July 2017 (Source: Bloomberg).

Since peak levels of \$1,080 per tonne in 2006, treatment and refining charges (25% concentrate) have fallen significantly, reflecting a continuing tightening in the physical concentrate demand/supply balance while inventories of refined metal remained at elevated levels above 75 days of consumption since 2012, vs. 50 days in 2007. In 2016, spot quotes averaged \$620 per tonne, representing a 9.0%

decline on 2015 level according to Wood Mackenzie data. China's continuing demand for imported copper concentrates and the recent emergence of increasing disruptions to global mine supply saw spot TcRc rates decline during Q4 2016. Treatment and refining charges are expected to remain under pressure over the short to medium term as global smelting capacity outpaces mined production growth; Wood Mackenzie expects that concentrate market will approach equilibrium by 2025, with a long term estimate for treatment and refining charges (25% concentrate) of approximately \$561 per tonne in 2017 real terms.

The following table shows the movement in copper spot annual average TcRc rates from 2007 to 2016 in nominal dollars:

	Year Ended 31 December											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
		(\$ per tonne, except percentages)										
TcRc (25%												
concentrate)	382	287	478	296	357	405	446	586	682	620		
% change	(64.6)	(25.0)	66.7	(38.0)	20.4	13.4	10.2	31.4	16.3	(9.0)		

Source: Wood Mackenzie Metals Concentrates Market Service Report — Long Term Outlook, June 2017

# Indian Copper Market

# Background

The Indian copper industry consists primarily of custom smelters as there are limited copper deposits in the country. The available deposits are owned by the government-owned Hindustan Copper Limited ("HCL"), which was the only producer in India until 1995 and has transformed significantly with the entry of Birla Copper, now owned by Hindalco. The Indian industry can be classified into two broad categories — manufacturers of refined copper (copper cathodes) and manufacturers of copper products. Of the three manufacturers of refined copper, HCL is the only primary producer, which mines and refines copper. Hindalco and Vedanta Limited process primarily imported copper concentrate to produce end products such as copper bars, rods and wires.

The Indian copper industry opened to private sector investment in 1992. Prior to 1992, the industry was dominated by HCL, a public sector undertaking ("PSU"), owned by the GoI. HCL was incorporated in November 1967 with the objectives of carrying out mining operations and producing copper and related products.

# Production and Consumption

According to the World Copper Factbook 2016 by the International Copper Study Group, in 2015, India's per capita consumption of copper (0.35kg per person) is significantly less than that of China (4.40kg per person) and other developed nations including Germany (14.86kg per person), Spain (7.50kg per person) and the United States (5.59kg per person). India's consumption of copper is dominated by electrical, telecom, engineering, construction and transport. There is an imbalance between India's smelting/refining capacity and its limited production capacity in copper mining. From 2013 to 2016, based on Wood Mackenzie data, Indian refined copper consumption increased at a CAGR of 5.7% to reach 498 thousand tonnes in 2016, while over the same period of time, copper mining output in India decreased by 42.4% with 19 thousand tonnes of copper mined in 2016. Wood Mackenzie expects refined copper demand in India to increase to 958 thousand tonnes in 2025 growing at a CAGR of 7.5% between 2016 and 2025.

# Pricing and tariff

Indian copper prices track global prices as the metal is priced on the basis of landed costs of imported metal. The following table sets out the customs duties that were applicable on copper for the period indicated:

	22 January 2007 to	29 April 2008 to 2	3 January 2009 to 27	28 February 2011 to
	28 April 2008	January 2009	February 2011	present
Copper	5%	5%	5%	5%
Copper concentrate	2%	2%	2%	2.5%

In addition, the Finance Act (2 of 2004) of India, which has been in effect since 8 July 2004, levies an additional surcharge at the rate of 2% of the total customs duty payable, which has been further increased to 3% of the total customs duty payable effective as of 1 March 2007.

Further, on 1 March 2011, the GoI announced an exemption from import duty on copper concentrate up to an amount equivalent to the customs duty leviable on the value of gold and silver contained in such copper concentrate.

### Market Outlook

### Global copper outlook

According to Wood Mackenzie, the surplus in refined copper production is expected to continue in the near term as long project lead time means that new production is still coming to the market despite slower demand.

However, copper markets are expected to tighten as output growth slows, with reserve depletion and falling head grades triggering a fall in base case production after 2019. According to Wood Mackenzie, refined copper consumption will grow at a CAGR of 1.6% between 2016 and 2025, reaching 25.9 million tonnes in 2025. Mined production from existing assets and highly probable projects will decrease at a CAGR of 0.4% over the same period, with 19.3 million tonnes mined in 2025. This imbalance will support higher copper prices and new investments in production capacity.

### Indian copper outlook

India's copper market is expected to remain positive with strong growth in key user segments such as power, construction and engineering. Indian refined copper consumption is expected to continue to grow strongly in line with the overall growth of the economy, at a CAGR of 7.5% between 2016 and 2025 according to Wood Mackenzie.

The five major sectors that consume the majority of the copper in India are the electrical, telecom, engineering, construction and transport sectors. These copper consuming sectors have been recognised by the GoI as key infrastructure sectors to sustain the growth of the Indian economy. The GoI's Twelfth Five Year Plan (draft, 2012 — 2017) included addition of approximately 88,000 megawatts of power capacity and 1,229 million tonnes of new capacity in ports, the expansion of India's four-laned and six-laned highway systems and an expansion of its railway system's freight capacity.

#### Iron Ore

# Global Iron Ore Market

#### Background

Iron ore is the key raw material used to make pig iron and steel. According to the Mineral Information Institute, 98% of the mined iron ore is used to make steel.

The iron ore itself is usually found in the form of magnetite (Fe3O4), hematite (Fe2O3), goethite, limonite or siderite. Hematite is also known as "natural ore". The name refers to the early years of mining, when certain hematite ores contained 66% iron and could be fed directly into iron making blast furnaces.

The iron ore industry has two broad categories of producers:

- (1) Mining companies with a focus on extracting different metals and minerals including iron ore; and
- (2) Steel companies, who mine and produce iron ore to benefit from security of supply of its key raw materials.

Historically, steel producers have looked to manage iron ore prices by securing the supply of iron ore through long-term contracts, strategic investments directly in iron ore projects and acquisition of iron ore producers.

#### World Iron Ore Reserves

Global crude iron ore reserves were estimated to be, as of 31 December 2016, 173 million tonnes, according to preliminary estimates by the U.S. Geological Survey ("USGS"). Australia, Russia, Brazil, China and India collectively account for 74.7% of world reserves.

The following table shows world iron ore reserves by country:

	Crude Ore	Iron Content
	(in billio	n tonnes)
Australia	52.0	23.0
Russia	25.0	14.0
Brazil	23.0	12.0
China	21.0	7.2
India	8.1	5.2
Ukraine	6.5	2.3
Canada	6.3	2.3
Sweden	3.5	2.2
United States	3.0	0.8
Iran	2.7	1.5
Kazakhstan	2.5	0.9
South Africa	1.2	0.8
Other countries	18.0	9.5
World total (rounded)	172.8	81.7

Source: U.S. Geological Survey (USGS), Mineral Commodity Summaries, January 2017

# Iron ore consumption

Chinese steel consumption has fuelled demand for iron ore between 2000 and 2013, as Chinese apparent finished steel demand grew at a CAGR of 14.4% over the period 2000-2013 based on estimates from Wood Mackenzie. However steel demand in China contracted at a CAGR of 2.1% per

annum between 2013 and 2016, falling from 717 million tonnes in 2013 to 665million tonnes in 2016. As a result, global steel consumption has remained broadly flat: finished steel consumption has decreased from 1,517 million tonnes in 2013 to 1,491 million tonnes in 2016, representing a decrease of 1.7% over the period.

The following table shows the apparent finished steel consumption pattern from 2013 to 2016:

_	Year Ended 31 December						
Region	2013	2014	2015	2016			
	(mill	ion of tonnes, ex	xcept percentage	es)			
China	717	694	652	665			
Change (%)	11.0	(3.2)	(6.1)	2.0			
India	74	76	80	84			
Change (%)	1.8	3.1	5.7	4.1			
Rest of the world	727	762	748	743			
Change (%)	2.1	4.8	(1.8)	(0.8)			
Total	1,517	1,531	1,480	1,491			
Change (%)	6.1	0.9	(3.3)	0.7			

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

This slowdown in the Chinese steel industry has directly impacted global iron ore demand, which has also remained flat over the same period. Between 2013 and 2016, the world's production of iron ore decreased by 1.8% to 2,217 million tonnes.

The following table shows the regional consumption pattern of iron ore from 2013 to 2016:

	Year Ended 31 December									
	2013		20	14	2015		2016			
Region	Volume	<b>%</b>	Volume	<b>%</b>	Volume		Volume	%		
			(thousand	ds of tonnes	, except per	centages)				
China	1,223	60.0%	1,256	60.0%	1,208	59.4%	1,208	59.6%		
Rest of Asia	266	13.0%	280	13.4%	277	13.6%	278	13.7%		
Europe	151	7.4%	157	7.5%	155	7.6%	153	7.5%		
CIS	139	6.8%	135	6.5%	132	6.5%	136	6.7%		
India	105	5.2%	110	5.3%	116	5.7%	119	5.9%		
North America	75	3.7%	79	3.8%	70	3.4%	64	3.2%		
South America	56	2.7%	55	2.6%	56	2.7%	51	2.5%		
Africa	17	0.8%	16	0.8%	14	0.7%	14	0.7%		
Oceania	6	0.3%	6	0.3%	6	0.3%	6	0.3%		
Total	2,038	100.0%	2,093	100.0%	2,033	100.0%	2,027	100.0%		

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Rest of Asia" includes Middle East

# Iron ore supply

The largest iron ore producing countries in 2016 are Australia, Brazil, China and India as reported by Wood Mackenzie, and these countries collectively account for 75% of the world's production.

The following table shows the regional production pattern of iron ore from 2013 to 2016:

Year Ended 31 December

	2013		2014		20	15	2016	
Region	Volume	%	Volume	<b>%</b>	Volume	%	Volume	%
			(thousand	ls of tonnes	, except per	centages)		
Oceania	626	27.7%	751	32.7%	806	36.7%	860	38.8%
South America	457	20.2%	489	21.3%	507	23.1%	496	22.4%
China	431	19.1%	355	15.4%	264	12.0%	216	9.7%
CIS	210	9.3%	204	8.9%	197	9.0%	190	8.6%
India	148	6.6%	128	5.6%	112	5.1%	140	6.3%
North America	126	5.6%	116	5.0%	104	4.7%	102	4.6%
Rest of Asia	116	5.1%	98	4.3%	77	3.5%	82	3.7%
Africa	104	4.6%	113	4.9%	92	4.2%	91	4.1%
Europe	41	1.8%	44	1.9%	39	1.8%	40	1.8%
Total	2,258	100.0%	2,297	100.0%	2,198	100.0%	2,217	100.0%

 $Source: \ \ Wood\ Mackenzie\ Metals\ Market\ Service\ Report-Long\ Term\ Outlook,\ June\ 2017$ 

Note: "Rest of Asia" includes Middle East

The iron ore market is highly consolidated with a few producers accounting for the majority of supply. According to Wood Mackenzie, the four largest iron ore mining companies are Vale (17.8% of global iron ore production in 2016), Rio Tinto (15.7%), BHP Billiton (11.8%), and Fortescue Metals Group (7.6%). These four companies accounted for 52.9% of global iron ore production and approximately 70.8% of the supply of seaborne iron ore trade in 2016.

#### World seaborne iron ore trade

Due to the disparity in regional supply and demand, particularly in China, there has been a significant increase in world exports of iron ore over the last few years. Wood Mackenzie estimated world trade had reached 1,546 million tonnes in 2016, an increase of 17.3% from 2013.

During 2016, Australian producers exported 842 million tonnes, while Brazil exported approximately 374 million tonnes of iron ore. These two countries together represented 78.8% of all world exports of iron ore in 2016. In addition to Australia and Brazil, Canada, CIS and the African continent are also significant exporters of iron ore.

Although its iron ore consumption is slowing, China remains by far the main destination for world iron ore shipments, importing 1,025 million tonnes in 2016, representing a 69.7% share of the total world imports. This trend is expected to continue as iron ore quality in China is inferior and needs to be blended with higher quality iron ore for its steel production requirements.

The below table shows historical world seaborne iron ore trade for the last four years with major exporting and importing countries:

_	Year Ended 31 December						
_	2013	2014	2015	2016			
World iron ore exports	1,318	1,461	1,469	1,546			
Change (%)	9.8	10.8	0.5	5.2			
Top 5 exporters (2016)							
Australia	605	748	799	842			
Brazil	325	345	366	374			
South Africa	61	65	65	65			
Canada	38	41	37	41			
Ukraine	38	40	45	39			
World iron ore imports	1,276	1,413	1,417	1,471			
Change (%)	7.5	10.7	0.3	3.8			
Top 5 importers (2016)							
China	832	936	953	1,025			
Japan	136	136	131	130			
South Korea	63	74	73	72			
Germany	40	43	42	40			
Taiwan	22	23	24	23			

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

### Pricing

Iron ore has seen significant price decreases in recent years due to ample supply in the market and slowdown of global demand. Prices have decreased by 59.2% between 2013 and 2015, but rebounded slightly and rose by 4.7% in 2016, driven by China's ongoing commitment to supply side reform aimed at coal and steel.

The following table shows the movement in iron ore prices from 2007 to 2016:

	Year Ended 31 December									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	(\$ per tonne, except percentages)									
Iron Ore Fines (62%										
Fe, CFR NE										
China)	76.1	115.1	79.9	146.9	167.8	128.5	135.4	96.8	55.2	57.8
% change	30.7	51.3	(30.6)	83.9	14.3	(23.4)	5.3	(28.5)	(43.0)	4.7

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

# Indian Iron Ore Market

# Background

India is a self-sufficient producer in iron ore for domestic steel production. India has been a traditional exporter of iron ore, with most of the exports going to China, Japan, South Korea and other Far Eastern countries. India has substantial iron ore resources, and has around 31.3 billion tonnes of

iron ore resources in estimates as of 1 April 2013 as reported in the Indian Minerals Yearbook 2015. According to the estimates by USGS, India is the fifth largest country in terms of size of crude ore reserves in 2016, at 8.1 billion tonnes of crude ore. Key players include National Mineral Development Corporation ("NMDC"), Vedanta Limited, Kudremukh Iron Ore Co. ("KIOCL"), Rungta Mines Ltd ("Rungta"), Mineral Sales Private Limited ("MSPL") and Essel. Apart from these, some of the integrated steel companies like Steel Authority of India and Tata Iron and Steel Companies have their own captive mines.

# Supply and Demand

As of 2016, based on Wood Mackenzie data, India was producing approximately 140 million tonnes of iron ore, of which approximately 22 million tonnes are for export. From 2009 to 2015, India's iron ore production has decreased by 45.9% from 208 to 112 million tonnes while exports have also fallen from 114 million tonnes to around 4 million tonnes. At the same time, India started importing iron ore, with a peak at 10 million tonnes in 2015. The sharp decrease in both production and exports can be attributed to mining ban and suspensions of mining activities that were in place since 2011 and 2012 in the Indian states of Karnataka and Goa, respectively. On 18 April 2013, the Indian Supreme Court has eased the ban on mining in the state of Karnataka by allowing around 100 iron ore mines to restart operation, although production has not fully recovered to historical levels as permitting remains strict.

The table below shows India's historical iron ore production, consumption, imports and exports:

	Year Ended 31 December									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	(millions of tonnes)									
Production	178	193	208	205	182	136	148	128	112	140
Consumption	85	90	92	97	100	104	105	110	116	119
Imports	0	0	1	1	1	3	1	7	10	4
Exports	91	101	114	108	81	33	16	10	4	22

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

### Pricing and tariff

As India is self-sufficient in iron ore with minimal quantities being imported, the domestic market is localised in nature with local demand and supply playing a major role in pricing. In addition, logistic costs, local duty structures and other operating costs affect prices unevenly across the different regional markets. This results in prices at regional markets such as Odisha, Chhattisgarh, Karnataka and Goa having a disparity against international prices, while still tracking the general trend in international prices. As the largest producer of iron ore in India, particularly in the Chhattisgarh and Karnataka regions, the government-owned agency NMDC determines contract prices. Such prices are reactionary to international prices, with the NMDC adjusting domestic prices to align with international prices with a time lag.

Prior to June 2008, the GoI had set an export duty on iron ore fines with less than 62% iron content of Rs. 50 per tonne while the export duty on iron ore fines with an iron content of 62% or more and all grades of lumps was Rs. 300 per tonne. On 13 June 2008, the GoI changed the export duty on iron ore to 15% ad valorem on the FOB value of exports. On 28 February 2011, India raised the duty to 20% from 5% on fines and to 20% from 15% on lumps with effect from 1 March 2011. In 30 December 2011, the GoI raised the rate of export duty on both iron ore fines and lumps to 30%. From

1 May 2015, export duty in iron ore lumps and fines with less than 58% iron content was reduced to 10%. However, since 1 March 2016, export duty on lumps and fines with less than 58% iron content has been reduced to zero, while lumps and fines with more than 58% iron ore content continue to be charged with a 30% export duty.

	13 June 2008 to	1 March 2011 to	30 December 2011
	<b>28 February 2011</b>	29 December 2011	to Present
Lumps	15%	20%	30%
Fines	5%	20%	30%

#### Market Outlook

#### Global Iron Ore Outlook

The slowdown in Chinese steel growth has severely impacted iron ore markets over the last few years. Wood Mackenzie estimates that Chinese demand for iron ore peaked in 2014 and will continue to slowly decrease over time as scrap usage rises. The rebound in iron ore prices in 2016 was relatively unsupported by fundamentals and kept marginal cost producers cash positive. Medium term outlook still looks challenging, as the low point in demand coincides with rapid growth in low cost seaborne supply.

According to Wood Mackenzie, iron ore markets will gradually tighten as a more concentrated industry structure post rationalisation leads to a return of pricing power. Wood Mackenzie estimates a long term average of \$60 per tonne for iron ore fines (62% Fe, CFR NE China, in 2016 real terms) from 2023 onwards.

#### Indian Iron Ore Outlook

According to Wood Mackenzie, growth in iron ore consumption in India will outpace China and the rest of the world, as Indian iron ore demand will grow at a CAGR of 2.9% between 2016 and 2025, vs. a negative 0.7% for China and a positive 0.1% for world excluding India. Indian iron ore consumption is expected to reach 154 million tonnes in 2025, which will be in line with domestic production.

# Aluminium

### Global Aluminium Market

# Background

Aluminium is lightweight in relation to its strength, durability and resistance to corrosion. It can be extruded, rolled, formed and painted for a wide variety of uses.

The raw material from which aluminium is produced is bauxite, which is a very common mineral found mainly in tropical regions. It normally occurs close to the surface and can be mined by open-pit methods. Bauxite is refined into alumina which is used to produce aluminium. Typically, bauxite ranges from 35% to 60% contained alumina. There are several different types of bauxite, and alumina refineries are usually designed to treat a specific type. The majority of alumina refineries are therefore integrated with mines.

The importance of different sectors in aluminium demand varies significantly between developed and developing nations. In mature economies, transport plays a more important role in aluminium demand than construction. As estimated by Wood Mackenzie, in 2016, the four largest sectors of end-uses for aluminium in mature economies like Germany, Japan, South Korea, the United States and

Canada were transport (38%), packaging (18%), construction (15%) and machinery (10%). In comparison, in 2016, the four largest sectors of end-uses for aluminium in China, Brazil and India were construction (26%), followed by transport (20%), consumer goods (16%) and packaging (13%).

#### Aluminium consumption

Based on Wood Mackenzie data, world primary aluminium consumption increased from 50.0 million tonnes in 2013 to 59.2 million tonnes in 2016, at a CAGR of 5.8%. Chinese demand is fuelling the growth, as China accounted for 53.0% of total global consumption in 2016. Between 2013 and 2016, China's demand for primary aluminium increased at a CAGR of 8.8%, compared to an increase of 2.7% for world demand excluding China.

The following table shows the regional consumption of primary aluminium from 2013 to 2016:

	Year Ended 31 December										
Region	2013		2014		2015		2016				
	Volume	%	Volume	<b>%</b>	Volume	<b>%</b>	% Volume	<b>%</b>			
	(thousands of tonnes, except percentages)										
China	24,282	48.5%	27,147	50.4%	29,783	51.7%	31,285	52.8%			
Europe	8,068	16.1%	8,274	15.4%	8,427	14.9%	8,592	14.5%			
Rest of Asia	6,376	12.7%	6,851	12.7%	6,892	12.2%	7,164	12.1%			
U.S. & Canada	5,399	10.8%	5,700	10.6%	5,938	10.5%	6,015	10.2%			
Latin America	2,142	4.3%	2,081	3.9%	2,018	3.6%	1,981	3.3%			
India	1,728	3.5%	1,767	3.3%	1,939	3.4%	2,052	3.5%			
Russia & Caspian	966	1.9%	918	1.7%	872	1.5%	916	1.5%			
Africa	553	1.1%	619	1.1%	635	1.1%	652	1.1%			
Oceania	516	1.0%	539	1.0%	547	1.0%	544	0.9%			
Total	50,030	100.0%	53,897	100.0%	56,452	100.0%	59,200	100.0%			

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

### Aluminium supply

Aluminium production has become increasingly more concentrated in recent years, with the leading ten producers accounting for 50.5% of world primary aluminium production in 2016 as reported by Wood Mackenzie. The five largest primary aluminium producing companies are Weiqiao Textile Group (10.8%), Xinfa Group (6.4%), UC Rusal (6.0%), Rio Tinto (5.8%) and Chalco (4.8%), which together accounted for approximately 33.9% of the total primary aluminium produced worldwide in 2016.

Global production of primary aluminium increased from 50.6 million tonnes in 2013 to 59.3 million tonnes in 2016, at a CAGR of 5.5%. In 2016, North America, Europe and China together accounted for approximately 69.2%, with China alone accounting for 54.8%, of global primary aluminium production.

The following table shows the regional production of primary aluminium from 2013 to 2016:

Year Ended 31 December 2013 2014 2016 2015 Region Volume % Volume % Volume % Volume % (thousands of tonnes, except percentages) China ..... 24,900 49.2% 27,849 51.9% 30,800 54.0% 32,500 54.8%Rest of Asia ..... 5,814 10.8%6,039 10.6% 6,433 10.8%4,746 9.4% Europe..... 4,258 4,276 8.0%4,415 7.7% 7.6%8.4% 4,510 Russia & Caspian ..... 4,257 8.4%3,874 7.2%3,976 7.0%4,156 7.0%U.S. & Canada ...... 4,917 9.7% 4,584 8.5% 4,465 7.8% 4,024 6.8% India..... 2,357 2,728 4.6%1,703 3.4% 1,941 3.6% 4.1%Oceania ..... 2,108 4.2% 2,033 3.8% 1,978 3.5% 1,971 3.3% Africa..... 1,810 3.6% 1,747 3.3% 1,687 3.0% 1,690 2.8%Latin America..... 1,906 2.9% 2.2%3.8% 1,542 1,325 2.3% 1,332

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

 $100.0\,\%$ 

50,604

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

100.0%

57,043

 $100.0\,\%$ 

59,343

100.0%

53,660

#### Alumina

Total .....

Alumina is a key raw material for aluminium production. Generally it takes two tonnes of alumina to produce one tonne of primary aluminium. According to data compiled by Wood Mackenzie, in 2016, the five largest alumina producing companies are Chalco (10.8%), Weiqiao Textile Group (9.1%), Xinfa Group (8.8%), Alcoa (6.8%), and Rio Tinto (6.7%), which together accounted for approximately 42.3% of the total alumina produced worldwide.

The following table shows the regional production of alumina from 2013 to 2016:

	Year Ended 31 December								
	2013		20	2014		2015		2016	
Region	Volume	<b>%</b>	Volume	<b>%</b>	Volume	<b>%</b>	Volume		
			(thousand	ls of tonnes	, except per	centages)			
China	47,200	44.2%	51,900	46.5%	58,300	49.2%	61,870	51.1%	
Oceania	21,758	20.4%	20,761	18.6%	20,285	17.1%	20,942	17.3%	
Latin America	13,528	12.7%	13,762	12.3%	13,215	11.2%	12,774	10.5%	
Europe	8,406	7.9%	8,319	7.5%	8,454	7.1%	8,395	6.9%	
Russia & Caspian	4,330	4.1%	4,093	3.7%	4,174	3.5%	4,181	3.5%	
U.S. & Canada	6,771	6.3%	6,579	5.9%	6,451	5.4%	4,091	3.4%	
India	3,731	3.5%	4,943	4.4%	5,531	4.7%	6,062	5.0%	
Rest of Asia	1,109	1.0%	1,175	1.1%	2,024	1.7%	2,806	2.3%	
Africa	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
Total	106,831	100.0%	111,532	100.0%	118,434	100.0%	121,121	100.0%	

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

The following table shows the estimated global demand-supply balance for alumina from 2013 to 2016:

	Fiscal Year Ended 31 December			
_	2013	2014	2015	2016
		(thousands	of tonnes)	
Global alumina surplus/(deficit)	1,091	(191)	348	(1,761)

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

### Bauxite

Bauxite, the principal raw material used in the production of alumina, is typically open-pit mined in very large-scale operations. Between 2.0 to 3.6 dry tonnes of bauxite are usually required to make one tonne of alumina (depending on ore type, alumina content and variables such as proportion of reactive silica and organic matter). Based on data from the USGS as reported in January 2017, Guinea has the largest bauxite reserves in the world (27%), followed by Australia (22%), Brazil (9%), Vietnam (8%), Jamaica (7%) and Indonesia (4%).

The table below shows the world reserves of bauxite:

	Reserves
	(in million
	tonnes)
Guinea	7,400
Australia	6,200
Brazil	2,600
Vietnam	2,100
Jamaica	2,000
Indonesia	1,000
China	980
Guyana	860
India	590
Suriname	580
Saudi Arabia	210
Russia	200
Kazakhstan	160
Greece	130
Malaysia	110
United States	20
Other countries	2,700
World total (rounded)	27,660

Source: U.S. Geological Survey (USGS), Mineral Commodity Summaries, January 2017

According to the Wood Mackenzie, global production of bauxite reached 302 million tonnes in 2016. Australia, China, Brazil, Guinea and India are the largest bauxite producing countries, representing 88.3% of world's total production in 2016.

The following table shows the regional production of bauxite from 2013 to 2016:

Year Ended 31 December

	2013		2014		2015		2016		
Region	Volume	<b>%</b>	Volume	<b>%</b>	Volume	<b>%</b>	Volume	%	
			(thousand	ls of tonnes	, except per	entages)			
China	74,312	24.0%	87,701	31.6%	92,409	29.5%	93,828	31.3%	
Oceania	81,420	26.3%	80,146	28.9%	84,513	27.0%	88,316	29.5%	
Latin America	46,703	15.1%	48,850	17.6%	46,301	14.8%	46,479	15.5%	
Africa	19,847	6.4%	21,089	7.6%	20,456	6.5%	31,418	10.5%	
India	16,576	5.3%	19,759	7.1%	21,921	7.0%	18,551	6.2%	
Russia & Caspian	9,917	3.2%	9,093	3.3%	9,098	2.9%	9,126	3.0%	
Rest of Asia	57,077	18.4%	6,822	2.5%	34,158	10.9%	7,215	2.4%	
Europe	3,911	1.3%	3,618	1.3%	3,934	1.3%	4,319	1.4%	
U.S. & Canada	128	0.0%	126	0.0%	126	0.0%	126	0.0%	
Total	309,893	100.0%	277,203	100.0%	312,915	100.0%	299,378	100.0%	

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

Note: "Russia & Caspian" includes Russia, Armenia, Georgia, Kazakhstan, Tajikistan and Uzbekistan; "Rest of Asia" includes Middle East

### Pricing

Aluminium is an LME traded metal. It is either sold directly to consumers or on a terminal market. The price is based on LME price but producers are also able to charge a regional price premium, which generally reflects the cost of obtaining the metal from an alternative source.

Alumina prices are negotiated on an individual basis between buyers and sellers but are usually determined by reference to the LME price for aluminium. The negotiated agreements generally take the form of long-term contracts, but fixed prices can be negotiated for shorter periods and a relatively small spot market also exists.

The following table shows the movement in aluminium and alumina prices from 2007 to 2016:

	Year Ended 31 December									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
				(\$ per t	onne, exc	cept perce	entages)			
Aluminium										
LME cash price	2,639	2,571	1,667	2,173	2,395	2,019	1,846	1,866	1,663	1,604
% change	2.8	(2.6)	(35.2)	30.3	10.2	(15.7)	(8.6)	1.1	(10.9)	(3.6)
Alumina										
Spot price	353	362	245	333	374	319	327	330	301	254
% change	(16.0)	2.5	(32.2)	35.6	12.5	(14.9)	2.5	1.1	(8.7)	(15.8)
Ratio										
Alumina/aluminium (%)	13.4	14.1	14.7	15.3	15.6	15.8	17.7	17.7	18.1	15.8

Source: Wood Mackenzie Metals Market Service Report — Long Term Outlook, June 2017

The LME aluminium cash price was \$1,909 per tonne as of 25 July 2017 (Source: Bloomberg).

# Indian Aluminium and Bauxite Market

### Background

India has been producing primary aluminium since 1938, and over the years, the model that prevailed was of a fully integrated operation with access to bauxite, alumina and power. As this model consolidated, the corporate structure of the aluminium industry also changed, with smaller regional producers being absorbed or merged to form larger integrated players with international presence and, in the case of the Company, an international listing.

India possesses considerable bauxite resources, estimated at 3.7 billion tonnes as of 1 April 2013, according to the Indian Minerals Yearbook 2015. In Odisha, bauxite resources are estimated to be 2.0 billion tonnes, with large reserves in Panchpatmali, Pottangi and Baphalimali. In Andhra Pradesh, there are 0.6 billion tonnes, with large bauxite concentrations in Saparla and Jarella. At current extraction rates, these two states alone have the equivalent of over 100 years of Indian demand. Even using the more conservative the USGS reserve estimate, India has reserves equivalent to almost 30 years at current output. According to the USGS, India has the ninth largest reserves of bauxite ore in the world, with total recoverable reserves estimated at 590 million tonnes. These bauxite ore reserves are high grade and require less energy to refine, thus resulting in significant cost advantages for Indian aluminium producers.

## Supply and demand

As of 31 March 2017, there are five refineries and five smelters operating in India, owned by four producing companies: 87% state-owned National Aluminium Company Limited, privately held Hindalco, Vedanta Limited and BALCO, which is owned 49% by the Indian government and 51% by Vedanta Limited.

The aluminium industry in India has traditionally been largely self-sufficient. Primary aluminium production has broadly kept pace with demand between the 1980's and 2011, with the country being a small net exporter. Following a surge in aluminium demand, India has experienced a small supply deficit in primary aluminium production between 2012 and 2013 according to the estimates by Wood Mackenzie. Significant new production capacity has been built since then, as installed capacity has grown from 1.9 million tonnes in 2013 to 2.8 million tonnes in 2016, while domestic consumption rose from 1.7 million tonnes to 2.1 million tonnes over the same period. Supply growth will continue and installed capacity is estimated to reach 3.8 million tonnes in 2018. Local demand will gradually catch up; growing at a 6.9% CAGR between 2016 and 2025 is estimated to reach 3.7 million tonnes that year.

# Pricing and tariff

Domestic aluminium prices track global price trends as producers usually price the metal at a marginal discount to the landed cost of imported metal. Though value-added product prices also track metal price movement, they usually have relatively less volatility and command a premium reflecting the degree of value addition and quality, as indicated by the brand.

The following table shows the customs duties that were applicable for the periods indicated:

	29 April 2008 to 2	3 January 2009 to 29	1st March 2016 to
	January 2009	February 2016	present
Primary Aluminium	5%	5%	7.5%

In addition, the Finance Act (2 of 2004) of India, which has been in effect since 8 July 2004, levies an additional surcharge at the rate of 2% of the total customs duty payable, which has been further increased to 3% of the total customs duty payable effective 1 March 2007.

Pursuant to a notification dated 1 March 2013, a customs duty of 10% was introduced by the GoI on bauxite (natural), in calcined and non-calcined form.

#### Market Outlook

#### Global aluminium outlook

According to Wood Mackenzie, global primary aluminium production is forecasted to grow at a 4.6% CAGR between 2016 and 2020, then at a 3.5% CAGR to reach 84.1million tonnes in 2025. China will contribute 72.6% of the increase in volume, and its annual production will be 50.5 million tonnes in 2025.

Collectively, Wood Mackenzie expects the aluminium market to be oversupplied until 2019 when a deficit is expected, then returning to surplus until 2023.

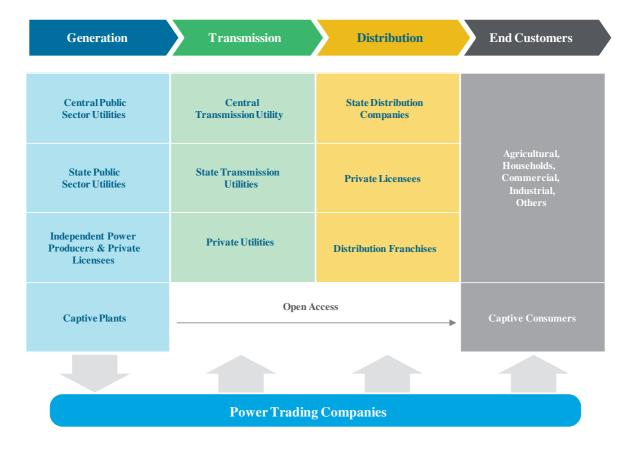
#### Indian aluminium outlook

India will account for 12% of the increase in primary aluminium production globally between 2016 and 2020. India's aluminium consumption will increase at a 6.8% CAGR between 2016 and 2020, then at a CAGR of 6.9% to reach 3.7 million tonnes in 2025. This growth will be fuelled by India's demand for housing, retail and office space. Indian smelters form part of integrated chains, stretching back to bauxite, alumina and forward into semi-fabricating operations. Indian smelters are also endowed with their own captive power plants and favourable labour costs.

#### **Commercial Power Generation Business**

#### Organisation of the Power Industry

Please see below for a summary on the organisation of the India Power industry. State, Central and Private entities each play important roles along the generation, transmission and distribution value chain for the sector.



# Overview of the Indian Power Sector

The Indian power sector has grown significantly in size and capacity since independence and is one of the largest power markets globally today. Over the past 10 years, installed capacity grew strongly at a CAGR of 9.5% to 327 GW in FY17 (329 GW as of June 2017). Despite growth in the installed capacity, some parts of the country continue to face power shortages due to the growth of consumption outpacing the growth of electricity supply.

CAGR: 9.5% 327 350 24% 302 272 300 20% 243 250 223 200 16% 174 200 159 148 143 12% 15% 132 150 12% 11% 8% 100 9% 9% 8% 8% 4% 50 0 0% FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 ■ Installed Capacity (GW) Annual Growth (%)

**Total Installed Capacity Growth (FY07-17)** 

Source: Central Electricity Authority (CEA)

Demand for electricity is on the rise as India's economy gains in global importance. Factors that contribute to rising per capita consumption include: 1) improvement of electrification in villages, 2) GDP growth and general economic activity, 3) growth in consumer electronic device penetration.

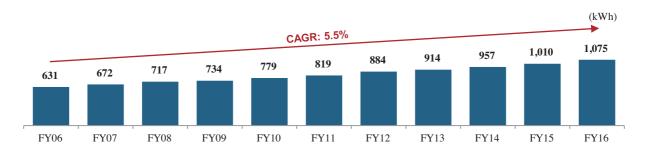
The projected demand growth envisaged in the CEA 19th Electric Power Survey which was released in January 2017 is given below.

	Electricity			
	requirement		Peak demand	
	(TWh)	CAGR	(GW)	CAGR
FY17	1,143		160	
FY22E	1,566	6.5%	226	7.2%
FY27E	2,047	5.5%	299	5.8%

Source: CEA 19th Electric Power Survey (January 2017), CEA power supply position report (March 2017)

India's per capita consumption has increased steadily at an annualised growth rate of 5.5% over the FY06-16 period. However, India's per capita consumption continues to remains low when compared to other emerging economies like China and Brazil. It is also significantly lower compared to the world average of 3,030 kWh (as of 2014, based on IEA data from Key World Energy Statistics © OECD/IEA 2016).

Per Capita Electricity Consumption (FY06-16)



Source: CEA

In order to address the lack of adequate electricity availability to all people in the country, the Government has launched several schemes to ensure continuous and uninterrupted electricity supply to all households, industries and commercial establishments by creating and improving necessary infrastructure. There are also other demand drivers that facilitate accelerated capacity additions in the sector, including low household access to electricity for lighting and the advent of smart cities and industrial corridors, which are likely to further increase per capita consumption of electricity.

Electricity shortages have imposed significant constraint on India's economic growth. In FY17, India experienced energy and peak deficits of 0.7% and 1.6% respectively. Significant capacity addition by renewable sources, such as wind and solar, have helped the power deficit situation.

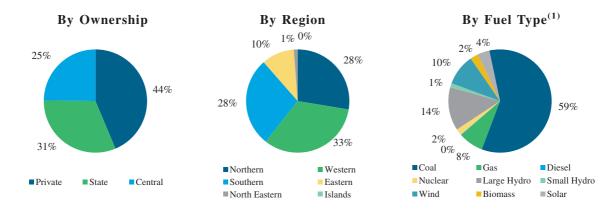
**Energy Demand vs Supply (FY07-17)** Energy Deficit (BU) (%) 11.1% 12.0% 1,400 10.1% 9.9% 8.7% 1,200 8.5% 8.5% 10.0% 1,000 8.0% 800 6.0% 600 3.6 4.0% 400 0.7% 2.0% 200 0.0% 0 FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 Demand Supply Deficit (%)

Source: CEA

# **Installed Capacity**

India's power sector has been traditionally dependent on conventional resources like coal and gas. As of June 2017, around 67% of the total installed capacity (329 GW) comes from thermal sources (coal, gas and diesel). With limited domestic access to such resources and inherent exploration, production and transportation challenges, India is dependent on imports of substantial quantities of gas, oil and coal in order to meet its domestic energy demand.

Private sector accounts for the majority of installed capacity in India (44% as of June 2017 compared to 13% as of March 2007). This is a result of the Indian Government's efforts to reform the power generation sector in order to attract private capital.



Source: CEA, Ministry of New and Renewable Energy (MNRE) (information as of June 2017)

Note: (1) Breakup of Renewable Capacity (excluding large hydro and nuclear) as of March 2017 from MNRE

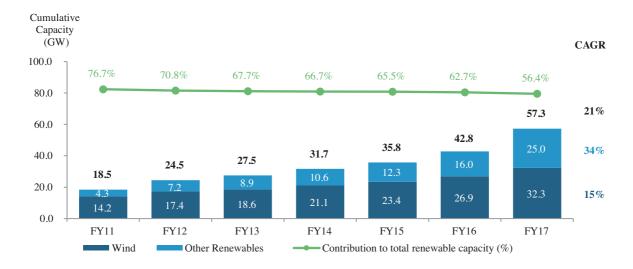
#### Renewable Energy

India has one of the largest installed renewable capacities in Asia with a generation capacity of 57 GW as of March 2017. Renewable/ clean energy sources such as wind, solar and bio-power are expected to play an increasingly important role for India amidst favourable government policies supporting the sector. As a result, renewable capacity (excluding large hydro and nuclear projects) as a proportion of total capacity has grown from 5.0% in March 2006 of the total capacity in India to 17.5% in March 2017.

Renewable energy in India is set to continue its trajectory of growth, given India's significant untapped renewable resources. MNRE estimates India to possess about 900 GW of renewable energy potential, of which currently only about 6% is tapped. To further utilise these resources, the India Government up-scaled the target of renewable energy capacity to 175 GW by the year 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power. With 57 GW of renewable capacity as of March 2017, India has achieved around 33% of its 2022 target.

In terms of the installed renewable capacity mix, wind represents the largest share at 56.4% contribution followed by solar with 21.5% contribution as of March 2017. Historically, wind has played a dominant role in the renewable power generation space in India. However in recent years, ground mounted solar has experienced an increased policy push and interest among developers primarily as a result of the solar auctions, which resulted in a substantial increase in installed solar capacity to 12.3 GW as of March 2017.

# Growth of Renewable Capacity in India (2), (3) (FY11-17)



Source: MNRE, CEA

Note: (2) Definition of renewable excludes large hydro and nuclear projects. (3) Wind capacity for FY13 as of February 2013 instead of March 2013

Wind energy has been a key contributor to the renewable energy growth in India and is one of the most successful renewable energy options in India. India's wind energy sector has grown rapidly, reaching 32.3 GW of installed capacity in FY17 from 14.2 GW in FY11, registering a CAGR of around 15%.

#### Transmission and Distribution

Transmission and distribution in India follows a three-tier structure comprising of: 1) Interconnected regional grids, 2) state grids and 3) distribution networks. Currently there are five regional grids i.e. Northern, Eastern, Western, Southern and North-Eastern grids which have been interconnected to form a single national grid.

Regional grids enable power to be transferred to a power deficit state from a power surplus state. Regional grids also facilitate co-ordination between the power plants and scheduling of maintenance outages to optimise system delivery of electricity.

Power Grid Corporation of India Limited ("PGCIL") is India's central transmission utility and has one of the largest transmission networks globally. As of April 2017, PGCIL owns & operates around 139,708 ckm of Extra High Voltage (EHV) transmission lines all over India and about 45% of the total power generated in the country is wheeled through PCGIL's network.

State grids and distribution networks are primarily owned and operated by the respective State Electricity Boards (SEBs) or state governments (through state electricity departments). State distribution networks are managed at the state level and continue to be affected by high Aggregate Technical and Commercial (AT&C) losses, which were reported by CEA to be about 25% (provisional data for FY15).

As a consequence of high AT&C losses, SEBs are in poor financial health; this constrains SEBs from upgrading the transmission and distribution network or making any large investments in generation. All India Transmission and Distribution (T&D) losses stood at about 23% as reported by the CEA (provisional data for FY15).

With the enactment of the Electricity Laws (Amendment) Act, 1998 and the Electricity Act, 2003 as well as publishing of the guidelines for competitive bidding in transmission projects, private investment was permitted in power transmission, which became recognised as an independent activity. Power distribution in the States of Delhi and Orissa has been privatised and distribution networks are now operated by private utilities companies such as Tata Power, CESC Limited, Reliance Energy Limited, Torrent Power AEC, Torrent Power SEC, Noida Power Company Limited etc.

### Regulatory Structure of the Indian Power Sector and Key Policy Initiatives

Given below are the key components of the regulatory structure of the Indian Power sector, and their major functions:

- <u>Ministry of Power (MoP)</u>: 1) Responsible for planning, policy formulation and processing of projects for investment decisions; 2) Enacts legislation with regard to power generation, transmission and distribution; 3) Monitors implementation of project
- <u>Central Electricity Authority (CEA)</u>: A division of the MoP which deals with matters relating to the National Electricity Policy and formulation of plans for development of the power sector
- <u>Central Electricity Regulatory Commission (CERC)</u>: Responsible for regulation of tariff and promotion of efficient policies at central level
- <u>State Electricity Regulatory Commission (SERC)</u>: Responsible for regulation of tariff, promotion of efficient policies at state level and formulation of policies regarding subsidies
- <u>Central Transmission Utility (CTU)</u>: Focuses on development of a coordinated, efficient and economical system of inter-state transmission lines
- <u>State Transmission Utility (STU)</u>: 1) Focuses on development of a coordinated, efficient and economical system of intra-state transmission lines; 2) Undertakes intra-state transmission
- National Load Dispatch Centre (NLDC) / Regional Load Dispatch Centre (RLDC): Focuses on ensuring integrated operations of power systems at the national / regional level
- <u>State Load Dispatch Centre (SLDC)</u>: Focuses on ensuring integrated operations of power systems at the state level

The Indian power sector was opened to private sector participation in 1991. A list of key policy initiatives by the Government are given below:

### 1991 Electricity Laws (Amendment) Act

- Private participation in generation was allowed
- Foreign ownership cap was increased to 100%
- Framework for Power Purchase Agreements with State Electricity Boards laid down

# 1998 Electricity Laws (Amendment) Act

- Private participation in transmission was allowed
- CTU and STUs were mandated

# **Electricity Regulatory Commissions Act**

- CERC/SERCs were formed to promote competition and transparency as well as protect consumer interest
- Level playing-field was created for all players in the market

# 2003 The Electricity Act

- This Act replaced earlier laws relating to the electricity sector
- The main aim was to enable reform and restructuring of the power sector
- National policy brought out mandatory formation of SERCs
- Emphasised rural electrification as well as non-discriminatory open access in transmission and distribution

## 2006 National Tariff Policy

- Framework for determining tariffs and rate of return for generation, transmission and distribution projects was laid down
- After January 2011, mandatory competitive bidding was introduced for all transmission projects

## 2011 National Tariff Policy (Amendment)

- Intra-state transmission sector was exempted from mandatory competitive bidding until 5 January 2013
- Select experimental, urgent or compressed time schedule work was exempted from competitive bidding based on tariffs

## 2016 National Tariff Policy (Amendment)

- Emphasised renewable energy sector by allowing competitive bidding for renewable energy procurement and through waiver of inter-state transmission charges
- Mandatory procurement of power from waste-to-energy introduced
- Discouraged differential duties particularly when states impose differential duties on captive power generation
- Allowed licensees to charge lower tariffs than those determined by the SERC

### Other Government Initiatives

Integrated Power Development Scheme

In November 2014, the Integrated Power Development Scheme ("IPDS") was launched by Ministry of Power, Government of India with the objectives of:

- 1) Strengthening of sub-transmission and distribution network in the urban areas;
- 2) Metering of distribution transformers /feeders / consumers in the urban areas;
- 3) IT enablement of distribution sector and strengthening of distribution network as per Cabinet Committee on Economic Affairs ("CCEA") approval dated 21 June 2013 for completion of targets laid down under Restructured Accelerated Power Development and Reforms Programme ("R-APDRP") for 12th and 13th Five-Year Plans by carrying forward the approved outlay for R-APDRP to IPDS.

The scheme will help in reduction in AT&C losses, establishment of IT enabled energy accounting / auditing system, improvement in billed energy based on metered consumption and improvement in collection efficiency.

Deendayal Upadhyaya Gram Jyoti Yojana (Rural Electrification Initiative)

The Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is a Government of India scheme designed to provide continuous power supply to rural India. The scheme replaces the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY).

When it was launched in 2015, DDUGJY had an initial outlay of Rs 76,000 crores for implementation of projects under which Government of India agreed to provide a grant of Rs 63,000 crores. As of 18 July 2017, 593,950 villages out of 597,464 (99.4%) have been electrified.

In May 2017, the Cabinet Committee on Economic Affairs approved a new scheme for providing long term coal linkages to power projects in India which do not yet have a secured coal supply contract.

Under the policy, coal linkages would be awarded to designated state-owned DISCOMs. These, in turn, would assign linkages to state or central power generation companies via allocation, and through auction to independent power producers.

The independent power producers, already having PPAs, participating in the auction bid for discounts on the existing tariff and this will be adjusted from the gross coal bills. The future linkages for supply of coal to independent power producers without PPAs shall be on the basis of auctions where bidding for linkages will be done over the notified price of the coal company.

The approved framework is designed to provide long term domestic coal security to power projects which do not have long term coal supply agreements and have to rely on short term purchases through e-auction or imported coal. Key benefits of this policy are as follows:

- Transparent and objective allocation of coal supply for all power plants;
- A framework to address the stress in the power sector due to non-availability of linkages for power; and
- Reduced power costs as independent power producers will need to provide competitive tariffs in order to secure coal linkages under PPAs.

### Ujjwal Discom Assurance Yojana

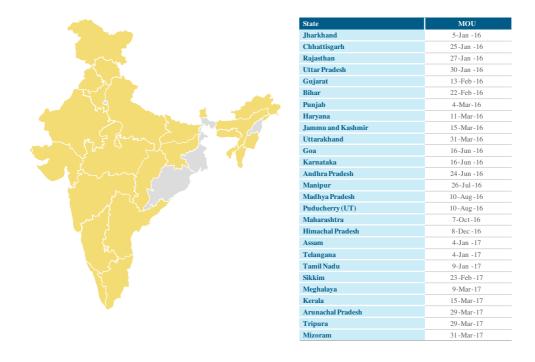
In November 2015, the Ujjwal Discom Assurance Yojana (UDAY) scheme was launched to address the problem of high accumulated losses and debts of electricity distribution companies (DISCOM) in India. As of FY15, DISCOMs had accumulated losses of approximately Rs 3.8 lakh crores and outstanding debt of approximately Rs 4.3 lakh crores.

The scheme is designed to improve financial performance of DISCOMs. Key initiatives under UDAY include:

- Phased takeover of DISCOM debt by state governments, with a view to reduce interest costs of distribution companies;
- Incentivising distribution companies to achieve higher operational efficiencies;
- Reduction in cost of power purchase; and
- Imposing financial discipline on distribution companies through an alignment with state finances

Under the UDAY scheme, states take over 75% of DISCOM debt as on 30 September 2015 over a two year period (50% of DISCOM debt taken over in FY16 and 25% in FY17). Principal debt taken over will not be included in fiscal deficit of states for FY16 and FY17. However, interest has to be serviced within Fiscal Responsibility and Budgetary Management Act (FRBM) limits.

As of March 2017, 27 states and Union Territories have joined the UDAY scheme.



Source: Ministry of Power

### Provision for Merchant Power Plants

Merchant power plants generate electricity for sale at market-driven rates in the open wholesale market. Typically, these plants do not have long-term PPAs and are constructed and owned by private developers. Merchant sales, however, include the sale of power under short-term PPAs and on spot basis. Merchant power plants can sell power to the power trading companies (such as PTC India Limited and Tata Power Trading Company Limited), the SEBs, distribution companies and industrial and bulk customers.

### Captive Power Generation

Another important segment of power generation in India is the captive power segment. Captive power refers to power generation from a project established for industrial consumption. Continuing increase in demand for power and India's sustained economic growth make captive power an important avenue of electricity supply. Captive power capacity is 40,726 MW in India as of May 2017.

### **BUSINESS**

#### Overview

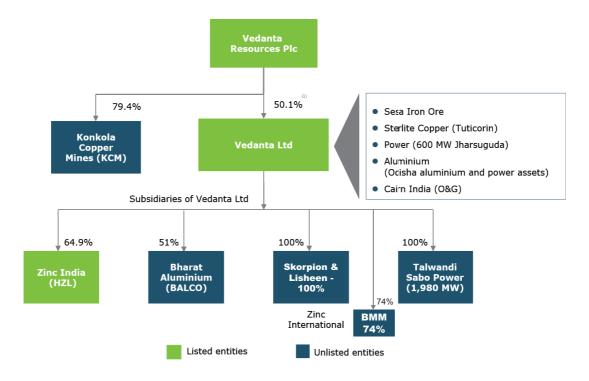
Vedanta is an LSE-listed globally diversified metals and mining, oil and gas and power generation company. Its businesses are principally located in India. India is one of the fastest growing large economies in the world with a 7.1% increase in GDP during fiscal 2017 (at constant fiscal 2012 prices), according to the Central Statistical Organisation of the GoI's Ministry of Statistics and Programme Implementation. In addition, Vedanta has assets and operations in jurisdictions such as Zambia, Namibia, South Africa and UAE and a workforce of 70,000 people worldwide. Vedanta is primarily engaged in oil and gas, zinc, copper, iron ore, aluminium and commercial power generation businesses and is also developing port operation businesses and infrastructure assets. Vedanta has experienced significant growth in recent years through the expansion of projects for its oil and gas, copper, zinc, aluminium and iron ore businesses. Vedanta believes its experience in operating and expanding its businesses in India will allow it to capitalise on attractive growth opportunities arising from India's large mineral reserves, relatively low cost of operations and large and inexpensive labour and talent pools.

The board of directors of Vedanta Limited and Cairn India, on 14 June 2015, announced the merger of Cairn India with Vedanta Limited pursuant to the Scheme. The Scheme was sanctioned by the Mumbai Bench of the National Company Law Tribunal on 23 March 2017 and an in-principle approval was granted by the Ministry of Petroleum and Natural Gas, GoI on 27 March 2017. Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the fiscal year 2017. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017 and Vedanta's equity interest in Vedanta Limited reduced to 50.1% from 62.9%. As per the terms of the scheme, upon the merger becoming effective, non-controlling i.e. public shareholders of Cairn India Limited received, one equity share in Vedanta Limited of face value Re 1 each and four 7.5% Redeemable Preference Shares in Vedanta Limited with a face value of Rs. 10 each for each equity share held in Cairn India Limited. No shares were issued to Vedanta Limited or any of its subsidiaries for their shareholding in Cairn India Limited.

For fiscal years 2015, 2016 and 2017, Vedanta reported total revenue of \$12,878,7 million, \$10,737.9 million and \$11,520.1 million, respectively, and Vedanta EBITDA of \$3,741.2 million, \$2,336.4 million and \$3,191.1 million, respectively.

# **Group Structure**

The following chart depicts Vedanta's corporate structure as of 31 March 2017<sup>(1)</sup>. Vedanta owns other subsidiaries that are not material and are not shown in the chart below.



Notes:

Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the Fiscal year 2017 as shown in the corporate structure above. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017 and Vedanta's holding in Vedanta Limited became 50.1% which was earlier 62.9%.

## **Competitive Strengths**

Vedanta believes it has the following competitive strengths:

## Large, low-cost and diversified asset base

A low cost production profile, in the lowest quartile at its major assets, enables Vedanta to generate positive free cash flow even at low commodity prices. Competitive cost base combined with portfolio of large, high quality, diversified assets enables Vedanta to deliver value throughout the commodity cycle.

Vedanta is a leading diversified natural resources company with assets primarily located in India. The Company believes that its business comprises of high quality assets of global size and scale.

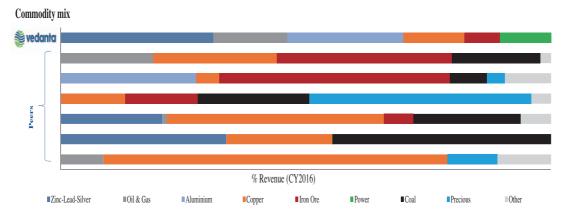
• Zinc: According to Wood Mackenzie, HZL is the second largest zinc miner globally with first quartile cost position. HZL owns six zinc mines of which Rampura Agucha mine is the largest zinc-lead mine globally. HZL assets sit in the first quartile of zinc mine cost curve, as per Wood Mackenzie. Under Zinc International operations, Vedanta operates the Black Mountain Mine and smelter operations in Namibia. It is also developing the Gamsberg mine, which is one of the world's largest undeveloped zinc deposits. The development of Gamsberg is being done in a modular and flexible manner to maximise value. According to Wood Mackenzie, the Zinc International operations is currently in the second quartile of zinc mines cost curve.

- Oil and gas: Vedanta Limited is one of the largest independent oil and gas exploration and production companies in India. Vedanta Limited operates approximately 26% of India's domestic crude oil production according to the Ministry of Petroleum and Natural Gas statistics as of March 2017. Oil & Gas assets of Vedanta Limited are in the first quartile of cost curve, as per Wood Mackenzie. In fiscal 2017, Vedanta Limited produced approximately gross 184,734 bopd of oil (working interest production of 67.4 mmboe) and gross 31.2 mmscfd of gas (working interest production of 1.9 mmboe).
- Aluminium: Vedanta, through its subsidiaries BALCO and Vedanta Limited, is the largest
  primary producer of aluminium in India. Vedanta expects to reach an aluminium design
  capacity of 2,320,000 tpa, for which capex is largely invested. Group is currently in the
  second quartile of aluminium cost curve, according to the CRU Aluminium business cost
  curve.
- Copper: Vedanta Limited is one of the only two custom copper smelters in India with highest primary market share by sales volume in India in fiscal 2016, according to ICPCI. According to Wood Mackenzie, the Tuticorin smelter is currently amongst the lowest quartile cost custom smelters in the world benefiting from economies of scale, low labour cost, and a captive power plant. Vedanta's Copper Zambia assets, includes the underground copper mine at Konkola which, according to Wood Mackenzie, contains one of the world's highest grade large-scale (defined as containing approximately 1.5 mt of contained copper) copper ore bodies in active production. Vedanta's Copper Zambia assets is in the fourth quartile of copper mines cost curve, as per Wood Mackenzie.
- *Iron ore*: Vedanta Limited has been the largest exporter of iron ore in the private sector by volume since 2003. In fiscal 2017, iron ore production was 10.9 million dmt and pre ban capacity was 20.5 mtpa. On a 58% Fe cost basis, Vedanta Limited is in the first quartile of cost curve, as per Wood Mackenzie.
- Power: Vedanta has a total power portfolio of 9,000 MW, including 3,600 MW of commercial power generation capacity. This includes a new coal-fired power plant at Talwandi Sabo with a design capacity of 1,980 MW. The projects are strategically located with easy access to fuel and water, and are well connected by railways and roads. Vedanta has reduced production and pricing risks with long-term power off-take arrangements with state electricity boards and state-owned utilities.

### Attractive commodity mix

Vedanta's operations cover a range of attractive commodities with strong fundamentals and this has enabled the Company to deliver strong margins through the commodity cycle. During fiscal year 2017, markets have seen an upturn driven by improved demand and supply side constraints, which has benefited the commodities sector, particularly zinc, and Vedanta expects to see a continuing upward trend going forward.

The diversified nature of Vedanta's portfolio has helped in times of volatility and enabled us to maintain strong margins through the cycle. Vedanta's commodity mix is well diversified compared to its peers.



Source: Company filings

Peers include BHP Billiton, Rio Tinto, Anglo American, Glencore, Teck Resources and Freeport
All companies have been calendarised to a Dec YE; Glencore revenue split accounts only for their 'Industrial activities'; Revenues from copper smelting for Vedanta is based on benchmark Tc/Rc

Vedanta's portfolio is weighted towards zinc, with 48.9% of Vedanta EBITDA coming from zinc operations for the fiscal year ended 31 March 2017. Zinc market has strong fundamentals, as global zinc concentrate and refined zinc market remain in deficit. Supply of zinc concentrate continues to be constrained, due to continued closure of mines, the latest being the Century and Vedanta's Lisheen mines in 2015.

### Ideally positioned to capitalise on India's growth and natural resource potential

Vedanta is ideally positioned to take advantage of the strength in this market, given the scale, high quality and low-cost nature of its assets.

Vedanta believes that its experience in operating and expanding its business in India will allow it to capitalise on attractive growth opportunities arising from factors including:

India's economic growth. India is one of the fastest growing large economies in the world with a 7.1% increase in GDP during fiscal 2017 (at constant (2011-12) prices), according to the Central Statistical Organisation of the GoI's Ministry of Statistics and Programme Implementation. According to the EIU, India's GDP per capita is expected to grow at a cumulative average growth rate of 8.3% during the period of 2016 to 2021 from USD 6,550 to USD 9,780. Expected cumulative average growth rate in the urban population is expected to be at the rate of 2.3% during the period of 2016 to 2021 from 33% to 35% of the total population, as per BMI. This growth in GDP and urban population is expected to result in infrastructure and construction expenditure to increase from Rs. 14,926 billion in 2016 to Rs. 24,466 billion in 2021, a CAGR of 10.4%, as per BMI. Similarly expected cumulative average growth rate in Vehicle production is 8.5% during 2016 to 2021 from 4.5million units to 6.8 million units, as per BMI. The USGS, Mineral Commodity Summaries has also simplified transfer of mining leases, enabling M&A activity in the sector.

India's mineral resource base. According to the USGS, Mineral Commodity Summaries (January 2017), India's zinc reserves are the seventh largest in the world with total reserves estimated at 10 million tonnes, bauxite reserves are the ninth largest in the world with total reserves estimated at 590 million tonnes, has the fifth largest iron ore reserves in the world at 8.1 billion tonnes. According to the BP Statistical Review of World Energy, India has the fifth largest coal reserves in the world at 61 billion tonnes.

Strong market position. Vedanta's is the largest private zinc, copper and oil producer in India as well as the second largest aluminium player with first quartile cost positioning in zinc, copper, iron ore and oil & gas business in India and second quartile cost positioning in case of aluminium.

Vedanta is strongly positioned to benefit from this expected growth and resource potential, as 58.3% of its revenue for Fiscal Year 2017 comes from India. The Company has a long history of established operations and experience in the country. Vedanta also has a strong market share in India in its key commodities. As per ILZDA, Vedanta had a market share of 72% by sales volume in the Indian zinc market, is a primary aluminium producer with a 39% market share according to the Aluminium Association of India, is a primary copper producer with a 36% primary market share by sales volume according to ICPCI and a primary crude oil producer operating 26% of the crude oil produced in India.

## Well invested assets driving cash flow growth

With a significant amount of its capital investment programme completed, Vedanta is now ramping up and have commenced reaping benefits of these investments. Vedanta will be able to reach our full capacities with only limited capex spend and consequently, Vedanta's cash flows are poised for a significant increase.

Vedanta has largely completed its capex programme in all its businesses though the businesses are not fully ramped up. It is now ramping up its capacities in its Zinc, Aluminium, Iron Ore and Power businesses with incremental capex as described under the section "Management's Discussion and Analysis of Financial Condition and Results of Operations — Project Capital Expenditures", with focus on strong cash flow growth.

- Zinc: In fiscal 2013, HZL announced an expansion of its zinc-lead mined metal production capacity to 1.2 million tonnes, which involved the sinking of underground shafts and developing underground mines. Benefit of these growth projects started in fiscal year 2016 but the full ramp up to 1.2 million tonnes is excepted in fiscal year 2019 and the remaining capex for this project is only \$585 million. The growth plan will increase mined metal (MIC) production capacity to 1.2 mmtpa. The Company is also developing the Gamsberg project in South Africa, with a design capacity of 250,000 tonnes per annum and targeted first ore production in fiscal year 2018 and ramp-up in subsequent years with remaining capex of \$337 million.
- Aluminium: BALCO has set up a 325,000 tonnes per annum aluminium smelter which was fully operational and has been capitalised in first quarter of fiscal 2018. The remaining 168 pots has started in May 2017. Vedanta Limited is also setting up another 1.25 mtpa aluminium smelter in Jharsuguda, the commissioning of pots at the 3 line of the 1.25 mtpa aluminium smelter has been completed to date with remaining capex of USD 200 million on the project.
- Power: As of 31 March 2017, Vedanta had total commercial power generating capacity of 9,000 MW including the new coal-fired Talwandi Sabo project which has a generation capacity of 1,980 MW, which is being commissioned in three phases. The first 660 MW unit of the Talwandi Sabo power plant was capitalised in fiscal year 2015 and the second 660 MW unit was capitalised in December 2015 after the successful completion of trial runs. The third unit was commissioned in the second quarter of fiscal year 2017.
- *Iron ore*: Vedanta's iron ore business has a design capacity of 20.5 million tonnes per annum production. The production from these mines was 10.9 million dmt in fiscal 2017 and no capex is required to go back to pre ban capacity of 20.5 million tpa.

### Strong financial profile

Vedanta generated a total revenue of \$11,520.1 million and Vedanta EBITDA of \$3,191.1 million in the fiscal year ended 31 March 2017. Through its diversified portfolio of assets, Vedanta has maintained strong Vedanta EBITDA margins during this period of low and volatile commodity prices.

Vedanta also has a balanced debt portfolio, with a diversified range of funding sources. The Company maintains a strong relationship with its lending banks, which enables it to obtain funding at attractive rates.

The Free Cash Flow ("FCF") post capex of Vedanta for fiscal years 2015, 2016 and 2017 was \$1,047.4 million, \$1,772.9 million and \$1,543.6 million, respectively.

	Fiscal year ended 31 March			
	2015	2016	2017	
Vedanta EBITDA	3,741.2	2,336.4	3,191.1	
Operating exceptional items	(50.0)	(23.0)	_	
Changes in working capital	131.3	1,164.6	295.0	
Changes in non-cash items	204.1	22.8	28.7	
Sustaining Capital expenditure	(221.4)	(184.9)	(145.4)	
Changes in capital creditors	(288.1)	(210.3)	(158.1)	
Sales of property, plant and equipment's	25.7	10.0	25.2	
Net Interest paid	(362.1)	(489.9)	(700.8)	
Tax Paid	(602.3)	(287.0)	(323.9)	
Expansion Capital expenditure	(1,530.8)	(565.8)	(668.2)	
Free cash flow post capex (FCF)	1,047.4	1,772.9	1,543.6	

Vedanta has maintained a strong Vedanta EBITDA to Free Cash Flow conversion ratio of 28%, 76% and 48%, respectively, for fiscal years 2015, 2016 and 2017. Vedanta has achieved Adjusted Vedanta EBITDA margin of 38%, 28% and 36% for fiscal years 2015, 2016 and 2017, as highlighted in the table below:

	Fiscal	year ended 31 I	March
	2015	2016	2017
Vedanta EBITDA	3,741.2	2,336.4	3,191.1
Less:			
Vedanta EBITDA from Copper India custom smelting	(321.8)	(351.2)	(248.2)
Vedanta EBITDA from Copper Zambia custom smelting	(6.2)	(0.9)	(28.7)
Vedanta EBITDA from Zinc India custom smelting	(7.8)	(0.5)	(0.2)
Adjusted Vedanta EBITDA	3,405.4	1,983.8	2,913.9
Revenue	12,878.7	10,737.9	11,520.1
Less:			
Revenue from Copper India custom smelting	(3,489.5)	(3,196.8)	(3,131.4)
Revenue from Copper Zambia custom smelting	(300.5)	(335.7)	(401.0)
Revenue from Zinc India custom smelting	(121.2)	(11.4)	(3.1)
Adjusted Revenue (d-e)	8,967.5	7,194.0	7,984.6
Adjusted Vedanta EBITDA margin	38%	28%	36%

Vedanta's Return on Capital Employed ("ROCE") was 8.7%, 6.2% and 15.6% for fiscal years 2015, 2016 and 2017, respectively, as highlighted in the table below:

_	Fiscal year ended 31 March			
	2015	2016	2017	
Operating Profit before special items	1,735.5	881.2	2,160.6	
Non-operating exceptional items	(49.6)	(23.1)	(17.3)	
Operating profit	1,685.9	858.1	2,143.3	
Effective tax rate	32%	22%	20%	
Operating profit (pre-tax)	1,147.4	665.5	1,721.8	

		As on 31 March	1
	2015	2016	2017
Equity attributable to equity holders of the Parent	3,339.9	2,323.7	(408.5)
Non-controlling interest	13,474.0	12,369.0	6,423.1
Net Debt	8,458.0	7,326.8	8,503.5
Less:			
Capital work in progress	(5,083.2)	(3,362.8)	(2,366.3)
Exploratory Assets	(6,970.9)	(7,951.3)	(1,113.1)
Capital Employed	13,217.8	10,705.4	11,038.7
Return on Capital Employed	8.7%	6.2%	15.6%

ROCE is defined as Operating profit after tax as a ratio of capital invested in operations as at the balance sheet date and excludes investments in project capital work-in-progress and exploration assets.

Vedanta also has a programme to deliver cost and marketing savings of \$1.3 billion, and has already achieved savings of an estimated \$814 million through these initiatives as of 31 March 2017.

#### Proven track record

Vedanta has a strong track record of exploration, executing projects and delivering production growth. Vedanta have a proven management team with a diverse and extensive range of sector and global experience who ensure that operations are run efficiently and responsibly. Group have taken a disciplined approach to development, growing our production steadily with an ongoing focus on operational efficiency and cost savings.

The Company has delivered 16% annualised production growth in copper equivalent terms since listing in fiscal year 2004.

• Cairn India has long and proven exploration expertise in India, having made 40 hydrocarbon discoveries since 1994. Cairn India has continued to add to its exploration portfolio and, in addition to accessing new opportunities, has been an active and successful participant in the NELP licensing rounds, as demonstrated by Cairn India being awarded two blocks in the NELP VIII round. Cairn India's executive management team has a proven track record of developing hydrocarbon resources which includes making 38 discoveries in the Rajasthan Block including the landmark Mangla field, commencing natural gas production in less than 28 months at the Lakshmi field in Cambay Basin, building the world's longest continuously heated and insulated crude oil pipeline, and executing the world's largest polymer flood project.

- Vedanta started its aluminium business with the acquisition of BALCO with an installed capacity for aluminium smelting of 100ktpa. It has since then expanded its aluminium business to include Design capacities for aluminium smelting of 570 ktpa at BALCO and 1,750 ktpa at Jharsuguda.
- Vedanta acquired HZL in 2002, when its production was at 170kt pa and R & R life of 5 years. Through investments in technology and people with an innovative mindset and increasing productivity, HZL today has a R & R life of more than 25 years with a 1.2mtpa production capacity, making HZL the second largest zinc miner in the world.
- Vedanta's senior management has significant experience in all aspects of its business which has contributed in transforming Vedanta into a leading diversified natural resources company that is listed on the LSE. Mr. Anil Agarwal, Vedanta's founder, remains involved in overseeing Vedanta's business as its Executive Chairman. Vedanta's executive management team focuses on group strategy and capital allocation, while operational and project goals are led by the experienced management teams overseeing each individual business.
- Vedanta's experienced and focused management and dedicated project execution teams
  have proven track record of successfully implementing capital-intensive projects to
  increase its production capacities. Vedanta utilises project monitoring and assurance
  systems to facilitate timely execution of its projects.

# Vedanta's Strategy

Vedanta's strategic goal is to become one of the top diversified natural resources company in the world, and has the following five key strategic priorities:

### Production growth and asset optimisation

Vedanta strives to ramp up its assets with a disciplined approach towards cost, capex allocation and operating efficiency. Strict cost management and increases in productivity form an integral component of its day-to-day operations. Vedanta is placed in the lower half of the global cost curve in most of its operations, and intends to improve its cost position further. Highlights of Vedanta's recent achievements include:

- As of 31 March 2017, Vedanta's power business under TSPL became fully operational, with the capitalisation of the third 660MW unit during the second quarter of fiscal year 2017.
- Vedanta is ramping up its aluminium business to achieve the design capacity of 2.3 million tonnes. During fiscal year 2017, three of the four 600MW units at the Jharsuguda started to supply power to the Jharsuguda-II smelter for its capacity ramp up.
- Vedanta's iron ore business is operating at the full capacity based on limits set by the Government.
- The transition to underground mine at Rampura Agucha, and a progressive ramp-up at Sindesar Khurd mine are on track to increase the overall capacity at Zinc India to 1.2 mtpa from 1 mtpa.
- EOR programmes at the O & G business have commenced and Vedanta expects significant contribution from these to achieve higher production volumes.

### De-leveraging the balance sheet

A key strategic priority for Vedanta is to reduce gross debt through strong cash flow growth through disciplined approach on capital allocation towards capital expenditure and operating

expenditure; along with disciplined management of working capital. Despite low commodity prices recently, Vedanta continued to deliver strong Vedanta EBITDA margins and free cash flows through a strong focus on its cost optimisation plan. As Vedanta continues to ramp up its portfolio of diversified, low-cost and well-invested assets, Vedanta expects to generate significant organic free cash flow with minimal remaining capital expenditure. Vedanta has strong liability management by the proactive tender of the 2018 and 2019 bonds and redemption of the stub 2018 bonds.

## Creating Sustainable Value for all Stakeholders

A key strategic priority and critical to its licence to operate, Vedanta continues to focus on embedding a culture of sustainability across the businesses, allocating resources, skills and financial contributions to support its people and the communities where it operates whilst minimising its environmental impact. Although Vedanta's injury rates have declined over the years, the 7 fatalities recorded during the fiscal year 2017 have heightened Vedanta's resolve to create a zero-harm culture across the organisation and raise the profile of health and safety by reviewing safety incidents at the board, business segment and operational levels. The business units have implemented and put forward behavioural based and technical programmes to avoid the reoccurrence of these incidents. Further safety investigations and follow-ups have been improved and quantitative risk assessments have been introduced for all critical areas.

Making a positive contribution to local communities in India and Africa remains a high priority for Vedanta, with around 2.2 million beneficiaries of community development programmes during fiscal year 2017, supported by over 250 partnerships with NGOs, local governments, academia and private hospitals. Vedanta's social investment reached US\$18 million and is aligned with its social vision and community need based approach.

Vedanta is committed to managing its environmental footprint seeking to control pollution, reduce water and energy consumption and protect bio-diversity around its operating sites and has achieved water saving targets. During fiscal year 2017, there were zero higher category environmental incidents and all subsidiary businesses have been assessed with environmental gaps identified in energy, water management, greenhouse gas emissions and biodiversity. The significant improvements and adoption of best practices in resource management, biodiversity and site closure practices along with awards like CII- Sustainable Plus platinum label, National Energy Conservation Award and Global IOD Awards for Excellence in Corporate Governance and Sustainability are testament to the focus and improvement, Vedanta has made towards environment sustainability.

# Simplifying the group

Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the Fiscal year 2017. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017. This has resulted into simplified group structure. Post merger, Vedanta Limited has a very strong balance sheet and merger has resulted into de-risked earnings volatility driving stable cash flows for combined company.

Vedanta is focused on running its businesses in an integrated and simplified manner. Each business is run by its independent business executive committee and then there is an executive committee at group level. This simple operating structure helps in streamlining systems and processes and also results in effective decision making at all levels.

# Identify next generation of resources

Vedanta follows a disciplined approach to exploration and continues to enhance its exploration capabilities. Vedanta's strategic priority is to add to its reserves and resources by extending resources at a faster rate than deplete them, through a continuous focus on its drilling and exploration programme. In order to achieve this, the Company has formed an exploration cell-VEDEX under the guidance of senior leaders to build on the Company's reserve base across businesses.

# History and Development of Vedanta

In 1979, Mr. Anil Agarwal acquired Shamsher Sterling Corporation, which manufactured polyvinyl chloride power and control cables, overhead power transmission conductors and enamelled copper wire. Sterlite Cables Limited, in which the Agarwal family had a substantial interest, subsequently acquired this business and in 1986 changed its name to Sterlite Industries (India) Limited ("Sterlite").

- In 1988, Sterlite conducted an IPO in India.
- In 1995, Sterlite entered the aluminium production business by acquiring an 80% interest in The Madras Aluminium Company Limited ("MALCO").
- In 1997, Sterlite commissioned the first privately developed copper smelter in India.
- In 2001, Sterlite acquired a 51% interest in BALCO.
- In 2002, Sterlite acquired a 26% interest in HZL. In 2003, Sterlite increased its interest in HZL to 64.9%.
- In 2003, Vedanta was incorporated and re-registered as a public company and its name was changed to Vedanta Resources plc.
- In 2003, Vedanta was listed on the LSE.
- In 2004, Vedanta acquired a 51% interest in KCM.
- In 2006, Sterlite acquired Sterlite Energy Limited.
- In 2007, Vedanta acquired its iron ore business through the acquisition of a 51.2% interest in Sesa Goa Limited ("SGL") (now Vedanta Limited).
- In 2007, Sterlite completed an IPO on the NYSE. Vedanta's ownership interest in Sterlite decreased to 59.9%.
- In 2008, Vedanta increased its ownership interest in KCM to 79.4%.
- In 2009, Vedanta increased its ownership interest in MALCO to 94.8%.
- In 2009, Sterlite conducted a follow-on offering of its shares. Vedanta's ownership interest in Sterlite decreased to 56.9%.
- In 2009, SGL acquired SRL, which increased Sesa Go Limited's iron ore reserves and resources by an estimated 101.8 million tonnes.
- In 2010 and 2011, Vedanta acquired Skorpion, Black Mountain Mining, and Lisheen.
- In 2011, SGL acquired the steel plant assets in Karnataka of Bellary Steel & Alloys Limited.
- In 2011, SGL acquired 51% of WCL.
- In 2011, Vedanta acquired a 58.5% interest in Cairn India.
- In 2012, SGL acquired GEL.
- In 2012, SGL acquired the remaining 49% of WCL.

In 2014, Vedanta completed the reorganisation transactions though effective from August 2013, where in

- Sterlite merged with and into SGL;
- Aluminium business of Vedanta Aluminium Limited was demerged into SGL;
- Sterlite Energy Limited was merged with and into SGL;
- Power business of MALCO was demerged into Vedanta Aluminium Limited (now renamed as MALCO Energy Limited or MEL);
- Remaining MALCO was merged with and into SGL;
- Power business of Vedanta Aluminium Limited was slump sold to SGL;
- Group's ownership in Cairn India was consolidated under SGL;
- The name of SGL was changed to Sesa Sterlite Limited with effect from 18 September, 2013;
- In 2015, the name of Sesa Sterlite Limited was changed to Vedanta Limited; and
- In 2017, the merger of Cairn India with Vedanta Limited was completed.

#### Oil and Gas Business

Vedanta's Oil and Gas business is primarily owned and operated by Cairn Indian (now merged into Vedanta Limited) and its subsidiaries. Vedanta's Oil and Gas business segment has a diversified asset base with seven production and exploration blocks, one in Rajasthan, one on the west coast of India, four on the east coast of India and one in South Africa.

### Zinc Business

Vedanta's zinc India business is owned and operated by HZL. The international zinc business is operated by Skorpion in Namibia, Lisheen in Ireland and Black Mountain Mining in South frica.

HZL. HZL was incorporated in Jaipur, India, and is headquartered in Udaipur in the State of Rajasthan. HZL's equity shares are listed and traded on the NSE and the BSE and as of 31 March 2017, had a market capitalisation of Rs. 1,221 billion (\$18.8 billion). As of 31 March 2017, Vedanta Limited directly owns 64.9% of the share capital of HZL and has management control. The remainder of HZL's share capital is owned by the GoI (29.5%) and institutional and public shareholders and employees of HZL (5.6%). HZL's fully integrated zinc operations include five lead-zinc mines at the Chanderiya, Darbia and Zawar facilities in the State of Rajasthan. Processing facilities are located at Haridwar, Punjab and Uttrakhand.

THL Zinc Namibia Holdings (Pty) Ltd. Skorpion was incorporated in Namibia, and is headquartered near Rosh Pinah. Skorpion was acquired from Anglo American plc in May 2010. The acquisition of Skorpion was completed on 3 December 2010. Skorpion produces zinc ingots of LME grade.

Vedanta Lisheen Holdings Limited. Lisheen was incorporated in Ireland, and is headquartered in Thurles. Lisheen was acquired from Anglo American plc in May 2010. The acquisition of Lisheen was completed on 15 February 2011. The Lisheen mine is located in County Tripperary, Republic of Ireland. Mining and milling activities at the Lisheen mine ceased in December, 2015 and the facility is currently in the process of implementing a mine closure plan in conjunction with statutory authorities.

Black Mountain Mining (Pty) Ltd. Black Mountain Mining was incorporated in South Africa, and is headquartered in Aggeneys. Black Mountain Mining was acquired from Anglo American plc in May 2010 and its assets include the Black Mountain mine and the Gamsberg deposit in South Africa. On 4 February 2011, Vedanta Limited completed the acquisition of the 74.0% ownership interest in Black Mountain Mining. Black Mountain Mining consists of the Black Mountain mine and the Gamsberg Project which produces zinc, copper and lead in concentrate.

## Copper Business

Vedanta's copper business comprises operations in India, Zambia and Australia. Vedanta's Indian copper business is operated by Vedanta Limited and its Australian copper mines are held by CMT, while its Zambian copper business is owned and operated by KCM.

Vedanta Limited. Vedanta Limited's shares are listed and traded on the NSE and the BSE, and are also listed and traded on the NYSE in the form of American Depository Shares ("ADSs"). Vedanta, as of 31 March 2017 owns 50.1% of Vedanta Limited and has management control of the company. Following the merger of Cairn India with Vedanta Limited, Vedanta owns 50.1% of Vedanta Limited. The remainder of Vedanta Limited's share capital is held by institutional and public shareholders. Vedanta Limited operates the copper business in India and operates the Australian business through CMT.

CMT. CMT was incorporated in Belmont, Australia, and is headquartered in Queenstown, Tasmania. Vedanta Limited owns 100.0% of CMT as of 31 March 2017 and has management control of the company. The Company's registered office is in Marin Place, Sydney.

KCM. KCM was incorporated in Lusaka, Zambia, and has its registered office in Chingola, Zambia. As of 31 March 2017, Vedanta owns 79.4% of KCM's share capital through Vedanta's wholly-owned subsidiary, VRHL, and has management control of the company. KCM's other shareholder is ZCCM Investment Holdings Plc. The Government of Zambia has a controlling ownership interest in ZCCM Investment Holdings Plc.

### Iron Ore Business

Vedanta's iron ore business comprises operations in India and Liberia.

Vedanta Limited. Vedanta Limited operates Vedanta's Iron Ore business in the states of Goa and Karnataka, India.

Western Cluster Limited. WCL was incorporated in Liberia and is headquartered in Monrovia, Liberia. WCL's assets include development rights to the Western Cluster, a network of iron ore deposits in West Africa.

### Aluminium Business

*BALCO*. BALCO was incorporated in New Delhi, India and is headquartered at Korba in the State of Chhattisgarh. Vedanta Limited owned 51.0% as of 31 March 2017 of the share capital of BALCO and has management control of the company. The GoI owns the remaining 49.0%. BALCO operates two Bauxite mines in Chhattisgarh, India.

Vedanta Limited. Vedanta Limited operates Vedanta's aluminium business in the state of Odisha.

#### Commercial Power Generation Business

Vedanta Limited. Vedanta Limited operates the 2,400 MW coal based power plant facility in Jharsuguda in the state of Odisha. The three units of 600 MW each of coal-based thermal power plants in Jharsuguda have been converted from commercial power plants to captive power plants from 1 April 2016 and is now part of the aluminium business and one unit is an independent power plant for commercial power generation.

TSPL is a wholly-owned subsidiary of Vedanta Limited acquired by Vedanta Limited in September 2008. It is currently operating a 1,980 MW coal-based thermal commercial power plant at Talwandi Sabo, Punjab, India.

*MEL*. MEL is a wholly owned subsidiary of Vedanta Limited and operates a 106.5 MW coal based thermal power plant in Mettur Dam.

BALCO. BALCO operates a IPP 600 MW thermal power plant in Korba, Chattisgarh.

HZL. HZL operates wind power plants in Gujarat, Karnataka and Rajasthan with a combined capacity of 274.2 MW as of 31 March 2017.

# **Description of the Businesses**

#### Oil and Gas Business

#### Introduction

Vedanta's Oil and Gas business is owned and operated by Cairn India (now merged with Vedanta Limited) and its subsidiaries. The Oil and Gas business segment has a diversified asset base with seven production and exploration blocks, one in Rajasthan, one on the west coast of India, four on the east coast of India and one in South Africa.

Cairn India is primarily engaged in the business of exploration, development and production of crude oil, gas and related by-products. Oil and Gas business continues to contribute significantly to India's domestic crude oil production. Cairn India operates approximately 26% of India's domestic crude oil production and, to date, has opened four frontier basins with numerous discoveries.

Cairn India has a diversified asset base with seven production and exploration blocks: one in Rajasthan, one on the west coast of India, four on the east coast of India and one in South Africa. The following table sets forth details of Cairn India's assets including its percentage interest and its partners, as of 31 March 2017:

	Asset	Basin	Our interest	JV partners	Area
			(%)		(in sq km)
Inc	dia				
1	RJ-ON-90/1	Barmer	70%	ONGC	3,111
2	CB/OS-2	Cambay	40%	ONGC, Tata Petrodyne	207
				ONGC, Ravva Oil,	
3	RAVVA	KG Offshore	22.5%	Videocon	331
4	KG-ONN-2003/1	KG Onshore	49%	ONGC	315
5	KG-OSN-2009/3	KG Offshore	100%	_	1,988
6	PR-OSN-2004/1	Palar-Pennar	35%	ONGC, Tata Petrodyne	9,417
Int	ternational				
7	Block 1	Orange, South Africa	60%	Petro SA	19,898
	Total				35,267

Oil and gas is produced from the Rajasthan, Ravva and Cambay blocks. Gross production of Cairn India was 203.7 kboepd in fiscal year 2016 and 189.9 kboepd in fiscal year 2017. For the year ended 31 March 2017, the Vedanta EBITDA oil and gas segment was \$597 million compared to \$570 million for the previous year.

The Rajasthan RJ-ON-90/1 ("Rajasthan") block is an onshore block. It is the principal production asset where Cairn India owns a 70% participating interest pursuant to the production sharing contract that runs until May 2020. Joint operation partner, ONGC, has a 30% participating interest. The Rajasthan block is spread over 3,111 sq. kms west of Barmer district. The block consists of three contiguous development areas or DA: (i) DA 1, primarily comprising the Mangala, Aishwariya, Raageshwari and Saraswati or MARS fields; (ii) DA 2 primarily consisting of the Bhagyam, NI and NE and Shakti fields; and (iii) DA 3, comprising the Kaameshwari West fields.

The Mangala field was discovered in January 2004. This was followed by many other discoveries including the Aishwariya and Bhagyam fields. In the Rajasthan block, 38 discoveries have been established, since inception. The Mangala, Bhagyam and Aishwariya fields (collectively, the "MBA Fields") are the largest in the Rajasthan Block and the Mangala field was the first to be developed, having commenced production of commercial crude oil in August 2009. In addition, Cairn India has completed the MPT, a centralised hub facility to handle crude oil production from the MBA Fields and other fields, such as Raageshwari, Saraswati and other satellite fields. Since June 2010, sales of crude oil from the Rajasthan Block are made through a pipeline (the "Pipeline") of approximately 590 km running from the MPT to Salaya which further extends 73 km to Bhogat. In November 2015, the Salaya-Bhogat pipeline and terminal at Bhogat were commissioned and the first cargo of 500,000 barrels of Rajasthan crude oil was successfully loaded in December 2015 through the Bhogat terminal for Mangalore Refinery and Petrochemicals Limited ("MRPL"). The terminal provides access to a larger market for Rajasthan crude. The Bhogat terminal is a 160 hectare site located eight km from the Arabian Sea coast at Bhogat in Jamnagar District, Gujarat.

Outside of the Rajasthan Block, the two producing blocks are Ravva and the Cambay Basin Block.

Cairn India Group signed a farm-in agreement with the Petroleum Oil & Gas Corporation of South Africa Ltd. ("PetroSA"), the national oil company of South Africa, for the 19,922 km² off-shore Block 1, located in the geologically-proven Orange Basin in South Africa. As of 31 March 2017, Cairn India holds a 60% interest in the block and is its operator. Following farm-in and assignment of participating interest in the block in early calendar year 2013, 1,981 sq. km of 3D seismic data was acquired in fiscal year 2014. Additionally, acquisition of 3,000 line km of 2D seismic data was concluded in early March, 2014. Cairn India awaits a decision on proposed changes to the MPRDA and fiscal regime before considering a decision to progress into the second exploration license phase.

In addition, Cairn India holds interest in the onshore block KG-ONN-2003/1 under development phase and offshore blocks KG-OSN-2009/3 and PR-OSN-2004/1 under exploration phase.

## Principal products

Oil. Cairn India produces crude oil of various grades with different degrees and contents, depending on which field it has been extracted from. While, the crude oil in the majority of fields in the Rajasthan block is characterised by its high pour point and is medium sweet oil in nature, the crude oil produced from Ravva and Cambay oil blocks are light sweet in nature.

Gas. The Rajasthan, Ravva and Cambay blocks produce natural gas and natural gas commingled with crude oil. While gas is being sold from the offshore blocks of Ravva and Cambay, pursuant to the regulatory approval of March 2013, gas sales have commenced from the Rajasthan block in fiscal year 2014.

The table below sets out Cairn India's gross production<sup>(1)</sup> for the periods indicated:

-	For the Year Ended 31 March		
_	2015	2016	2017
Average Daily Gross Operated Production (boepd)	211,670	203,703	189,926
Rajasthan	175,144	169,609	161,571
Ravva	25,989	23,845	18,602
Cambay	10,538	10,249	9,753
Average Daily Working Interest Production (boepd)	132,663	128,191	121,186
Rajasthan	122,601	118,726	113,100
Ravva	5,847	5,365	4,185
Cambay	4,215	4,100	3,901
Total Oil and Gas (mmboe)			
Oil & Gas-Gross	77.3	74.6	69.3
Oil & Gas-Working Interest	48.4	46.9	44.2

The following table sets forth Cairn India's production for the periods indicated.

	For the Year Ended 31 March		
	2015	2016	2017
Gross:			
Oil (bopd)	204,761	196,955	184,734
Gas (mmscfd)	41	40	31
Oil and gas (boepd)	211,670	203,703	189,926
Total:			
Oil (mmbbls)	74.7	72.1	67.4
Gas (mmboe)	2.6	2.5	1.9
Oil and gas (mmboe)	77.3	74.6	69.3

Cairn India's Estimates of Hydrocarbons Initially in Place, Reserves and Contingent Resources

Cairn India uses various measures of hydrocarbons to make decisions regarding exploration priorities and investment in field developments. In the exploration phase, estimates of hydrocarbons initially in place, and the associated estimate of prospective resource are essentially speculative and subject both to a binary risk (probability of success or failure) and considerable uncertainty of volumetric magnitude. Following successful exploration and appraisal work, and as a field matures technically and commercially through development work and actual production, it becomes possible for Cairn India to make estimates, which may change over time, of the volumes of hydrocarbons or reserves that, in varying degrees of certainty or uncertainty, will ultimately be recoverable.

Cairn India relies primarily on estimates of 2P reserves for purposes of significant capital investment decisions.

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

Estimates of contingent resources are also used as a further measure of the potential commerciality of known accumulations of hydrocarbons in Cairn India's areas. The estimation of these resources, and the likelihood that they may be reclassified as reserves, depends on Cairn India's ability to prove commercial and technical viability of recovery within a reasonable timeframe. Cairn India employs reserves and resources definitions according to SPE/WPC International Standards which provide detailed descriptions for each category of reserves and resources.

The table below sets forth certain data regarding Cairn India's estimates of gross hydrocarbons initially in place, gross and net working interest reserves and contingent resources from fields within the Rajasthan Block, the Ravva Block, Cambay Basin Block and the KG-ONN-2003/1 block as of 31 March 2017. In this table, gas has been converted into oil equivalent using a conversion factor of 6,000 standard cubic feet per barrel of oil equivalent. The estimates with respect to Rajasthan Block fields include resources which are based on the assumption that Cairn India will be granted an extension of the Rajasthan Block PSC beyond the expiration of the PSC in 2020. This assumption might not prove to be correct. Based on the fiscal year 2017 gross production, the gross 2P reserves and 2C resources have a life of approximately 18 years.

	Gross Proved Plus Probable Hydrocarbons Initially in Place	Gross Proved Plus Probable Reserves and 2C resources	Net Working Interest Proved Plus Probable Reserves and 2C resources
n ' a ni i		(mmboe)	
Rajasthan Block			
Total "MBA" Fields	2,197	410	287
Rajasthan EOR	_	279	195
Rajasthan Block Other Fields	4,034	471	330
Ravva Block	696	41	9
Cambay Basin Block	225	23	9
KG-ONN-2003/1	334	48	24
Total (excluding EOR)	7,486	993	659
Total (including EOR)	7,486	1,272	854

DeGolyer and MacNaughton's Estimates of Reserves and Contingent Resources

DeGolyer and MacNaughton, independent petroleum engineering consultants, had been engaged to prepare estimates of the Proved, Probable, and Possible oil, condensate, and marketable gas reserves and the contingent resources contained within the areas of Cairn India.

The estimation of oil and gas reserves and resources is uncertain and subjective and different, reasonable estimates may be produced by different engineers analysing the same geological, technical and commercial data. As a result, there are differences between Cairn India's estimates and DeGolyer and MacNaughton's estimates.

The table below sets forth a summary of the gross and net participating interest oil equivalent reserves reported in millions of barrels for certain properties which have been derived from estimates of gross oil and marketable gas reserves prepared by DeGolyer and MacNaughton for fields within the Rajasthan Block, the Ravva Fields, and fields within the Cambay Basin Block and the KG-ONN-2003/1 Block as of 31 March 2017. In this table, marketable gas has been converted into oil equivalent using a conversion factor of 6,000 standard cubic feet per barrel of oil equivalent.

		Net Participating	
	<b>Gross Proved Plus</b>	Interest Proved Plus Probable Hydrocarbon Reserves	
	Probable		
	Hydrocarbon		
	Reserves		
	(mmboe)	(mmboe)	
Rajasthan Block			
Mangala	116.1	81.3	
Bhagyam	11.8	8.3	
Aishwariya	15.4	10.8	
Total "MBA" Fields	143.3	100.4	
Rajasthan Block Small Fields	16.0	11.2	
Rajasthan Block Other Fields	4.7	3.3	
Ravva Block	11.1	2.5	
Cambay Basin Block	15.5	6.2	
KG-ONN-2003/1	4.4	2.1	

The difference in total gross "Proved plus Probable" hydrocarbon reserves estimates between Cairn India and DeGolyer and MacNaughton is negligible (only 0.03%). The field by field differences are due to differences in the interpretations made by the estimating engineers.

# The Rajasthan Block

The majority of the estimated hydrocarbons in place, 2P reserves and contingent resources attributable to fields in which Cairn India has an interest are contained in the Rajasthan Block. The block consists of three contiguous DAs: (i) DA 1, primarily comprising the Mangala, Aishwariya, Raageshwari and Saraswati or MARS fields; (ii) DA 2 primarily consisting of the Bhagyam, NI and NE and Shakti fields; and (iii) DA 3, comprising the Kaameshwari West fields.

The Mangala, Bhagyam, Aishwariya, Saraswati, Raageshwari, NI and NE oil fields are under production. As of 31 March 2017, Cairn India estimates the gross hydrocarbons initially in place and the gross 2P reserves plus 2C resources of 6.2 bnboe and 1.2 bnboe. Additionally, for the fiscal year 2017 two private sector buyers constituted 69.4% of total oil sales for Rajasthan block.

As of 31 March 2017, Cairn India's Oil and Gas estimates that the MBA fields (including EOR) contained gross hydrocarbons initially in place and the gross 2P reserves plus 2C resources 2.2 bnboe and 0.7 bnboe respectively. The other fields in Rajasthan block contained gross hydrocarbons initially in place and the gross 2P reserves plus 2C resources 4.0 bnboe and 0.5 bnboe.

Set out below is the gross production from the Rajasthan Block and Cairn India's net participating interest with regard to such production for the periods indicated:

Average Daily Production	Units	2015	2016	2017
Gross operated	Boepd	175,144	169,609	161,571
Net operated	Boepd	122,601	118,726	113,100
Oil	Bopd	121,554	117,086	111,958
Gas	Mmscfd	6.3	9.8	6.9

### The Rajasthan Block PSC

Vedanta Limited is working in partnership with its joint venture partner ONGC, in the Rajasthan Block. The Rajasthan Block PSC was signed in May 1995 between the GoI and a consortium consisting of ONGC and SIPD.

Cairn India acquired its interest in the Rajasthan Block PSC in three stages, eventually acquiring a 100.0% beneficial interest in the assets and liabilities as of May 2002 and acquiring legal title to this 100.0% interest on 20 June 2003. Under the Rajasthan Block PSC, the GoI has an option to acquire a participating interest of 30.0% in any development area containing a commercial discovery. The GoI exercised this right in all three development areas, specifically, DA 1 in 2005, DA 2 in 2007 and DA 3 in 2009, acting through its nominee ONGC, and acquired a 30.0% participating interest.

Under the Rajasthan Block PSC, until such time as India attains self-sufficiency in its crude oil supply, Vedanta Limited is required to sell to the GoI, or its nominee, all of Vedanta's entitlement to crude oil and condensate extracted from the Rajasthan block in order to assist in satisfying domestic Indian crude oil demand. The GoI has the option but not an obligation to purchase the whole or part of crude oil produced from the Rajasthan block, and accordingly the GoI is entitled to appoint a nominee to purchase all of the contractor's entitlement of the crude oil and condensate produced from the Rajasthan block. However, the GoI has granted permission to Vedanta to sell the remaining quantities of crude oil, over and above those allocated to government nominees to other domestic private refineries and as of 31 March 2017, Cairn India sells crude oil to both private refineries and the public sector undertakings refineries. As of 31 March 2017, commercial sales arrangements are in place for over 200,000 bopd with public sector undertakings and private refineries. Any additional sales to the public sector undertakings refineries, special economic zone refineries and overseas are subject to approval from the GoI.

The Rajasthan Block PSC established a management committee for the Rajasthan Block which consists of four members, two of whom are nominated by and represent the GoI and the licensee, namely ONGC, taken together, and two of whom are nominated by and represent Vedanta Limited. The management committee must unanimously approve annual work programmes, budgets, proposals for the declaration of a discovery as commercial, field development plans, and the delineation of or additions to a development area, while all other matters only require a majority vote.

The Rajasthan Block PSC is valid until May 2020, but it may be extended subject to mutual agreement among the parties for up to an additional ten years in the case of commercial production of non-associated natural gas or up to five years otherwise. There is also provision to further extend the PSC by agreement of the parties if production of crude oil or of natural gas is expected to continue after the relevant period.

The MoPNG, the notification dated 7 April 2017, issued a policy for the grant of an extension to the PSCs signed by the GoI awarding Pre-New Exploration Licensing Policy (Pre-NELP) Exploration blocks ("Extension Policy"). The Extension Policy defines the framework for the granting of extension and Pre-NELP blocks including the Rajasthan block.

The Rajasthan Block has benefited from a tax holiday of seven years from fiscal 2009 (the year of commencement of commercial production from the Rajasthan Block) to 31 March 2016. However, during the seven-year tax holiday, minimum alternate tax rules were applicable resulting in a taxation of book profits computed in accordance with the generally accepted accounting principles as used in India ("Indian GAAP"). Any minimum alternate tax paid can be carried forward (at current rates) for a total period of fifteen years from the year of credit and used to reduce corporate tax to be paid in future years in excess of minimum alternate tax payable in those years.

Under the Rajasthan Block PSC, all sales are to be valued at a weighted average FOB selling price per barrel of a basket of international crude oils as agreed by all parties which is quoted in Platts, a provider of energy information. For any delivery period in which sales take place, the price will be set at an average price per barrel determined by calculating the average for such delivery period of the mean of the high and low FOB prices of the basket for each day adjusted for differences in quality, delivery time, quantity, payment terms and other contract terms to the extent known. In agreeing to an appropriate basket, the parties shall attempt, so far as is reasonably practicable, to choose a mixture and weighting of crude oils which would produce a quality similar to the quality of crude oil expected to be produced from that development area, and to agree what quality adjustment (if any) to the basket price is appropriate. In determining the quality of crude oil, account is to be taken of all relevant characteristics including gravity, sulphur and metal content, pour point and product yield.

The crude oil produced at the Rajasthan Block is benchmarked to Bonny Light, an international low Sulphur crude oil published in Platt's Crude Oil Market Wire on a daily basis. The pricing formula also adjusts for differences in yield and quality.

In the event that there is a dispute between the parties to the Rajasthan Block PSC as to the basis of, or mechanism for, the calculation of the crude oil price, then any party may refer the matter to a sole expert who is to be an independent and impartial person of international standing with relevant qualifications and experience. Under the provisions of the Rajasthan Block PSC, the decision of the sole expert is final and binding on the parties and not subject to arbitration.

Northern Fields — Mangala.

The Mangala field which was discovered in 2004, is the largest field in the Barmer Basin in the state of Rajasthan.

The main reservoir unit in the Mangala field is of the late Palaeocene Age Fatehgarh group which is also common to the other Northern Fields. The Fatehgarh sequence consists of stacked reservoir units of interbedded sands and shales. The Fatehgarh sandstones exhibit reservoir characteristics, with porosities ranging from 21% to 26% and in-situ permeability averaging more than two Darcies. The structure is a simple tilted fault block, bounded to the West and North by first and second order faults respectively, with the field structure dipping at around nine degrees toward the South-East. The depth of the crest of the structure is only 600 metres below sea level, with crude oil-water contact at 960 metres below sea level. Ground elevations are in the order of 200 metres above mean sea level. The Fatehgarh crude oil column covers an area in excess of 13 km<sup>2</sup>.

Mangala crude oil is waxy and sweet, having a low sulphur content, averaging 27.3 degrees API and a relatively high pour point of 40 degrees Celsius to 45 degrees Celsius. The reservoir is normally pressured and hot water flooding is implemented to maintain reservoir pressure and efficiently improve oil recovery.

The Mangala field development plan recommended drilling of wells from the well pads will significantly reduce their overall footprint and environmental impact. Consequently, all wells are deviated to some extent. As of 31 March 2017, a total of 18 well pads were in place and production was originating from wells equipped with artificial lifts, such as jet pumps and electrical submersible pumps.

The Mangala field development plan envisaged drilling 162 development wells, out of which 12 were horizontal producers which have since been drilled and completed. Of these, 111 wells were producing and 51 were injector wells injecting water into the reservoirs. The commercial production in the Mangala field commenced in 2009 and reached 150,000 bopd in 2012, which is the peak rate approved by the field development plan. Additionally, 48 infill wells were also drilled as pre-producers to be converted later on into polymer injectors during polymer phase. An additional 3 horizontal wells have also been drilled to support field performance.

To increase the ultimate oil recovery and aid to production volumes an enhanced oil recovery or EOR project, was successfully executed with encouraging results during fiscal year 2017. The first polymer injection at the Mangala field started in October 2014. By end of fiscal year 2016, polymer injection was ramped up to the target levels of 400,000 blpd and during the fiscal year 2017, the polymer injection was maintained at this rate. EOR has led to an increased oil recovery averaging about 51,000 boepd for the fiscal year ended 31 March 2017. The integrated drilling programme was completed for 93 new wells during the fiscal year 2017. In October 2015, the central polymer facility was made fully operational with five trains preparing polymer solution.

The alkaline surfactant polymer enhanced oil recovery pilot commenced during fiscal year 2015 and has shown positive results with better mobilisation of un-swept oil. Preliminary analysis suggested that the alkali surfactant polymer pilot wells produced approximately 10-15% incremental oil of the pilot stock tank of oil in place over polymer flood.

Northern Fields — Bhagyam.

Bhagyam is the second largest discovery, after Mangala, in the Northern Barmer Basin in the state of Rajasthan.

The main reservoir unit in the Bhagyam field is of the late Palaeocene Age Fatehgarh group. The Fatehgarh sequence consists of stacked reservoir units of interbedded sands and shales deposited in fluvial environment. The Fatehgarh group reservoir at Bhagyam is of high quality, with porosities ranging between 20% to 26% and absolute rock permeability averaging four to five Darcies. The structure is a simple tilted fault block, bounded to the West and North by first and second order faults, respectively, with the field structure dipping at around 10 to 12 degrees toward the East-South-East. The depth of the crest of the structure is about 250 metres below sea level, with crude oil-water contact at 450 metres below sea level. Ground elevations are in the order of 200 metres above mean sea level. The Fatehgarh crude oil column covers an area of 4.5 km<sup>2</sup>.

Bhagyam crude oil is waxy and sweet, and of medium gravity, averaging 26 degrees API and has a pour point of 40 to 45 degrees Celsius which is similar to the pour point of the crude oil from the Mangala field.

Further, there is slightly more variation in crude oil type with depth at Bhagyam than in the other Northern Fields with a variation from 21 degrees API close to the oil-water-contact and up to 33 degrees API at the crest of the structure. Moreover, the Bhagyam field has a very small gas cap in the Fatehgarh Group accounting for less than 1% of the total reservoir hydrocarbon pore volume.

The reservoir is normally pressured and peripheral hot water flooding has been implemented to maintain reservoir pressure and efficiently sweep the oil. Artificial lifts have been installed in almost all the production wells in the Bhagyam field.

Crude oil production from Bhagyam commenced in 2012. In Bhagyam, a total of 153 development wells have been drilled as of 31 March 2017, of which 112 are producer wells and 41 are injector wells. Crude oil is transported via the Bhagyam trunk line to the MPT for processing and further export through the main section of the Pipeline.

The Aishwariya field is located in the northern Barmer Basin in the state of Rajasthan, immediately south of the Mangala field and was discovered in March 2004.

The basin is a tertiary rift, consisting predominantly of Palaeocene-Eocene sediments. The main reservoir unit in Aishwariya is of the Fatehgarh group, consisting of stacked reservoir units of interbedded sands and shales. The reservoir characteristics of the Fatehgarh sands vary from moderate to excellent with porosities ranging from 12% to 26% and *in-situ* permeabilities ranging from 10 milli-Darcies to over 20 Darcies. The Aishwariya structure is a simple tilted fault block, dipping at around 12 degrees to the east.

Aishwariya crude oil is waxy and sweet, having a low sulphur content, with an API gravity ranging from 27 degrees to 32 degrees API. Like the Mangala field, the crude oil has a relatively high pour point of 40 to 45 degrees Celsius. The reservoir is normally pressured and hot water flooding is planned to be implemented to maintain reservoir pressure and efficiently sweep the oil.

The Aishwariya FDP included a drilling programme of 51 development wells, namely 36 producer wells and 15 injector wells, to recover the reserves using the water flood method. Additional 20 infill wells were drilled to fully exploit the potential of the field. Production from the Aishwariya field commenced in 2013.

Northern Fields — Raageshwari Deep Gas Field.

The Raageshwari deep gas field was initially designed to supply gas to meet the energy requirements at the MPT and the Pipeline. A revised field development plan was approved by the GoI in December 2014 for commercial gas sales and internal fuel consumption. As of 31 March 2017, 30 wells have been drilled and completed with multistage hydraulic fractures and are being brought progressively under production. Hydraulic fracturing operations have also been completed in all the wells with 5-7 zones fractured in each well. These fracturing operations have increased the flow rates, with wells having flow rates of up to 8 to 10 mmscfd, which is 1.5-2.0 times the rate previously achieved from this reservoir. The processed gas is transported to GSPL grid through midstream pipeline and MPT through fuel gas pipelines for captive consumption.

Southern Fields — Raageshwari.

The Raageshwari crude oil field is located at the northern end of the Central Basin High within the Barmer Basin and was discovered in 2003.

A 3D seismic survey over this area of the Rajasthan Block has identified that the Raageshwari crude oil field is separated into various fault blocks which are likely to require individual drain points to develop the field's resources.

The shallow Thumbli sandstone reservoir is the primary reservoir in the field. The Thumbli section is a relatively low permeability sandstone formation of laminated sands and shales. The typical porosity ranges from 20% to 35%, with permeability varying from 10 milli-Darcies to 250 milli-Darcies.

The Raageshwari field also has a gas cap which provides natural pressure support while the oil field is under production, and the gas cap will serve as a source of production in the future, once the oil recovery has been optimised.

The crude oil from the Raageshwari field has a crude oil gravity of 35 degrees API, a high wax content and a relatively high pour point though not as high as the crude oil found in the Northern fields.

The Raageshwari field commenced production in 2012. As of 31 March 2017, 5 development wells have been drilled.

The approved field development plan focuses on the use of the minimum facilities to provide separation, metering, and flow lines with the associated infrastructure and utilities. Crude oil, water and associated gas from the well heads will be processed through production and separation units on each of the planned pads.

Southern Fields — Saraswati.

The Saraswati field was discovered by Cairn India in 2001. There are two reservoir types in this field, the Fatehgarh Group Sandstone Reservoir and the Barmer Hill Formation sandstones. The Fatehgarh formation at this location is approximately 65 km south of the Mangala field, at a deeper depth and lower quality as compared to the Northern Fields with porosity of 15% to 20% and permeability of between 50 milli-Darcies to 100 milli-Darcies. The Barmer Hill formation is tight but there is evidence of a fracture system at Saraswati which would increase its production potential.

Saraswati crude oil is light and sweet, having a low sulphur content, and has a typical crude oil gravity of 40 degrees API. Similar to crude oil from the other fields in the Rajasthan Block, it has a high wax content, but its pour point is lower, at 30 degrees Celsius.

The Saraswati field commenced production in 2011. As of 31 March 2017, 5 development wells have been drilled.

This oil is being processed at the MPT and is being co-mingled with the Mangala oil sold through the Pipeline. The development facilities provide for separation, metering, and flow lines with the associated utilities and infrastructure. Crude oil, water and associated gas are processed through production and separation units on each of the planned pads.

Barmer Hill and Other Fields.

In addition to the MBA, Raageshwari and Saraswati fields, Cairn India has discovered 33 other fields (including the Barmer Hill formation) that contain hydrocarbons.

The Barmer Hill formation is present throughout the basin overlying the Fatehgarh formation. The Barmer Hill is an extensive low-permeability formation that contains substantial oil in place and was discovered in 2004 with the Mangala and Aishwariya field discoveries.

During fiscal year 2016, the Barmer Hill appraisal campaign was successfully completed. A total of 15 wells were drilled, a combination of seven vertical and eight horizontal wells, across Mangala and Aishwariya formations in fiscal year 2015. Until February 2016 production from these fields was through the existing 8 wells of Mangala BH and 7 wells of Aishwariya BH. An order to cease production from these fields, pending submission and approval of an FDP, was received from the Director General of Hydrocarbons (the "DGH") in February 2016. The fields are currently not in production. CIL is preparing FDPs with phased developed plans, the first phase of which would use the existing wells. The NI and NE fields are currently in production with 4 and 2 wells respectively.

# Further Potential Exploration

Since resumption of exploration in Rajasthan from 2013, the Cairn India's Oil & Gas business has announced 13 new discoveries till 31 March 2017 taking the total discoveries to 38. During fiscal year 2017, focus was on identifying new plays, appraising new discoveries, and processing and interpreting the new 3D seismic data over high-priority areas. We have made significant progress in

revamping the portfolio of prospects in the block to achieve an overall prospective resource base of more than 1 billion barrels of oil and gas by fiscal year 2018. New prospects based on both new-play concepts and proven-play extensions have added 436 mmboe of prospective resources in fiscal year 2017.

### The Mangala Processing Terminal

The MPT is spread over an area of 1.6 sq. kms and is a core asset. The MPT processes crude oil produced from the Rajasthan block. Following processing, the crude oil is transported to refineries through a 24 inch diameter continuously heated and insulated pipeline. The MPT's integrated production facilities support the field development plan approved production, which is in line with Cairn India's unified Rajasthan block off-take capability.

## The Mangala development pipeline or MDP

The MDP is designed to evacuate the crude oil and transport gas from the Rajasthan block. Beginning at the MPT and Raageshwari terminal respectively, the 24 inch crude oil and 8 inch gas pipeline passes through eight districts across two states, Rajasthan and Gujarat. The pipeline ends at Bhogat near Jamnagar on the western coast of India. There are buffer crude storage terminals at Radhanpur and Viramgam for sales to Indian Oil Corporation and off-take lines at Salaya for sales to the Reliance India Limited and Essar Oil refineries in Jamnagar.

Since its commissioning, total cumulative crude oil sales of 390 million barrels have been achieved through the existing pipeline facilities up to 31 March 2017. With the use of drag reducing agents, the proven dispatch capacity of the Mangala development pipeline has been enhanced to around 250,000 bbls per day. Given its length, the Mangala development pipeline incorporates a pipeline intrusion detection system to provide surveillance along its entire length by using fibre optics. Vedanta's pipeline operations received the prestigious Oil Industry Safety Directorate award for 'Best Near-Miss reporting' and accreditation of both OHSAS: 18001 and ISO: 14001 systems.

In fiscal year 2014, gas sales commenced through the 8 inch gas line. Capacity was further enhanced through installation of higher capacity gas compressors at Raageshwari and Viramgam terminals to nearly double gas sales capability and modification of impellers of the mainline booster pumps at Viramgam. During fiscal year 2016, stabilisation of the compressors and optimisation of plant operations aided the production.

In November 2015, the Salaya-Bhogat pipeline and terminal at Bhogat were commissioned and the first cargo of 500,000 barrels of Rajasthan crude oil was successfully loaded in December 2015 through the Bhogat terminal for Mangalore Refinery and Petrochemicals Limited or MRPL. The terminal has provided the access to larger market for Rajasthan crude. This should enable us to diversify customer mix and reduce dependence on limited number of customers.

The Bhogat terminal in the Jamnagar district of Gujarat, is a 160 hectare site located eight kms from the Arabian Sea coast. The terminal will facilitate the storage and evacuation of crude oil by sea. The terminal consists of tankages with storages capacity of about 2.1 million barrels of Rajasthan crude. It also has associated facilities for operation of terminal and marine export of crude. Evacuation facility includes two 24 inch sub-sea export pipelines from the Bhogat landfall point to the single point mooring system to enable crude transfer and a single point mooring system and sub-sea pipeline end manifold in deep sea to enable tanker berthing and loading. The terminal was commissioned in November 2015 and the dispatch of Rajasthan crude has already started to MRPL.

## The Ravva Block — Krishna Godavari Basin

Vedanta Limited is the operator of the Ravva field in the Ravva Block, which lies in the Krishna Godavari Basin mostly off the coast of the state of Andhra Pradesh in eastern India in water depths of between approximately 5 and 40 metres isobaths. ONGC discovered the Ravva field in 1987 and production commenced in 1993.

As on 31 March 2017, Ravva field had produced more than 283 mmbbls of crude oil and 349 BCF of gas since it commenced production, significantly more than the initial expectations achieving approximately 50% recovery.

### The Ravva PSC

The production sharing contract for the exploration, development and production of the Ravva block (the "Ravva PSC") was signed on 28 October 1994 between GoI and a consortium consisting of ONGC, Videocon Industries Limited (formerly Videocon Petroleum Limited), Ravva Oil and Cairn Energy India Pty Limited (formerly known as Command Petroleum (India) Pty Limited) ("Command Petroleum") with Command Petroleum being designated as the operator. In 1996, Cairn Energy Plc acquired Command Petroleum, including its interest in the Ravva block, and Cairn India became the operator.

Cairn India holds a 22.5% working interest in the Ravva field with the remaining interests currently held by ONGC (40%), Videocon Industries (25%) and Ravva Oil (12.5%) (together, the "Ravva JV). The PSC is currently valid until 27 October 2019, but may be extended by the GoI for up to an additional ten years in the case of commercial production of non-associated natural gas or up to five years otherwise. The MoPNG, the notification dated 28 March 2016, issued a policy for the grant of an extension to the PSCs signed by the GoI awarding small, medium sized and discovered fields to private joint ventures ("Extension Policy"). The Extension Policy defines the framework for the granting of extension and covers 28 small and marginal fields, including the Ravva block.

Under the Ravva PSC, Cairn India is entitled to recover 100% of exploration, development and costs of production from crude oil and natural gas sales before any profit is allocated among the parties. Further, until such time as India attains self-sufficiency in its crude oil supply, Cairn India is required to sell in the domestic Indian market all of its entitlement to crude oil extracted from the Ravva field to assist in satisfying domestic Indian crude oil demand. All sales to the GoI nominees are to be valued at a FOB selling price per barrel in US dollars, ascertained on Platts, of one or more crude oils of similar characteristics and quality or through the spot market for such crude oils, whichever price is determined by the parties to reflect more truly the current value of the sale. See "Risk Factors — Risks Relating to Business".

The Ravva PSC also provides that royalties and cess are payable on production. The royalty rate on crude oil and casing head condensate is set at Rs. 481 per metric tonne (\$1.0 per barrel), regardless of the value of the crude oil. A levy on the production of crude oil under the provisions of the Oil Industry (Development) Act, 1974 of India (the "OIDA Cess") is set by the Ravva PSC at Rs. 900 per tonne of crude oil production (\$1.8 per barrel). A further Rs. 27 per barrel (\$0.1 per barrel) (representing a 3% increase in the OIDA Cess) is levied against members of the Ravva JV as educational cess and senior and higher secondary educational cess until November 2013. From December 2013, the educational cess and senior and higher secondary educational cess levied was discontinued as per the circular from the Ministry of Finance.

The royalty payable on natural gas is 10% of the wellhead value of the natural gas (typically 9% of natural gas revenue). OIDA Cess is not payable on natural gas production. Royalties and OIDA Cess are capped by the Ravva PSC at these levels regardless of the generally prevailing royalty and OIDA Cess rate. Royalty and OIDA Cess payments are recoverable under the Ravva PSC before any profit is allocated among the parties. As ONGC originally discovered the Ravva field, Cairn India and the other members of the Ravva JV are obliged to make a series of production payments to ONGC based on cumulative crude oil production. The method of calculating the production payments is set out below.

	Gross Payment		
	Owed to	Net Payment	
	ONGC	by Cairn India	
	(\$ 1	million)	
For every 25 million barrels produced up to 75 million barrels	9.0	3.4	
For every 5 million barrels produced between 75-100 million barrels $\ldots$	1.8	0.7	
For every 5 million barrels produced between 100-225 million barrels.	1.7	0.6	
For every 5 million barrels produced between 225-250 million barrels.	1.4	0.5	
For every 5 million barrels produced over 250 million barrels	1.0	0.2	

From time to time, disputes have arisen between the joint venture over the interpretation of the Ravva PSC which have required arbitration. For example, a dispute arose between the GoI and Ravva Joint Operating Partners on the issue of excess cost recovery made by Ravva joint operation partners against the base development cost as mentioned in the Ravva PSC which has limited the escalation of such costs for cost recovery purposes. The Ravva joint operation partners (excluding ONGC) initiated arbitration proceedings and the arbitral tribunal announced its award on 18 January 2011, broadly allowing companies including Cairn India to recover base development cost spent amounting to \$278 million and disallowed an over-run of \$22.3 million spent in respect of base development cost and directed 50.0% legal cost on the GoI. The High Court of Kuala Lumpur, on 30 August 2012, dismissed the GoI's application for setting aside the award with costs. The GoI further filed an appeal before the Court of Appeal, Kuala Lumpur, which was dismissed on June 27, 2014. The GoI thereafter filed an application for a leave to appeal against the Court of Appeal's order before the Federal Court, which was dismissed by the Federal Court of Malaysia on 17 May 2016. Meanwhile, GoI issued a show-cause notice in this matter which Cairn India Limited replied to and subsequently also filed an application for enforcement of the award before the Delhi High Court as an additional measure of caution. The next hearing in the matter is scheduled for 15 February 2017. Additionally, on 14 August 2015, the GoI filed a suit and obtained an ex-parte 'stay-order' from the Delhi High Court against the determination of 'quantum of costs' by the arbitral tribunal. Cairn India filed an appeal before the Court against the 'stay order' and the 'stay-order' obtained by the GoI in this matter was set aside on 3 May 2016. The next hearing before the Court in the GoI's civil suit is scheduled for 3 August 2017. GoI has also filed an SLP before the Supreme Court against the Division Bench Order of the High Court, dated 3 May, 2016, setting aside the 'stay-order' obtained by the GoI. The next date of hearing for this will be made available by the Court. See "Business — Litigation — Arbitration proceedings on issues related to the cost recovery of the Ravva block."

The Ravva JV operates eight unmanned offshore platforms and a 225 acre onshore processing facility at Surasaniyanam, Andhra Pradesh, for processing the natural gas and crude oil produced from the offshore field. The Ravva onshore terminal operates in internationally recognised environmental standard (ISO 14001) and occupational health and safety standard (OHSAS18001). The onshore facility has the capacity to handle 70,000 bopd of crude oil, 95 mmscfd of natural gas and 110,000 bbls of water injection per day. The terminal also has the capacity to store 1.0 mmbbls of crude oil and captive power generation capacity of 10 MW.

During fiscal year 2017, the block produced 18,602 boepd on a gross basis, with a plant uptime of more than 99%. In the Ravva block, coil tubing and acid stimulation campaign was executed in fiscal year 2017 and this has helped to partly offset the natural decline. Well stimulation in a few of the water injector wells has also had a positive effect, helping to sustain the required water injection to support production from the oil wells.

The following table sets out the net average oil and gas daily production from the Raava block for the years ended 31 March 2015, 2016 and 2017.

Average Daily Production	Units	2015	2016	2017
Gross operated	Boepd	25,989	23,845	18,602
Net operated	Boepd	5,847	5,365	4,185
Oil	Bopd	5,077	4,690	3,727
Gas	Mmscfd	4.6	4.1	2.7

# The Cambay Basin Block — Lakshmi, Gauri and CB-X

The Cambay CB/OS-2 ("Cambay") block is an offshore block which is located in the Cambay Basin of the state of Gujarat in western India. Vedanta's operations in the Cambay block are centred on the Lakshmi and Gauri oil and gas fields and the CB-X development area. Based on exploration and development activities undertaken by us, the Cambay block has yielded natural gas discoveries in its offshore Lakshmi and Gauri fields and onshore CB-X field and crude oil discoveries in the former two fields. Gas production commenced from the Lakshmi gas field in 2002 and from the Gauri field in 2004. Production of co-mingled crude oil, which consists of crude oil plus condensate, from the Gauri field commenced in 2005. The Lakshmi and Gauri offshore fields cover areas of 121.1 sq. kms and 50.7 sq. kms, respectively, in the Cambay Basin and lie off the coast of the state of Gujarat in water depths of approximately 20 metres. CB-X is an onshore gas field situated in the Cambay block and covers an area of 33.28 sq. kms.

As of 31 March 2017, the block has produced 28 mmbbls of crude oil and 229 bcf of gas with an overall recovery of 30% since inception.

An 82-acre onshore processing facility at Suvali processes natural gas and crude oil from the Lakshmi and Gauri fields. This facility has a capacity to process 150 mmscfd of natural gas and 10,000 bopd of crude oil and includes a three stage separator oil processing train, four storage tanks of combined capacity of 37,700 bbls and a 4.8 MW captive power generation capacity. As part of the asset's long term facility augmentation plan, a storage tank to expand the crude storage capacity at Suvali terminal and an offshore gas lift compressor package to provide artificial lift to the wells have been commissioned during the year. The processing plant and offshore infrastructure are certified to ISO 14001 and OHSAS 18001 standards.

### Cambay Basin PSC

Exploration, development and production of the Cambay Basin Block is governed by a PSC between the GoI and a consortium consisting of ONGC, Tata Petrodyne Limited and Cairn India (the "Cambay Basin JV") which was signed on 30 June 1998 (the "Cambay Basin PSC") and runs until 2023 and can be extended up to a period of 35 years in case of commercial production if non-associated natural gas or for a period not exceeding five years. Cairn India's participating interest in the Cambay Basin JV consists of a 40% interest in the Lakshmi, Gauri and CB-X development areas. The remaining interests in these development areas are held by ONGC (50%) and Tata Petrodyne (10%).

The MoPNG, the notification dated 7 April 2017, issued a policy for the grant of an extension to the PSCs signed by the GoI awarding Pre-New Exploration Licensing Policy (Pre-NELP) Exploration blocks ("Extension Policy"). The Extension Policy defines the framework for the granting of extension and Pre-NELP blocks including the Cambay block.

### Production from the CB/OS-2 Field

During fiscal year 2017, the block produced 9,753 boepd, with an uptime of more than 99%. In the Cambay block, natural decline was restricted supported by production optimisation activities.

The following table sets out the net average oil and gas daily production from the CB/0S-2 block for the years ended 31 March 2015, 2016 and 2017.

Average Daily Production	Units	2015	2016	2017
Gross operated	Boepd	10,538	10,249	9,753
Net operated	Boepd	4,215	4,100	3,901
Oil	Bopd	3,419	3,538	3,291
Gas	Mmscfd	4.8	3.4	3.7

Krishna Godavari Basin — Block KG-ONN-2003/1 (49% participating interest)

The onshore block KG-ONN-2003/1, located in the Krishna Godavari basin in the state of Andhra Pradesh, was awarded in NELP V round to a joint venture between Cairn India and ONGC. Cairn India and ONGC entered into a PSC on 23 September 2005 (the "KG-ONN-2003/1 PSC"). As of 31 March 2017, Cairn India has 49% ownership interest in the block. Nagayalanka-1Z was the first discovery in the block. Following this discovery, the joint operation (with ONGC) for the block opted to enter phase-II of the exploration license. The second exploration well, Nagayalanka-SE-1, was drilled which resulted in a light oil discovery in the onshore part of the KG basin.

The Declaration of Commerciality for the two Nagayalanka discoveries (Nagayalanak-1z and Nagayalanka SE-1) was approved at the Management Committee meeting held in July 2014. Operatorship was then transferred to ONGC as per the KG-ONN-2003/1 PSC. Our joint venture partner and operator ONGC has submitted the Field Development Plan (FDP), which has been approved by the Management Committee.

### **Exploration Blocks**

In addition to the Rajasthan Block, Ravva Block, Cambay and Krishna Godavari Basin Block, Cairn India also holds interests in four other blocks where there is currently no production but which are in various stages of exploration or early development. The main basins where Cairn India is currently actively involved in exploring include the Orange Basin, the Krishna Godavari Basin, and the Palar Pennar Basin. This section provides a summary of the exploration interests.

Krishhna Godavari Basin — Block KG-OSN-2009/3 (operator, 100% participating interest)

The offshore block KG-OSN-2009/3 covers an area of 1,988 km² and is located in the Krishna Godavari Basin off the coast of the state of Andhra Pradesh. It was awarded to Cairn India, which holds 100% of the interests, as of 31 March 2017. Block KG-OSN-2009/3 is a shallow water block with water depths within the block ranging between near shore to 400 metres. The PSC was signed on 30 June 2010 and the PEL was granted in August 2010.

100% of the planned 1,075 sq. km. of 3D seismic data acquisition was completed during fiscal year 2015. During the fiscal year 2016, seismic processing and interpretation projects were carried out and a high quality prospect inventory was matured. During the fiscal year 2017, Interpretation of the

new seismic volumes has resulted in the identification of robust drillable prospects and a number of leads over different play types. We are currently engaging with the Ministry of Petroleum and Natural Gas (MoPNG) for an extension of the Initial Exploration phase for the block, which expired on 8 March 2016.

Palar Pennar Basin — Block PR-OSN-2004/1 (operator, 35% participating interest)

Block PR-OSN-2004/1 is located in the Palar Pennar basin, south of the Krishna Godavari basin and north of the Cauvery basin off the east coast of India. Water depths in the block range from a few metres (near shore) to 400 metres at the eastern boundary of the block. The block covers an area of approximately 9,417 km<sup>2</sup>.

Cairn India has a 35.0% ownership interest in the block and is the operator, while the consortium members, ONGC and Tata Petrodyne, hold interests of 35.0%, and 30.0%, respectively.

The block was under force majeure since fiscal year 2010 as the location was falling within the prohibited zone notified by government authorities and permission to carry out exploration and petroleum operations in this area was not considered appropriate by the Department of Space, GoI. However, the application for the shift of the restricted boundary has been accepted by government authorities paving the way for further exploration activity. Approval for a special dispensation period in the block was granted for 30 months effective from January 1, 2015. A three well exploratory drilling campaign in the frontier block started in February 2017 and was completed by April 2017.

Block 1 — Orange Basin, South Africa (operating through a subsidiary, 60% participating interest)

Cairn India signed a farm-in agreement with PetroSA, the national oil company of South Africa, for the 19,898 km<sup>2</sup> off-shore block 1 ("Block 1"), located in the Orange Basin in South Africa. A wholly owned subsidiary, Cairn South Africa Pty. Limited, a wholly owned subsidiary of Cairn India holds a 60% participating interest in Block 1 and is the operator.

Following farm-in and assignment of participating interest in the block in early calendar year 2013, 1,981 km<sup>2</sup> of 3D seismic data was acquired in fiscal year 2014. Additionally, acquisition of 3,000 line km of 2D seismic data was concluded in early March, 2014. Both the 3D seismic and 2D seismic surveys were completed without incident and on time.

A robust inventory of exploration prospects has been identified based on fiscal year 2014 3D seismic survey, which covers the outboard portion of Block 1. The outboard region is interpreted as oil-prone, constituting a play fairway that has not been tested by historical exploration drilling. Assessment of exploration potential of inboard plays is ongoing to provide other drilling options. Cairn India awaits a decision on the proposed changes to the Mineral and Petroleum Resources Development Act, 2002 and fiscal regime before considering a decision to progress into the second exploration license phase.

# Distribution, logistics and transport

# Rajasthan

The MPT has been designed as a centralised hub facility to handle crude oil production from the fields in the Rajasthan Block. Once crude oil reaches the MPT, generally via the Pipeline, it is processed and transported to public-sector undertakings or private refineries as per sales agreement.

Gas produced from Raagehswari fields is sold to Government allocated fertiliser units located in Gujarat.

# Cambay

The 82-acre onshore processing facility at Suvali processes natural gas and crude oil from the Lakshmi and Gauri fields. It has a capacity to process 150 mmscfd of natural gas and 10 kbopd of crude oil and includes a three stage separator oil processing train, four storage tanks of combined capacity of 37,700 bbls as well as 4.8 MW captive power generation capacity. The processing plant and offshore infrastructure are certified to ISO 14001 and OHSAS 18001 standards.

The crude oil produced from Suvali Onshore Terminal is transported via truck tankers approximately 15 km to Adani Hazira Port Private Limited. Thereafter, the crude cargo is sold to coastal refineries via sea tankers.

The processed natural gas is sold through the Gujarat State Petronet Limited pipeline facility to CLP India Private Limited and Gujarat Gas Corporation Trading Limited.

#### Ravva

Currently, there are eight unmanned offshore platforms and a 225 acre onshore processing facility at Surasaniyanam for processing the natural gas and crude oil produced from the offshore field. The Ravva onshore terminal operates as per the internationally recognised environmental standard (ISO 14001) and the occupational health and safety standard (OHSAS18001). Onshore facility has the capacity to handle 70 kbopd of crue oil, 95 mmscfd of natural gas and 110,000 bbls of water injection per day. The terminal also has the capacity to store 1.0 mmbbls of crude oil.

The crude produced from the wells in the Ravva block is sent to the onshore processing terminal via subsea pipelines. The oil is processed and stored in the storage tanks at the terminal. Thereafter, the crude oil is transported to local refineries (nominated by GoI) via 20 inch export line (approximately 16 km long) from the terminal to a ship tanker, which is moored to the single point mooring buoy located in the field. The single point mooring buoy and associated equipment are together termed as tanker mooring and loading facility. Natural gas from the wells after treatment is transported to buyer's (GAIL) pipeline.

# Sales and marketing

Cairn India's 10 largest customers accounted for 100% of its revenue in fiscal years 2015, 2016 and 2017 respectively. Four of Cairn India's customers accounted for 87% of Cairn India's business revenue in fiscal years 2015, 2016 and 2017. In fiscal year 2017, Cairn India sold 100% of the oil and gas it produced in the Indian market. 100% of the oil and gas that Cairn India produced in fiscal year 2017 was sold under annual/monthly contracts specifying quantity and price. For Rajasthan and Cambay blocks, crude oil price is benchmarked to Bonny Light, West African low sulphur crude that is frequently traded in the region, with appropriate adjustments for crude quality. Similarly, for Ravva block, crude oil price is benchmarked to Tapis and Minas, South Asian crude. The crude oil price benchmarks are based on crude oil sales agreement.

# Projects and Developments

During fiscal year 2018, Cairn India intends to spend capital expenditure of \$250 million on working interest basis with further optionality for growth projects. This spend is split between 10% for exploration and 90% for development activities. The key development projects being pursued in FY2018 are Magala Infill, Surface facility upgrade, Aishwariya EOR, Bhagyam EOR, RDG and Barmer Hill. All the projects will be financed from internal sources. A number of our principal projects are set out below.

Mangala has been the most prolific field over the years. In order to increase production and monetise reserves early, we are commencing a 15 well Infill drilling programme in the Mangala field. The field development plan for this project has been approved and drilling of the wells is planned for Q2 FY18.

We look to leverage the learnings from the excellent performance of Mangala EOR to enhance production from Bhagyam and Aishwariya through polymer injection.

A multi-well polymer injectivity test for Bhagyam was successfully completed during fiscal year 2017 and the results have been encouraging. The revised field development plan has been submitted to the JV Partner.

The Injectivity test in Aishwariya has started in 3 polymer injector wells. The field development plan has been submitted to the JV Partner.

In order to maximise oil production, we are focusing on creating ullage at the MPT & debottleneck surface network. Series of measures are being planned to increase the liquid handling and water injection capacities.

### Barmer Hill and Satellite field development

The development of Barmer Hill and Satellite Fields is a key growth driver for Cairn India, with a focus on increasing non-MBA production through the development of these fields. The Barmer Hill formation can be classified into two major development opportunities: Barmer Hill North, consisting of oil prone porcellanite rocks, and Barmer Hill South, consisting of muddy porcellanites.

The large HIIP of 1.4 billion barrels oil equivalent of Barmer Hill offers significant growth potential. Development cost for Aishwariya Barmer Hill has been reduced by over 30% to 195 million US dollars from an initial estimate of 300 million US dollars, for an estimated recovery of 32 million barrels. We have achieved Commercial and Technical alignment with our JV partner for Stage — 1 and production from appraised wells would start in second quarter of fiscal year 2018. Execution of Stage-2 is expected to begin in fiscal 2018.

### Gas development

Gas development in the Raageshwari Deep Gas (RDG) field in Rajasthan continues to be a strategic priority. Capex investment in the phased development of the project is progressing well, with the aim of achieving a gradual ramp-up in production. In FY2018, the completion of a low-cost expansion of the existing facility and the enhancement of current pipeline capacity are expected to lead to a ramp-up of production to 40-45 mmscfd. The team is also working to enhance the recovery estimates from the field by maintaining a technology-focused approach and gaining a better understanding of the reservoir, based on geological and geophysical studies carried out in fiscal year 2017. The capex investment programme in the project includes plans for a new well drilling programme in fiscal year 2018. A new gas processing infrastructure is also progressing well.

# Market share and competition

The oil and gas exploration and production industry in India is competitive. In seeking to obtain desirable exploration and development prospects, competition is faced from Indian companies, including ONGC and Reliance Industries Limited, and major integrated and large independent multinational companies. GOI has major stake in ONGC, which has won majority of the exploration blocks offered by the GoI in the nine New Exploration & Licensing Policy rounds held thus far. Many of these competitors have access to financial or other resources substantially in excess of those available to us and accordingly may be better positioned to acquire and exploit prospects, hire

personnel and market production. In addition, many of Vedanta's competitors may be better able to withstand the effect of external changes in industry conditions such as worldwide crude oil and natural gas prices and levels of supply and the application of government regulations, which affect Vedanta's business and which are beyond Vedanta's control.

Vedanta is a significant contributor to India's domestic crude oil production, operating approximately 26% as derived from the Petroleum Planning and Analysis Cell (Ministry of Petroleum and Natural Gas) statistics of March 2017.

#### **Zinc Business**

### Introduction

Vedanta's fully integrated zinc business in India is owned and operated by HZL, India's leading primary zinc producer with a 72.0% market share by sales volume in India in fiscal year 2017, according to ILZDA.

HZL's fully-integrated zinc operations include five lead-zinc mines, one rock phosphate mine, four hydrometallurgical zinc smelters, two lead smelters, one pyrometallurgical lead-zinc smelter, seven sulphuric acid plants and six captive power plants at the Chanderiya, Dariba and Zawar facilities in the state of Rajasthan, processing and refining facilities for zinc at Haridwar and processing and refining facilities for zinc and lead, as well as a silver refinery at Pantnagar, both located in the State of Uttarakhand in northern India. HZL sources almost all of its concentrate requirements from its mines and HZL also exports surplus zinc and lead concentrates. HZL's annual production of zinc and lead for year ended 31 March 2017 was 671,988 tonnes and 144,294 tonnes, respectively. Lead metal production 144,294 is inclusive of HSL production, saleable lead is 139,009 MT.

In 2017, HZL was one of the top five lead mining companies based on production volumes and in the lowest cost quartile in terms of all zinc mining operations worldwide, according to Wood Mackenzie. In addition, HZL's Rampura Agucha mine was the largest zinc mine in the world on a production basis and its Chanderiya hydrometallurgical zinc smelter was the fourth largest smelter on a production basis worldwide in 2017, according to Wood Mackenzie.

As of 31 March 2017, Vedanta Limited has a 64.9% ownership interest in HZL, with the remainder owned by the GoI (29.5%) and institutional and public shareholders (5.6%). Vedanta Limited exercised a call option in 2009 to acquire the GoI's remaining ownership interest in HZL although the exercise is subject to dispute and an alternative offer authorised by the Company's shareholders has not yet been accepted by the GoI. Accordingly, the acquisition might not proceed. See "— Litigation — Vedanta Limited has commenced proceedings against the GoI, which has disputed Vedanta Limited's exercise of the call option to purchase its remaining 29.5% ownership interest in HZL."

In recent years, HZL has improved its operating performance by:

- its ability to maintain a high share of concentrate from its Rampura Agucha mine by consistently adding to the capacity of the mine and the concentrator and by also adopting the technique of underground mining, as its open cast capacity has started to decline;
- commissioned a concentrator at Sindesar Khurd mine of 1.5 mmtpa in 2011 and increased capacity to 2.80 mmtpa in fiscal year 2017; also increased capacity of Sindesar Khurd mine to 3.75 mmtpa in fiscal year 2017;
- commenced ore mining Kayad mine since fiscal year 2013 and has a capacity of 1 mmtpa in fiscal year 2017;
- continuing its initiatives to improve operational efficiencies at its existing operations;

- reducing power costs by building on-site captive power plants rather than relying on state power grids;
- reducing the size of its workforce including through voluntary retirement plans;
- increasing productivity and upgrading existing technology; and
- increasing recovery from its residue and waste.

HZL pays royalties to the state government of Rajasthan based on its extraction of lead-zinc ore. The royalty rate is 10% of the LME zinc metal price payable on the zinc metal contained in the concentrate produced and 14.5% of the LME lead metal price payable on the lead metal contained in the concentrate produced. For silver, the royalty rate is 7.0% of the silver London Bullion Market Association price chargeable on silver-metal produced. Since September 2015, the MMDRA Amendment Act provides for a royalty of 30% the base royalty rate to be contributed to the DMF for the benefit of people affected by mining and an additional 2% of the base royalty rate to the NMET. Vedanta also pays royalties in connection with its zinc operations in Namibia at 3% of sale value the product, Ireland and South Africa.

In addition to ongoing exploration activities, HZL has finalised plans for the next phase of development growth, which will involve the sinking of underground shafts and developing underground mines. The plan comprises developing a 3.75 mtpa underground mine at Rampura Agucha, expanding the Sindesar Khurd mine from 2.0 mtpa to 4.50 mtpa, expanding the Zawar Group mines from 1.2 mtpa to 4.0 mtpa, expanding the Rajpura Dariba mine from 0.6 mtpa to 1.2 mtpa and developing a new mine at Kayad with capacity of 1.0 mtpa.

Vedanta's Zinc International business comprises assets held by Vedanta Limited, namely (i) Skorpion, which owns the Skorpion mine and refinery in Namibia, (ii) a 74%, (as of 31 March 2017) ownership interest in Black Mountain Mining, which has assets that include the Black Mountain mine and the Gamsberg Deposit, in South Africa and (iii) Lisheen, which owns the Lisheen mine in Ireland, which ceased operations in December 2015 and is in the process of being shut down. Vedanta has commenced the closure operation in April, 2014 and expects to receive the closure certificate in March, 2020.

### Principal products

Zinc. HZL produces and sells zinc ingots in all four international standard grades: Special High Grade (99.995%) ("SHG"), High Grade (99.95%) ("HG"), Continuous Galvanising Grade (99.5%)("CGG") and Prime Western (98.0%) ("PW"). HZL sells most of its zinc ingots to Indian steel producers for galvanising steel to improve its durability and also in the export markets. Some of its zinc is also sold to alloy, dry cell battery, die casting and chemical manufacturers. Skorpion produces SHG zinc ingots of LME grade. Skorpion offers the product to customers through one-year contracts and also through spot contracts with market-determined premiums, covering the sale of all zinc ingots produced at the integrated mine and refinery of Skorpion. Black Mountain produces zinc in concentrate which is sold through market priced off-take concentrate sales contracts with international customers and also in the spot market.

Lead. HZL produces and sells lead ingots of 99.99% purity primarily to battery manufacturers and to a small extent to chemical manufacturers. Black Mountain produces lead in concentrate, which is sold through market-priced off-take concentrate sales contracts with international customers and in the spot market.

# By-products

Sulphuric acid. HZL sells sulphuric acid to fertiliser and cement manufacturers and other industries.

Silver. HZL produces and sells silver ingots primarily to industrial users, jewellery manufacturers and traders of silver. Black Mountain also produces silver as a by-product.

*Copper.* Black Mountain produces copper in concentrate as a by-product, which is sold through market-priced off-take concentrate sales contracts with international customers and in the spot market.

#### **Production**

The following table sets out Vedanta's total production<sup>(1)</sup> from its Chanderiya, Debari, Dariba and Vizag facilities for the periods indicated:

		Yea	Year Ended 31 March		
Facility	Product	2015	2016	2017	
		(Tonnes, excep	t for silver whi	ich is in m oz)	
Chanderiya:					
ISPI pyrometallurgical lead-zinc					
smelter	Zinc	91,000	86,908	83,838	
	Lead <sup>(2)</sup>	26,898	21,517	23,122	
Hydrometallurgical zinc smelters	Zinc	373,724	401,562	351,826	
AusI(TM) lead smelter	Lead	6,110	23,045	23,352	
Sulphuric acid plants	Sulphuric acid	547,165	618,426	545,563	
Dariba:					
Hydrometallurgical zinc smelter	Zinc	199,694	203,704	189,882	
Lead smelter	Lead	94,135	100,357	92,535	
Sulphuric acid plant	Sulphuric acid	480,542	499,222	446,997	
Debari:					
Hydrometallurgical zinc smelter	Zinc	69,385	66,764	46,442	
Sulphuric acid plant	Sulphuric acid	251,408	224,675	191,636	
Pantnagar Silver Refinery	Silver <sup>(3)</sup>	10.53	13.65	14.55	
Skorpion:					
Zinc refinery	Zinc	102,188	82,029	85,427	
Total	Zinc	835,991	840,967	757,415	
	Lead	127,143	144,919	139,009	
	Silver	10.53	13.65	14.55	
	Sulphuric acid	1,279,115	1,342,323	1,184,196	

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

<sup>(2)</sup> Excludes lead contained in lead with high content of silver (High Silver lead) produced from the pyrometallurgical lead-zinc smelter for captive use, which was 7,755 tonnes, 6,657 tonnes and 5,285 tonnes in fiscal year 2015, 2016 and 2017.

<sup>(3)</sup> Excludes silver contained in lead with high content of silver (High Silver Lead) produced from pyrometallurgical zinc-lead smelter for captive use which was 1.42 moz, 1.22 moz and 881 moz in fiscal years 2015, 2016 and 2017.

The following table sets out Vedanta's total ore, zinc concentrate and lead concentrate production<sup>(1)</sup> for the periods indicated:

		Year Ended 31 Ma		arch	
Mine (Type of Mine)	Product	2015	2016	2017	
		(Tonne	es, except perce	ntages)	
Rampura Agucha (Open-pit and					
Underground) <sup>(2)</sup>	Ore mined	5,823,320	5,464,735	5,700,938	
	Ore grade — Zinc	12.7%	11.6%	12.0%	
	Lead	1.7%	1.8%	1.7%	
	Recovery — Zinc	91.7%	88.8%	92.0%	
	Lead	61.4%	60.0%	63.9%	
	Zinc concentrate	1,279,421	1,158,281	1,121,463	
	Lead concentrate	98,694	101,662	92,228	
Zawar Group (Underground)	Ore mined	1,056,000	1,349,850	1,770,000	
	Ore grade — Zinc	2.8%	2.8%	2.7%	
	Lead	1.7%	2.1%	2.1%	
	Recovery — Zinc	90.3%	90.4%	90.2%	
	Lead	89.8%	90.4%	90.5%	
	Zinc concentrate	3,441			
	Lead concentrate	3,088			
	Bulk Concentrate <sup>(3)</sup>	74,186	102,987	113,015	
Sindhesar KhurdUnderground)	Ore mined	1,910,055	2,969,587	3,664,768	
	Ore grade — Zinc	3.6%	3.9%	3.9%	
	Lead	1.9%	2.2%	2.0%	
	Recovery — Zinc	89.8%	91.0%	91.0%	
	Lead	86.8%	89.0%	88.1%	
	Zinc concentrate	126,952	176,761	230,677	
	Lead concentrate	61,630	92,611	109,007	
Rajpura Dariba (Underground)	Ore mined	573,284	668,777	745,534	
	Ore grade — Zinc	5.3%	5.1%	5.2%	
	Lead	1.3%	1.2%	1.2%	
	Recovery — Zinc	83.4%	83.4%	83.8%	
	Lead	70.1%	70.3%	69.0%	
	Zinc concentrate	43,359	52,351	65,012	
	Lead concentrate	10,647	12,407	14,851	
	Bulk Concentrate <sup>(3)</sup>	9,832	8,941	0	
Skorpion (Open-pit)	Ore mined	1,344,272	1,245,198	1,206,756	
	Ore grade — Zinc	9.0%	7.5%	8.4%	
	Recovery — Zinc	88.2%	85.5%	83.9%	
Lisheen (Underground)	Ore mined	1,375,069	849,618	_	
	Ore grade — Zinc	10.5%	9.5%	_	
	— Lead	1.9%	1.5%	_	
	Recovery — Zinc	90.3%	89.2%	_	
	— Lead	72.5%	68.5%	_	
	Zinc concentrate	244,354	135,611	_	

Mine (Type of Mine)	Product		2016	2017
		(Tonne	es, except percei	ntages)
	Lead concentrate	30,956	14,371	_
Black Mountain (Underground)	Ore mined	1,437,562	1,579,633	1,590,600
	Ore grade — Zinc	2.5%	2.5%	2.5%
	— Lead	2.6%	2.6%	3.2%
	Recovery — Zinc	74.2%	75.0%	77.1%
	— Lead	84.8%	84.6%	86.3%
	Zinc concentrate	54,445	59,006	58,005
	Lead concentrate	45,129	48,091	59,518
Totals	Ore mined	13,519,562	14,127,398	14,678,596
	Zinc concentrate	1,748,531	1,582,010	1,478,598
	Lead concentrate	247,056	269,142	278,722
	Bulk			
	Concentrate <sup>(3)</sup>	84,018	111,928	113,015

Year Ended 31 March

# Ore Reserve base

The following table sets out Vedanta's Proved and Probable zinc and lead Ore Reserves<sup>(1)</sup> as of 31 March 2017:

							Total Pr	oved and l	Probable
	Pre	oved Reser	ve	Pro	bable Rese	erve	Reserves		
		Zinc	Lead		Zinc	Lead		Zinc	Lead
	Quantity	Grade	Grade	Quantity	Grade	Grade	Quantity	Grade	Grade
	(Million			(Million			(Million		
	tonnes)	(%)		tonnes)	(%)		tonnes)	(%)	
Rampura									
Agucha	6.3	14.0	2.1	43.4	13.9	1.8	49.7	13.9	1.9
Rajpura Dariba	5.8	6.1	1.6	3.1	6.6	1.5	9.0	6.3	1.5
Zawar Group	2.4	3.6	1.6	7.0	3.2	1.8	9.5	3.3	1.8
Kayad	2.0	7.3	1.0	3.4	8.1	1.2	5.4	7.8	1.1
Sindesar Khurd	10.0	4.3	2.7	25.5	4.2	2.9	35.6	4.2	2.9
Skorpion	0.5	6.6	_	2.9	11.1	_	3.3	10.5	_
Black Mountain.	46.2	6.7	0.6	15.1	4.3	1.4	61.3	6.1	0.8
Total	73.2	6.8	1.1	100.4	8.7	1.9	173.6	7.0	6.0

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

<sup>(2)</sup> Includes mining operations at Kayad mine.

<sup>(3)</sup> Bulk concentrate is concentrate that contains both zinc and lead.

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources" for an explanation of the basis of preparation of reserve amounts.

Smelters and refineries. The following table sets out the total capacities<sup>(1)</sup> as of 31 March 2017 at Vedanta's Chanderiya, Debari, Dariba, Zawar, Pantnagar and Skorpion facilities:

	Capacity					
				Sulphuric		
Facility	Zinc	Lead	Silver	Acid	Power Plant	
		(tp:	a)		(MW)	
Chanderiya <sup>(2)(3)</sup>	525,000	85,000	_	828,500	247.7	
Debari	88,000	_	_	419,000	7.4	
Dariba <sup>(3)</sup>	210,000	100,000	_	710,500	174.3	
Zawar Group	_	_	_	_	80	
Pantnagar	_	_	518	_	_	
Skorpion	150,000	_	_	335,000	_	
Total	973,000	185,000	518	2,293,000	509.4	

Chanderiya. The Chanderiya facility is located approximately 120 km east of Udaipur in the State of Rajasthan in northwest India. The Chanderiya zinc smelter is the fourth largest smelter on a production basis worldwide in 2016, according to Wood Mackenzie. The facility contains four smelters, two associated captive power plants, two sulphuric acid plants and one silver refinery:

- I ISP<sup>(TM)</sup> pyrometallurgical lead-zinc smelter with a capacity of 105,000 tpa of zinc ingots and 35,000 tpa of lead ingots that was commissioned in 1991;
- Two hydrometallurgical zinc smelters with 210,000 tpa capacity each that were commissioned in May 2005 and December 2007 and expanded in April 2008 together with associated captive power plants;
- I Ausmelt<sup>(TM)</sup> lead smelter with a capacity of 50,000 tpa that was commissioned in February 2006;
- Associated 154 MW and 80 MW coal-based thermal captive power plants commissioned in May 2005 and April 2008, respectively;
- A 14.8 MW captive power plant which was commissioned at Debari in March 2003 and transferred from Debari to Chanderiya in March 2009;
- Two sulphuric acid plants with a total capacity of 828,500 tpa sulphuric acid; and
- A silver refinery with a capacity of 168 tpa silver ingots.

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

<sup>(2)</sup> The Haridwar plant refines and processes zinc ingots from zinc cathodes produced in the Chanderiya and Dariba smelters and therefore its production capacity does not increase the total production capacity of HZL's facilities.

<sup>(3)</sup> The Pantnagar plant refines and processes zinc and lead ingots from zinc and lead cathodes that are produced in the Chanderiya and Dariba smelters and silver ingots from lead residues in the Dariba lead smelter. Accordingly, it does not contribute to the total production capacity of HZL's facilities.

The 154 MW, 80 MW and 14.8 MW captive power plants provide all of the power for the Chanderiya facilities. The captive power plant requires approximately 100,000 metric tonnes of coal per month, which is currently met through imports, mostly from Indonesia.

HZL was also awarded 1.2 million tonnes of coal linkage by the Ministry of Coal, which will enable it to source coal from mines of Coal India Limited ("Coal India") (catering to approximately a quarter of its total coal requirements), although access to this coal has been stopped since April 2013. HZL's operations source their back-up power from liquid fuel-based captive power plants or from local power companies. The liquid fuel is sourced from third-party suppliers on yearly contracts.

Debari. The Debari hydrometallurgical zinc smelter is located approximately 12 km east of Udaipur in the State of Rajasthan, India. The hydrometallurgical zinc smelter was commissioned in 1968, uses RLE technology and has a capacity of 88,000 tpa. The Debari facility also includes a 419,000 tpa sulphuric acid plant. A majority of the power requirements of the facility is sourced from the coal-based thermal captive power plant at Chanderiya and the balance is sourced from an on-site liquid fuel-based 14.8 MW captive power plant commissioned in March 2003. The liquid fuel is procured from domestic oil-producing companies through a tender process for a yearly contract.

Vaizag. Operations at the Vaizag plant shut down since July 2013.

Haridwar. The 210,000 tpa zinc ingot melting and casting plant in Haridwar in the State of Uttarakhand was commissioned in July 2008. This plant refines and processes zinc ingots from zinc cathodes produced in the Chanderiya and Dariba smelters and therefore its production capacity does not increase the total production capacity of HZL's facilities. After the start of the second stream, the capacity of Haridwar Zinc Plant is 288,000 tpa. The plant is no longer in operation and operations has commenced in July 2017.

Zawar Group. The Zawar Group facility does not have a smelter. The captive power plant at this facility provides power to the mine.

Dariba. The Dariba hydrometallurgical zinc smelter is located in the Rajsamand district of Rajasthan which was commissioned in March 2010 and has a capacity of 210,000 tpa. The Dariba facility also includes a 306,000 tpa sulphuric acid plant. In July 2011, a new 100,000 tpa lead smelter was comissioned, which also included a 98,500 tpa sulphuric acid plant. A majority of the power requirements of the facility is sourced from the 160 MW coal-based captive power plant at Dariba. A new roaster was commissioned in April 2013 in the Dariba facility with an associated sulphuric acid plant capacity of 306,000 tpa. Total sulphuric acid production capacity is 710,500 MT. Zinc cathodes are sent to its refining facilities at Pantnagar in Uttarakhand state for finishing and casting. The anode slime obtained as a residue from lead smelting at this smelter is refined and casted into silver ignots at the Pantnagar plant.

Pantnagar. The Pantnagar plant, which is located in Pantnagar in the State Uttarakhand, India, includes facilities for the refining and processing of zinc, lead and silver. The silver refinery has a capacity of 518 tpa and was commissioned in December 2011. The 465,000 tpa zinc ingot and 100,000 tpa lead ingot melting and casting plant were commissioned in March 2012. This plant was established to convert zinc and lead cathodes from the Chanderiya and Dariba hydrometallurgical smelters, as well as silver-rich lead residues from the Dariba lead smelter, into ingots.

Skorpion. The Skorpion mine and refinery are located 25 kms of Rosh Pinah town in Namibia. The Skorpion mine is an open cast oxide deposit mine, which feeds material directly to the refinery. The refinery uses a leaching process due to the oxide feed from the mine. Metal is casted in the electro wining-circuit as ingots or otherwise according to customer requirement. The Skorpion refinery runs on oxide feed.

#### Mines

Rampura Agucha. The Rampura Agucha lead-zinc mine is located near Gulabpura in the north-west State of Rajasthan. The good ore mineralogy of the mine provides a high metal recovery ratio and a low overall cost of production for zinc concentrate extracted from the mine. The mining and processing facilities are modern and in good condition. The ore body is mined by open-pit and underground methods. The capacity of the mine and concentrator was expanded between 2003 and 2010 from 2.4 million tpa to 6.2 million tpa for mine and 6.5 million tpa for mill through the purchase of additional mining equipment, upgrades to the truck fleet, improvements to the operational efficiency of the plant and the installation of a new semi-autogenous, or SAG, mill and ball mill circuit.

Open pit mining at Rampura Agucha is a simple drill and blast, load and haul sequence using 221 metric tonnestrucks and 34 cubic metre excavators. Ore is fed to the primary crusher and waste is dumped at the waste dump. The mining equipment is largely owner-operated. The processing facility is a conventional crushing, milling and differential lead-zinc floatation plant. Ore from the open-pit is crushed in a series of crushing circuits and then milled in four streams, one rod mill-ball and three other sag mill-balls in closed circuit. The milled ore is then sent to the lead flotation circuit which includes roughing, scavenging and three stages of cleaning. The lead concentrates are thickened and filtered ahead of storage and transport to the Chanderiya and Dariba lead smelter. The lead flotation tails proceed to zinc flotation which comprises roughing, scavenging and four stages of cleaning. Zinc concentrates are thickened and filtered ahead of storage and transported to different HZL zinc smelters. Zinc flotation tails are thickened ahead of disposal to the tailings dam.

Since 2004, exploration at Rampura Agucha has resulted in significant increases in the reserves at the mine. Following an extensive drilling programme to convert mineralised material to reserves, better definition of the ore body boundaries, addition of mineralised material and the conduct of open-pit re-optimisation, as well as the commencement of underground mine project work, the reserves were 49.7 million tonnes as of 31 March 2017 with an average grade of 13.9% zinc and 1.9% lead in ore. The drill spacing for the definition of proven reserves were approximately 50 metres by 50 metres while for probable reserves was 100 metres by 100 metres. HZL commenced production at the mine in 1991. Since inception, approximately 74.9 million tonnes of ore, with an ore grade of 12.6% zinc and 1.9% lead, respectively, have been extracted from the open-pit mine. HZL is continuing to evaluate the potential of this deeper mineralisation. As of 31 March 2017, HZL estimates the remaining mine life at Rampura Agucha to be 13 years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan.

In fiscal year 2017, 5.7 million tonnes of ore at 12.0% zinc and 1.7% lead were mined from Rampura Agucha, which produced approximately 1,121,463 million tonnes of zinc concentrate at 50.7% zinc and 92,228 tonnes of lead concentrate at 59.3% lead. Approximately 36,236 million tonnes of waste was removed giving a strip ratio of 10.91 tonnes of waste per tonne of ore mined. The expansion of the mine from 5 mmtpa to 6.2 mmtpa was completed in 2010 and has resulted in a significant increase in the strip ratio as there was dimensional change in the pit with the ultimate depth of the mine increasing to 421 metres. During fiscal year 2017, approximately 92.0% of the zinc was recovered to the zinc concentrate, while 63.9% of the lead and 68.9% of the silver was recovered from the metal contained in the ore mined. The Rampura Agucha mine is in the midst of transition from open pit to underground mine production, with the underground project picking up pace after a slower than planned ramp up due to difficult geotechnical conditions. The main shaft has reached a depth of 955 metres (out of a planned depth of 950 metres) with completion of the north and south vent work.

The gross book value of the Rampura Agucha mine's fixed assets and mining equipment (including assets related to the Rampura Agucha's underground mining operations and the Kayad mine) was Rs. 54,514 million (\$841 million) as of 31 March 2017. The mining lease of Rampura Agucha mine is up to March 2030. Power is mainly supplied from the HZL's captive thermal power plants with two backup 5 MW generators on-site.

Rajpura Dariba. Rajpura Dariba is a medium sized underground lead-zinc mine and processing facility located northeast of Udaipur in the Rajsamand district in the state of Rajasthan, northwest India.

Mining at Rajpura Dariba commenced in 1983 and is carried out using the vertical crater retreat method and blasting hole mining method with mined out stopes backfilled with cemented classified mill tailings. In certain areas the ground conditions adversely affect slope stability and dilution. These ground conditions are the result of the weak graphitic nature of the shear zone combined with the dissolution of fractured and sheared dolomites by percolating acidic groundwater derived for overlying adjacent oxidised zones. HZL's Rajpura Dariba's mine lease is valid until May 2030. The mine is serviced by two vertical shafts approximately 600 metres deep. The main shaft is 6 metres in diameter and the auxiliary shaft is 4.5 metres in diameter. The main shaft has the capacity to hoist 0.7 million tpa of ore and is equipped with a modern multi-rope koepe winder. All personnel and materials are hoisted in a large counterbalanced cage which is operated by the koepe winder. The surface infrastructure includes ventilation fans, compressors and ore loading facilities. A 2.2 km surface decline was commissioned in September 2013 to increase the ore production.

The ore is crushed underground before being hoisted to the surface. It is then crushed again and milled before undergoing a lead flotation process incorporating roughing, scavenging and includes three stages of cleaning of rougher concentrate to get final lead concentrate. Lead flotation tails are sent to the zinc flotation process which incorporates roughing, scavenging and includes three stages of cleaning of rougher concentrate to get final Zinc concentrate. In one flotation the Zinc rougher concentrate is being cleaned in column flotation cells. Then Zinc flotation tails proceed to a backfill plant where final tails are cycloned with the underflow proceeding to intermediate storage where cement is added in preparation for use as underground fill. The cyclone overflow is thickened to recover water ahead of disposal in the tailings dam. The final lead and zinc concentrates are thickened, filtered and stored before they are sent to HZL's smelters.

Power for the mine is supplied largely from HZL's 160 MW captive power plants at Dariba and through a contract with a state-owned entity.

The gross book value of the Rajpura Dariba mine's fixed assets and mining equipment is approximately Rs. 5,491 million (\$85 million) as of 31 March 2017.

The proven and probable ore reserves for the Rajpura Dariba mine as of 31 March 2017 was 9.0 million tonnes with 6.3% zinc and 1.5% lead. As of 31 March 2017, HZL estimates the remaining mine life at Rajpura Dariba to be around eight years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan which includes assumed production expansion. An exploration programme is also underway to identify new resources with the potential to be upgraded to reserves, and has been and continues to be focused on maintaining the reserve position after annual mining depletion. The drill spacing for proved reserves was approximately 30 metres while for probable reserves was less than 60 metres.

The average grade for each individual stope was defined using standard parameters for internal waste and dilution and a geological cut-off grade of 3.0% combined lead and zinc, though the mineralisation generally has a sharp natural contact. The in-situ quantities and qualities were adjusted by applying a mining loss factor of 10.0%, a dilution factor of between 12.0% and 20.0% depending on ground conditions. These parameters are based on a reconciliation of historical production. Stopes with average grades below this economic cut-off grade were excluded from the reserve estimate. The final reserve estimate is the sum of the stopes with an average grade above the economic cut-off limit. As the stopes are all accessed using the existing infrastructure and as there is sufficient capacity on the tailings dam, the capital expenditure was limited to the replacement of mining equipment and was therefore considered not to have a material impact on the cut-off grade.

In fiscal year 2017, 745,534 tonnes of ore at a grade of 5.2% zinc and 1.2% lead ore was mined at Rajpura Dariba mine which produced 65,012 tonnes of zinc concentrate at 48.9% zinc, 14,851 tonnes of lead concentrate at 41.0% lead and 1,480 grams per tonnes of silver, with 83.8% of the zinc being recovered in the zinc concentrate and 69.0% of the lead and 67.6% of the silver.

Sindesar Khurd. The Sindesar Khurd mine is a large scale underground mine deposit that was explored during 1992 to 1995. Mine production began at the Sindesar Khurd mine in April 2006 and HZL's mining permit is valid until March 2029. The Sindesar Khurd mine lies on the same geological belt as the Rajpura Dariba mine. The mine is approachable from Rajpura Dariba mines by road.

The mineralisation has been traced over almost 2.5 kilometres along strike and 1.3 kilometre vertical extension. In the mine area, dip is steep westerly, while the dip turns into easterly direction in the lower-southern part of the deposit. The current mine block extends over 1,500 metres along strike and up to 420 metres depth extension.

The deposit has been drilled to a depth of approximately 1,300 metres below surface and the ore body is traced over approximately 2 kilometres along the strike with a 1,100 metres vertical extension. While the deposit is still open in depth in the southern extension of the present mine block, the area below the mine block and towards the north extension only has narrow and low to moderate grade mineralisation intersected.

Exploration at the south part of Sindesar Khurd has been continuing since March 2005 with a drilling programme aimed at increasing the size of the ore body. A continuous exploration programme from underground is also underway with the aim to upgrade the reserve status so that the stopes planned to be mined out shall be extracted with maximum recovery and thereby reducing mining losses. The drill spacing for proven reserves was 12.5-25 metres while for probable reserves was less than 25-50 metres.

The proven and probable ore reserves for the Sindesar Khurd mine as of 31 March 2017 is 35.6 million tonnes with 4.2% zinc and 2.9% lead. The in-situ quantities are adjusted by applying a mining loss factor of 5.0% and dilution factor of 12%.

Access to the mine is through an incline shaft and declines (north and south) from the surface while ore is hauled through the declines by low profile dump truck or LPDTs. The ore body is accessed via horizontal drives on number of levels. The mine currently utilises blast holes toping with back filling mining method with stope panels varying from 25 to 50 metres in strike.

Ore produced from the mine is treated at 2.0 mmtpa beneficiation plant commissioned in 2011 at Sindesar Khurd. Benefication plant has undergone debottlenecking in January 2015 to increase its capacity from 2 to 2.8 mtpa at Sindesar Khurd. Lead and zinc concentrates are sent to their respective high rate thickeners installed separately for lead concentrate and zinc concentrate generated from the concentrator. Tailing dewatering and disposal section comprises of hydro cyclone, tailing thickener, neutralisation tank, pumping of tailing to tailing pond and reclaimed water pumping. Lead and zinc concentrates are thickened, filtered and stored before they are sent to HZL's smelters.

The gross book value at this mine is approximately Rs. 30,665 million (\$473 million) as of 31 March, 2017.

As of 31 March 2017, HZL estimates the remaining mine life at Sindesar Khurd to be around 12 years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan which includes assumed production expansion. Power for the mill and the mine is supplied from HZL's captive power plant located at Dariba itself.

In fiscal year 2017, 3,664,768 tonnes of ore at a grade of 3.9% zinc and 2.0% lead ore was mined at the Sindesar Khurd mine. As there was mismatch in the mining and beneficiation capacity, the part of the ore produced at Sindesar Khurd mine was treated at Rampura Agucha mine and Rajpura Dariba

Mines being HZL's mines. Out of the total ore produced at Sindesar Khurd mine, 2,883,372 tonnes of ore was treated at Sindesar Khurd mine beneficiation plant which produced 198,869 tonnes zinc concentrate at a grade of 50.9% zinc and 95,903 tonnes lead concentrate at a grade of 55.8% lead with 2,904 grams of silver in lead concentrate. In addition, 346,335 tonnes of Sindesar Khurd mine ore was treated at Rampura Agucha mine which produced 22,759 tonnes of zinc at a grade of 49.8% zinc and 8,414 tonnes of lead at a grade of 56.5% lead with 2,936 grams of silver per tonne of lead concentrate and 147,169 tonnes of Sindesar Khurd mine ore was treated at Rajpura Dariba mine beneficiation plant which produced 9,049 tonnes zinc concentrate at a grade of 49.2% zinc and 4,691 lead concentrate at a grade of 41.7% lead with 1,540 grams of silver in lead concentrate.

Zawar Group. Zawar consists of four mines namely, Mochia, Balaria, Zawar Mala and Baroi. The deposit is located near Udaipur city, in Rajasthan in northwest India. The deposits lie within a 36.2 square kilometres mining lease granted by the state government of Rajasthan which is valid until 31 March 2030.

Ore processing is carried out in a conventional comminution and flotation plant having facility for "differential" as well as "bulk flotation" of zinc and lead metals. The ore is crushed primarily underground and then hoisted to the surface. Thereafter, the ore is crushed to 12 to 15mm in size before being milled to 74 microns. In the differential flotation process, milled ore is conveyed separately to two lead flotation circuits and undergoes a process incorporating roughing, scavenging and cleaning. Lead flotation tails proceed to two zinc flotation circuits comprising roughing, scavenging and cleaning. Zinc flotation tails are disposed in slurry form in designated tailings disposal area. Lead and zinc concentrates are thickened, filtered and then stored before they are sent to HZL's smelters. In the bulk flotation process, milled ore is conveyed to the flotation circuit and undergoes a process incorporating roughing, scavenging and cleaning. Final bulk concentrate is thickened, filtered and then stored before it is sent to the lead zinc smelter at Chanderiya. Bulk flotation tails are disposed in slurry form in designated tailings disposal areas.

In fiscal year 2017, approximately 1,770,000 tonnes of ore at 2.7% zinc and 2.1% lead was mined which produced 113,015 tonnes of bulk concentrate at 32.5% zinc and 25.0% lead. The recovery of zinc and lead during fiscal year 2017 was 90.4% and 90.4%, respectively.

The gross book value of the Zawar fixed assets and mining equipment was approximately Rs. 4,815 million (\$74 million) as of 31 March 2017 and of the 80 MW coal-based thermal captive power plant at Zawar was Rs. 3,200 million (\$49 million).

Power is supplied through a combination of an 80 MW thermal coal-based captive power plant commissioned in December 2008 and a 6 MW captive power plant.

As of 31 March 2017, HZL estimates the remaining mine life of the Zawar mine to be 6 years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan which includes assumed production expansion. The focus of mine exploration at Zawar is to replenish the ore reserves that are being depleted through exploration activities and to look for new mineralised areas to enhance production capacity. A surface drilling programme is underway to locate deeper resources below -100 metre reduce level up to 500 metre reduce level. Underground exploratory drilling is carried out on a grid of between 25 metres and 30 metres which is then infilled to 12.5 metres/15 metres after completing the development for final delineation of ore bodies. Past exploration has outlined additional in-mine mineral resources which require further delineation to add to reserves and further extend the mine life.

The proven and probable reserves for the Zawar Group as of 31 March 2017 is 9.5 million tonnes with 3.3% zinc and 1.8% lead.

Kayad. The Kayad lead-zinc mine is located in Ajmer, in the state of Rajasthan.

The Kayad lead-zinc deposit was initially prospected by Airborne Mineral Survey and Exploration wing of Geological Survey of India and drilling commenced in August 1988 and was completed in December 1991. Mineral Exploration Corporation Limited worked on the project on promotional basis, started the exploration and a total of 9,585 metres of drilling was achieved in 42 completed bore holes between 1994 and 1997. The detailed exploration of Kayad deposit was commenced by HZL in 1999 and continues as of today with a total of 178 kilometres in 1,132 drill holes. According to the reserve report, the proven and probable reserves for Kayad mine as on 31 March 2017 was 5.4 million tonnes at 7.8 % zinc and 1.1% lead. As of 31 March 2017, HZL estimates the remaining mine life of the Kayad mine to be over 5 years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan which includes assumed production expansion.

The ground breaking of the mine commenced on 11 June 2011. The access is through a decline which then divides into two declines at 420 metre reduce level. Development ore production was achieved in the second quarter of fiscal year 2013, and the mine started operations in fiscal year 2014. The mining method practiced in Kayad is long hole open stopping with cemented rock filling/rock filling in the steeper portions of the deposit; while transverse stopping method at flat portion along with rock filling/cemented rock filling. About 47 kilometres of development is planned by 2021. The mining is highly mechanised with twin boom jumbo drills used for face drilling, rock bolting machines used for support and 10 T and 17 T diesel load haul dump vehicles coupled with 30 T/50 T low profile dump trucks for loading and hauling. For production drilling Simba Drills are being used. The run of mine is stacked in the surface ore stock pile and transported by trucks to the Rampura Agucha mine for beneficiation.

A mine lease of 480.45 hectares was granted to Kayad mine by the state of Rajasthan and is valid until February 2048, subject to further renewal. Surface land rights over 49.8 hectares have been obtained. Mine plan approval from the Indian Bureau of Mines have been obtained and received environmental clearance from the MoEF for an increase in lead zinc ore production capacity from 0.35 million tonnesper annum to 1.0 million tonnes per annum. Consents under various environmental laws to operate the mine, including from the Rajasthan State Pollution Control Board have also been obtained.

A 33 KV power line was commissioned on 2 February 2012 to meet the constructional power requirements of the mine. Currently, most of the power is being taken from captive power plant, Zawar and some power is taken from state grid. A one megavolt amperes diesel generator is kept as a backup power supply for emergency operations in the event of power failure. For proper power distribution 2 megavolt amperes underground sub station is commissioned in North and south section each.

Skorpion. The Skorpion mine and refinery is located in the Karas region of southern Namibia, comprising an open pit mine. As of 31 March 2017, the remaining mine life of the Skorpion mine is approximately 4.57 years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan, which includes assumed production expansion. The Skorpion mine has an attached electrolytic refinery producing approximately 150,000 tonnes of SHG zinc ingots annually. Further opportunities to extend the life of the mine are currently being evaluated based on the sulphide ore bodies in the nearby areas. Skorpion is also working towards expanding the refinery from stand-alone oxide ore treatment to sulphide ore treatment also.

According to Wood Mackenzie, the Skorpion mine has consistently been one of the largest zinc producing mines in the world and in 2017, it ranked tenth in the world in terms of production volume with a cost base in the lower half of the zinc industry cost curve. The Skorpion mine produces only high-grade, high purity SHG zinc ingots that are registered on the LME. Exploration of nearby ore bodies is underway to extend the life of mine beyond 2021.

The mineral rights over the Skorpion zinc deposit are currently held under mining licence ML 108 and exclusive prospective licence 2229. The EPL was originally issued by the Government of Namibia to Erongo Mining and Exploration Company, which covered 33,192 hectares. An extension

to the south was subsequently granted, which increased the exclusive prospective licence area to 98,683 hectares. Mining licence number 108 of July 2000 is valid for 25 years up to July 2025. The licence covers 951 hectares and includes the site for the refinery. Skorpion is also the holder of another mining licence covering the limestone mining area, ML 127, which is valid until February 2026.

The Skorpion deposit lies within the volcano sedimentary rocks of the late Proterozoic Port Nolloth zone of the pan-African Gariep Belt. The ore body consists of secondary oxide zinc mineralisation, including silicates, clays and carbonates. It is covered by a 10 to 20 km thick layer of sand, calcrete, boulder beds and silcrete and is hosted by weakly metamorphosed, quartz-rich clastic sediments. Commonly, mineralisation occurs in the lower portion of the sedimentary package immediately overlaying a unit of impure limestone and calcareous sandstone. A steep dipping zone of sheared sericite schist cuts through the ore and the surrounding host rocks, roughly following the long axis of the mineralised body. Quartz sericite schist, believed to be a weathered product of a felsic volcanic unit, occurs in the north eastern portion of the open pit. Towards the west, black shale, amphibolite and quartz biotite schist underlies the body. Down hole geophysical logging indicates that the water table lies at about 175 metres below the surface.

Although the geology of the deposit is complex and the ore, limestone and arkose interface requires careful separation, the mine has managed this with accurate grade control and selective mining.

The processing at the Skorpion mine is unique, using solvent-extraction/electrowinning from zinc oxide ore. In this process, mined ore is crushed, homogenised and milled before acid leaching in agitated tanks at the refinery. Clarified liquor is purified by solvent extraction and zinc is electrolytically plated on to aluminium cathodes. Zinc is periodically stripped from these cathodes before being melted and cast as ingots for export.

Zinc at the Skorpion mine is cast into ingots for export and transported from the refinery to the port of Luderitz, approximately 300 km away, by trucks each having a maximum capacity of 35 tonnes.

The maximum power demand of the Skorpion mine is 85 MW and power is supplied from South Africa and is governed by a trilateral US dollar-denominated fixed price contract between Namibia Power Corporation (Proprietary) Limited, Eskom Holdings Limited and Skorpion, that currently links the annual increases in power costs to a US inflationary index.

The Skorpion mine used approximately 74,319 tonnes of sulphur in fiscal year 2017, of which 100.0% was imported in bulk and shipped to Namibia through the port of Luderitz. During the year ended 31 March 2017, 1.2 million tonnes of ore at 8.4% zinc were mined from the Skorpion mine, which produced approximately 85,527 tonnes of zinc metal.

Lisheen. The Lisheen mine is located in County Tipperary, Republic of Ireland and when operational consisted of an underground mine, concentrator and backfill plant, with a related capacity of approximately 131,000 tonnes of zinc in concentrate annually. The Lisheen mine also included approximately 19,000 tonnes of lead in concentrate annually. Mining and milling activities ceased in December 2015 and the facility is currently in the process of implementing a mine closure plan in conjunction with the statutory authorities. Management is actively exploring further business opportunities and ways to utilise the existing resources and skills at Lisheen following the cessation of normal mining activities and a task force has been established to facilitate this.

Mining activities at the Lisheen mine ceased in December, 2015. Closure operations commenced in April, 2014 and are expected to be complete by September, 2017. Vedanta expects to procure the required mine closure certificate in March 2020. After successfully closing down the mine, Vedanta will continue to provide care and maintenance for at least 30 years as required under Irish law.

Black Mountain. The zinc mine at Black Mountain is an underground operation, mining a polymetallic ore body, with an attached concentrator producing zinc, lead, copper and silver in concentrate, annually. Exxaro Resources (through its wholly owned subsidiary, Exxaro Base Metals) holds the remaining 26.0% interest in Black Mountain.

The Black Mountain mine is operated pursuant to mining right 58/2008 MR granted pursuant to the Mineral and Petroleum Resources Development Act, 28 of 2002 of South Africa which entitles Black Mountain Mining to mine for lead, copper, zinc and associated minerals in, on and under an area in the district of Namaqualand measuring 24,195 hectares for a period of 30 years from 2008 to 2038.

Four major stratiform exhalative sediment hosted base metal deposits are located in a 10 by 30 km area, centred on Aggeneys. The deposits are situated in the supracrustal rocks of the mid-Proterozoic age Bushmanland group of the Namaqualand metamorphic complex. The deeps ore body, which is currently being mined, is considered to start at 166 metres above mean sea level, with a down plunge extent of 1.1 km with the deepest position of the ore body being 1,680 metres below the surface. Mineralisation in the deeps is hosted by iron formations, massive sulphide and sulphide quartzite. The massive sulphide rock is either banded, massive or occurs as fine grained mylonite. Banding is expressed as 1-5 m thick sulphide bands alternating with quartz rich bands of similar thickness.

Underground drilling of the deeps ore body started in 2000 and was completed in 2012. Based on Ore Reserves and Mineral Resources as of 31 March 2017 and current production levels, Black Mountain Mine estimates the remaining life of the mine of the deeps ore body to be over 4 years.

The predominant mining method is ramp in stope cut and fill. The planned production rate is 1.8 mtpa plant feed and the shaft hoisting capacity is approximately 1.44 mtpa from Deeps mine and 0.36 mtpa from Swartberg. All production stopes in the Deeps mine are backfilled and waste filled, integrated into the mining sequence.

The mining process includes primary crushing underground before being hoisted to surface coarse ore silos for stockpile. Coarse ore is screened before secondary and tertiary crushing, from where it is fed into a milling plant. The slurry product from the grinding mills passes directly to the floatation circuits from which copper concentrates, lead concentrates and, finally zinc concentrates are floated off. The concentrates are dewatered by thickening and subsequent pressure filtration to reduce moisture content to shipment requirements. The dewatered concentrates are discharged onto conveyors, before being transferred to separate copper, lead and zinc concentrate stockpiles. From the stockpiles, the concentrates are hauled by truck to a dedicated railway siding 170 kms away, where they are loaded onto rail cars for outbound shipping.

Power at the zinc mine at Black Mountain is supplied from two 40 MVA transformers at the Eskom Aggeneys substation. Water is supplied by the Pelladrift Water Board, which supplies potable water to the mine from the Orange River for both human consumption and industrial water requirements.

Zinc, lead and copper concentrate from the mine are road hauled to a dedicated railway siding along a 170 km gravel road, which is owned by the provincial authorities but maintained by Black Mountain. The concentrate is then transported by train to Saldanha on the Sishen-Saldanha railway with delivery terms to export customers on a cost, insurance and freight basis.

During fiscal year 2017, 1,590,600 tonnes of ore at 2.5% zinc and 3.2% lead were mined from the Black Mountain mine, which produced approximately 58,005 tonnes of zinc concentrate and 59,518 tonnes of lead concentrate, containing 28,708 tonnes of zinc and 41,770 tonnes of lead respectively. In addition, the Black Mountain mine also produced 5,016 tonnes of copper in concentrate and 48 tonnes of silver in concentrate.

# Principal raw materials

The principal inputs of HZL's zinc smelting business are zinc and lead concentrates and power. HZL has in the past been able to secure an adequate supply of the principal inputs for its business.

Zinc and lead concentrates: Zinc and lead concentrates are the principal raw material of HZL's smelters. HZL's lead-zinc mines have provided nearly all of its requirements for zinc and lead concentrates in the past. Vedanta expect HZL's mines to continue to provide nearly all of its zinc and lead concentrate requirements for the foreseeable future.

Power: Most of HZL's operations are powered by the coal-based captive power plants at Chanderiya, Dariba and Zawar. HZL imports the required thermal coal from a number of third party suppliers and part of the requirement is sourced by way of linkage with South Eastern Coalfields Ltd (which is a subsidiary of Coal India). HZL was awarded 2.43 million tonnes of coal linkage by Ministry of Coal. However, due to limited coal availability, Coal India has been supplying only 50.0% of the 2.4 million tonneslinkage quantity. As of April 2013, the coal supplies to Chanderiya have stopped due to pending decision at Ministry of Coal on the linkages for plants which have been allocated coal blocks. In February 2014 the coal block allocated to the Chanderiya lead zinc smelter captive power plant was deallocated by the Ministry of Coal. As in January 2016 the coal supplies to Dariba captive power plant has stopped due the expiry of the existing fuel supply agreement and further renewal of fuel supply agreement has not been sanctioned by South Eastern Coalfields Limited as of 31 March 2017. If the FSA is not renewed, HZL will source its entire coal supplies through imports. Linkage coal supplies to HZL's power plants at Zawar are continuing and the linkage quantity for these plants has been restricted to 50% of 0.4 million tons. The remaining coal requirements are met via import of coal from various countries which is currently priced lower than linkage coal on a landed basis.

HZL's remaining operations source their required power from liquid fuel-based captive power plants or from local power companies. The liquid fuel is sourced from third party suppliers on yearly contracts.

Metallurgical coke: In addition, HZL's pyrometallurgical smelter at Chanderiya requires metallurgical coke that is used in the smelting process. HZL currently sources its metallurgical coke requirements from third parties under long-term contracts and the open market.

# Distribution, logistics and transport

Zinc and lead concentrates from HZL's lead-zinc mines are transported to the Chanderiya and Debari smelters by road. Zinc and lead ingots, silver and sulphuric acid by-products are transported primarily by road to customers in India directly or via HZL's depots. Zinc and lead cathodes are mostly transported by rail to its processing and refining facilities in Uttarakhand state in northern India. Zinc and lead ingots are transported for exports to ports in India primarily by rail, from where they are loaded on ships. The facilities in Uttarakhand also serve as finished goods centre for nationwide distribution of its finished products.

Zinc at the Skorpion mine is cast into ingots for export and transported from the refinery to the port of Luderitz, approximately 300 km away by trucks each having a maximum capacity of 35 tonnes.

Zinc concentrate, lead concentrate and copper concentrate from the Black Mountain mine is hauled by road to a dedicated railway siding along a 170 km gravel road, which is owned by the provincial authorities but maintained by Black Mountain Mining. The concentrate is then transported by train to Saldanha on the Sishen-Saldanha railway with delivery terms to export customers on a cost, insurance and freight basis.

# Sales and marketing

HZL's 10 largest customers accounted for 40.5%, 36.5% and 34.0% of its revenue in fiscal years 2015, 2016 and 2017 respectively. No customer accounted for greater than 10.0% of HZL's zinc business revenue in fiscal years 2015, 2016 and 2017.

HZL's marketing office is located in Mumbai, and it has field sales and marketing offices in most major metropolitan centres in India. In fiscal year 2017, HZL sold approximately 71% of the zinc and lead metal it produces in the Indian market and exported approximately 29% of Vedanta's zinc India segment revenue.

In fiscal year 2017, HZL sold approximately 99.1% of the zinc metal in the domestic market and exported approximately 80% under annual contracts specifying quantity, grade and price, with the remainder sold on the spot market. The contract sales price is linked to prevailing LME price with an additional physical market premium. Thus, the price that HZL receives for its zinc is dependent upon, and subject to fluctuations in the LME price.

Skorpion's 10 largest customers accounted for 99.9%, 79.9% and 99.0% of its revenue in fiscal years 2015, 2016 and 2017 respectively. Three of Skorpion's customers accounted for 85%, 64% and 86% of Skorpion's revenue in fiscal years 2015, 2016 and 2017. Skorpion's marketing office is located in Rosh Pinah. Most of the zinc metal that Skorpion produced in fiscal year 2016 was sold under bi-annual/annual contracts. About 12% of the metal produced is sold in the Southern African Customs Union market and balance is sold to other regions. The contract sales price is linked to prevailing LME price with an additional market premium. Thus, the price that Skorpion receives for its zinc is dependent upon and is subject to fluctuations in the LME price.

Black Mountain Mining produces Zinc, Lead and Copper concentrates that are sold in the international markets on spot or frame contract basis. The commercial terms negotiated include taking into account the percentage of payable metals, treatment and refining charges and applicable prices. Some of the customers of Black Mountain Mining are Trafigura PTE Ltd, Ocean Partners UK Limited and Louis Dreyfus Company Metals Suisse SA. All the Zinc and Lead metal that BMM produced in fiscal year 2017 was sold under frame or spot contracts specifying quantity, grade and price. The contract sales price is linked to the prevailing London Metal Exchange (LME) price. Thus, the price that BMM receives for its Zinc and Lead is dependent upon and is subject to fluctuations in the LME price.

### Projects and developments

HZL has been actively conducting exploration, which has resulted in net ore reserves of 109.1 million tonnes across all mines in fiscal year 2017. Based on long-term evaluation of assets and in consultation with mining experts, Vedanta has finalised the next phase of growth, which will involve sinking of underground shafts and developing underground mines. The plan comprises developing a 4.5 mmtpa underground mine at Rampura Agucha mine and expanding the Sindesar Khurd mine from 2.0 mmtpa to 6.00 mmtpa, Zawar mines from 1.2 mmtpa to 4.50 mmtpa, Rajpura Dariba mine from 0.6 mmtpa to 1.5 mmtpa and Kayad mine from 0.35 mmtpa to 1.0 mmtpa. The growth plan will increase mined metal (MIC) production capacity to 1.2 mmtpa. The estimated cost for these projects amounts to Rs. 108,600 million (\$1,675 million). HZL spent Rs. 13,130 million (\$203 million) on these projects in fiscal year 2017. These projects are financed from internal sources.

# Gamsberg Project

The Gamsberg ore body is a large undeveloped zinc deposit situated approximately 22 kms from Black Mountain. The Gamsberg Project was officially approved by Vedanta's Board in November 2014. In April 2015, the Project Schedule was revised after optimising the Mining Cost. The mining and milling capital cost reduced mainly on engineering improvements and negotiations.

The estimated production capacity of the mine is expected to be 250 ktpa.

Pre strip mining started from July 2015 and other infrastructure jobs such as Residential Housing, Pre start Infrastructure commenced in fiscal year 2016.

In fiscal year 2017, the project activities covered the ordering of plant and infrastructure packages followed by construction activities which are due for completion during 2018. The initial ore production is planned for fiscal year 2018 with ramp up to full production expected in subsequent years.

### Market share and competition

HZL is the only integrated zinc producer in India and had a market share by sales volume of the Indian zinc market of 72.0% in fiscal year 2017, according to ILZDA. Imports and secondary sources accounted for the remaining 28.0% market share, according to ILZDA. Zinc is a commodity product and HZL competes primarily on the basis of price, time of delivery and location. Zinc metal also faces competition as a result of substitution of materials, including aluminium, stainless steel and other alloys, plastics and other materials being substituted for galvanised steel and epoxies, paints and other chemicals being used to treat steel in place of galvanisation in the construction market.

HZL is the only primary lead producer in India, with competition coming from imports which provide a substantial majority of the lead consumed in India. Lead is a commodity product and HZL competes primarily on the basis of price, time of delivery and location.

# **Copper Business**

#### Introduction

Vedanta's copper business comprises operations in India, Zambia and Australia. Vedanta's Indian and Australian copper business is operated by Vedanta Limited, while its Zambian copper business is owned and operated by KCM. As of 30 June 2017, the Company owned 50.1% of the share capital of Vedanta Limited and 79.4% of the share capital of KCM. According to Wood Mackenzie, KCM is one of the world's highest grade copper mines, in terms of contained copper in 2016. Vedanta's custom smelting and refining business forms 40% of the total Indian capacity according to the Indian Minerals Yearbook 2014. KCM is one of Africa's largest integrated copper producers.

Vedanta's Indian copper business is principally a custom smelting business, which includes a smelter, refinery, phosphoric acid plant, sulphuric acid plant, copper rod plant and three captive power plants at Tuticorin in southern India, a refinery and two copper rod plants at Silvassa in western India, a precious metal refinery that produces gold and silver, a doré anode plant, and a copper rod plant at Fujairah in the UAE. According to Wood Mackenzie, Vedanta Limited's Tuticorin smelter was one of the world's top ten, in terms of production volumes in 2016.

In addition, Vedanta Limited owns the Mt. Lyell copper mine in Tasmania, Australia, which provides a small percentage of its copper concentrate requirements. The operation of Mt Lyell mine was suspended in January 2014, following a mud slide incident. Subsequently, the operations at Mt. Lyell copper mine has been placed under care and maintenance since 9 July 2014 following a rock falling on the ventilation shaft in June 2014.

As a custom smelter, Vedanta Limited buys copper concentrate at LME-linked copper prices less TcRc that it negotiates with suppliers. Vedanta Limited sells refined copper at LME-linked prices in domestic and export markets. Vedanta Limited receives a discount from its suppliers in the form of aTcRc, which is influenced by the global copper concentrate demand, supply of copper smelting and refining capacity, LME trends, LME-linked price participation and other factors. Vedanta Limited sources its concentrate from various global suppliers and its Mt. Lyell copper mine.

In recent years, Vedanta Limited has improved the operating performance of its copper business by improving operational efficiencies and reducing unit costs, including reducing power costs by constructing a captive power plant at Tuticorin. Vedanta Limited intends to further improve the operating performance of its copper business by continuing to reduce unit operating costs through improvements in recovery rates, lowering power and transport costs, achieving economies of scale and the achievement of other operational efficiencies. The copper business in Zambia is owned and operated by KCM which is largely an integrated copper producer. KCM's Zambian operations comprise various facilities at Konkola, Nchanga, Nkana and Nampundwe. KCM's operations at Nchanga include a number of open-pit mines, a large underground mine, TLP with the associated solvent extraction electro winning ("SX-EW") facility, a smelter with a cobalt recovery furnace, and a sulphuric acid plant and copper concentrators comprising two main processing units and a refractory ore stockpile. At Konkola, KCM operates a large underground mine and a concentrator on site. There is also a refinery at Nkana and a pyrite mine and concentrator at Nampundwe. In fiscal year 2016, the KCM mines provided approximately 53% of KCM's copper concentrate requirements for its smelting operations, with the remainder of KCM's copper concentrate requirements being obtained from third parties. As of 31 March 2017 Vedanta had spent over three billion since 1 April 2005 on its asset base.

Since the acquisition of KCM in 2004, Vedanta has implemented or is in the process of implementing various projects and expansions to improve KCM's operating performance. These include:

- the Konkola Deep Mining Project (the "KDMP"), a comprehensive project developing mining infrastructure to access the large copper ore body available at deeper levels at KCM's Konkola mine, which Vedanta estimates will increase the output of KCM's Konkola underground mine to approximately 7.5 mtpa at full ramp-up; It is a flagship asset with a life of 169 years.
- de-bottlenecking the TLP at Nchanga to increase its capacity from 15.1 mtpa to up to 17.3 mtpa;
- installing a second cobalt recovery furnace at the Nchanga smelter to double cobalt recovery;
- upgrading and modernising the east and west mill processing plants at the Nchanga concentrator, including upgrading the west mill Nchanga underground mine concentrator with a new 3.0 mtpa concentrator and the east mill Nchanga open-pit concentrator with a new 6.5 mtpa concentrator;
- commissioning a 311,000 tpa direct-to-blister flash smelter at Nchanga with a cobalt recovery furnace;
- commissioning a 6 mtpa concentrator at Konkola to enhance mining output, improve recovery and improve the concentrate grade of its copper;
- expanding the Nkana refinery to a production capacity of 300,000 tpa of copper cathode;
   and
- commissioning a 640,000 tpa sulphuric acid plant at Nchanga to produce acid for use in the TLP.

KCM intends to further improve its operating performance by:

- substantially developing its open-pit mines at Nchanga, including the opening of additional pits and the mining of cobalt ore at the Nchanga open-pit;
- expanding capacity at, and extending the life of, the existing Nchanga underground mine by extracting as yet unmined ore in the upper ore body of the Nchanga ore deposit; and
- accelerating development at KDMP for ramping to its full potential.

Total revenue from Vedanta's copper businesses during fiscal year 2017 was \$4,008.0 million.

### Principal products

Copper cathode. Vedanta's copper cathodes from the Tuticorin and Nkana refinery are square shaped with purity levels of 99.9% copper. These cathodes meet international quality standards and are registered as LME "A" Grade. KCM also produces Kabundi copper cathode, which is marketed as "KBC" from SX-EW TLP at Nchanga. The major uses of copper cathodes are in the manufacture of copper rods for the wire and cable industry and copper tubes for consumer durable goods. Copper cathodes are also used for making alloys like brass, bronze and alloy steel, with applications in transportation, electrical appliances and machinery in defence and construction.

Copper rods. Vedanta's copper continuous cast rods meet all the requirements of international quality standards including the ASTM B 49: 2010 or the BS EN 1977:1998 standards. Vedanta's copper rods are currently used primarily for power and communication cables, transformers and magnet wires.

Sulphuric acid. Vedanta Limited and KCM produce sulphuric acid at their sulphuric acid plants through conversion of sulphur dioxide gas that is generated from the copper smelter. A significant amount of the sulphuric acid produced at the Tuticorin smelter is consumed by the phosphoric acid plant in the production of phosphoric acid, and the remainder is sold to fertiliser manufacturers and other industries. Sulphuric acid produced at the sulphuric acid plants at the Nchanga smelter is used in the TLP to extract oxide copper minerals from the current and old tailings and any surplus sulphuric acid is sold in the region.

*Phosphoric acid.* Vedanta Limited produces phosphoric acid at its phosphoric acid plant by chemical reaction of sulphuric acid and rock phosphate, Vedanta Limited imports. Phosphoric acid is then sold to fertiliser manufacturers and other industries.

Other by-products. Other by-products of Vedanta Limited's copper smelting operations are gypsum, bismuth and anode slimes, which Vedanta Limited sells to third parties. Copper cobalt alloy is a by-product of KCM's copper mining operations, which KCM also sells to third parties. KCM is also pursuing potential opportunities to extract sales from the slag produced at its Nchanga smelter.

### Production

Copper anode is an intermediate product produced by copper smelters and is generally not sold to customers except KCM where copper anodes are sold to customers. Approximately one tonne of copper anode is required for the production of one tonne of copper cathode. Sulphuric acid is used as a starting material for phosphoric acid. Approximately 2.8 tonnes of sulphuric acid is required for the production of one tonne of phosphoric acid. Copper cathode is produced at the TLP at Nchanga using current tailings from the Nchanga west concentrator and reclaimed tailings sourced from the decommissioned tailings storage facilities. The Nchanga smelter produces copper in the form of copper-cobalt alloy, which accounts for approximately 8% to 10% of the smelter's total design capacity of 311,000 tpa. Nampundwe currently produces pyrite concentrate which is blended with

copper concentrate at the Nchanga smelter when required. Copper cathode is used as a starting material for copper rods. Approximately one tonne of copper cathode is required for the production of one tonne of copper rods. The table below sets out Vedanta's total production<sup>(1)</sup> from Tuticorin, Silvassa, Nkana, Nchanga and Nampundwe for the periods indicated.

				Year Ended 31 March			
Facility	Product	2015	2016	2017			
			(Tonnes)				
Tuticorin	Copper anode	361,839	387,016	400,620			
	Copper cathode	194,019	201,864	216,119			
	Copper rods	53,400	68,685	71,178			
	Sulphuric acid	1,006,692	1,070,786	1,043,748			
	Phosphoric acid	189,353	198,779	200,119			
Silvassa	Copper cathode	168,353	182,183	186,611			
	Copper rods	116,939	142,115	136,352			
Nkana refinery	Copper anode <sup>(2)</sup>	260	1,236	964			
	Copper cathode <sup>(3)</sup>	92,525	58,856	8,523			
Nchanga (smelter and TLP)	Copper anodes <sup>(2)</sup>	97,242	99,661	111,247			
	Copper cathode <sup>(3)</sup>	55,232	60,985	50,494			
	Sulphuric acid	234,879	237,308	219,619			
Nampundwe	Pyrite concentrate	14,275	15,810	6,115			
Total	Copper anode	459,081	486,677	511,867			
	Copper cathode	510,129	505,124	462,710			
	Copper rods	170,339	210,800	207,530			
	Sulphuric acid	633,543	623,922	1,263,367			
	Phosphoric acid	189,353	198,779	200,119			
	Pyrite concentrate	14,275	15,810	6,115			

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

During fiscal year 2016 and 2017, 41,178 tonnes and 101,900 tonnes of copper anode were not processed into copper cathode and sold as Copper anode and anode slags at KCM.

<sup>(3)</sup> The production numbers for copper cathode excludes the copper in copper cobalt alloy and copper in concentrate produced and sold as concentrate. Copper in copper cobalt alloy production in fiscal years 2015, 2016 and 2017 was 21,166 tonnes, 19,828 tonnes and 17,350 tonnes respectively, copper in copper concentrate produced and sold as concentrate in fiscal years 2017 and 2016 was 1,570 tonnes and 826 tonnes, respectively at KCM.

The table below sets out KCM's and CMT's total mine production<sup>(1)</sup> for the periods indicated:

		Fiscal Year Ended 31 March			
Mine (Type of Mine)	Product	2015	2016	2017	
			(Tonnes)		
Nchanga (Open-Pit and					
Underground)	Ore mined	10,676,035	10,299,672	11,237,492	
	Copper concentrate	103,902	101,744	72,377	
	Copper in				
	concentrate	24,374	18,054	11,754	
Konkola Mine(Underground)	Ore mined	1,426,782	1,676,592	1,302,389	
	Copper concentrate	110,193	136,748	101,417	
	Copper in				
	concentrate	40,217	49,448	36,100	
Nampundwe Mine (Underground)	Pyrite ore mined	87,870	136,879	65,181	
Total	Copper ore mined	12,102,817	11,976,264	12,539,881	
	Copper concentrate	214,095	238,492	173,794	
	Copper in				
	concentrate	64,591	67,502	47,854	
	Pyrite ore mined	87,870	136,879	65,181	

### Ore Reserve base

The figures for the Mt. Lyell Mine show the split between the ore derived from primary ("in-situ") ore and secondary ore, which consists of broken fresh ore from previous levels, remnants of ore from the open-pit side wall and pillars remaining from a former mining method together with sub-economic dilution from the mineralised material surrounding the ore body. The quantity and grade of the secondary ore was determined from the analysis of historical production. The estimate of the quantity and grade of the remnant material has been evaluated from previous studies and only uses a small proportion of this source of ore. Consequently, Vedanta believes that this allowance can be sustained for the forecast life of the Ore Reserves.

As of 31 March 2017, the Proved and Probable copper Ore Reserves at the Mt. Lyell Mine is nil.

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

The table below sets out the Proved and Probable copper Ore Reserves<sup>(1)</sup>, as applicable, at Konkola and Nchanga as of 31 March 2017:

	Proved Reserve		Probabl	le Reserve	Reserves	
	Quantity	Total Copper Grade	Quantity	Total Copper Grade	Quantity	Total Copper Grade
	(Million tonnes)	(%)	(Million tonnes)	(%)	(Million tonnes)	(%)
Konkola	20.7	3.5%	23.9	3.0%	44.6	3.2%
Nchanga (open-pits).	0.0	0.0%	10.6	1.1%	10.6	1.1%
Nchanga (other pits and stockpiles)	0.4	1.0%	30.5	1.2%	30.9	1.2%
Tailings Dams	44.4	0.7%	0.0	0.0%	44.4	0.7%
Refactory Ore	0.0	0.0%	112.2	0.7%	112.2	0.7%
Total	65.5	1.6%	177.2	1.1%	242.7	1.2%

Nampund we has total Ore Reserves 1.6 Mt grading 11.8% S comprising, Proved Ore Reserves of 0.2 Mt grading 10.3% S and 1.33 Mt grading 11.3% S. The copper grades noted above for Refractory Ore are stated as Acid Soluble Copper whilst all other grades are noted as Total Copper.

### Description of operations

Smelters and Refineries

The table below sets out Vedanta's total capacities from the Tuticorin, Silvassa, Nkana and Nchanga facilities as of 31 March 2017:

	Capacity						
	Copper Anode <sup>(1)</sup>	Copper Cathode <sup>(2)</sup>	Copper Rods <sup>(2)</sup>	Sulphuric Acid <sup>(3)</sup>	Phosphoric Acid <sup>(3)</sup>	CaptivePower Plant	
			(tpa)				
Tuticorin	400,000	235,000	96,000	1,300,000	230,000	191.5	
Silvassa	_	215,000	172,000	_	_	_	
Nkana		300,000	_	_	_	_	
Nchanga	311,000	80,000		582,750			
Total	711,000	830,000	<u>262,000</u>	1,882,750	230,000	<u>191.5</u>	

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources" for an explanation of the basis of preparation of reserve amount.

<sup>(1)</sup> Copper anode is an intermediate product produced by copper smelters and is generally not sold to customers except in case of KCM where copper anodes are sold to customers. It is used for the production of copper cathode by copper refineries. Approximately one tonne of copper anode is required for the production of one tonne of copper cathode.

<sup>(2)</sup> Copper cathode is used as a starting material for copper rods. Approximately one tonne of copper cathode is required for the production of one tonne of copper rods.

<sup>(3)</sup> Sulphuric acid is used as a starting material for phosphoric acid. Approximately 2.8 tonnes of sulphuric acid are required for the production of one tonne of phosphoric acid.

Tuticorin facility. The Tuticorin facility, commissioned by Vedanta Limited in 1997 and is located approximately 17 km inland from the port of Tuticorin in the State of Tamil Nadu in southern India. Tuticorin is one of India's largest copper smelters based on production volume. As of 31 March 2017, the Tuticorin facility consists of a 400,000 tpa copper smelter, a 235,000 tpa copper refinery, a 96,000 tpa copper rod plant, a 1,300,000 tpa sulphuric acid plant, a 230,000 tpa phosphoric acid plant, and three complete captive power plants with capacities of 160 MW, 7.5 MW and 24 MW, respectively. Necessary approvals, including the environmental clearance and consent to establish for the proposed expansion of the existing capacity of the 400,000 tpa copper smelter at Tuticorin to 800,000 tpa by building a 400,000 tpa copper smelter has been received and Vedanta Limited is looking to start the project ahead of schedule. The coal based power plant of 160 MW is primarily used for captive consumption and Vedanta Limited have also entered into a power purchase agreement with the Tamil Nadu Electricity Board for selling power in excess power over the captive consumption.

Presently, the captive power plants have a total capacity of 191.5 MW, excluding the 15 MW power generating power plant shifted to HZL for the Pantnagar operations. Further, we also have a 5 MW of power generated from a smelter waste heat boiler. Coal for the 160 MW power plant is imported, and other captive power plants at Tuticorin operate on furnace oil. With captive power plants with a total capacity of 191.5 MW, which, together with a further 5 MW generated from the smelter waste heat boiler, Tuticorine facility will meet most of the facility's power requirements once the proposed expansion to 800,000 tpa is complete.

In addition, on 29 March 2013, the TNPCB ordered the closure of the copper smelter at Tuticorin due to complaints about a noxious gas leak by local residents. On 1 April 2013, Vedanta Limited (then Sterlite) filed a petition in the NGT challenging the order of TNPBC on the basis that the plant's emissions were within permissible limits. Civil Appeals against the interim and final orders passed by NGT are pending before the Supreme Court of Infia and the next date o hearing is yet to be notified. See "Business — Litigation — Writ petitions filed against Vedanta alleging violation of certain air, water and hazardous waste management regulations at Vedanta's Tuticorin plant."

Silvassa refinery. The Silvassa facility, commissioned in 1997, comprises a refinery and two copper rod plants and is located approximately 140 km from Mumbai in the union territory of Dadra and Nagar Haveli in western India. Its refinery is IsaProcess(TM) technology to produce copper cathode and its copper rod plants use Properzi CCR copper rod technology. Silvassa facility consists of a 200,000 tpa copper refinery and two copper rod plants with a total installed capacity of 215,000 tpa of copper rods. Vedanta Limited's Silvassa facility draws on the state power grid to satisfy its power requirements.

Fujairah precious metal refinery. The Fujairah Gold FZE facility is located in Fujairah Free Zone-2. It is strategically located 130 km east of Dubai, on the coast of the Arabian Sea. The precious metals refinery at the Fujairah Gold FZE facility was completed in March 2009 and it began production in April 2009. The precious metals refinery has a capacity of 20 million tonnes ("mt") of gold and 105 mt of silver. The technology for the refinery was supplied by Outotec Oyj, Finland, a pioneer in providing technology for the extraction and refining of precious metals. The Fujairah Gold FZE facility also has a copper rod plant with an annual capacity of 100,000 tpa. Production commenced in May 2010. Continuous-Properzi S.p.A., Italy supplied the rod mill equipment for this project, and the copper cathode required for the copper rod plant is expected to be sourced from the smelters of KCM. Additionally, the doré anode plant which was previously located at Tuticorin has been relocated to the precious metals refinery at Fujairah in June 2012for smelting of "anode slime" to "doré anode" which is the raw material used by the Fujairah precious metal refinery.

Nkana facility. The Nkana facility, commissioned in 1932, primarily comprises a smelter, as refinery and a sulphuric acid plant, of which smelter and sulphuric acid plant have been dismantled. The Nkana operations are located in Kitwe approximately 360 km from Lusaka in the Copperbelt Province of Zambia and approximately 55 km from Chingola where the Nchanga facilities are located.

The Nkana refinery produces finished copper in the form of cathodes. It also produces anode slime as a by-product, which contains copper and smaller amounts of certain precious metals, such as gold, silver, platinum, and palladium. The Nkana refinery uses the conventional electrolytic refining process to produce copper cathode and starter sheets. The starter sheets produced at the Nkana refinery are used at the Nkana and Nchanga TLP for electro-refining and electro-winning, respectively. The Nkana refinery utilises conventional processes to produce copper cathode that is LME-registered REC brand which is at a minimum 99.99% pure copper. Capacity at the Nkana refinery has been expanded from approximately 220,000 tpa to 300,000 tpa and this expansion was completed in November 2009.

Nchanga facility. The Nchanga facility, initially commissioned in 1971, comprises a TLP and SX-EW facility and a state-of-the-art smelter commissioned in 2008 with a capacity of 311,000 tpa in the form of copper in copper anode and copper in copper-cobalt alloy and sulphuric acid plant capacity of 1,850 tonnes per day. It processes reclaimed tailings sourced from the Nchanga surfaces sources operations and the current tailings from the Nchanga concentrator for the production of copper cathode with an installed capacity of 80,000 tpa, as of 31 March 2017.

The TLP comprised an acid leach SX-EW circuit which treats both reclaimed tailings and mine tailings from the copper flotation circuits at the west mill.

During fiscal year 2013, the west mill Nchanga underground mine concentrator was upgraded with the commissioning of a new 3.0 mtpa concentrator and the east mill Nchanga open-pit concentrator was upgraded with the commissioning of a new 6.5 mtpa concentrator. Additionally, a cobalt recovery furnace was commissioned.

### Mines

Mt. Lyell. The Mt. Lyell mine is located at Queenstown, Australia. It comprises of an underground copper mine and a copper processing facility and is owned and operated by CMT. The Mt. Lyell mine is owned and operated under the terms and conditions as stipulated in Mining Leases 9M/2013 (earlier 1M95) and 10M/2013 (earlier 5M95) granted by the state government of Tasmania. Mining Lease 9M/2013 was granted on 1 January 1995 for a period of 15 years and the mining lease 10M/2013 was granted on 1 February 1995 for a period of 14 years and 11 months. Both leases have been renewed for a period of 18 years and are valid up to December 30, 2027. The mine is also covered by the Copper Mines of Tasmania (Agreement) Act 1999, which, in conjunction with an agreement between the state government of Tasmania and CMT entered into pursuant to that Act, limits CMT's environmental liabilities to the impact of current operations, thereby insulating CMT from any historical legacy claims. The operation of Mt Lyell mine was suspended in January 2014, following a mud slide incident.

Monte Cello acquired CMT in 1999 from Mt. Lyell Mining Company Limited. Since Monte Cello took over the mine, annual production has increased from 2.2 million tpa in fiscal year 2000 to 2.5 million tpa in fiscal year 2013. Vedanta Limited acquired Monte Cello, and CMT, from a subsidiary of Twin Star in the year 2000.

The principal deposits in the Mt. Lyell region are all of the volcanic disseminated pyrite-chalcopyrite type which accounts for approximately 86.0% of the known ore in the region. The geology of the Mt. Lyell mine consists of a series of intercalated felsic to mafic-intermediate volcanics. Lithologies are highly altered quartz-sericite-chlorite volcanics with individual units delineated largely by the relative abundance of phyllosilicates. Volcaniclastic and rhyolitic lithologies occur sporadically throughout the sequence, as does pervasive iron mineralisation in the form of haematite, magnetite and siderite.

Chalcopyrite is the principal ore mineral and occurs chiefly in higher grade lenses enveloped by lower grade halos. The overall structure of Mt. Lyell is that of a steeply dipping overturned limb of a large anticline. The hanging wall (stratigraphic footwall) of the ore body consists of weakly mineralised chloritic schists with disseminated pyrite. The footwall is sharply defined by the Great Lyell Fault — Owen Conglomerate contact which truncates the ore body at its southern end.

The Mt. Lyell mine is under care and maintenance following a rock falling on the ventilation shaft in June 2014. All mining operations at CMT, when operational were undertaken by contractors while the processing and mill maintenance operations are undertaken by CMT employees. A sub-level caving underground mining method is used at the Prince Lyell ore body. Ore is loaded into trucks and then transported to the underground crusher and skip loading area. Crushed ore is then hauled by the Prince Lyell shaft and unloaded onto a conveyor feeding the ore bin at the Mt. Lyell processing plant. At the processing plant, the ore is crushed and ground prior to processing by flotation to produce copper concentrate which is then filtered to form a cake and trucked to the melba flats railway siding for transport to the port of Burnie. The concentrate is stored at Burnie until it is loaded into ships for transport to the port of Tuticorin from where it is trucked to the smelter. CMT has an active exploration and evaluation programme at Mt. Lyell which involves upgrading resources below the Prince Lyell reserves and testing additional exploration targets on the mining lease. The western tharsis deposit lies to the west of the Prince Lyell ore body, but CMT has not yet committed to its development. Additional targets include Tasman and Crown, Glen Lyell, Copper Clays and NW Geophysics. The tailings dam is a valley-fill type and excess water is discharged via a spillway. The water quality is sampled before the water is released from the site. The tailings are deposited on beaches around 300 metres from the dam spillway. CMT's accepted closure plan is to flood the tailings which will require CMT to raise the tailings dam wall and such plan is currently in progress.

The processing plant is approximately 30 years old and has been partially refurbished following CMT's acquisition with the addition of crushers, a float cell and a regrind mill at the surface. While the condition of the plant is ageing, maintenance is carried out as required to ensure that the process plant remains in safe and efficient condition.

Power at the mine is supplied through an electricity supply agreement with Aurora Energy Proprietary Limited and Hydro Tasmania Proprietary Limited to supply approximately 112 giga watts per hour. Aurora Energy Proprietary Limited supplies electricity on a spot price basis and Hydro Tasmania Proprietary Limited is under a fixed arrangement. There is ample supply of mine water and storm water captured on the tailings dam.

The gross and net value of fixed assets, including capital works-in-progress was approximately AUD 161.0 million (\$124 million) and AUD 5.7 million (\$4.4 million) respectively, as of 31 March 2017.

The cut-off grades are based on copper grades with the gold credit deducted from the operating costs. The reserves are derived from stopes which are designed such that the limits of the stope are defined by a cut-off grade of 0.8% copper and have an average grade that exceeds 0.8% copper. The revenue derivation of the cut-off grade includes the gold credit. The break-even cut-off grade of 0.65% copper is the grade that makes enough margin to cover the fixed and variable costs while the actual or operational cut-off grade used is 0.55% copper. CMT operates on a 0.8% copper operational cut-off grade in practice, which prefers to take higher revenue at the expense of a longer mine life.

At the time of finalisation of reserve statement as on 31 March 2017, no mineral reserves have been determined due to government statutory restrictions imposed post the mud slide incident in January 2014.

The reserves at CMT in the proven reserve category are defined as the portion that can be economically mined of the measured in-situ resource, which has gold drill coverage (<50 metres) and is on or within the 50 metre zone below the lowest active production level. The probable in-situ reserve is the material which has been defined as the portion that can be economically mined and has good drill coverage but is outside the 50 metre zone from the lowest active production level. The ex-situ probable reserve is the portion of ex-situ indicated resource which can be economically recovered with the mining of the in-situ reserves; this is applied as a modifying factor.

CMT does not use a copper equivalent calculation for the determination of stope limits as the relationship between the copper and gold grades is essentially linear, allowing the gold credits to be deducted from operating costs.

CMT has identified additional mineral deposits in the Mt. Lyell mine and had engaged in drilling, scoping and feasibility studies on these deposits and has completed scoping study of Prince Lyell North Flank bottom block/lift and Copper Chert prospect and feasibility of Prince Lyell North Flank top block.

KCM mines. KCM's mining operations are located in the Copperbelt Province of Zambia and consist of the Nchanga open pits and Nchanga underground mines, concentrator and TLP, the Konkola underground copper mine and concentrator, the Nchanga smelter with a copper recovery furnace and sulphuric acid plant, and the Nkana smelter and refinery. The Zambian Copperbelt ore deposits lie along a 50-km wide strip of country that extends for 150 km from Chililabombwe in the northwest to Luanshya in the southeast. The Nampundwe pyrite mine and the concentrator are located in the Central Province approximately 50 km from Lusaka.

The geological setting of the Zambian Copperbelt is unusual compared to other worldwide copper deposits in that it occurs in sedimentary host rocks that have high carbonate content. The presence of dolomite in the geological sequence effectively eliminates any risk of acid mine drainage. The dominant structural feature of the Zambian Copperbelt is the Kafue Anticline, a Northwest — Southeast striking structure, the core of which is comprised of granite, schist and gneiss of the basement complex.

The focus of KCM's exploration has been the maintenance of resources and reserves following mining depletions.

Konkola. The Konkola mine is situated about 26 km north of Chingola and is the most northerly of KCM's Copperbelt mines. These mining operations currently exploit the Kirila Bombwe ore body by underground methods and have historically been focused on two existing shaft systems, the Kirila Bombwe South ore body (the "No. 1 shaft") and the Kirila Bombwe North ore body (the "No. 3 shaft"). Additionally, in June 2006, KCM commenced sinking of the No. 4 shaft in the Kirila Bombwe South ore body as part of the KDMP. The No. 4 shaft lies approximately 130 metres due north of the No. 1 shaft. The mid-shaft loading station of the No. 4 shaft was commissioned in April 2010. The mid-shaft loading station of the No. 4 shaft was commissioned in April 2010. Construction of the bottom shaft sinking, which included the continued development of the No. 4 shaft to a design depth of approximately 1,500 metres, was completed during fiscal year 2012.

The Konkola mine commenced production in 1957. KCM acquired the mine in April 2000 from Zambia Consolidated Copper Mines Limited. At Konkola, KCM holds large scale mining licence ("LML") number 7076-HQ-LML for its operations, which expires on 31 March 2025. The licence permits the mining of copper, cobalt, gold, silver, sulphur, selenium and tellurium within the leasehold area. KCM's mining licence is valid until 31 March 2025, but operating permits must be renewed annually.

The operating units at the Konkola mine are the underground mine (No. 1 shaft, No. 3 shaft and new No. 4 shaft, along with a number of ventilation shafts as well as the pipe shaft) and the Konkola east and west concentrators.

The dominant features of the mine are the Kirila Bombwe Anticline in the southeast and the Konkola Dome in the northwest. The ore body in the No. 1 shaft area lies on the southern flank of the Kirila Bombwe Anticline and has an average thickness of about nine metres. The No. 1 shaft ore body generally strikes to the northwest-southeast and dips steeply southwest. It has a strike length of

approximately 4,000 metres with an average dip of 50 degrees. The ore body at the No. 3 shaft lies across the axis of the Kirila Bombwe Anticline and has an average thickness of 13 metres. The dips at the No. 3 shaft generally range from 15 degrees to 55 degrees. The ore body at the No. 3 area has been traced to a depth of 1,100 metres and is open-ended at that depth.

Historically, the No. 1 and No. 3 shafts have been managed as two separate mines. Underground haulage connections between the two mines were developed mainly for cross tramming and de-watering purposes. The separate treatment of the two mines was due to their Ore Reserves being physically divided by the presence of a barren gap in the ore body that extended from the surface down to about 720 metres. Below that level the ore body is continuous along a strike length of approximately 10 km and this large ore body forms the basis of the KDMP. The total capacity of the Konkola underground mine has been expanded by the KDMP.

Mine developments consist of primary and secondary developments at both the No. 1 and No. 3 shafts. Primary developments involve mining haulages, drain drives, access ramps, footwall ventilation raises and rock passes on main levels. Secondary development includes the mining of drives, crosscuts and raises in ore and waste on the sublevel to prepare the ore body for stopping. The mining operations are constrained by the necessity to de-water from both hangingwall and footwall aquifers at an overall pumping rate of approximately 350,000 m<sup>3</sup> per day.

The ore body limits are defined by mining as well as diamond drilling on a 30 metres by 30 metres pattern. The stope limits are contained within the ore body defined using a 1.0% total copper cut-off. Other stope dimensions are worked out using geomechanical properties of the rocks.

Appropriate actions are taken while designing the blast holes as well as during blasting to minimise dilution from the sub-economic areas outside the ore body limits. However, due to the stratified nature of the rocks some dilution does take place. Dilution generally ranges from 5.0% to 40.0%, depending on the rock condition.

Mining methods employed at the Konkola mine include overcut and bench drift and fill, post pillar cut and fill and longitudinal room and pillar. The total rock hoisting capacity at the Konkola mine is 645 kilo tonnes per month ("ktpm") which comprises 160 ktpm from the No. 1 shaft, 135 ktpm from the No. 3 shaft and 350 ktpm from the No. 4 shaft. On reaching the surface run of the mine ("RoM") ore from the No. 1 shaft is conveyed via conveyor belt directly to the Konkola concentrator and the RoM ore from the No. 3 shaft is transported three km to the Konkola concentrator using 85 tonne off-highway trucks.

The 6 mtpa Konkola concentrator processes RoM ore sourced from the Konkola underground mine using froth flotation to produce copper concentrate for smelting at the smelter in Nchanga. RoM ore hoisted from the new No. 4 shaft, through the mid-shaft loading station is transported to the plant through conveyor belts.

The 6 mtpa concentrator comprises two streams of 3 mtpa. KCM commissioned the first stream of 3 mtpa in October 2008 and the second stream of 3 mtpa in February 2010. The Konkola concentrator utilises SAG & Ball mill comminution and beneficiation by froth flotation processing. The nominal capacity of the milling circuit is 6.6 mtpa, which with a 10.0% design allowance yields a maximum milling capacity of 7.3 mtpa.

The crushed RoM ore is fed directly into the concentrator's SAG mill with final milling being performed in the Ball mill prior to flotation. The concentrates are thickened and filtered to produce a final concentrate with a grade of approximately 36.0% to 40.0%.

The concentrates are then transported 30 km southwest of Chililabombwe by road to the Nchanga smelter in Chingola. Approximately 60.0% of the residual tailings from the concentrator are thickened and pumped straight to the Lubengele tailings dam situated approximately 4.5 km north of the plant, while approximately 40.0% of the tailings are pumped to the backfill plant to produce backfill for underground mining operations.

During fiscal year 2017, Konkola mined and processed approximately 1,302,389 million tonnes of ore, to produce 101,417 tonnes of copper concentrate containing 3.1% tonnes of copper in ore. Based on Ore Reserves and Mineral Resources as of 31 March 2017 and anticipated production, the Konkola mine has an estimated mine life of over 50 years from fiscal year 2017, a significant position of which is contributed from Inferred Mineral Resources.

Power at the mine is supplied by Copperbelt Energy Corporation PLC ("CEC") with fixed rates subject to index adjustment based on the US Producer Price Indices until 2020. The maximum demand for Konkola is currently 90 MW, but Vedanta estimates that it will rise to 120 MW as it ramps up the KDMP. On-site emergency power is available from two 10 MW diesel generators owned and operated by CEC. This power is mainly utilised for running the de-watering pumps underground. Water pumped from underground is utilised for the plant. The power infrastructure at Konkola is being upgraded to meet the enhanced requirements of the KDMP project. In addition, in anticipation of any power failure, KCM has installed three diesel generator sets of 8 MW each to meet the power requirements of its Konkola mining operations and the KDMP project.

Mine water as well as water from the nearby Kafue river is utilised for domestic requirements. Mulonga Water and Sewerage Company handles the domestic water supply.

Nchanga. The Nchanga mine is situated in the Copperbelt Province of Zambia, in the vicinity of the town of Chingola. Nchanga's operating units comprise two operational open-pit mines, a large underground mine (currently on care and maintenance), a TLP with the associated SX-EW facility, a sulphuric acid plant, copper concentrators comprising two main processing units and a recently commissioned direct blister flash smelter. At Nchanga, KCM holds LML number 7075-HQ-LML for its operations which expires on 31 March 2025. The licence allows KCM to mine copper, cobalt, gold, silver, sulphur, selenium and tellurium within the leasehold area. Under its mining licence, KCM is required to obtain an operating permit on an annual basis. The current mining licence is valid until 31 March 2025.

Following exploration in 1923, development in 1927 and the cessation of operations due to flooding and low copper prices in 1931, mining at the Nchanga underground mine recommenced in 1937. Surface mining operations from the Nchanga open-pit commenced in 1957.

Access to the underground operations is by a series of vertical and inclined primary and sub-vertical shafts. The combined rock hoisting capacity is 292 ktpm. The current operations are projected to extend to 920 metres below the surface. Mine de-watering at Nchanga requires pumping approximately 75,000 m<sup>3</sup> of water per day, a component of which is derived from inflow through the open-pit during the wet months. Underground operations are currently under care and maintenance status and there are zero audited Ore Reserves as on 31 March 2017.

The Nchanga deposit is situated on the northern end of the southwest margin of the Kafue anticline in the vicinity of Chingola. The mineralisation is hosted within two stratigraphic horizons being the Lower Ore Body ("LOB") and Block "A". Block "A" lies to the southwest of LOB and has a similar deposit with a slightly more gentle dip of about 20 degrees. The underground Mineral Resources are defined using an assay footwall and an assay hanging wall with a cut-off grade of 1.5% total copper.

The Nchanga mining licence areas also have stockpiles of Chingola Refractory One ("CRO") with a high refractory material content in mica which is not treatable by conventional methods. These stockpiles add up to approximately 112.2 million tonnes of Probable Ore Reserves with an average grade of 0.7% total copper as on 31 March 2017.

The mining method currently employed at Nchanga is block carving using a continuous advancing long wall caving method. The ore body and the rocks above the areas where the long wall caving method is used are very weak and as a result no development takes place within it. Ore body limits are primarily defined by diamond drilling from the access established below the ore body. The

drill holes are located on a 30 metres by 30 metres pattern. Extreme care is taken to ensure that core recovery from diamond drilling remains high (in excess of 85.0%) and contamination is avoided by use of double or triple tube core barrels. Logging, sampling and assaying are carried out in accordance with quality assurance/quality control procedures. An external cut-off of 1.5% total copper is taken to define the ore body limits. The cut-off is reduced to 1.0% total copper where the ore body is thin and richly mineralised. For the Nchanga open-pit ore bodies, a cut-off grade of 0.5% total copper is used.

Sub-economic dilution is practically zero at the initial stages, but it increases as the extraction increases. Depending upon the in situ grade, a dilution in excess of 50.0% may be recorded at the time when the grade of material from a finger raise has fallen below 1.0% exhausted finger raises are barricaded with timbers.

Open-pit mining has historically been exploited near surface ore bodies, including the LOB, UOB, River Lode, Luano and Chingola Ore Bodies. The mining operations are heavily mechanised using surface drilling techniques, electric shovel loading and hydraulic excavators for loading and 240 tonnes off-highway rear dump trucks. The mining operations at Nchanga are currently exclusively owner operated with the exception of stockpile dumps which are outsourced to meet mill requirements.

The Nchanga mining licence areas also have stockpiles of CRO with a high refractory material content in mica which is not treatable by conventional methods. These stockpiles add up to approximately 112.2 million tonnes of Probable Ore Reserves with an average grade of 0.7% total copper.

As part of growth projects for the Open pits, Mimbula II open pit which is located south — east of Chingola, about 12 km from the Chingola-Chilabombwe highway, and along the Mimbula Chabunyama syncline is being considered for exploitation. In fiscal year 2006, further exploration work was done at Mimbula II area indicating a north extension to the existing Mimbula II open pit and also led to the upgrade of the existing mineral resource. Viability of the resource is understudy and provides good potential for open pits.

The Nchanga concentrator comprises two main processing units; the east mill and the west mill. The east mill is a conventional comminution circuit with a RoM capacity of 6.5 mpta which treats copper ore from the open-pits to produce a thickened product which is pumped to the west mill situated approximately two km away for further processing. The west mill comprises two distinct circuits: the copper comminution circuit for underground ore, the copper flotation circuit for open-pit and underground. The copper comminution circuit crushes and mills ore from the Nchanga underground mine ahead of the flotation circuit and has a RoM capacity of approximately 3.0 mpta. The copper flotation circuit treats milled ore from the Nchanga underground mine (copper comminution circuit) and milled ore from the Nchanga open-pit (east mill) to produce concentrates. Residues from the concentrator are pumped to the TLP for hydrometallurgical processing. The concentrates are transported to the Nchanga smelters except bulk copper-cobalt concentrates which are sold in the market.

During fiscal year 2013, the west mill Nchanga underground mine concentrator was upgraded with the commissioning of a new 3.0 mtpa concentrator and the east mill Nchanga open-pit concentrator was upgraded with the commissioning of a new 6.5 mtpa concentrator. For the fiscal year ended 31 March 2017, the Nchanga underground mine mined and processed approximately 0.58 million tonnes of ore at a grade of 1.0% copper and the Nchanga open-pit mines mined and processed approximately 0.06 million tonnes of cobalt ore at a grade of 1.14% copper and 0.27% of total cobalt. For fiscal year ended 31 March 2017, the Nchanga open pits and underground mine concentrators processed ore to produce 72,377 tonnes of copper concentrates containing 11,754 tonnes of copper.

From 2014 through to 2015, the Nchanga underground mine was making losses entity due to high cost of production emanating from high power tariffs, low mine grade due to mining in the fringe and patchy lower ore body compounded with low copper price at LME. Hence, NUG was put under managed Care & Maintenance in November 2015.

Power at the mine is supplied by CEC with fixed rates subject to index adjustment based on the US Producer Price Indices until 2020. Nchanga's maximum demand is 97 MW.

Nampundwe. The Nampundwe mining operating assets are the Nampundwe pyrite underground mine and concentrator. These are located in the Central Province of Zambia, approximately 50 km west of Lusaka. Nampundwe exploits iron pyrite rich ore bodies containing 11.0% in situ sulphur and has capacity to produce 60,000 tpa of pyrite concentrate that is blended with copper concentrate for smelting. As of 31 March 2017, the Nampundwe mine also had a reserve of 6.3 mt of Sulphur, which is a material used in the smelting process.

## Principal raw materials

The principal inputs of Vedanta's copper business are copper concentrate, rock phosphate, power, fuel and sulphuric acid. Other inputs include coke, lime, reagents and oxide ore. Vedanta has in the past been able to secure an adequate supply of the principal inputs for its copper production.

Copper concentrate. Copper concentrate is the principal raw material of Vedanta Limited's copper smelters. During fiscal year 2017, Vedanta Limited sourced 97.5% of its copper concentrate requirements from third-party suppliers, either through long-term contracts or on spot markets. Vedanta Limited purchases copper concentrate at the LME price less a TcRc that it negotiates with its suppliers but which is influenced by the worldwide prevailing market rate for the TcRc. It is expected that the purchased from third party suppliers to increase in future periods to the extent sought to increase the copper smelting and refining capacity.

During fiscal year 2017, KCM sourced 50% of its copper concentrates requirements (in terms of copper content) from third-party suppliers and sourced 50% of its copper concentrates requirements (in terms of copper content) from its own mines in Zambia, respectively. KCM purchases copper concentrate at the LME price less a TcRc that KCM negotiates with its suppliers, but which is influenced by the worldwide prevailing market rate for the TcRc.

In general, Vedanta Limited's long-term agreements run for a period of three to five years and KCM's agreements run for a period of one year, and are renewable at the end of the period. The quantity of supply for each contract year is fixed at the beginning of the year and terms like TcRc and freight differential are negotiated each year depending upon market conditions. As of 31 March 2017, Vedanta Limited and KCM sourced approximately 62.3% and 100%, respectively, of their copper concentrate requirements through long-term agreements.

Vedanta Limited also purchases copper concentrate on a spot basis to fill any gaps in its requirements based on production needs for quantity and quality. These deals are struck on the best possible TcRc during the period and are specific for short-term supply. In fiscal year 2017, Vedanta Limited sourced approximately 37.7% of its copper concentrate requirements through spot purchases.

Rock phosphate. Vedanta Limited's rock phosphate is sourced primarily from Jordan at spot prices. Vedanta Limited is currently exploring the sourcing of rock phosphate from countries such as Morocco, Nauru, Togo, Algeria and Israel to diversify its supply base.

*Power.* The electricity requirements of Vedanta Limited's copper smelter and refinery at Tuticorin are primarily met by the on-site captive power plants. The first 80 MW of a new 160 MW coal-fired thermal power plant was commissioned in the first quarter of fiscal year 2014. Vedanta Limited's other captive power plants at Tuticorin operate on furnace oil that is procured through long-term contracts with various oil companies. Vedanta Limited has outsourced the day-to-day operation and maintenance of its captive power plants at Tuticorin. Vedanta Limited's Silvassa facility relies on the state power grid for its power requirements.

KCM's Nkana, Nchanga and Konkola operations receive their electricity requirements pursuant to a long-term agreement with CEC. KCM also has an agreement with the national utility company of Zambia, Zambia Electricity Supply Corporation Limited ("ZESCO"), to provide power to Nampundwe on substantially the same terms as its agreement with CEC. ZESCO transmits power from hydroelectric generating stations at Kariba North, Kafue Gorge and Victoria Falls to the central switching station in Kitwe and at the Luano substation outside Chingola at 330 KV, which is sold in bulk to CEC. The 330 KV voltage is stepped down to 220 KV and 66 KV and distributed by CEC throughout the Zambian Copperbelt. ZESCO also supplies electricity directly to the mining operations at Nampundwe in the Central Province of Zambia. In addition, in anticipation of any power failure, KCM has installed a diesel generator set of 24 MW to meet the power requirements of its Konkola mining operations and the KDMP project.

KCM agreed to a 33.0% increase in its tariff under the terms of its electricity supply agreement with CEC. This increase became effective on 1 January 2008 and remained fixed for a period of three years. A 50.0% tariff increase effective from 2011 and spread over a period of five years was signed with CEC. Effective from 1 January 2016, Zambia has increased power tariffs for mining companies in a bid to lure companies to invest in power generation. The increase in prices by 25% comes as the country is facing severe electricity crisis, which has worsened by a drought. However the drought conditions have improved in the fiscal year 2017.

Fuel. KCM's fuel supply is completely dependent on imports. In the past, Zambia has faced fuel shortages. KCM has addressed these fuel shortages by entering into a light fuel supply agreement with BP Zambia Limited on 1 September 2010, which expired on 31 December 2013. Fuel supplies through imports under spot market. In addition to the light fuel supply agreement with BP Zambia Limited, KCM is also party to a heavy fuel oil supply agreement with Kobil Zambia Limited.

Sulphuric acid. The sulphuric acid for KCM's TLP is largely supplied by the Nchanga smelter.

## Distribution, logistics and transport

Copper concentrate from the Mt. Lyell processing facility is transported by road to a rail head and then transported by rail to the port of Burnie, Tasmania, from which it is shipped to the port of Tuticorin in India. Copper concentrate sourced from both the Mt. Lyell processing facility and from third parties is received at the port of Tuticorin and then transported by road to the Tuticorin facility.

Once processed at the Tuticorin facility, copper anodes are either refined at Tuticorin or transported by road to Silvassa. Copper cathodes, copper rods, sulphuric acid, phosphoric acid and other by-products are shipped for export or transported by road to customers in India.

KCM's finished copper in the form of copper cathodes are mainly sold to overseas markets in the Middle East, Southeast Asia and the Far East with very little copper being sold locally in Zambia. The metal is transported to these markets by road and rail to the Indian Ocean ports of Dar-es-Salaam in Tanzania and Durban in South Africa and, more recently, Beira in Mozambique.

# Sales and marketing

The ten largest customers of Vedanta's India copper business accounted for 32.8%, 30.6% and 47.8% of Vedanta's revenue from the copper business in fiscal years 2015, 2016 and 2017. No customer accounted for greater than 10.0% of Vedanta's copper business revenue in fiscal years 2015, 2016 and 2017.

Vedanta Limited's copper sales and marketing head office is located in Mumbai, and it has field sales and marketing offices in most major metropolitan centres in India. KCM does not maintain any significant sales offices as sales are effected mainly through contracts executed at its corporate offices in Chingola, Zambia. Vedanta Limited sells its copper rods and cathodes in both domestic and export markets. KCM primarily sells its products in export markets. Domestic sales in Zambia form an

insignificant portion of KCM's sales. In fiscal years 2015, 2016 and 2017, exports accounted for approximately 58.6%, 60.5% and 55.52%, respectively. Vedanta's export sales were primarily to China, Japan, the Philippines, Singapore, South Korea, Taiwan, Thailand and various countries in the Middle East. Vedanta Limited also sells phosphoric acid and other by-products in both domestic and export markets. Vedanta's exports of copper anode slimes are predominately sold to Europe, UAE, Belgium and Korea amongst others.

Domestic sales by Vedanta Limited in India are broadly based on the LME spot price plus regional premiums, as well as domestic supply and demand conditions. A majority of Vedanta's sales are made pursuant to existing supply agreements. The price for the copper Vedanta Limited sells in India is normally higher than the price it charges in the export markets due to the tariff structure on costs, smaller order sizes that domestic customers place and the packaging, storing and truck loading expenses that it incurs when supplying domestic customers.

Vedanta Limited's export sales of copper are made on the basis of both long-term sales agreements and spot sales. The prices of Vedanta Limited's copper exports include the LME price plus a producer's premium. Vedanta Limited does not enter into fixed price long-term copper sales agreements with its customers. In fiscal year 2017, 53% of KCM's sales were through annual contracts priced on the monthly average LME price plus a premium.

## Market share and competition

Vedanta Limited owns one of the two custom copper smelters in India and had a 36.0% primary market share by sales volume in India in fiscal year 2017, according to International Copper Association (India). The other major custom copper smelter in India is owned by Hindalco, with the remainder of the primary copper market in India primarily served by imports and Hindustan Copper Limited.

Copper is a commodity product and Vedanta Limited competes primarily on the basis of price and service, with price being the most important consideration when supplies of copper are abundant. Vedanta Limited's metal products also compete with other materials, including aluminium and plastics that can be used in similar applications by end-users. Copper is sold directly to consumers or on terminal markets such as the LME. Prices are established based on the LME price, though as a regional producer Vedanta Limited is able to charge a premium to the LME price which reflects the cost of obtaining the metal from an alternative source.

# Projects and developments

#### Tuticorin.

Vedanta Limited had undertaken expansion projects to setup Copper smelter plant II at Tuticorin costing Rs. 16,820 million (\$252.3 million) in 2009 to increase its total copper capacity to 800,000 tpa. However, the expansion of the smelter was put on hold pending environmental clearances. Vedanta Limited had received the required clearances from the environment board in 2015 and the consent to establish in 2016. Vedanta Limited is now in the process of initiating the copper smelter plant II. Vedanta Limited has incurred Rs. 5635 million (\$83.99 million) on these projects as of 31 March 2017.

KDMP. The KDMP was approved by KCM's board of directors in July 2005, at a total initial capital outlay of approximately \$357.0 million. This project is expected to contribute to the productivity of KCM's underground copper deposit. All governmental approvals for the KDMP have been received. The mid-shaft loading station of the No. 4 shaft was commissioned in April 2010. Construction of the bottom shaft sinking, which included the continued development of the No. 4 shaft to a design depth of approximately 1,500 metres, the bottom-shaft loading and waste hoisting was completed during fiscal year 2012. The KDMP was originally planned to increase the ore production of the Konkola mine from 1.8 mtpa of ore to approximately 6 mtpa, and its scope and configuration

was subsequently revised. This revised scope and configuration plans an increase in target output of up to an estimated 7.5 mtpa at full ramp-up by accessing its rich underground ore body. The increase in target output, changes in commodity prices and other project work have resulted in an increase in the estimated project cost from \$357.0 million to \$674.0 million, as of 31 March 2017. The cost has since been revised upward to \$974.0 million primarily due to an increase in the scope of the project and consequent extra time required, weak ground conditions at the site resulting in additional engineering costs, commodity price increases and appreciation of the South African rand to the US dollar.

The Konkola Deep Mine Project (KDMP) started to bring copper ore from its mid-level in 2010 and from the bottom of the shaft in 2014. The infrastructure for the KDMP project is now complete and mine development to ramp-up production is underway.

#### **Iron Ore Business**

#### Introduction

Vedanta's iron ore business is carried out in the states of Goa and Karnataka through Vedanta Limited. Vedanta Limited's iron ore business includes exploration, mining and processing of iron ore. During fiscal year 2017, Vedanta Limited produced approximately 10.9 million dmt of saleable iron ore fines and lumps. The sales for fiscal year 2017 were at 10.2 million dmt. According to the Federation of Indian Mineral Industries, Vedanta Limited has been India's largest exporter of iron ore in the private sector by volume since 2003. As of 31 March 2017, Vedanta Limited and its subsidiaries owned or had the rights to ore reserves consisting of 193.6 million tonnes of iron ore at an average grade of 55.4% and 181.7 wmt of mineral resources as of 31 March 2017. Vedanta operates a metallurgical coke plant with an installed capacity of 522,000 tpa and a pig iron plant operating with a rated capacity of 832,000 tpa. Vedanta Limited manufactures pig iron through the blast furnace route. Vedanta Limited has a patent for the technology for the manufacture of energy recovery based metallurgical coke.

The mining suspension orders, due to environmental violations by the miners, issued by the state government of Goa and the Supreme Court of India in September 2012 and October 2012 respectively, were lifted, subject to certain conditions on 21 April 2014. On 10 August 2015, operations at the Codli mine resumed and operations at the remaining mines resumed in second half of fiscal year 2016 after receiving the required consents and approvals.

In addition, Vedanta Limited manufactures pig iron and metallurgical coke in Goa, and also operates two waste heat recovery plants of 30 MW each in Goa. In fiscal year 2017, Vedanta Limited produced approximately 698,000 tonnes of pig iron and 481,000 tonnes of metallurgical coke and as of 31 March 2017, Vedanta Limited has a capacity to produce pig iron of approximately 832,000 mt.

On 22 August 2011, Vedanta Limited acquired a 51.0% ownership interest in WCL, a Liberian iron ore exploration company which was a wholly-owned subsidiary of Elenilto Minerals & Mining LLC, for a cash consideration of \$90.0 million. WCL's iron ore project in Lbreria comprises of deposits in Bomi hills, Bea Mountain and Mano River. On 20 December 2012, Vedanta Limited acquired the remaining 49.0% of the outstanding common shares of WCL from Elenilto Minerals & Mining LLC for a cash consideration of \$33.5 million. However, due to the outbreak of Ebola in Liberia, Vedanta Limited's project was temporarily suspended in August, 2014 as the staff had to be evacuated. Since then, iron ore prices have fallen significantly, due to which it was considered not viable to resume operations. Vedanta Limited is in discussions with the government to extend the Mineral Development Agreement to make this project more sustainable.

Goa Energy Limited ("GEL"), which merged into Vedanta Limited on 24 March 2015, owned one of the 30 MW waste heat recovery power plants in Goa which generates power from the waste gases of the metallurgical coke plant and blast furnace.

A number of initiatives were earlier undertaken to expand the mining and logistical capacity at Vedanta Limited's mines at Goa and Karnataka to 40 mmt, but these initiatives have been scaled back and are currently on hold due to regulatory issues and capping of production limits across the state. Vedanta Limited has also made substantial progress on its logistics capacity, with a new railway siding already commissioned in Karnataka and made progress on widening the existing roads and building dedicated road corridors in both Karnataka and Goa. Vedanta Limited has also added capacity in river and port logistics, and now have a fleet of 33 barges and 2 transhippers and 1 floating crane station as on date.

On 6 May 2016, a Memorandum of Understanding ("MOU") was signed between the state government of Jharkhand and Vedanta Limited to set up a 1 mtpa hot metal plant with a facility to produce 0.7 mtpa pig iron and 0.3 mtpa ductile iron pipe plants in Kharswan/Manoharpur.

Revenue from Vedanta's iron ore business in the year ended 31 March 2017 was \$615.4 million.

# Principal products

Iron ore. Vedanta Limited's iron Ore Reserves consist of both lump and fine ore. As of 31 March 2017, the percentage of lump ore in the reserves was approximately 12.0% and 18.0% in Goa and Karnataka, respectively. While the ore in Goa contains an average iron content deposit of 50.0% to 55.0%, the mines in Karnataka are of higher grade deposits, ranging between 56.0% to 60.0% iron. The lump ore is sold from the mines in Karnataka primarily to domestic pig iron or steel producers. The majority of other iron ore produced by Goa mines is sold internationally, primarily to purchasers in China.

*Pig iron.* Vedanta Limited produces basic, foundry and nodular grade pig iron in various grades for steel mills and foundries.

*Metallurgical coke*. Vedanta Limited also produces metallurgical coke, the majority of which is consumed internally.

# Production

The table below sets out Vedanta Limited's total production<sup>(1)</sup> for the periods indicated:

		Year	Year Ended 31 March			
Mine/Mine Type <sup>(1)</sup>	Product	2015	2016	2017		
Goa (Open-Pit) <sup>(2)</sup>	Iron ore	_	2.0	7.8		
A. Narrain (Open-Pit)	Iron ore	0.6	3.0	2.1		
SRL (Open-Pit) <sup>(2)</sup>	Iron ore		0.2	1.0		
Total Iron Ore	Iron ore	0.6	5.2	10.9		
Amona Plant	Metallurgical coke	0.50	0.48	0.48		
	Pig iron	0.61	0.66	0.71		

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

In fiscal year 2017, Vedanta Limited produced 10.9 mt. million tonnes of iron ore fines and lumps. In addition, as of 31 March 2017, Vedanta Limited had total production capacities 832,000 tpa of pig iron and 522,000 tpa of metallurgical coke.

<sup>(2)</sup> Goa mining operations were suspended due by the State of Goa since 11 September 2012. Post all proper applications and necessary clearances from various government bodies, the suspension has been lifted and operations resumed from August, 2015.

The table below sets out Proved and Probable iron Ore Reserves<sup>(1)</sup> as of 31 March 2017 at mines that Vedanta Limited owns or has rights to:

			Proved Reserve	2	Probable Reserve	Total Proved and Probable Reserves
_	Quantity	Fe Grade	Quantity	Fe Grade	Quantity	Fe Grade
	(Million tonnes)	(%)	(Million tonnes)	(%)	(Million tonnes)	(%)
Goa:						
Codli Group	13.2	52.7	6.0	55.7	19.2	53.7
Sonshi Group	14.7	59.8	21.4	59.2	36.2	59.5
Other	6.7	55.4	11.4	56.7	18.1	56.1
A. Narrain	16.8	55.7	20.3	56.2	37.1	56.0
SRL	40.2	51.9	31.0	55.1	71.1	53.1
Total Iron Ore Reserves	91.5	54.3	90.1	56.5	181.7	55.4

See "Presentation of Information — Basis of Presentation of Reserves and Resources" for an explanation of the basis
of preparation of reserve amounts.

## Description of operations

## **Production facilities**

Amona plant. Vedanta Limited commenced operations at its Amona plant in Goa in 1992 and has been engaged in the manufacture and sale of pig iron since then. Vedanta Limited's metallurgical coke plant at Amona produces a range of coke fractions from over 70 mm for foundries, 20 mm to 60 mm for blast furnaces and six mm to 25 mm for the ferrous alloy industry. Approximately 75.0% to 85.0% of the total production of metallurgical coke is consumed by Vedanta Limited for its pig iron production and the remainder is sold to customers primarily located in India. The cost of the input coal blend is the single most important cost component for the production of coke. Vedanta Limited's production consists mainly of low ash coking coal and it imports 100.0% of low ash coking coal each year. In order to ensure a stable raw material supply, Vedanta Limited has long-term supply contracts for the procurement of such coal. Vedanta Limited generates its own electric power from the waste heat of Vedanta Limited's metallurgical coke plant and the blast furnace gas.

The following table sets out the total rated capacities as of 31 March 2017 at Vedanta Limited's Amona facility:

	Сар	acity
	Metallurgical	
	Coke	Pig Iron
	(t)	pa)
Amona Plant	522,000	832,000

#### Mines

Goa mines. Vedanta Limited's iron ore operations in Goa consist of four major iron ore mines, namely Codli, Sonshi, Bicholim and Surla. In addition, Vedanta Limited derives ore production from several satellite mines in North Goa. The Goa leases were originally granted as mining concessions by the government during the Portuguese regime from 1955 onwards, and in 1987 these concessions were converted to mining leases. Before suspension of operations in September 2012, Vedanta Limited operated a total of twenty one mining leases in Goa representing an area of approximately 1,695 hectares (includes one third-party lease on contract, representing an area of approximately 62 hectares).

Vedanta Limited carries out exploration in grid patterns of 100 metres by 100 metres at the initial stage of exploration, followed by grid patterns of 50 metres by 50 metres. Core samples are analysed and used to interpret the ore body for the preparation of geological cross sections and the classification of the ore as either crude ore or sub-grade ore. Drill core sampling is undertaken on entire holes and the drill core material is sampled at the sample preparation facilities.

Codli mines. The Codli group of mines is situated in South Goa, approximately 600 km south of Mumbai and 50 km east of Panaji, the capital of Goa. It is an open-pit operation and the mining leases are held by Vedanta Limited. The nearest railway stations, Sanvordem and Margao, are approximately 13 km and 40 km, respectively, from the mine. There is an airport 55 km from the mine at Dabolim. The river loading points at Sanvordem and Capxem are approximately 12 km and 14 km, respectively, from the Codli mines while the port is approximately 40 nautical miles from the river loading point.

The Codli mines cover an area of approximately 340 hectares and are operated under the terms and conditions stipulated in four contiguous leases, three of which are owned by us with the remaining lease being owned by a third-party. Vedanta Limited owns an additional two mining leases to the northwest of the current Codli mine operations where exploration is being undertaken. Exploration at the Codli mines began in 1966 and the mine first commenced production in 1973. Production at the mine reached 3 mmtpa by 1995. This mine has been granted environmental clearance for a production level of 7 mmtpa.

At the Codli mines, the lower grade iron formation is folded and subsequently eroded into basinal areas amenable to open-pit mining. Economically mineable material occurs over an area of about 3.1 km by 1.6 km and is located between 84 metres above sea level and 50 metres below sea level. The formations show a general northwest-southeast trend with shallow to moderate dips towards the northeast with local reversals. The footwall is comprised manganiferous clay and decomposed quartzites and the stratigraphy of the ore body is cross cut by late dolerite dykes and sills which are manifested by pink clayey zones in the mine area.

The Codli mines are multi-pit, multi-lease fully mechanised mining units. The open-pits have a bench height of seven metres, haulage roads of 25 metres width and an overall pit slope of 26 degrees. The Codli mines have 14 basins, of which five pits have been exhausted. The lateritic overburden is removed either by ripping or dozing, and loaded by excavators and/or wheel loaders into heavy earth moving machinery such as rigid dumpers and articulated dumpers. Hauling within the mine is also done by rigid and articulated dumpers. An ore stockpile is maintained at all times to continuously feed the processing plants.

Vedanta Limited has extensive ore processing facilities for upgrading the ore, which include crushing, dry screening, scrubbing, log washing, classifying, hydrocycloning, and magnetic separation with a wet high-intensity magnetic separator. The four Codli processing plants are between 1 and 18 years old and throughput capacity of the four Codli processing plants is 10 mmtpa. The processed ore is transported by road to a riverhead jetty by 10 tonne tipper trucks and then further transported by barges to the Goa ports or transhipper for onward shipment. One plant is provided with a dry circuit to process high grade ore, while the remaining four wet plants process low grade ores. The Codli processing plants undergo regular maintenance and annual repairs are conducted during the monsoon season.

As of 31 March 2017 Vedanta Limited has undertaken an exploration and evaluation programme at the Codli mines which involved drilling a total of 78,082 metres in depth in 1,156 holes. The Codli mine deposits are extensively sampled in vertical drill hole grids between 8 metres and 127 metres in length.

Power at the Codli mines is supplied through a government grid supply network with a maximum contracted demand of 5,000 kVA. There are also generator sets with an aggregate of 5,190 kVA available to supply power. The site's full water requirements are met from the rainwater accumulated in exhausted pits.

In fiscal year 2016, 2.9 million wmt of crude ore was produced from the Codli mines since the recommencement of operations at the mines in August 2015 after its temporary suspension of mining activities relating to iron ore imposed by the state government. For the fiscal year ended 31 March 2017, 3.83 million wtm of crude ore was produced from the Codil mines.

The economic cut-off grade at the Codli mines is determined by the requirement to meet various sales contracts. Vedanta Limited operates on a 50.0% iron operational cut-off grade in practice, as compared to the statutory cut-off grade of 45.0% iron. Ore containing 45.0 to 50.0% iron is preserved for future use and ore containing 50.0 to 54.0% iron is beneficiated in order to make it saleable.

The reserves at the Codli mines in the proved reserve category are defined by drill holes spaced at 50 metre intervals, the probable reserves are generally defined by drill holes spaced at a further 50 metre interval from the proved reserves. Possible reserves are generally defined by drill holes spaced at a further 50 metre to 75 metre interval from the probable reserves. As the area is drilled at approximately 50 metre by 50 metre grids, the physical continuity of the ore is well demonstrated.

Vedanta Limited operates the Gauthona Dusrifal mine, the lease of which is held by M/s Timblo Private Limited, as an ore raising contractor since 1989. Since 1983, Vedanta Limited had a common boundary working agreement with M/s Timblo Private Limited and, in 1989, Vedanta Limited acquired control of 40.8 hectares of the leasehold area. This mine is contiguous to the Codli mines. The mining method at the Gauthona Dusrifal mine is the same as that of the Codli mines described above.

Sonshi mine. The Sonshi mine is situated in the North Goa District, approximately 34 km from Panaji and approximately 40 km north of the Codli mines. It comprises an open-pit mine. The area is well connected by metalled roads and the nearest railway station is at Tivim, approximately 25 km from the Sonshi mine. The river loading point, Amona, is nine km from the site and the port is approximately 35 nautical miles from the river loading point. The airport is approximately 50 km from the Sonshi mine.

The leasehold area of the Sonshi mine is 62 hectares. The leaseholder has submitted timely renewal applications to the state government and no rejections have been notified. The Sonshi mine was operating under deemed consent until the temporary suspension of mining activities relating to iron ore by the state government of Goa. Due to the narrow width of the leasehold area, common boundary working agreements have been entered into with adjoining lessees to facilitate mining operations. The original mining concession was granted in 1953 to Cosme Costa & Sons. Though the the lease has not been acquired, but Vedanta Limited has been operating the Sonshi mine as an ore raising contractor since 1958. Production at the mine commenced in 1958. The agreements entered into by us with Cosme Costa & Sons for the raising and sale of iron ore expired in March 2013 and was renewed until November 2017. The Sonshi mine has been granted environmental clearance for a production level of 3.0 mmtpa. The area surrounding the Sonshi mine is covered with laterite capping underlain by lumpy ore zone. The ore deposit at the Sonshi mine forms the northern limb of the northwest-southeast trending syncline. The formations dip 50 degrees to 60 degrees northeast. The principal deposit of the Sonshi mine comprises three distinct ore bodies that are folded into a syncline. The youngest ore body has a width of 50 metres, while the other ore bodies dip steeply to the northeast and have widths of approximately 20 metres to 25 metres. The intervening parting between the ore bodies comprised 50 metres of manganiferous clay and a 30 metre wide limonitic zone separating one ore body from the footwall phyllite. The depth extent of these bands has been outlined with deep drilling. Hematite is the major economic mineral in each of the bands.

The open-pit mining operations at the Sonshi mine are fully mechanised. The hard laterite capping is loosened either by drilling, blasting or ripping/dozing. The soft sub-lateritic zone is excavated and transported to respective laterite, clay and ore stacks. The material is then reloaded into smaller 10-tonnetrucks and transported to the plants for processing and beneficiation, which involves

crushing, scrubbing, log washing, classifying, double stage cycloning and thickening. The waste is transported to a dump stockpile six to seven km away. Processing operations for the Sonshi mine are similar to those of the Codli mines described above. The processed ore is transported to the Amona jetty, loaded in barges and sent to Mormugao port approximately 35 nautical miles away.

There is no processing plant on-site. The extracted ore is transported by a fleet of contractors with 10-tonnetrucks to the processing plants at Amona (approximately nine km away) and at Cudnem (approximately six km away). The combined throughput capacity of the processing plants is 8.4 mmtpa. The plants undergo regular maintenance and annual repairs are carried out during the monsoon season.

No exploration activity was carried out in the mine during fiscal year 2015 due to temporary suspension of mining activities relating to iron ore imposed by the state government. In fiscal year 2016, 0.2 million wmt of crude ore was produced from the Sonshi mine and for the year ended 31 March 2017, 1.4 million wmt of crude ore was produced from the Sonshi Mine.

Power at the mine is supplied through a government grid supply network and the maximum contracted demand is up to 1,000 KVA. A 625 KVA diesel generator is also available to supply power in case of the fluctuations at grid power.

The economic cut-off grade at the Sonshi mine is determined by the requirement to meet various sales contracts and the need to maintain stockpiles to meet the contract. Vedanta Limited operates on a 50.0% iron operational cut-off grade in practice, as compared to the statutory cut-off grade of 45.0% iron. Ore containing 45.0 to 50.0% iron is preserved for future use and ore containing 50.0% to 54.0% iron is beneficiated in order to make it saleable.

Vedanta Limited acquired an adjoining mining lease for the Mareta Sodo mine in 2004 from Pandurang Timblo Industries. This mining concession was granted in 1955 and was operated intermittently until the mine was transferred to us in November 2004. This mine has been granted environmental clearance by the MoEF for production of 1 mmtpa. As of 31 March 2017, 17,702 metres have been drilled in 112 boreholes on the leased area. The mining method of the Mareta Sodo mine is the same as that of the Sonshi mine described above. In fiscal year 2016, 0.13 million wmt crude ore was produced from this mine. In addition to the Codli mines and right to the third-party mining lease at the Sonshi mine, Vedanta Limited has ten additional mining leases, of which four are non-operative leases. The operative mines are the Sanquelim mines with three contiguous leases with an environmental clearances of 0.2 mtpa, the Orasso Dongor mine (0.2 mtpa) and the Botvadeacho Dongor mine (0.2 mtpa). The non-operative leases are under exploration.

Karnataka. Vedanta Limited's main operations in Karnataka are at the A. Narrain mine which is located approximately 200 km northwest of Bangalore. The open-pit mine is operated by us and is well connected by rail, with the nearest stations, Sasalu and Amruthapura, and M/s Mineral Enterprises server by Chikkajajur or MMEC railway siding located 16 km, 17 km and 4 km respectively, from the A. Narrain mine. The nearest port at Mangalore is approximately 430 km from the mine and the nearest airport is located at Bangalore, approximately 230 km from the mine.

The leasehold area of the mine is 160.6 hectares, which is classified into two blocks, namely the south block, which is 123.5 hectares, and the north block, which is 37.1 hectares. These two blocks are joined by a narrow stretch of land 30 metres in width and 660 metres in length along the eastern side of the leasehold area. Vedanta Limited has operated the mine since 1994. The MOEF had granted an environment clearance for 6 MTPA in the year 2009. However, due to conditions introduced by the Supreme Court, the production capacity of the mine was reduced to 2.29 MTPA. Furthermore, in May 2016, Vedanta Limited had applied for an enhancement in production capacity of 6 MTPA to Central Empowered Committee appointed by the Supreme Court. Thereafter, as per procedure Vedanta Limited has received recommendation from Federation of Indian Mineral Industries for 6 MTPA and from Indian Council for Forestry Research and Education for 5.3 MTPA.

The geological formation of this region belongs to the Archean-Proterozoic age. The geology of the A. Narrain mine consists of Archean formations locally termed "Dharwars" which contain rich and large iron ore deposits. The leasehold area forms part of the Chitradurga-Tumkur schist belt and part of a regional isoclinal fold. The strike direction of the ore body dips westerly at an angle of about 60 degrees to 70 degrees. Hematite is the principal ore mineral and limonite, goethite and magnetite constitute the associated minor minerals of the mine. The mineralised horizon extends over a length of about two km. The footwall comprised decomposed quartzite and phyllite, and the stratigraphy is cross cut by late dolerite dykes and sills which are manifested by pink clayey zones in the mine area.

Currently, the north and the south block of the A. Narrain mine have mechanised mining operations. The open-pit mines have a bench height of seven metres, haulage roads of 12 metres to 15 metres in width and an overall pit slope of less than 30 degrees. The A. Narrain mine is equipped with dry process facilities for processing all grades of ore.

The lateritic overburden is removed either by blasting or ripping/dozing, loaded onto and transported by 30-tonnetrucks. The ore mined is processed at the mine's processing facilities, which involves crushing and dry screening processes. The processed ore is then transported by road to the railway yard, for onward transport to customers in Karnataka, Goa and other places. Ore produced in Karnataka ranges from 56.0% to 60.0% iron content and comprises 82.0% fines and 18.0% lumps.

The two processing plants at the A. Narrain mine have a combined capacity of 1,150 tonnes per hour.

Since the mine was taken over by Vedanta Limited, exploration at the A. Narrain mine involved the drilling of a total of 59,025 metres in 605 boreholes as of 31 March 2017. The A. Narrain deposit is extensively sampled in vertical and inclined drill hole grid intervals in side direction of 50 metres and in cross section average of 25 metres with most of the holes covering a depth of 50 metres to 200 metres. Power at the mine is supplied by a 725 KV and 320 KV generator. All power supplied to the mine and plant is through generators. In fiscal year 2016 and 2017, 2.2 million wmt of crude oil was produced.

On 26 August 2011, the Supreme Court of India suspended mining activities in the Chitradurga and Tumkur districts of Karnataka. On 18 April 2013, this suspension was lifted by the Court and in December 2014, the operations were resumed after getting necessary regulatory clearances. Although Vedanta Limited resumed operations in Karnataka based on the stage I forest clearance from the state government of Karnataka and a temporary working permission from the MoEF, the temporary working permission expired on 31 July 2014. Karnataka operations were halted for the period from 1 August 2014 to 27 February 2015. Vedanta Limited resumed operations in Karnataka after all statutory clearances were in place from 28 February 2015. The economic cut-off grade at the A. Narrain mine is determined by the requirement to meet various sales contracts and the need to maintain stockpiles to meet the contract specifications.

The reserves in proved reserve category at the Karnataka mines are estimated based on drilled boreholes spaced at 50 metres along predefined section lines and occasionally off of the section lines, the probable reserves are estimated based on drilled boreholes spaced at 50 metres from the proved reserves and the possible reserves are estimated based on drilled boreholes spaced at 25 metres from the probable reserves. As the area is drilled at approximately 50 metre by 50 metre grids, the physical continuity of the ore is well demonstrated.

*Odisha*. The Thakurani mine is situated at Barbil within the State of Odisha, approximately 400 km from Kolkata airport. The Thakurani mine has been operated by Vedanta Limited as an ore raising contractor since 1999 and the lease expired on 30 November 2010. Production at this mine has ceased.

SRL, Goa. SRL and its subsidiary Sesa Mining Corporation Limited extract iron ore from 11 mining leases spread across a total of approximately 970 hectares in Goa. SRL's operations consist of two major iron ore mining areas, one in Bicholim and the other in Surla, both located in North Goa

and which together account for approximately 90.0% of SRL's total estimated iron ore reserves as of 31 March 2017. The Bicholim mine consists of five contiguous mining leases covering an area of 479.3 hectares in the north of Goa. The Surla mine consists of three contiguous mining leases covering an area of 253.4 hectares in the recognised iron ore belt of Pale-Velguem-Bicholim-Shirgao in the north of Goa. Mining operations started at the Bicholim mine and the Surla mine in 1958. Processed ore from the Bicholim and Surla mines is transported by SRL to loading jetties at Sarmanas and Surla/Sinori in north of Goa, and then loaded into barges and sent to Mormugao port in Goa, India, where it is then shipped to customers. SRL's mining assets include processing plants, barges, jetties, transhippers and loading capacities at the Mormugao port. In fiscal year 2017, the combined production of the Bicholim and Surla mines was 0.779 million wmt of crude ore since the recommencement of operations at the mines after temporary suspension of mining activities in August 2015, relating to iron ore imposed by the state government. In fiscal year 2016, crude ore produced 0.61 and 2017, 1 million wmt of crude oil was produced.

Vedanta Limited also had a ship building division for the construction and repair of inland mini bulk carriers owned by us as its primary activity as well as supporting Vedanta's core activities including the export of iron ore and the import of coke and coal. This division has now closed.

WCL. WCL comprises of three concession areas (Bomi Hills, Bea Mountain and Mano River). The ebola epidemic in Liberia resulted in stoppage of drilling and exploration work for iron ore during fiscal year 2015. The staff was evacuated as a result of the ebola outbreak in 2015. In consideration of the suspension of exploration in Liberia, low iron ore prices, geo-political factors and no plans for any substantive expenditure resulting in continued uncertainty in the project, an impairment charge of US\$227.5 million was recognised in fiscal year 2016. In fiscal year 2017, Vedanta Limited and the Government of Liberia agreed to amend the terms of the MDA to make it more sustainable. The Government of Liberia has also approved Vedanta's application for gold and diamond mining and it expects to commence project development in fiscal 2018.

## Principal raw materials

Iron ore operations. There are no direct raw materials used in Vedanta Limited's iron ore mining and processing operations. Indirect raw materials include power, fuel and lubricants. Vedanta Limited procures these indirect materials from various vendors. The electricity required for its operations is supplied by the government grid and supplemented by Vedanta Limited's owned and hired diesel generator sets. The prices of fuel and necessary lubricants are volatile and the price of power is dependent on tariffs imposed by State Governments.

Pig iron operations. The principal raw materials for the manufacture of pig iron are iron ore, metallurgical coke, limestone and dolomite.

Iron ore is largely sourced from mines in Karnataka and Goa. The iron ore is transported from Karnataka by truck and railway rakes and from Goa by truck. Iron ore requirements are met by Vedanta Limited's own mines from Karnataka and Goa. Vedanta Limited's metallurgical coke requirements are met by its metallurgical coke division. Limestone and dolomite are purchased from mines in Karnataka and transported to Vedanta Limited by trucks.

Metallurgical coke. The principal raw materials for the manufacture of metallurgical coke are hard and semi-hard coking coals. These raw materials are imported from various international suppliers mainly from Australia and Russia.

*Power.* Electricity for Vedanta Limited's metallurgical coke and manufacturing operations is primarily supplied by its wholly owned subsidiary, GEL, which generates power from the waste gases of Vedanta Limited's metallurgical coke plant and its blast furnace.

The gross value of fixed assets of iron ore business, including capital works-in-progress, was Rs. 76,379.8 million (\$1,178.0 million) as of 31 March 2017.

# Distribution, logistics and transport

Vedanta Limited's mining operations are advantageously located in Goa and are complemented by an efficient transportation network. In order to achieve higher volume and loading capacities and vessels with higher drafts, Vedanta Limited and SRL own and operate transfer vessels, which are used for mid-stream loading at Goa. Vedanta Limited ships products from ports on the west coast of India and so, the annual monsoon season in Goa impacts its distribution operations from June to September. Vedanta Limited maintains a network of rail cars, barges and transhippers that are primarily used to facilitate the export of its ore to foreign customers. Vedanta Limited's fleet includes 33 barges with capacities between 1,600 to 2,500 tonnes per barge. Vedanta Limited also has one transhippers and a floating crane station with a combined rated capacity of up to 54,000 ton/day.

Sales from Vedanta Limited's Karnataka mines to Indian domestic customers take place on an ex-mine basis, and the transportation is handled by the customer.

#### Sales and marketing

*Pig iron*. Currently, the majority of the pig iron produced by Vedanta Limited is sold within India to foundries and steel mills. The sale of pig iron is generally done on a spot basis with prices valid for a month. The prices of pig iron are fixed on a delivered basis, with material generally being sent on a freight-to-pay basis.

Metallurgical coke. Currently, all of the metallurgical coke produced by Vedanta Limited is primarily (about 90%) consumed within plant and balance is sold within India to internal and external customers. 75% to 85% of Vedanta Limited's total metallurgical coke production during fiscal year 2017 was used for the production of pig iron. The balance was sold in the domestic Indian market.

The sale of metallurgical coke to other customers is done on a spot basis with prices valid for a month.

Vedanta Limited has a marketing office at Panaji in Goa with indenting agents to sell the pig iron and metallurgical coke products. The sales and chartering needs are managed from the office at Goa. To cater to Chinese customers, Vedanta has a marketing office in China.

Vedanta Limited's ten largest customers accounted for 40.6%, 28.5% and 39.7% of revenue for iron ore business in fiscal years 2015, 2016 and 2017, respectively. No customer accounted for greater than 10.0% of Vedanta Limited's revenue in fiscal year 2017. One customer each accounted for greater than 10.0% of the revenue in each fiscal year 2015 and 2016.

# Market share and competition

The prime export market for Goa Iron Ore is China. Total sales of iron ore for this fiscal year 2017 was 10.2 million dmt. The Domestic sales of Iron Ore for this fiscal year 2017 was 3.6 million dmt, and the total exports done for the fiscal year 2017 was 6.5 million dmt. EC allowed for Goa is 20 mt and for Karnataka is 2.3 mt. By next year the EC for Goa is expected to be increased to 30 mt and for Karnataka to 6 mt. This will help Vedanta in meeting the rising needs for iron ore in India and in the export market.

Our primary competitors in both the public and private sectors in India include National Mineral Development Corporation, MMTC India Limited, Rungta Mines Ltd., Mineral Sales Private Limited and Essel Mining and Industries Limited. In addition, we compete with a number of international producer-exporters of iron ore worldwide such as FMG, Vale, BHP, Rio Tinto.

Since 2003, Vedanta Limited has been India's largest exporter of iron ore in the Indian private sector by volume, prior to the temporary suspension of mining activities relating to iron ore in the states of Goa and Karnataka, according to the Federation of Indian Mineral Industries. In fiscal year 2015, no sales were accounted due to the temporary suspension of mining activities relating to iron ore in the state of Goa. In fiscal year 2017 the total sales including, was 5.3 million tonnes for Fiscal year 2016 and 10.2 million tonnes for the year ended 31 March 2017. Vedanta's primary competitors in both the public and private sectors in India include NMDC, MMTC India Limited, Rungta Mines Ltd., MSPL and Essel. In addition, Vedanta Limited competes with a number of international producer-exporters of iron ore worldwide.

## **Aluminium Business**

## Introduction

Vedanta's aluminium business is in Chhattisgarh and Odisha. Vedanta operates the business in Chhattisgarh through BALCO, in which Vedanta Limited has a 51.0% ownership interest as of 31 March 2017 and the remaining 49.0% is held by GoI. Operations in Ofdisha are held through Vedanta Limited.

Since acquiring the interest in BALCO, Vedanta Limited has worked to improve BALCO's operating performance through expansion and by improving operational efficiencies and reducing unit costs of production. BALCO currently sources the alumina required for its smelters from third-party suppliers on the international markets. BALCO intends to further improve its operating performance by continuing to reduce unit operating costs at the Korba facility, including by lowering power consumption and improving the operating efficiency of the captive power plant. BALCO also intends to focus on the production of fabricated products with higher margins.

BALCO is one of the four primary producers of aluminium in India. BALCO's partially integrated aluminium operations are comprised of two bauxite mines, 1,140 MW power plants, and refining, smelting and fabrication facilities in central India. BALCO's operations benefit from relatively cost effective access to power, the most significant cost component in aluminium smelting due to the power-intensive nature of the process. This is to a considerable extent due to BALCO being an energy-integrated aluminium producer. BALCO is also setting up a 325,000 tpa aluminium smelter, the first 84 pots of which started commercial production in September 2014 and another 84 pots in August 2016. The remaining 168 pts has started commercial production from May 2017. The consent to operate the 1,200 MW power plant was received in January 2015, of which 900 MW is commissioned/operationalised at various dates in phased manner during fiscal year 2016. The fourth unit has been commissioned and started commercial production from 1 May 2016.

Pursuant to the re-auctioning of coal mines conducted by the GoI in February 2015, BALCO was successful in securing the Chotia coal block and was the highest bidder for the Gare Palma IV/1 coal block. The total reserves at the Chotia block are 17.5 million tonnes with the annual production capacity of one million tonnes and mining operations commenced at the mine in November 2015. Mining production at the Chotia mine is currently suspended due to increase in coal costs.

By way of letter dated 29 July 2015, the GoI rejected the representation of BALCO to accept its bid for the Gare Palma IV/1 coal mine, which would cover 90% of BALCO's coal requirement for captive power generation. As a result, BALCO challenged the rejection before the Delhi High Court. However, as BALCO secured linkage coal of 3.2 million tonne per annum for its captive power plant for a term of 5 years, BALCO has withdrawn its application challenging the rejection.

BALCO's Bodai-Daldali bauxite mines provide a majority of the bauxite required for BALCO's smelters. The bauxite is transferred to the alumina refinery in Lanjigarh, which converts bauxite to alumina and supplies the alumina back to BALCO, for payment of a conversion price by BALCO to us, which is based on the actual cost of production plus a reasonable margin. The remainder of BALCO's alumina requirements is sourced from third parties. The mining lease of the Mainpat bauxite mine has been renewed and it is valid up to 8 July 2042.

The Odisha operations include 1.0 million tpa alumina refinery at Lanjigarh with associated 75 MW coal based captive power plant, 0.5 million tpa aluminium smelter with an associated 1,215 MW (nine units with a capacity of 135 MW each) coal based captive power plant and a 1,800 MW (three units with a capacity of 600 MW each) coal based captive power plant at Jharsuguda. The Jharsuguda 0.5 million tpa smelter was stable at 525,000 tonnes during fiscal 2017. However, it suffered an unfortunate pot outage incident in April 2017. 228 pots out of the total 608 pots were taken out of production. There were no injuries in the incident. The impacted pots are being repaired and would be put back into production. The alumina refinery at Lanjigarh was commissioned in March 2010. The green field smelter project of 0.5 million tpa at Jharsuguda was implemented in two phases of 250,000 tpa each. Phase 1 was completed on 30 November 2009 and Phase 2 was completed on 1 March 2010. At Lanjigarh, production ramped up with recommencement of the second stream of the refinery during the first quarter of fiscal year 2017 (up to 2 million tonnes per annum debottlenecked capacity) while approval was received for the expansion to 4 million tonnes per annum.

Vedanta Limited is also setting up another 1.25 mtpa aluminium smelter in Jharsuguda, The commissioning of pots at the first line of the 1.25 mtpa aluminium smelter at Jharsuguda was completed at the end of July 2016. However, this line was impacted by a power outage in early August 2016. The impacted pots are being rectified, with 80 of 336 pots restarted in May 2017. The second line is fully completed with 336 pots operational and the ramp up of the third line began at the end of December 2016. Currently 139 pots are operational from this line.

Revenue from Vedanta's aluminium business for the fiscal year ended 31 March 2017 was \$2,040.0 million.

# Principal products

Primary aluminium. Primary aluminium is produced from the smelting of metallurgical grade alumina. Vedanta produces primary aluminium in the form of ingots and wire rods for sale. Ingots are used extensively for aluminium castings and fabrication in the construction and transportation industries. Wire rods are used in various electrical applications especially in the form of electrical conductors and cables. Vedanta Limited also produces aluminium billets.

Rolled products. Rolled products, namely coils and sheets, are value-added products that BALCO produces from primary aluminium. Rolled products are used for a variety of purposes in different industries, including aluminium foil manufacturing, printing, transportation, consumer durables, building and architecture, electrical and communications, packaging and general engineering industries.

*By-products*. Vanadium sludge is a by-product of the alumina refining process and is primarily used in the manufacture of vanadium-based ferrous alloys.

# Production

The following table sets out Vedanta's total production<sup>(1)</sup> from its Korba, Lanjigarh and Jharsuguda facilities for the periods indicated:

		Year Ended 31 March			
Facility	Product	2015 <sup>(3)</sup>	2016(4)	2017	
			(Tonnes)		
Korba	Ingots	104,650	93,442	202,769	
	Rods	172,464	217,650	205,277	
	Rolled products	46,807	20,526	19,033	
	Total	323,921	331,618	427,079	
Lanjigarh	Alumina <sup>(2)</sup>	976,915	970,893	1,207,957	
Jharsuguda	Ingots	303,756	333,249	474,289	
	Rods	133,603	139,184	119,471	
	Hot metal sold	_	8,892	46,540	
	Billets	115,979	110,400	146,023	
	Total	553,338	591,725	786,323	
Total	Alumina <sup>(2)</sup>	976,915	970,893	1,207,957	
	Ingots	408,406	426,691	677,058	
	Rods	306,067	356,834	324,748	
	Rolled products	46,807	20,526	19,033	
	Hot metal sold	_	8,892	46,540	
	Billets	115,979	110,400	146,023	

The following table sets out the total bauxite ore production<sup>(1)</sup> for each of Vedanta's mines for the periods indicated:

		Year Ended 31 March			
Mine (Type of Mine)	Product	2015	2016	2017	
		(Tonn	es, except perce	ntages)	
Mainpat (Open-pit)	Bauxite ore mined	_	455	73,170	
	Ore grade	_	47.7%	43.6%	
Bodai-Daldali (Open-pit)	Bauxite ore mined	860,710	1,033,300	1,065,300	
	Ore grade	46.8%	46.9%	46.7%	
Total	Bauxite ore mined	860,170	1,755	1,138,470	

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

<sup>(2)</sup> Alumina is used for the production of aluminium and rolled products. Approximately two tonnes of alumina is required for the production of one tonne of aluminium. Additional alumina needed for the production of aluminium is purchased from third parties and is not reflected in alumina production numbers.

<sup>(1)</sup> See "Presentation of Information — Basis of Presentation of Reserves and Resources — Reserves and Production" for an explanation of the basis of preparation of production amounts.

#### Ore Reserve base

The table below sets out BALCO's Proved and Probable bauxite Ore Reserves as of 31 March 2017:

							Total P	roven and Pi	obable
Mines	Proven Reserves			Probable Reserves			Reserves		
	Quantity	Alumina	Silica	Quantity	Alumina	Silica	Quantity	Alumina	Silica
	(in million			(in million			(in million		
	tons)	(%)	(%)	tons)	(%)	(%)	tons)	(%)	(%)
Mainpat	5.1	43.6	4.43	_	_	_	5.1	43.6	4.43
Bodai-Daldali	2.4	43.3	5.16				2.4	43.3	5.16
Total	7.5	43.4	4.66				7.5	43.4	4.66

# Description of operations

# Smelters and Refineries

The following table sets out the total capacities as of 31 March 2017 at BALCO's Korba and Vedanta Limited's Lanjigarh and Jharsuguda facilities:

	Capacity		
	Alumina <sup>(1)</sup>	Aluminium	Power
	(tp	oa)	(MW)
Korba	_	245,000	2,010
Korba (Under construction)	_	$325,000^{(2)}$	_
Lanjigarh	2,000,000	_	75
Jharsuguda		$500,000^{(3)}$	3,615
Jharsuguda (Under construction)		1,250,000	
Total	2,000,000	2,320,000	5,100

<sup>(1)</sup> Alumina is used for the production of aluminium and rolled products. Approximately two tonnes of alumina is required for the production of one tonne of aluminium.

Korba aluminium complex. BALCO's aluminium complex is located at Korba in the State of Chhattisgarh in central India. The aluminium smelter at Korba, which uses pre-baked Guiyang Aluminium Magnesium Design Research Institute technology or GAMI technology and has a capacity of 245,000 tpa, was fully commissioned in November 2006 at a cost of \$543.2 million. The Korba alumina refinery was commissioned in 1973, used the conventional high pressure Bayer process and has a capacity of 200,000 tpa of alumina. The operations of the refinery have stopped since September 2009.

BALCO has set up a 325,000 tpa smelter at the Korba facility, first 84 pots of which commenced commercial production in September 2014 and the second set of 84 pots started commercial production in August 2016. The remaining 168 pots started commercial production in May 2017BALCO's 100,000 tpa smelter and 200,000 tpa smelter are no longer in operation since June 2009 and November 2009 respectively.

<sup>(2)</sup> For the 325,000 tpa smelter, 84 pots were operationalised during fiscal year 2015. An additional 84 pots were operationalised during fiscal year 2017 and the remaining 168 pots commenced commercial production from 1 May 2017.

<sup>(3)</sup> For the 1,250,000 tpa smelter, out of 4 lines of 312,000 tpa each, line 1 was completed in July 2016, line 2 is fully operational and 139 pots out of 336 pots are operational from line 3.

The fabrication facility at Korba has two parts, a cast house and a sheet rolling shop. The cast house uses Properzi CCR copper rod technology and has a foundry which has twin-roll continuous casters with a SNIF degasser and hydraulically driven semi-continuous ingot casting machine to produce ingots and wire rods. The sheet rolling shop has three parts: a hot rolling mill with a capacity of 75,000 tpa, an older cold rolling mill with a capacity of 30,000 tpa and a cold rolling mill commissioned in 2004 with a capacity of 36,000 tpa. Molten metal is cast into slabs and then either hot-rolled and sold as hot-rolled sheets or converted into cold-rolled sheets in the cold rolling mills. Alternatively, molten metal is directly used in strip casting and then fed to the cold rolling mills to be converted into cold-rolled sheets or coils.

Smelting requires a substantial continuous supply of power and interruptions can cause molten metal to solidify and damage or destroy the pots. Power for the Korba facility is for the most part provided by the coal-based 540 MW captive power plant commissioned in March 2006. The surplus generation from the power plant is supplied to the State Electricity Board and other customers. Following the shutdown of the 100,000 tpa aluminium smelter, power from its associated 270 MW power plant was sold in the merchant power market and presently 270 power plant is udner suspension due to lower realisation in merchant sale. BALCO has constructed a CPP 600 MW coal-based thermal power facility at Korba in the state of Chhattisgarh. The power generated from CPP 600 MW units is being utilised in the 325,000 tpa smelter.

## Coal mining operations

Thermal coal is a key raw material required for the operation of BALCO's captive power plants. In September 2014, the Supreme Court of India cancelled all the coal blocks that had been awarded by the Ministry of Coal between 1992 and 2012 to all companies in India. Consequently, in February 2015, the GoI conducted an auction to award mining rights to successful bidders for all such coal blocks. Pursuant to the re-auctioning of coal mines conducted by the GoI in February 2015, BALCO was successful in securing the Chotia coal block, in the state of Chhattisgarh and was the highest bidder for the Gare Palma IV/1 coal block. The total reserves at the Chotia block are 17.5 million tonnes with the annual production capacity of one million tonnes and mining operations commenced at the mine in November 2015.

The following tables contain details of Vedanta's coal mining operations.

(1) The Chotia coal mine is divided into two sub-blocks, Chotia I and Chotia II. Both of these blocks are assigned to the existing captive power facilities at the BALCO operations. The estimates provided below are based on the DMT report.

Blocks	Gross CV range (Min — Max)	Sulphur (%)	
	Kcal/kg		
Chotia-I	3,565-6,476	0.30-0.60	
Chotia II	3,967-6,152	0.30	

- \* Sulphur data is not available for all seams. Total is based only on available seam data.
- (2) This coal, which is thermal grade coal, would be blended with low GCV coal before being fed to the Boiler.
- (3) The extractable coal indicated is considering all losses. This number reflects the final tonnage of the mine. There is no plan of putting wash plant either at the mine site or at the plant as the coal is of high GCV.

Lanjigarh alumina refinery. The Lanjigarh alumina refinery is located in the Lanjigarh district in the state of Odisha, which is located approximately 450 km from BALCO's Korba facility in the state of Chhattisgarh. In March 2007, Vedanta Limited began the progressive commissioning of a

1,000,000 tpa Greenfield alumina refinery, with expansion to 1.4 mmtpa of installed capacity progressively commissioned in the fiscal year 2017. Lanjigarh alumina refinery also has associated 75 MW captive power plant, expandable to 90 MW. The captive power plant is fully operational and can meet the power requirements of the refinery. Vedanta Limited is currently in discussions with government authorities for sourcing adequate supply of bauxite. Production at the alumina refinery does not affect production at the smelters.

Vedanta Limited planned to expand the alumina refining capacity at Lanjigarh to 5 MTPA by increasing the current alumina refinery's capacity to 2,000,000 tpa by de-bottlenecking and then further expand the refinery by constructing a second alumina refinery, with a refining capacity of 3 mmtpa along with an associated 210 MW captive power plant. Vedanta Limited has received approvals for expanding the Lanjigarh refinery to 4 mtpa and received environmental clearance from MoEF for the same on 20 November 2015. Environment clearance for expanding operations up to 6 mtpa will be received after the balance area of 666.03 HA of land has been acquired. However the environmental clearance for the expansion of the alumina refinery at Lanjigarh was challenged by an individual before the NGT.

The second stream operations have commenced at the Alumina refinery from April 2016 and the debottlenecked capacity has reached 1.7-2.0 million tonnes per annum (although this is contingent on the bauxite quality). When Vedanta Limited has further visibility on bauxite sources, a further ramp-up to 4 million tonnes will be considered.

Jharsuguda aluminium smelter. The Jharsuguda aluminium smelter is located in Jharsuguda in the state of Odisha, India. Operations in the Jharsuguda facility were implemented in two phases. The first phase has a production capacity of 250,000 tpa and was completed in November 2009. The second phase was commissioned in June 2010. A total of 9 units of the associated 1,215 MW coal-based thermal captive power plant of 135 MW each have been commissioned. The captive power plant units meet the power requirements of the Jharsuguda smelter and all other power requirements of this facility. The Jharsuguda 0.5 million tpa smelter was stable at 525,000 tonnes during fiscal 2017. However, it suffered an unfortunate pot outage incident in April 2017. 228 pots out of the total 608 pots were taken out of production. There were no injuries in the incident. The impacted pots are being repaired and would be put back into production.

Vedanta Limited is also setting up an 1,250,000 tpa aluminium smelter. For the 1,250,000 tpa aluminium smelter, Line 1 of 312,500 tpa was commissioned in July 2016, however, this line was impacted by a power outages during the year. The impacted pots are being rectified with 80 of 336 pots restarted in May 2017. In Line 2 of 312,500 tpa, 336 pots were operationalised as of 31 March 2017. In Line 3 of 312,500 tpa 139 pots were in operation as of 31 March 2017 and the balance pots will be operational by fiscal 2018. Power to this smelter will be provided by Vedanta Limited's 2,400 MW power plant in Jharsuguda. Three units of 600 MW each are identified as captive power plant for its aluminium business, with effect from 1 April 2016 and one unit is considered as independent power plants for commercial power generation. Operations of the first three units are captured in Commercial Power Sector for period up to 31 March 2017 and aluminium sector thereafter.

#### Balco Korba

On 7 October 2006, BALCO entered into a memorandum of understanding with the state government of Chhattisgarh and the Chhattisgarh State Electricity Board, under which, among other things, feasibility studies were undertaken to build a thermal coal-based 1200 MW power facility, along with an integrated coal mine in the state of Chhattisgarh at an estimated cost of Rs. 46,500 million (\$697.6 million). The project was disrupted in September 2009 due to the collapse of a

chimney under construction during heavy rains and lightning at Korba. There were 40 fatalities in the accident and SEPCO Electric Power Construction Corporation, the contractor and the sub-contractor Gamon Dunkerley and Company Limited, are the subject of an investigation by the Chhattisgarh government. The matter is to be heard on 28 July 2017.

On 8 August 2007, BALCO entered into a memorandum of understanding with the state government of Chhattisgarh for a potential investment to build an aluminium smelter with a capacity of 650,000 tpa at Chhattisgarh at an estimated cost of Rs. 81,000 million (\$1,215.1 million). BALCO has received environmental clearances for both phases of the project. Trial production started in February 2014 from the 325,000 tpa aluminium smelter and 84 pots started commercial production from September 2014. The second 84 pots started commercial production in August 2016 and balance 168 pots in May 2017.

BALCO received a coal block allocation in fiscal year 2007 of which 211 million tonnes for use in its captive power plants which was subsequently deallocated in fiscal year 2015 pursuant to the orders of the Supreme Court of India. Consequently, in fiscal year 2015, the Company made an assessment for the recoverability of the amount incurred thus far, and made a provision for Rs. 294.1 million (\$4.4 million) in its income statement.

#### Mines

Chhattisgarh. BALCO has two captive bauxite mines, namely, the Mainpat bauxite mine and the Bodai-Daldali bauxite mine, in the state of Chhattisgarh in central India. Mainpat is an open-pit bauxite mine located in the Surguja district of the state of Chhattisgarh. The Mainpat mine has been in production since 1993 and has a leased hold area of 6.39 km². The bauxite extraction limit for the mine granted by MoEF is 750,000 tpa. The mining lease of Mainpat mine is valid until 8 July 2042. Environmental clearance for the Mainpat mine has been renewed by the MoEF and is valid up to 16 September 2038. The Forest Clearance for the entire revenue forest land co-terminus with the Mining Lease period obtained and the Mining operation resumed in October 2016.

The Bodai-Daldali deposits are located approximately 260 km from Korba in the Kawardha district of the state of Chhattisgarh. Bodai-Daldali was commissioned in 2004 and the mining lease that is valid until 26 March 2047. The bauxite extraction limit for Bodai-Daldali Mines granted by MoEF is 1,250,000 tpa.

The Chhattisgarh bauxite deposits are situated over a plateau with steep scarps on both sides, at an elevation of approximately 1,000 metres above sea level, for Mainpat, and approximately 940 metres above the surrounding land, for Bodai-Daldali. Bauxite is generally one metre to three metres thick and lies within a laterite sequence overlying thick tertiary basalts of the Deccan Traps. The cover of laterite and thin top soil is up to five metres thick but is generally less than two metres. Bauxite outcrops around much of the plateau rims.

A typical profile of the Chhattisgarh deposits comprises topsoil and soft overburden above the laterite. The upper laterite consists of hard, lose or indurated bauxite pebbles and boulders with a clear contact with the underlying hard bauxites. The bauxite occurs in discontinuous lenses up to four metres in thickness with laterite infilling joints and fractures with the bauxite. The contact with the softer lower laterite is usually gradational and irregular.

The bauxite is hard with a natural moisture content of 5.0% to 10.0%, with an in-situ density of 2.4 tonnes per metre to 2.4 tonnes per metre<sup>3</sup>. It comprises primarily gibbsite with boehmite and minor diaspore. The reactive silica content is low and iron is present in the form of hematite and aluminous goethite. The average grade of the bauxite is approximately 43.4% aluminium oxide and silica levels of 4.7% as of 31 March 2017.

All mining and transportation at both mines are undertaken by contractors. One thin top soil layer is removed by an excavator and is either transported to an adjacent storage point or an area that is being backfilled. The laterite layer is drilled and blasted. The overburden is then removed by backhoe excavators and 15 tonne dumpers. Broken ore is hand-sorted, leaving waste material behind. Ore productivity is around 2 to 3 tonnes per person per day in the dry season which decreases to 1.25 to 1.75 tonnes per person per day in the wet season.

The current exploration drilling programme is based on a 50-metre square pattern and is reduced to a 25-metre centres for detailed mine planning. Sampling is normally in 0.4 metre lengths and core is currently split and retained for future reference. Bauxite samples are tested for silica and aluminium oxide at laboratories situated on site and at the Korba plant. Selected sample are re-assayed as part of a quality control programme.

Since the commencement of operations, the Mainpat mine has produced approximately 7.50 million tonnes of bauxite. During fiscal year 2017 there was production totalling approximately 73,170 tonnes at 43.5% aluminium oxide.

As of 31 March 2017, BALCO estimates reserves at Mainpat to be 5.093 million tonnes and the remaining mine life of the Mainpat mine to be approximately six to seven years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan.

Total production at the Bodai-Daldali mine since the commencement of production has been 6.96 million tonnes of bauxite, with production in fiscal year 2017 totalling to approximately 1,065,300 tonnes with 46.7% aluminium oxide. Power is supplied by on-site diesel generators and ground water provides the water requirements for the mine.

As of 31 March 2017, BALCO estimates the reserves at Bodai-Daldali to be 2.415 million tonnes and the remaining mine life to be approximately 2 years based on (i) reserves; and (ii) planned production which is determined on the basis of a life-of-mine plan. The cut-off grade used to define the reserves at BALCO's mines was 38.0%.

In fiscal year 2017, all mining and transportation of the bauxite was done by contractors and the total cost for this was Rs. 2,445 (\$36.49) per tonne of bauxite.

Based on current costs and historical prices, BALCO's operations are forecasted to remain profitable and therefore the deposits at the Mainpat and Bodai-Daldali mines fulfill the requirements for being classified as reserves. The reserves as of 31 March 2017 at BALCO's mines at Mainpat and Bodai-Daldali have been determined by verifying that the integrated operation is economic at an aluminium price of \$1,723 per ton, which is the average metal price for fiscal years ended 31 March 2015, 2016 and 2017.

The mining recovery factors applied to determine the reserves for both mines are 65.0%. The grade dilution factor is reconciliation between the actual mined/dispatched grades obtained and in-situ grade values. The grade correction/dilution factors applied for Mainpat and Bodai-Daldali mines are Al2O3 — 97%, SiO2 — 103% and Al2O3 — 97%, SiO2 — 103% respectively. The parameters for Mainpat are derived from the reconciliation of actual production against the geological model, while the parameters for Bodai-Daldali are based on estimates.

In fiscal year 2017, the stripping ratio at the Mainpat mine was 1:6.37 during the year, while the stripping ratio at the Bodai-Daldali mine was 1.0:1.80. The stripping ratio for the remaining reserves at Mainpat is 2.55 tonnes of waste per tonne of ore, while at the Bodai-Daldali mine, it is 1.74 tonnes of waste per tonne of ore.

Shevaroy. The Shevaroy bauxite mine is located eight km northeast of Yercaud town in the state of Tamil Nadu in India, which is approximately 85 km east of the Mettur Dam complex, where Vedanta Limited's aluminium operations were located when they were operational. Work at the Shevaroy mine

has been suspended since Vedanta Limited's aluminium operations ceased in November 2008. Vedanta Limited estimates the balance reserves of the portion of the Shevaroy mine which Vedanta Limited is permitted to mine was 0.04 million tonnes as of 31 March 2016. If mining recommences at this mine, its life is estimated by Vedanta Limited to be approximately three months.

Kolli Hills. The Kolli Hills bauxite mine is located in the state of Tamil Nadu in India, approximately 150 km southeast of the Mettur Dam complex, where Vedanta Limited's aluminium operations were located when they were operational. Work at the Kolli Hills mine has been suspended since Vedanta Limited's aluminium operations ceased in November 2008. It is estimated the balance reserves of the portion of the Kolli Hills mine which Vedanta Limited is permitted to mine was 0.11 million tonnes as of 31 March 2016. If mining recommences at this mine, its life is estimated by Vedanta Limited to be approximately seven months.

## Principal raw materials

The principal inputs for Vedanta's aluminium operations are bauxite, alumina, power, water, carbon, caustic soda and certain other raw materials. In the past, Vedanta has been able to secure an adequate supply of the principal inputs for its aluminium business.

Bauxite. Bauxite is the primary raw material used in the production of alumina. Currently, Vedanta Limited does not have any dedicated mining source and are in the process of identifying bauxite mining sources across India. Currently, bauxite is being sourced mainly through imports (50%), from the domestic market in the west coast (2%), BALCO mines (30%) and the remaining from Madhya Pradesh, Chhattisgarh, Jharkhand and Andhra Pradesh. BALCO supplies bauxite to the Lanjigarh refinery, on per job basis and receives alumina produced from the supplied bauxite.

Alumina. Alumina is the primary raw material used in the production of aluminium. Vedanta's aluminium business currently sources alumina largely from third-party suppliers in international markets. The alumina sourced externally is metallurgical grade calcined alumina with a minimum alumina content of 98.6% on a dry basis. In fiscal years 2015, 2016 and 2017, BALCO purchased 317,701 tons, 299,357 tons and 447,883 tons of alumina at an average price of, \$374, \$323, and \$314 per ton, respectively, on a cost, insurance and freight or CIF basis at the port of Vizag, Kakinada and Gangavaram, India. Similarly, in fiscal years 2015, 2016 and 2017, Vedanta Limited purchased 0.37 million tons, 0.47 million tons and 0.77 million tons of alumina at an average price of \$357 per mt,\$353 per mt and \$311 per ton, respectively, on a cost, insurance and freight basis at the port situated in the state of Andhra Pradesh.

Power. Smelting primary aluminium requires a substantial, continuous supply of electricity. As a result, power is a key input at BALCO's Korba facility, where it is provided by two coal-based captive power plant of 540 MW and CPP 600 MW. The captive power plant has historically been dependent upon coal allocations from Coal India. In November 2007, BALCO received a coal block allocation of 211.0 million tonnes for use in its captive power plants. The said coal block was deallocated during fiscal year 2015. However, the company received another coal the Chotia coal block through the e-auction. As of 31 March 2017, Company also secured linkage coal of 3.2 million tonne per annum for its captive power plants for a term of 5 years.

Power for BALCO's mines is provided by on-site diesel generators. BALCO has constructed a 1,200 MW coal-based thermal power facility three out of four units of which were commissioned during fiscal year 2016 and the forth unit has commenced operations during May 2016. Of the 1200 MW facility, power generated from two 300 MW units is being utilised in the 325,000 tpa smelter being set up and the power from the balance 600 MW units will be sold to third parties in the fiscal year 2017.

Vedanta Limited's nine coal-based captive power plant of 135 MW each at Jharsuguda facility have been sourcing coal through coal linkage from Mahanadi coal field, imports, e-auction and from washeries. The linkage coal quantity from Mahanadi coal field is transported through bottom

discharge wagons. The power plant at Jharsugada sources coal from sources such as the GoI's coal mining companies, long-term coal supply agreements with various state governments under PPAs and from imports. In fiscal year 2016, the total coal purchased from these other sources was 7.21 million tonnes and for the fiscal year 2017 is \$7.11 million.

The total volume of coal consumed annually by coal-fuelled power plants is largely dependent on the amount of generation and is approximately 7.19 million tonnes as of 31 March 2017.

Water. Water is also an important input for BALCO's captive power plants. BALCO sources its water requirements at Korba from a nearby canal, with the water transported by pipelines. BALCO is currently in a dispute with the National Thermal Power Corporation ("NTPC") regarding the right of way for its water pipeline that supplies water to its 270 MW captive power plant, which has been built through National Thermal Power Corporation premises. Arbitration proceedings commenced in 2009 and the order was reserved on June 30, 2014. BALCO and National Thermal Power Corporation submitted a joint survey report to the Arbitrator. On the issue of easmentary rights, the Arbitrator issued its award dated January 11, 2016 in favour of BALCO and rejected all counter claims of the NTPC. The NTPC has challenged the said award by filing an application under section 34 before the Honourable High Court of Delhi which was listed for admission on May 5, 2016 and the court has ordered for issuance of notice. The next hearing will take place on August 29, 2017. BALCO has also filed the application under section 34 before the Honourable High Court of Delhi with respect to claims which were rejected by the Arbitrator which is to be listed in due course. Apart from this, Company has water tie up for 13 MCM for 540 MW and 21 MCM for 1200 MW power plant of which water allocation of 14 million cubic metres (MCM) p.a. for 1200 MW facility was received during the fiscal year 2017.

Vedanta Limited's Jharsuguda facility sources its water requirements at Jharsuguda from Hirakud Dam situated over a distance of 33 km, with the water transported by pipelines. Water from the dam is stored at water reservoir inside the plant, from where the water is purified in a demineralised plant to make it fit for use in the power plant.

Carbon. Carbon is an important raw material to the aluminium smelting process. Carbon is used in the process of electrolysis, in the form of cathodes and anodes, with the latter being the biggest component of Vedanta Limited 's carbon costs. Anodes are made up of carbonaceous material of high purity. For pre-baked anodes, green carbon paste made of calcined petroleum coke and coal tar pitch is compacted or pressed into the required form. These anodes are baked before their use in electrolytic cells or pots. Both BALCO and Vedanta Limited has in-house facilities to manufacture carbon anodes to meet their entire carbon anode requirements at Korba and Jharsuguda facility, respectively. Calcined petroleum coke, coal tar pitch and fuel oil, which are the key ingredients for the manufacture of carbon anodes, are sourced primarily from the Indian market. There is an adequate supply of these raw materials in India, though their prices are generally determined by movements in global prices. At times, based on commercial comparison, orders for imports are also placed.

Caustic soda. Caustic soda is a key raw material used to dissolve the bauxite in the alumina refining process. The caustic soda requirement varies significantly depending on the silica content of the bauxite and the technology employed.

Other raw materials. Vedanta Limited and BALCO uses other raw materials such as fluorides and other chemicals. For these raw materials, there are several sources of supplies in the domestic/international markets and Vedanta does not currently foresee any difficulty in securing supplies when needed.

# Distribution, logistics and transport

Bauxite mined from the Mainpat and Bodai-Daldali mines is transported by road and rail Alumina Refinery at Lanjigarh of Vedanta Limited for conversion into Alumina and Alumina from Vedanta Lanjigarh is transported through Rail to BALCO's Korba facility. Alumina purchased from

third-party suppliers is obtained from a combination of domestic sources and imports, and is transported to the Korba facility by rail and the Jharsuguda facility by road from domestic third-party suppliers or ports. BALCO's and Vedanta Limited's aluminium products are transported from the Korba facility and the Jharsuguda facility, respectively to domestic customers through a combination of road and rail, and shipped for export.

# Sales and marketing

BALCO's aluminium businesses' ten largest customers accounted for 47.0%, 58.4% and 69.1% of its revenue from the aluminium business in fiscal years 2015, 2016 and 2017 respectively. One of BALCO's customers accounted for more than 10% of BALCO's revenue in fiscal year 2017, two of BALCO's customer accounted for greater than 10.0% of BALCO's revenue in fiscal years 2016 and no one customer accounted for more than 10% BALCO's revenue in fiscal year 2015.

Vedanta Limited's 10 largest customers of the Odisha aluminium business accounted for 46.3%, 53.4% and 63.1% of its Odisha aluminium business in fiscal years 2015, 2016 and 2017 respectively. Top five customers accounted for more than 10% of Odisha's aluminium business revenue in fiscal year 2017. One of the Odisha aluminium business customers accounted for 10.2% and 12.2% of its revenue in fiscal year 2016 and 2017, respectively. None of the customers accounted for greater than 10.0% of Odisha aluminium business in fiscal years 2015.

BALCO's and Vedanta Limited's aluminium sales and marketing head office is located in Mumbai, and it has field sales and marketing offices in most major metropolitan centres in India. Currently, Vedanta's aluminium business sells its products primarily in the Indian market, with limited focus on exports. However, with the further commissioning of the new 325,000 tpa aluminium smelter at Korba and Line 1, Line 2 and Line 3 of new 1,250,000 tpa aluminium smelter at Jharsuguda, a significant part of the additional production will be sold in the export market. Vedanta's aluminium business's key customers include conductor manufacturers, state road transport corporations, railways, defense contractors and electrical equipment and machinery manufacturers.

Domestic sales are normally conducted on the basis of a fixed price that BALCO and Vedanta Limited determine from time to time based on the LME spot prices plus regional premiums, as well as domestic supply and demand conditions. The price for the aluminium which BALCO and Vedanta Limited sell in India is normally higher than the price it charges in the export markets due to the Indian tariff structure, smaller order sizes that domestic customers place and the packaging, storing and truck loading expenses incurred when supplying domestic customers.

Vedanta's export sales of aluminium are currently through short-term contracts as well as on a spot basis at a price based on the LME price plus a premium.

## Projects and developments

## Lanjigarh

Vedanta plans to invest Rs. 106,000 million (\$1,590.2 million) to expand the alumina refining capacity at Lanjigarh to 5 mmtpa by (i) increasing the current alumina refinery's capacity to 2,000,000 tpa by de-bottlenecking; (ii) constructing a second alumina refinery with a capacity of 3 mmtpa; and (iii) constructing an associated 210 MW captive power plant. The expansion of the alumina refinery at Lanjigarh was on hold since 20 October 2010 due to the order passed by the MoEF's restricting Vedanta from any further expansion of this refinery. However the required environmental approvals were received on 20 November 2015 for up to 4 mtpa, and an additional environmental clearance for up to 6 mtpa will be received after the completion of land acquisition of the balance area of 666.03 HA. Further, a Consent to establish the 6 mtpa capacity and a consent to operate for 2 mpta capacity has also been obtained. However, construction activities continue to be on hold and the management is evaluating the timing for resuming construction activities in Lanjigarh. As approvals for expansion of the Lanjigarh refinery to 4 mtpa has been received, second stream operations have commenced at

the Alumina refinery from April 2016 and the debottlenecked capacity has reached 1.7-2.0 million tonnes per annum (although this is contingent on the bauxite quality). When further visibility on bauxite sources is possible, a further ramp-up to 4 million tonnes will be considered. As of 31 March 2017, Rs. 40,730 million (\$628 million) was spent on the Lanjigarh expansion project. An investment of Rs. 145,000 million (\$2,238 million) is being made to set up a second 1,250,000 tpa aluminium smelter. As of 31 March 2017, Rs. 134,120 million (\$2,070 million) was spent on this project.

#### Jharsuguda

The commissioning of pots at the first line of the 1.25 mtpa aluminium smelter at Jharsuguda was completed at the end of July 2016. However, this line was impacted by a power outage in early August 2016. The impacted pots are being rectified, with 80 of 336 pots restarted in May 2017. The second line is fully completed with 336 pots operational and the ramp up of the third line began at the end of December 2016. Currently 139 pots are operational from this line.

The Jharsuguda 500,000 tpa smelter was stable at 525,000 tonnes during fiscal 2017. However, it suffered an unfortunate pot outage incident in April 2017. 228 pots out of the total 608 pots were taken out of production. There were no injuries in the incident. The impacted pots are being repaired and would be put back into production.

## Market share and competition

According to the AAI, BALCO and Vedanta Limited are two of the four primary producers of aluminium in India and together had a 38.7% market share by sales volume in India in fiscal year 2017 while its main competitors are Hindalco and National Aluminium Company Limited with a 42.9% and 18.4% market share by sales volume in India in fiscal year 2017, respectively.

Aluminium ingots, wire rods and rolled products are commodity products and BALCO and Vedanta Limited compete primarily on the basis of price and service, with price being the most important consideration when supplies are abundant. Aluminium competes with other materials, particularly plastic, steel, iron, glass, and paper, among others, for various applications. In the past, customers have demonstrated a willingness to substitute other materials for aluminium.

#### **Commercial Power Generation Business**

#### Introduction

Vedanta has been building and managing captive power plants in India since 1997, and currently operates multiple power plants across locations in India. Vedanta's commercial power generation business in India leverages its experience in building and managing captive power plants that support its primary businesses. As of 31 March 2017, the total power generating capacity of Vedanta Limited's thermal power plants, wind power plants and gas based plants was 9,000 MW.

Vedanta owns and operates several commercial power plants, namely Vedanta Limited's 600 MW coal-based thermal power plant in Jharsuguda, MEL's 106.5 MW coal-based thermal power plant in Mettur Dam, HZL's wind power plants in Gujarat, Karnataka, Maharashtra, Tamil Nadu and Rajasthan aggregating 274.2 MW, BALCO's 270 MW coal-based thermal power plant, BALCO's 600 MW coal-based thermal power plant and TSPL's 1,980 MW coal-based thermal power plant at Talwandi Sabo.

Vedanta Limited operates a coal-based thermal power plant of 2,400 MW, four units of 600 MW each at Jharsuguda. The three units of 600 MW each of coal-based thermal power plants in Jharsuguda have been converted from commercial power plants to captive power plants from 1 April 2016 and is now part of the aluminium business and one unit is an independent power plant for commercial power generation. Operations of the first three units are captured in Commercial Power Sector for the period up to 31 March 2017 and in the aluminium sector thereafter.

BALCO operates coal-based thermal power plant of 270 MW which previously for Captive consumption before the shutdown of 100,000 tpa aluminium smelter at Korba. BALCO operates coal-based thermal power plant of 1,200 MW, four units of 300 MW each at Korba. The first two units are identified as independent power plants and are referred to as IPP 600 MW. The first 300 MW unit of the IPP 600 MW was capitalised on 1 August 2015 after the successful completion of trial runs. The second unit has been commissioned and commenced commercial production on 1 May 2016.

Sales of units of power increased from 12,121 million units in fiscal year 2016 to 12,916 million units of power in fiscal year 2017. The increase in sales drove revenue from Vedanta's commercial power generation business from \$707.5 million in fiscal year 2016 to \$835.9 million in fiscal year 2017. As of 31 March 2017, the total power generating capacity of Vedanta's non-captive thermal power plants and wind power plants was approximately 3,830.7MW.

The following table sets out information relating to Vedanta's power plants:

Fiscal Year	Capacity			
Commissioned	(MW)	Location	Fuel Used	CPP/IPP
1988 <sup>(1)</sup>	270.0	Korba	Thermal Coal	IPP
1997	24.0	Tuticorin	Liquid fuel	CPP
1999	75.0	Mettur Dam	Thermal Coal	IPP
2003	7.4	Debari	Liquid fuel	CPP
2003	6.0	Zawar	Liquid fuel	CPP
2003	14.8	Chanderiya <sup>(2)</sup>	Liquid fuel	CPP
2003	4.8	Cambay	Gas based	CPP
1999 and 2003	10.0	Ravva	Gas based	CPP
2005	7.5	Tuticorin	Liquid fuel	CPP
2005	15.0	Pantnagar	Liquid fuel	CPP
2005	154.0	Chanderiya	Thermal coal	CPP
2006	540.0	Korba	Thermal coal	CPP
2007	75.0	Lanjigarh	Thermal coal	CPP
2007	107.2	Gujarat and Karnataka	Wind <sup>(3)</sup>	IPP
2007	30.0	Amona	Gas based	CPP
2008	80.0	Chanderiya	Thermal coal	CPP
2009	80.0	Zawar	Thermal coal	CPP
2009	16.0	Gujarat and Karnataka	Wind <sup>(3)</sup>	IPP
2009	675.0	Jharsuguda	Thermal coal	CPP
2009	25.0	Mettur Dam	Thermal coal	IPP
2010	540.0	Jharsuguda	Thermal coal	CPP
2010	3.3	Rajasthan Raageshwari Gas terminal	Gas based	CPP
2010	14.4	Gujrat Viramgam Terminal	Gas based	CPP
2010	32.5	Pipeline Above Ground Installations	Gas based	CPP
2011	1,200.0	Jharsuguda	Thermal coal	CPP
2011	48.0	Rajasthan and Karnataka	Wind	IPP
2011	174.3	Dariba	Thermal coal	CPP
2012	103.0	Karnataka, Maharashtra, Rajasthan and	Wind <sup>(3)</sup>	IPP
		Tamil Nadu		
2012	600.0	Jharsuguda	Thermal coal	IPP
2012	30.0	Amona	Gas based	CPP
2013	600.0	Jharsuguda	Thermal coal	CPP
2013	80.0	Tuticorin	Thermal coal	CPP
2013	6.5	Mettur Dam	Thermal coal	IPP
2014	80.0	Tuticorin	Thermal coal	CPP
2010 and 2014	60.0	Rajasthan Mangala Processing terminal	Thermal coal	CPP
2015	31.3	Gujrat Bhogat terminal	Thermal coal	CPP
2015		· · · · · · · · · · · · · · · · · · ·	Thermal coal	IPP
2016	660.0	Mansa-Talwandi Sabo Road, Mansa, Punjab	Thermal coal	IPP

Fiscal Year	Capacity			
Commissioned	(MW)	Location	Fuel Used	CPP/IPP
2016	600.0	Korba	Thermal coal	CPP
2016	300.0	Korba	Thermal coal	IPP
2017	300.0	Korba	Thermal coal	IPP
2017	600.0	Mansa-Talwandi Sabo Road, Mansa, Punjab	Thermal coal	IPP
Total	9,000.0			

<sup>(1)</sup> Commissioned by BALCO prior to the acquisition of BALCO in 2001 which is not being used for captive purposes at present due to the closure of operations at the 100,000 tpa aluminium smelter.

The following table sets out the total power sales in MU for the fiscal years ended 31 March 2015, 2016 and 2017.

_	For the Fiscal Year Ended March 31				
Facility	2015	2016	2017		
Jharsuguda 2400 MW coal based thermal					
power plant	7,206	7,319	3,328		
TSPL	1,213	2,792	6,339		
BALCO 270 MW	89	169	_		
BALCO 600 MW	10	1,025	2,609		
HZL - Wind Power Plant	444	415	448		
MALCO — 106.5 MW coal based thermal					
power plant	897	402	190		
Total	9,859	12,122	12,916		

# Commercial power plants

Vedanta Limited. Vedanta Limited has a 2,400 MW coal based thermal power plant facility (comprising of four units of 600 MW each) in Jharsuguda in the state of Odisha. The three units of 600 MW each of coal-based thermal power plants in Jharsuguda have been converted from commercial power plants to captive power plants from 1 April 2016 and is now part of the aluminium business and one unit is an independent power plant for commercial power generation. Operations of the first three units are captured in Commercial Power Sector for the period up to 31 March 2017 and in the aluminium sector thereafter.

The plant has been built with an investment of approximately Rs. 82,000 (\$1,265 million) million. The first unit of commercial operation commenced in November 2010. The second unit was operational on 20 March 2011, the third unit was operational on 19 August 2011. The fourth unit was operational on 26 April 2012.

This facility requires approximately 15 million tpa of coal. Vedanta Limited has applied to the Ministry of Coal for allotments of coal blocks and long term coal linkages, which are long term supply contracts for delivery of coal meeting specific contract specifications for captive use. In January 2008, the Ministry of Coal jointly allocated the coal blocks in the Rampia and Dip Side Rampia in the state of Odisha to six companies, including Vedanta Limited. The six companies entered into an agreement to jointly promote a new company, Rampia Coal Mine and Energy Private Limited, or RCMEPL which was incorporated in February 2008.

<sup>(2)</sup> Transferred from Debari to Chanderiya in March 2009.

<sup>(3)</sup> The wind power plants are not for captive use.

On 16 April 2008, RCMEPL submitted an application to the state government of Odisha for the grant of a prospecting license, or a license for exploration, which was pending approval from the regulatory authorities. However, Ministry of Coal issued a letter on 15 January, 2014 de-allocating the coal block from RCMEPL. RCMEPL has approached the High Court of Odisha against the action of the Ministry of Coal. On 24 September 2014, the Supreme Court ordered for the cancellation of coal blocks allotted by the government over past few decades.

The total volume of coal consumed annually by Odisha's coal-fuelled power plants is largely dependent on the amount of generation and ranges between 5.5 million to 6.4 million tons.

Additionally, Vedanta Limited has been allotted a coal linkage of 2.6 mmtpa for the Jharsuguda project to meet the coal requirements of one of the units of 600 MW of the 2,400 MW power facility, for which Mahanadi Coalfields Limited has signed fuel supply agreement for supplying 80% of the letter of assurance quantity. For the remaining 3 X 600 MW units, Vedanta Limited is buying coal primarily through the auction route. The facility is also designed to include a water reservoir, railway marshalling yard, coal stockpile, ash pond and other required facilities. The power generated from the 2,400 MW power plant is sold to customers such as, state electricity boards, state-owned utility companies, power trading companies and private entities.

In September 2006, Vedanta Limited entered into a power purchase agreement with Grid Corporation of Orissa Limited ("GRIDCO"), under which GRIDCO was granted the right to purchase up to 25.0% of the installed capacity of the power plant after adjustments for auxiliary consumption by us, for approximately up to 561 MW from this project. Further, GRIDCO shall at all times have the right on behalf of the state government of Odisha to receive from the Jharsuguda power project, 7.0% of the power generated (after adjustments for auxiliary consumption by us), up to approximately 157 MW of power at variable cost, as determined by the Odisha Electricity Regulatory Commission ("OERC"). GRIDCO will have the right to purchase power from us once every five years, for a period of 25 years from the date of commercial operation of the last unit. This right is an option to purchase rather than a binding commitment of GRIDCO.

In the event GRIDCO decides not to avail part or whole of the above mentioned right during any five year period, it shall give six months' notice of the same to us prior to the commencement of such period. Power from the power plant to be purchased by GRIDCO will be evacuated by GRIDCO from the bus bar (which is the discharge point of the power plant) of the project. For the evacuation of the remaining power, Vedanta Limited has constructed a 400 KV Loop-In-Loop-Out I and a 400 KV Loop-In-Loop-Out II transmission line to connect to the transmission line being developed by Power Grid Corporation India Limited ("PGCIL") near Jharsuguda. Vedanta Limited entered into an agreement with PGCIL in July 2010 to build the dedicated transmission system required for evacuating power from the power plant to the pooling units of PGCIL. The tariff for the sale of power by Vedanta Limited to GRIDCO will be determined by the OERC as follows:

For the sale of power up to 25.0% of the installed capacity:

- a fixed capacity charge which shall be determined by the OERC as per the terms and conditions of tariff issued from time to time and will be related to target availability. Recovery of fixed capacity charges below the level of target availability shall be done on a pro rata basis and calculated proportionately to the capacity requisitioned to GRIDCO; and
- a variable energy charge, which shall comprise fuel cost and shall be calculated on the basis of the ex-bus energy scheduled to be sent out from the generating station. The energy charges shall be calculated as per the methodology prescribed by the OERC from time to time.

For the sale of power for 7% or 5% depending on the allocation of coal blocks within the state of Odisha a variable energy charge is applicable, which shall comprise fuel cost and shall be calculated

—on the basis of the ex-bus energy scheduled to be sent out from the generating station. The energy charges shall be calculated as per the methodology prescribed by the appropriate commission, from time to time. The working methodology of tariff determination is under dispute and pending before the courts in India.

Vedanta Limited petitioned to OERC to convert the 600 MW X 4 IPP into a captive generating plant ("CGP") to cater to the power needs of the 1.25 MTPA Smelter at Jharsuguda. After extensive deliberation and inconsideration of the facts, the OERC issued an order of conversion of Unit I, III and IV into CGP with effect from 1 April 2015, while retaining the IPP status of Unit II to fulfill the obligation under a PPA with GRIDCO.

BALCO's power business includes a 270 MW power plant at BALCO's Korba facility, which was previously for captive use before the shutdown of the 100,000 tpa aluminium smelter at Korba on 5 June 2009. BALCO also operates IPP 600 MW coal-based thermal power facility in the state of Chhattisgarh which had received approval to operate on 14 January 2015 from the regulatory authorities. One unit of 300 MW was commissioned and commenced production during fiscal year 2016 and the second unit was commissioned and commenced production on May 1, 2016.

*MEL*. Mettur power plant is a 106.5 MW coal based thermal power plant operated by MALCO Energy Limited or MEL in the state of Tamil Nadu. The plant has been set up in stages, with the first 75 MW set up in the year 1999 to cater to the requirements of the aluminium smelter operated by MEL. The aluminium operations were closed since November 2008. An additional 25 MW unit was added in the year 2009. Further, a 6.50 MW steam turbine generator was added in the year 2013 taking capacity to 106.5 MW.

MEL entered into an energy purchase agreement with Tamil Nadu Electricity Board in January 2009 for supply of power until April 2009 and entered with Power Trading Corporation Limited for supply of power to Tamil Nadu Electricity Board from April 2009 until May 2011, which was subsequently re-entered with Tamil Nadu Electricity Board from June 2011 until May 2016. MEL had entered into an agreement with NTPC Vidyut Vyapar Nigam Limited for supply of power (66.3 MW) to Telangana State Southern Power Distribution Company Limited (TSSPDCL) from June 2016 to May 2017. Currently MEL does not have any energy purchase agreement for supply of power.

MEL sources its entire requirement coal through imports, primarily from Indonesia, Russia and South Africa. In fiscal year 2017, the total coal purchased from these sources was 0.2 million tons. The total volume of coal consumed annually by the coal-fuelled power plants is largely dependent on the amount of generation and ranges between 0.5 million to 0.55 million tons. MEL's 10 largest customers accounted for 91.6%, 78.5% and 100% of revenue for MEL's power business in fiscal years 2015, 2016 and 2017, respectively. One of MEL's customers accounted for 91.9%, 88.4%, and 26.8% of MEL's revenue in fiscal years 2015, 2016 and 2017. The largest customer in fiscal year 2017 accounted for 42.7% of MEL's revenue.

HZL. As of 31 March 2017, wind power plants with a combined power generation capacity of 273.5 MW have been commissioned in the States of Gujarat, Karnataka, Tamil Nadu, Maharashtra and Rajasthan in India at a total cost of Rs. 14,520 million (\$217.8 million). The electricity from these wind power plants is sold to State Electricity Boards. During their meeting on 21 January 2016, the HZL's Board of Directors approved the sale of the Company's wind power assets subject to the final approval of the price by the board. HZL is in the process of identifying a buyer.

# Talwandi Sabo

In July 2008, the 1,980 MW Talwandi Sabo project was awarded to Vedanta Limited through an international Case 2 tariff based competitive bidding process. The project was set up through Vedanta Limited's wholly owned subsidiary, TSPL. All necessary approvals for the project have been obtained and commissioning of this project was carried out in four stages. Total approved capex for the plant is \$2,150 million of which \$2,113 million have been spent as of 31 March 2017. The boiler light up

and synchronisation of the first unit was achieved in the third quarter of fiscal year 2014 and coal logistics were established in the fourth quarter of fiscal year 2014. The first 660 MW unit of the Talwandi Sabo power plant was capitalised in fiscal year 2015 and the second 660 MW unit was capitalised in December, 2015 after the successful completion of trial runs. The third unit was commissioned in the second quarter of fiscal year 2017. This project is financed through internal sources and external borrowings. In April 2017, a fire took place in the coal handling facility of the power plant. This has resulted in a shut-down of all three units of the power plant for around 60 days. There were no injuries in the incident and the operational team is working towards rectification, and a safe and swift restart.

The primary fuel for TSPL is domestic coal which Vedanta sources from Mahanadi Coalfields Limited or MCL. The annual coal requirement of the power plant is around 8.19 MTPA (for a GCV of coal at 3,700 kcal/kg and PLF of 80%). TSPL entered into a Fuel Supply Agreement (FSA) with MCL on 4 September 2013 with Annual Contracted Quantity (ACQ) of 7.72 million tons per annum (MTPA) for a 20 year period. As per the FSA, the coal supplied would be E/F grade i.e. between G8-G13 based on the recent grading system of Coal India Limited. Based on the G8- G13 grades, the GCV of the coal would be in the range of 3400 - 5200 Kcal/kg.

According to the terms of FSA, the MCL shall endeavour to supply coal from its own sources and also has the option to supply the balance quantity of coal through import (subject to mutual agreement with TSPL). The supply of domestic coal would be at least 75% of ACQ from fiscal year 2017 onwards as any supply below these levels by MCL would have an incidence of penalty on MCL. MCL may also provide domestic coal more than these levels. The balance coal requirement will be met by the Company through alternate sources i.e. use of imported coal/ e-auction coal.

As per the presidential directive issued on 17 July 2013 and consequently the Cabinet Committee of Economic Affairs (CCEA) approval and advice of CERC, considering impact on cost of generation in the concluded PPAs due to shortage in domestic coal availability, pass through of imported coal cost has been allowed in the tariff.

In May 2008, Vedanta Limited entered into an on-shore and offshore engineering, procurement and construction contract with SEPCO Electric Power Construction Corporation("SEPCO"), for the Talwandi Sabo thermal power project for Rs. 66,560 million (\$1,024 million). Under the contract, SEPCO is to provide testing, system design, engineering services for the plant and equipment among other things. In November 2012, TSPL had entered into a revised offshore EPC contract where contract value was revised up to \$1,081 millon. After the commissioning of three units, the contract was revised upwards by \$74 million in November 2012. In April 2016 the parties entered into a revised ECP contract, for USD1,041.8 million and Rs. 21,371 million for offshore and onshore EPC services respectively.

# Surplus Power from Captive Power Plants

Vedanta also sells excess power generated from its captive power plants to third parties pursuant to commercial arrangements. For example, Vedanta Limited entered into a letter of intent dated 16 November 2011 with GRIDCO for the sale of excess power from its captive power plant at Jharsuguda. Similar agreements have been entered into with third parties for the excess power at Vedanta's captive power plant in Tuticorin.

#### Other Activities

Vedanta's other activities include:

## Port business

Vedanta has a 100.0% interest in Vizag General Cargo Berth Private Limited or VGCB as of 31 March 2017, a joint venture between Vedanta Limited and Leighton which won the bid to mechanise the coal handling facilities and upgrade the general cargo berth for handling coal at the outer harbour of Vishakhapatnam port, on the east coast of India.

The capacity of the upgraded berth is 10.2 MTPA, with flexibility to be upgraded to 12.5 MTPA. VGCB had entered into an agreement on 8 October 2010 with the port authority, Vishakhapatnam Port Trust, to mechanise the coal handling facilities and upgrade the general cargo berth on a build-operate-transfer basis for 30 years commencing on the date of award of concession. Vishakhapatnam Port Trust receives a royalty of 38.1% of the gross revenue as per TAMP tariff from the cargo handling activities as set out in the concession agreement.

Construction was completed on 8 April 2013 and commercial operations started in same year. The estimated project cost was approx. Rs. 6,250 million (~ \$96 million) for which Rs. 6,718 million (\$103 million) was spent as on 31 March 2017 including interest capitalisations.

During fiscal 2017, VGCB's operations showed a decrease of 38.5% in discharge as well as in dispatch, compared with fiscal 2016. This was mainly due to reduced coal imports, driven by higher coal prices and a weaker steel & power market. The dispatch tonnage decreased by 38% to 4.4 million tonnes (7.1 million tonnes in fiscal 2016) and generated an Vedanta EBITDA of about US\$1 million. VGCB is one of the deepest coal terminals on the eastern coast of India, which enables the docking of large Cape-size vessels.

Sterlite Ports Limited, a 100% subsidiary of Vedanta Limited has received the 'letter of award' for redevelopment of berths 8, 9, barge berths and mechanical ore handling plant at the Port of Mormugao on a Develop, Build, Finance, Operate and Transfer ("DBFOT") basis for 19 mmtpa capacity multi-cargo port terminal in Mormugao Port, Goa. The redevelopment of the berth will result in the handling of all types of cargo including iron ore, coal, lime stone, bauxite and general cargo with an expected capacity of 19.2 million tons per annum. The company had formed a special purpose vehicle which entered into an agreement with the Mormugao Port Trust, to operate the berth on a build-operate-transfer basis for 30 years commencing from the date the concession was awarded.

# Seasonality

Vedanta's iron ore mining operations are affected by changes in weather conditions, particularly heavy rains. Goa, where the majority of Vedanta's iron ore mining operations are located, experiences monsoon seasons, which usually occurs from early June to early October. During the monsoon season, restricted barge movements result in significantly lower exports through the Mormugao port in Goa, where Vedanta's iron ore is shipped to customers. Vedanta attempts to mitigate the effects of the monsoon season by concentrating on mine development and extracting larger quantities of overburden waste during the monsoon season in order to permit speedier extraction of iron ore during the dry season. In addition, during the monsoon season, Vedanta typically conducts annual maintenance at its processing plants and its other mining machinery.

Vedanta's oil and gas, zinc, copper, aluminium and commercial power business segments are not subject to seasonality.

## **Intellectual Property**

Vedanta, through Vedanta Limited, owns one patent in India and another in Europe that relates to a system for producing metallurgical coke. Vedanta Limited also has a patent in the United States relating to the reduction of sulphur-based gases during the production of iron ore. Vedanta, through Vedanta Limited, owns an additional patent in India that relates to a system for enhancing the quality of cathodes. Vedanta through Vedanta Limited owns a new pig iron product. Vedanta also has a number of patents in the process of being granted in India related to mining, refining and smelting processes. Vedanta owns a number of trademarks that are used to identify its businesses and products. Vedanta has also acquired certain intellectual property rights under licences from third parties for use in its businesses. Cain India has entered into various agreements with Cairn Energy and its subsidiaries (the "Cairn Energy Group") in connections with trademarks and corporate logos, which are registered in EU, UK, India and Benelux. Vedanta's patents, licences and trademarks constitute valuable assets. Vedanta has a patent for the manufacture of energy recovery based metallurgical coke. However,

Vedanta does not depend on any single patent, licence or trademark in a material manner in the conduct of its sales and operations viewed as a whole.

#### **Awards**

In the year 2016, Vedanta was recognised a one of the top companies to work for in Asia, by ACES. Cairn India was also ranked as the world's fastest growing energy company by Platts in 2013. Vedanta Limited was included in the list of "Top Companies to work for in Asia" at the Asia Corporate Excellence and Sustainability awards 2016.

## Litigation

Save as disclosed below, there are no outstanding governmental, legal or arbitration proceedings, including any such proceedings which are pending or threatened of which Vedanta is aware, which Vedanta believes could reasonably be expected to have a material adverse effect on its results of operation or financial condition. All litigations involving Cairn India have been transferred to Vedanta Limited pursuant to the Scheme and accordingly all such litigations are presently being represented by Vedanta Limited.

Vedanta Limited has commenced proceedings against the GoI, which has disputed Vedanta Limited's exercise of the call option to purchase its remaining 29.5% ownership interest in HZL.

Under the terms of the shareholders' agreement between the GoI and Sterlite Opportunites and Ventures Limited ("SOVL") (which has been merged into Vedanta Limited with effect from 1 April 2012), Vedanta Limited was granted two call options to acquire all the shares in HZL held by the GoI at the time of exercise. Vedanta Limited exercised the first call option on 29 August 2003. Arbitration is on-going in relation to a dispute between the GoI and Vedanta Limited, with respect to Vedanta Limited's exercise of its second call option to acquire the remaining shares in HZL held by the GoI, pursuant to the shareholders' agreement between the parties. The GoI has refused to act upon the second call option, stating that Vedanta Limited's second call option violates the provisions of the Indian Companies Act, 1956, by restricting the right of the GoI to transfer its shares. The next date of hearing by the arbitral tribunal is on 21 April 2018.

Vedanta Limited has commenced proceedings against the GoI which has disputed Vedanta Limited's exercise of the call option to purchase its remaining 49.0% ownership interest in BALCO.

Arbitration proceedings have been concluded in relation to a dispute between the GoI and Vedanta Limited, with respect to Vedanta Limited's exercise of its second call option to acquire the remaining shares in BALCO held by the GoI, pursuant to the shareholders' agreement between the parties. In January 2011, the arbitration tribunal rejected Vedanta Limited's claims on the grounds that the clauses relating to the call option, the right of first refusal, the "tag-along" rights and the restriction on the transfer of shares violate the provisions of the Indian Companies Act, 1956. In April 2011, Vedanta Limited filed an application under section 34 of the Arbitration and Conciliation Act, 1996 in the High Court of Delhi to set aside the award dated 25 January 2011 to the extent that it holds these clauses ineffective and inoperative. The GoI also filed an application before the High Court of Delhi to partially set aside the arbitral award dated 25 January 2011 in respect of certain matters involving valuation. The High Court of Delhi passed an order dated 10 August 2011 directing Vedanta's application and the application by the GoI to be heard together as they arise from a common arbitral award. The matter is currently pending before the High Court of Delhi and the next date of hearing is on 17 October 2017.

Appeal proceedings in the High Court of Bombay brought by SEBI to overrule a decision by the Securities Appellate Tribunal of India that Vedanta Limited has not violated regulations prohibiting fraudulent and unfair trading practices.

In April 2001, SEBI ordered prosecution proceedings to be brought against Sterlite (now Vedanta Limited), alleging that it violated regulations prohibiting fraudulent and unfair trading practices, and

also passed an order prohibiting Sterlite from accessing the capital markets for a period of two years. SEBI's order was overruled by the Securities Appellate Tribunal of India in 22 October 2001 on the basis of a lack of sufficient material evidence to establish that Sterlite had, directly or indirectly, engaged in market manipulation and that SEBI had exercised its jurisdiction incorrectly in prohibiting Sterlite from accessing the capital markets. In November 2001, SEBI appealed to the High Court of Bombay. No further action or procedures have taken place since 2001.

SEBI's order was based on its finding that Sterlite had manipulated the price of its shares in connection with its proposed acquisition of shares in Indian Aluminium Company Limited ("INDAL") and its proposed open offer to the shareholders of INDAL in 1998. SEBI also alleged that MEL provided funds to an entity Vedanta allegedly controlled to enable its associate to purchase Sterlite's shares, as part of a connected price manipulation exercise.

In addition to the civil proceedings, SEBI also initiated criminal proceedings in 2001 before the Court of the Metropolitan Magistrate, Mumbai, against Sterlite, Vedanta's Executive Chairman, Mr. Anil Agarwal, Sterlite's Director of Finance, Mr. Tarun Jain, and the chief financial officer of MEL at the time of the alleged price manipulation. When SEBI's order was overturned in October 2001, Sterlite filed a petition before the High Court of Bombay to defend those criminal proceedings on the grounds that the Securities Appellate Tribunal of India had overruled SEBI's order on price manipulation. An order has been passed by the High Court of Bombay in Sterlite's favour, granting an interim stay of the criminal proceedings.

## Criminal proceedings against former directors of SIL.

Ms. Krishna Bajaj filed a complaint against the former directors of Sesa Industries Limited ("SIL") (which has since been amalgamated with Sesa Goa) before the Magistrate at Mumbai in 2000, in relation to shares issued on a preferential basis by Sesa Industries Limited in 1993 to Sesa Goa's shareholders, alleging that the shares of Sesa Industries Limited were not listed within 12 to 18 months of the offer as stated in the offering document. The four directors appeared before the court on 16 June 2009 and pleaded not guilty to the charges. The four directors filed a criminal application in the High Court of Bombay challenging the Magistrate's order of framing charges, before the High Court of Bombay. The High Court of Bombay admitted the criminal application and stayed the proceedings pending before Magistrate at Mumbai.

# Criminal proceedings against certain directors and employees of BALCO

Criminal proceedings were initiated by Mr. Ajay Padia before the Court of the Judicial Magistrate First Class, Pune against Mr. Anil Agarwal, Mr. Navin Agarwal, Mr. Tarun Jain and certain of our other former directors and employees in 2002 alleging that an assurance that was given by the above mentioned directors regarding payment of all amounts owed to him for the damaged material supplied by BALCO was not honoured. An application under was filed in the High Court of Bombay for quashing the proceedings in the Judicial Magistrate First Class and to dispose the matter directing that alternative remedies were available before the Sessions Court, Pune, which was the appropriate Court. The High Court of Bombay stayed the criminal proceedings and the application was listed for disposal. The next date of hearing has not been fixed.

## BALCO is involved in litigation in relation to the illegal felling of trees situated on forest land.

Petitions have been filed in public interest before the Supreme Court of India by various individuals and Sarthak, a non-governmental organisation alleging that illegal possession and use of forest land, which has been proposed to be leased by Chhatisgarh Government, for non-forest activities by BALCO. The Supreme Court of India referred the matter to the Central Empowered Committee, which recommended an ex post-facto diversion of forest land with payment of net present value on land for which forest compensation was not paid prior to the year 1980. Subsequently, it was alleged that BALCO had cut trees in violation of the Supreme Court order and one of the petitioners filed a contempt petition and the matter was again referred to the Central Empowered Committee. The

Central Empowered Committee submitted its report on 30 June 2012 to the Court recommending that a detailed survey should be conducted through Forest Survey of India (MoEF) using high quality remote sensing technique to find out whether any tree felling and/or non-forest use has taken place after 29 February 2008 in the revenue forest land and/or deemed forest in possession of BALCO. In order to expedite the proceedings, BALCO filed an application in the Supreme Court seeking direction to pay the net present value on forest land as per the recommendation of the Central Empowered Committee providing an ex-post facto diversion of the 1,751 acres forest land held by BALCO.

# Writ petitions filed against Vedanta alleging violation of certain air, water and hazardous waste management regulations at Vedanta's Tuticorin plant.

On 24 March 2013, the TNPCB issued a show cause notice to Vedanta alleging violation of environmental laws and conditions imposed by the TNPCB and releasing pollutants from the Tuticorin plant. Further, TNPCB issued an order dated 29 March 2013 ordering the closure of the Tuticorin plant. Vedanta filed an appeal before the NGT, Chennai against the order of closure by the TNPCB on 1 April 2013. The matter was transferred to the NGT Principal Bench at New Delhi and in a hearing in May 2013, Vedanta was directed to provide certain information to the Tribunal.

The Tribunal passed an interim order in 31 May 2013 allowing the smelter to recommence operations subject to certain conditions, and consequently Vedanta recommenced operations on 16 June 2013. The expert committee constituted by the Tribunal submitted a report on the operation of the plant on 10 July 2013 stating that the plant's emissions were within the prescribed standards. Based on this report, the Tribunal on 15 July 2013 ordered that the interim order dated 31 May 2013 shall continue to operate. On 8 August 2013, the Tribunal confirmed its 31 May 2013 order with directions to comply with the recommendations made by the committee to further improve the working of the plant within a time bound schedule.

Vedanta implemented all the recommendations during fiscal year 2013. However, the TNPCB filed Civil Appeals in 2013 against the Tribunal's interim order dated 31 May 2013 and final order and judgment dated 8 August 2013. V Gopalaswamy, General Secretary of a Political Party, MDMK, also filed Civil Appeals in 2013. The appeals are pending before the Green bench of the Supreme Court of India.

# The Enforcement Directorate has levied penalty of approximately Rs. 347 million on Vedanta Limited.

The Enforcement Directorate ("ED") by an order in August 2004 alleged that Sterlite (now Vedanta Limited) and MALCO had remitted approximately \$49 million to Twin Star without prior permission from the Reserve Bank of India ("RBI"). By this order, the ED levied penalties on Vedanta Limited and certain directors of Vedanta Limited of approximately Rs. 347.0 million.

Vedanta Limited filed an appeal against the order of ED before Appellate Tribunal of Foreign Exchange seeking waiver of pre-deposit, which was allowed by the Appellate Tribunal of Foreign Exchange. The ED challenged this order before Delhi High Court. The Delhi High Court remanded the matter back to the Appellate Tribunal of Foreign Exchange for deciding the issue of waiver of pre-deposit afresh.

# Proceedings against Vedanta relating to Niyamgiri mining project and expansion plans of refinery in Lanjigarh

In 2004, a writ petition was filed by a private individual against Vedanta, the Government of Odisha, India, the Odisha Mining Corporation Limited ("OMC"), and others before the High Court of Odisha, alleging that the grant of a mining lease by the OMC to Vedanta to mine bauxite in the Niyamgiri Hills at Lanjigarh, in the State of Odisha, would violate the provisions of the Forest (Conservation) Act, 1980 of India. The petition alleged that the felling of trees, construction of the alumina refinery by Vedanta and the development of the mine was in violation of the Forest

(Conservation) Act, 1980 and would have an adverse impact on the environment. The petition sought, among other things, to restrain the grant of the mining lease to mine bauxite, to declare the joint venture agreement entered into between Vedanta and the OMC void, a court direction for the immediate cessation of construction of the Lanjigarh alumina refinery and an unspecified amount of compensation from Vedanta for damage caused to the environment. This petition was also filed before the Supreme Court of India by certain non-governmental organisations and individuals. The Supreme Court granted Vedanta the clearance to mine in and around the Niyamgiri Mines on terms and conditions as specified in the Court order. Consequent to the order of the Supreme Court, the proceedings before the High Court of Odisha became redundant as the issues were already determined.

Thereafter, the MoEF on 24 August 2010 declined to grant the forest clearance for the Niyamgiri Mines to the OMC, and rendered the environmental clearance non-operational. On 8 March 2011, the OMC challenged the order of the MoEF by a special leave petition in the Supreme Court of India. The Supreme Court in its order dated 18 April 2013 ordered the Government of Odisha to place any unresolved issues and claims of the local communities under the Forest Rights Act and applicable rules before the Gram Sabha, the council representing the local community. The Gram Sabha was ordered to consider these claims and communicate its decision to the MoEF through the Government of Odisha within three months of the order. The Government of Odisha completed the process of conducting Gram Sabha meetings and submitted its report on the proceedings to the MoEF.

Further the MoEF, based on the report submitted by the Government of Odisha rejected the grant of stage II forest clearance for the Niyamgiri project of OMC on January 8, 2014, which is one of the sources of supply of bauxite to the alumina refinery at Lanjigarh in terms of the joint venture agreement with the government of Odisha (through the OMC). Under the terms of the joint venture agreement, 150 million tonnes of bauxite is required to be made available to Vedanta. Prior to the joint venture agreement coming into force, the same terms were incorporated in a Memorandum of Understanding between Vedanta and OMC. Assets under construction as at March 31, 2016 was after an impairment charge of Rs. 668 million (\$10.3 million) which relates to impairment of mining assets of Jharsuguda Aluminium at Lanjigarh as the MoEF has rejected the Stage II forest clearance for the Niyamgiri mining project. The OMC has issued a show cause notice dated February 20, 2015 on Vedanta to show reason for why the joint venture agreement for the supply of 150 million tonnes of bauxite will not be cancelled in view of the failure to achieve certain milestones set out in the joint venture agreement. Vedanta replied to the notice substantiating all facts on the project followed by an in-person meeting. Vedanta noted that the joint venture agreement was contingent on OMC obtaining necessary mining licenses. It stated that it did not have any objection to the Joint Venture agreement being terminated as mining leases could not be secured, but with the caveat that Vedanta should not be held responsible for not fulfilling its obligations under the agreement, and requested an assurance that the MoU for the supply of 150 million tons of bauxite should remain in force. On April 15, 2015, the OMC informed MoEF that it intends to undertake bauxite mining independently at Niyamgiri mines and make available bauxite to the open market in view of approval from the Department of Steel and Mines, Government of Odisha for the cancellation of the joint venture agreement dated February 18, 2009. Subsequently, the OMC terminated the joint venture agreement. Vedanta has sought a request for modification of the joint venture agreement or an amendment to the joint venture agreement with a standalone long-term linkage agreement for the supply of 150 MT of bauxite. The matter is pending with the OMC.

On October 20, 2010, the MoEF ordered Vedanta to maintain the status quo on the expansion of the refinery at Lanjigarh. Against this order, Vedanta filed a writ petition in the High Court of Odisha and the High Court dismissed the petition. Vedanta made an application to the MoEF to reconsider the grant of the environmental clearance for the expansion of the alumina refinery. By its letter dated February 2, 2012, the MoEF issued fresh terms of reference to Vedanta for preparation of the environment impact assessment report. Vedanta submitted this report to the Odisha Pollution Control Board and simultaneously submitted various representations to the MoEF as well as the Project Monitoring Group established under the Cabinet Committee on Investments. The Expert Appraisal Committee of the MoEF reconsidered the project and revalidated the terms of reference for 22 months

effective January 2014. Thereafter the suspension imposed on the expansion of Vedanta's alumina refinery was lifted. The public hearing was held on July 30, 2014 and the expansion of the Lanjigarh refinery was considered by the Expert Appraisal Committee in its meeting dated January 9, 2015 for the grant of environmental clearance. In line with the Expert Appraisal Committee's recommendation, the MoEF on November 20, 2015 granted environmental clearance for the alumina refinery expansion from 1 to 6 MTPA in a phased manner and subject to certain conditions being met. For the 6 MTPA expansion, the company is required to obtain an amendment of environmental clearance after the completion of land acquisition of the balance area of 666.03 HA. Subsequent to the grant of environmental clearance for expansion, the Odisha State Pollution Control Board has revalidated the consent to establish the alumina refinery expansion on January 2, 2016, and has granted the consent to operate for the 2 MTPA on December 31, 2015.

On February 18, 2016 an individual challenged the environmental clearance granted for the alumina refinery expansion at Lanjigarh before the National Green Tribunal Kolkata wherein MoEF, Odisha State Pollution Control Board and Vedanta Limited have been made parties. Meantime, another individual has filed an interlocutory application for being impleaded in the matter before NGT Kolkata.

## Demands against HZL by the Department of Mines and Geology and Ministry of Mines.

The Department of Mining and Geology, Rajsamvad of the State of Rajasthan issued several show cause notices in August, September and October 2006, aggregating Rs. 3,339 million (\$51.5 million) to HZL, claiming unlawful occupation and unauthorised mining of associated minerals other than zinc and lead at HZL's Rampura Agucha, Rajpura Dariba and Zawar mines in Rajasthan, during the period from July 1968 to March 2006. In response, HZL filed a writ petition against these show cause notices. In October 2006, the High Court issued an order granting a stay and restrained the Department of Mines and Geology from undertaking any coercive measures to recover the penalty. In January 2007, the High Court issued another order granting the Department of Mines and Geology additional time to file their reply and also ordered the Department of Mines and Geology not to issue any orders cancelling the lease. The next date of hearing has not yet been fixed. The State government has rescinded the prospective liability towards environment and health cess by the notification dated 6 January 2017.

## Demands against HZL by the State of Rajasthan

The State of Rajasthan issued a notification in Feburary 2008 notifying the Rajasthan Environment and Health Cess Rules, 2008, imposing environment and health cess on major minerals including lead and zinc. HZL and other mine operators resisted this notification and the imposition thereunder before the High Court of Rajasthan on the ground that the imposition of such cess and all matters relating to the environment fall under the competence of the central government as opposed to the state government. In October 2011, the High Court of Rajasthan disposed the writ petitions and upheld the validity of the Rajasthan Environment and Health Cess Rules, 2008. HZL challenged this order by a special leave petition in December 2011 before the Supreme Court of India. The Supreme Court of India issued a notice for stay. Further direction was issued by the Supreme Court on March 23, 2012 not to take any coercive action against HZL for recovery of cess. The matter is still pending and is not yet listed for hearing. The state government has rescinded the prospective liability towards environment and health cess by notification dated 6 January 2017.

## Vedanta is involved in proceedings related to mining operations in the State of Goa.

Pursuant to findings in the Justice M.B. Shah Commission Report dated March 15, 2012 on the allegations of illegal mining in the State of Goa, the state government had banned iron ore mining operations in Goa on September 10, 2012 and the Ministry of Environment and Forest ("MOEF") had suspended environmental clearances of all mining leases within the State of Goa. A writ petition was filed before the Supreme Court of India to initiate action based on the Justice M.B. Shah Commission Report and an interim order was passed by the Supreme Court of India on October 5, 2012 suspending mining operations within Goa.

The Supreme Court of India passed an interim order on November 11, 2013 directing that the inventory of the excavated mineral ores be verified by the Directorate of Mines and Geology ("DMG") and the Monitoring Committee was constituted to sell the materials through an e-auction. The Monitoring Committee is e-auctioning the ore and the proceeds from the auction will go to the state government.

On April 21, 2014, the Supreme Court passed judgment in the matter lifting the ban with certain stipulations including directions on mining by the lessees after November 22, 2007 as being illegal, dumping outside the leased area as being impermissible; interim buffer zone fixed at one kilometre from the boundaries of National Parks and Sanctuaries, ad-hoc cap on annual excavation at 20 million tonnesother than from dumps until the final report of Expert Committee is submitted, appropriation of the sale value of e-auctioned inventorised ores by the state government as per stipulated conditions, payment of 10% of the sale proceeds to the Goan Iron Ore Permanent Fund. The Supreme Court has held that all mining leases in the State of Goa, including those of the Company, had expired in 2007 and consequently, no mining operations can be carried out until renewal/execution of mining lease deeds by the state government. The petition filed by Vedanta in May 2014 for the review of the aforesaid judgment in the Supreme Court of India on certain limited issues was subsequently withdrawn by Vedanta in September 2014.

On August 13, 2014, the High Court of Bombay, Goa Bench passed a common order directing the State of Goa to renew the mining leases for which stamp duty was collected in accordance with the Goa Mineral Policy (2013) and to decide the other applications for which no stamp duty was collected within three months thereof.

In January 2015, the government of Goa revoked the order suspending mining operations in the State of Goa and MOEF revoked suspension of environmental clearances in March 2015. Subsequently, the lease deeds for all working leases were executed and registered as of August 2015. Vedanta obtained consent to operate under the Air Act and Water Act from the Goa State Pollution Control Board ("GSPCB") and mining plan approval from the Indian Bureau of Mines for these leases, and the Company resumed operations of its mines on 10 August 2015.

On 10 September, 2014, the Goa Foundation challenged the High Court order directing the renewal of mining by way of a Special Leave Petition (SLP) before the Supreme Court of India, challenging the judgment of the High Court dated 13 August 2014 directing renewal of mining leases. No stay has yet been granted by the Supreme Court. Another set of SLPs on an identical issue were filed by Rama Velip. Two writ petitions have also been filed before Supreme Court by Goa Foundation and Sudip Tamankar in September 2015 for setting aside the second renewal of iron ore mining leases in Goa made under section 8 (3) of MMDR Act and challenging the revocation of suspension on mining in State of Goa.

The Expert Committee has filed its reports on dump handling and ceiling on annual extraction before the Supreme Court recommending enhancement of annual extraction ceiling immediately to 30 million MT and subsequently to 37 million MT after infrastructure development. Vedanta filed an application before the Supreme Court of India, requesting clarification on whether any contributions to the Goa Permanent Iron Ore Fund should be made as per the Supreme Court's orders, as the Central government has introduced a provision to set up social fund known as District Mineral Foundation in states for similar objectives. The Expert Committee Report is yet to be accepted and the matter is pending before the Supreme Court along with the application filed by Vedanta.

Proceedings against Vedanta challenging environmental consents received for expansion project of pig iron, metallurgical coke, sinter plants and power plant in Goa

On March 6, 2012, the High Court of Bombay dismissed a public interest litigation filed by Mr. Ramachandra Vaman Naik and others for quashing an approval issued by the MoEF and the GSPCB for the expansion project of a pig iron plant, sinter plant, metallurgical coke plant and power plant in Goa. On July 26, 2012, Mr. Naik challenged this order by filing a special leave petition before the

Supreme Court for an interim stay of the order and for a stay on the construction and operation of the plants in Goa. No stay has been granted in these matters and all respondents have filed their pleadings. The Supreme Court, on November 7, 2016, transferred the matter to the National Green Tribunal, New Delhi for de novo hearing and disposal in accordance with the law. The Supreme Court also set aside the order passed by the High Court without expressing any opinion on the merits of the contention open to the parties. The matter before the National Green Tribunal, New Delhi has been listed for arguments on 1 August 2017.

Separately, an application was filed by the village panchayat head of Navelim, Goa before the National Green Tribunal against the GSPCB, MoEF, State of Goa, others and Vedanta alleging that (i) GSPCB had issued its approval in a piecemeal manner to Vedanta, even though the environmental clearance order issued by the MoEF and the approval are for all four plants thereby violating the MoEF order, (ii) the no-objection certificate issued in relation to this project in 2007 was forged and fabricated, and (iii) the CN5 bridge at Maina-Navelim junction falls outside the notified industrial area. The application sought cancellation of the approval and the order of the MoEF. On March 1, 2013, the National Green Tribunal gave directions to issue notices to all the parties. Vedanta responded on April 11, 2013, denying all contentions and submissions made by the village head and requested that the application be dismissed. Pleadings in the matter have been completed. Subsequently on February 10, 2014 the matter was transferred from the Principal Bench of the National Green Tribunal at New Delhi to the Western Bench of the National Green Tribunal at Pune. On July 31, 2014, the National Green Tribunal held that owing to an identical issue pending before the Supreme Court of India, the proceeding before the National Green Tribunal is adjourned pending determination by the Supreme Court of India.

# Vedanta has challenged the imposition of forest development tax by Government of Karnataka.

In October 2008, Vedanta filed a writ petition in the High Court of Karnataka against the Government of Karnataka and others, challenging the imposition of a forest development tax at a rate of 8.0% (a subsequent demand was made for the payment of tax at the rate of 12.0%) on the value of iron ore sold by Vedanta from the mining leases in the forest area, pursuant to the notification by the Government of Karnataka and the memorandum/common order issued by the Deputy Conservator of Forests. In August 2009, the High Court of Karnataka permitted the Government of Karnataka to levy the forest development tax and ordered that the demand be restricted to 50.0% of the forest development tax as an interim arrangement pending disposal of the writ petition.

Vedanta filed an application before the High Court of Karnataka, seeking modification of the order in August 2009. However, the application was not taken up for hearing. Subsequently, Vedanta filed a special leave petition before the Supreme Court of India against the High Court's order. In November 2009, the Supreme Court of India ordered the High Court of Karnataka to dispose the application for modification of the order given in August 2009 and ordered Vedanta to furnish a bank guarantee towards payment of the forest development tax. In April 2010, High Court of Karnataka ordered to pay 25.0% of the demand in cash and furnish a bank guarantee for the remaining 25.0%.

On January 3, 2016, the High Court of Karnataka passed its final order quashing the forest development tax notification, holding that the rate of forest development tax levied to be 8% and directing a refund of the amount collected from mining leases other than state government owned companies. The state government of Karnataka appealed against the order before the Supreme Court of India, and another mining lessee also filed a counter appeal in the matter. The matter is pending before the Supreme Court. In the interim, the Supreme Court has stayed the refund of the forest development tax amount as ordered by the High Court.

In the meantime, the Government of Karnataka enacted the FDT Amendment Act which empowers the State to collect FDT at 12%, with retrospective effect from 2008, on the sale price of iron ore sold by Vedanta. Vedanta filed a writ petition in the High Court of Karnataka challenging constitutional validity of the FDT Amendment Act. The High Court granted temporary relief by directing the State government to not take any coercive action against Vedanta based on the newly enacted law.

# Vedanta is involved in a tax dispute with the Indian Tax Department.

The Group through its subsidiaries Richter Holdings Limited and Westglobe Limited in 2007 acquired the entire stake in Finsider International Company Limited (FICL) based in the United Kingdom which was holding 51 percent shares of Sesa Goa Ltd, an Indian Company. In October 2013, the Indian Tax Authorities (Tax Authorities) have served an order on Richter and Westglobe for alleged failure to deduct withholding tax on capital gain on the indirect acquisition of shares in April 2007.

The Tax Authorities determined the liability for such non-deduction of tax as Rs. 8,751.8 million (US\$135 million) in the case of Richter and Rs.5,834.5 million (US\$90 million) in the case of Westglobe, comprising tax and interest. Being aggrieved, Richter and Westglobe filed appeals before the first appellate authority. Writ petitions were filed in the High Court of Karnataka challenging the constitutional validity of retrospective amendments made by the Finance Act 2012 and in particular the imposition of obligations to deduct tax on payments made against an already concluded transaction. The Karnataka High Court passed interim orders and directed that the adjudication of liability (TDS quantum and interest) shall no more remain in force since tax department passed the orders on merits travelling beyond the limited issue of jurisdiction. The high court will hear on jurisdiction issue. The next hearing is scheduled for 16 August 2017.

## The Cairn India Group is involved in a special leave petition relating to income tax

Cairn India Energy West BV ("Cairn Energy") filed a writ petition with the High Court of Gujarat in December 2008 challenging the restriction of section 80-IB (9) of the Indian Income Tax Act, 1961 ("Section 80-IB (9)") to the production of oil. Section 80-IB(9) allows the deduction of 100% of profits from the commercial production or refining of mineral oil. The term "mineral oil' is not defined but has always been understood to refer to both oil and gas, either separately or collectively. The 2008 Indian Finance Bill appeared to remove this deduction by stating (without amending section 80-IB (9)) that "for the purpose of section 80-IB(9), the term "mineral oil' does not include petroleum and natural gas, unlike in other sections of the Act". Subsequent announcements by the Indian Finance Minister and the MoPNG have confirmed that a tax holiday would be available on production of crude oil but have continued to exclude gas. The High Court of Gujarat, by its order dated July 29, 2009 did not admit the writ petition on the ground that the matter needs to be first decided by the lower tax authorities. A special leave petition has been filed before the Supreme Court of India against the decision of the High Court of Gujarat. In the event that this challenge is unsuccessful, the potential liability for tax and related interest on the tax holiday claimed on gas production for all periods to March 31, 2016 is approximately Rs.3,201 million.

Seperately, the Commissioner of Income Tax (Appeals) by an order dated 17 June 2010 has understood natural gas as falling within the ambit of the term "mineral oil" in relation to an assessment of Cairn Energy for the assessment year 2005-2006.

## Vedanta Limited has filed certain writ petitions relating to sales tax

Vedanta Limited has filed two writ petitions before the Rajasthan High Court seeking to set aside the letters and show cause notice issued by the Rajasthan Sales Tax Department and others demanding 4% VAT on sales of crude oil on the basis of an intra-state sale (as opposed to an inter-state sale). A 2% Central States Tax is currently being paid. A stay against the show cause notices has been issued. The potential liability for tax and related interest for all periods until 31 Dec 2016 is approximately Rs.41,581 million (US\$623.7 million) (Tax Rs.29,591 million (US\$443.9 million) & Interest Rs.11,990 million (US\$179.8 million)). The matter was last heard on May 17, 2016 and the judgement dated July 13, 2016 allowed the petition and held that sale of crude oil should be regarded as interstate sale subject to central states tax and that Rajasthan VAT should not be applicable. The Rajasthan Sales Tax Department has filed a petition before the Division Beench of the Rajasthan High Court against the order dated 13 July 2016 of the Rajasthan High Court. The Rajasthan Sales Tax Department has filed a writ petition before the division bench of the Rajasthan High Court against the order dated 13 July 2016 of the Rajasthan High Court.

# Claim against BALCO for energy development cess

In December 2006, the High Court of Chhattisgarh on a writ filed by BALCO and others, declared the provisions relating to imposition of energy development cess of Rs. 6,102 million (\$94.1 million) on the captive power plants to be unconstitutional and ordered refund of the cess already collected by the state government. The State of Chhattisgarh filed a special leave petition in the Supreme Court against the order of the High Court. The Supreme Court has issued notice and stayed the refund of the cess already collected, pending the disposal of the special leave petition and restrained the tax department from taking any corrective step for the collection of the cess. The matter is expected to be listed in due course.

# The Amalgamation and Re-organisation Scheme has been challenged by the Indian tax authorities and others

Subsequent to the effectiveness of the Amalgamation and Re-organisation Scheme, special leave petitions challenging the orders of the High Court of Bombay at Goa were filed before the Supreme Court of India by the Commissioner of Income Tax, Goa and the Ministry of Corporate Affairs in July 2013 and in April 2014, respectively. Further, a creditor and a shareholder have challenged the Amalgamation and Re-organisation Scheme in the High Court of Madras in September 2013. Further, the Ministry of Mines, GoI have challenged the Amalgamation and Reorganisation Scheme before the High Court of Madras and the High Court of Bomaby, Goa Bench, respectively. Next date of hearing is scheduled on 22 August 2017.

## Arbitration proceedings on issues related to the cost recovery of the Ravva block

Cairn India along with other joint operation partners (the "Contractor Parties") are involved in a dispute against GoI relating to the recovery of contractual costs in terms of calculation of payments that the Contractor Parties were required to make in connection with the Ravva field.

The Ravva production sharing contract obliges the Contractor Parties to pay a proportionate share of ONGC's exploration, development, production and contract costs in consideration for ONGC's payment of costs related to construction and other activities it conducted in Ravva prior to the effective date of the Ravva production sharing contract (the "ONGC Carry"). The question as to how the ONGC Carry was to be recovered and calculated, along with other issues, was submitted to an international arbitration tribunal in August 2002 which rendered a decision on the ONGC Carry in favour of the Contractor Parties whereas four other issues were decided in favour of GoI in October 2004 (the "Partial Award").

The GoI then proceeded to challenge the ONGC Carry decision before the Malaysian courts, as Kuala Lumpur was the seat of the arbitration. On October 11, 2011, the Federal Court of Malaysia adjudicated the matter and upheld the Partial Award. Per the decision of the arbitral tribunal with regards to Partial Award, the Contractor Parties and the GoI were required to arrive at a quantification of the sums relating to each of the issues under the Partial Award. Also, the arbitral tribunal retained the jurisdiction for determination of any remaining issues in the matter.

Pursuant to the decision of the Federal Court, the Contractor Parties approached the Ministry of Petroleum and Natural Gas ("MoPNG") to implement the Partial Award while reconciling the statement of accounts as outlined in the Partial Award. GoI failed to implement the Partial Award by way of reconciling accounts as provided in the Partial Award.

However, on 10 July 2014, MoPNG issued a show cause notice alleging that since the Partial Award had not been enforced the profit petroleum share of the GoI had been short-paid. MoPNG threatened to recover that amount from the sale proceeds payable by the oil marketing companies to

the Contractor Parties. The Contractor Parties replied to the show cause notice taking various legal contentions. On 9 March 2015, a personal hearing took place between MoPNG and the Contractor Parties whereby the Contractor Parties expressed their concerns against such alleged unilateral recoveries and filed further written submissions on 12 March 2015.

Because the Partial Award did not quantify the sums, the Contractor Parties approached the same arbitral tribunal to pass a final award in the subject matter since the arbitral tribunal had retained the jurisdiction to do so. The arbitral tribunal was reconstituted and the final award was passed by the tribunal on 26 October 2016, upholding that no further amounts are due from the claimants. With respect to arbitration costs, the award specifies that each party should bear costs equally. GoI has parallely challenged the final award before the High Court of Malaysia, Kuala Lumpur. While it is not believed so, however if GOI is finally successful in its challenge, Cairn India could be liable for approximately Rs. 4,143.9 million (US\$63.98 million) and interest.

## Proceedings related to the Imposition of Entry Tax

Vedanta Limited and other group companies in Chhattisgarh, Odisha and Rajasthan challenged the constitutional validity of the local statutes levying entry tax on the entry of goods brought into the states from outside and other notifications, as being in violation of certain provisions of the Indian Constitution. BALCO paid the entry tax of Rs. 2,318 million (\$34.8 million) under protest to the state government of Chhattisgarh until 31 October 2016. By its order dated 10 September 2009, the Chattisgarh High Court upheld the constitutional validity of the impugned statute.

With respect to the challenge in the state of Odisha, Vedanta filed a writ petition before the High Court of Odisha, challenging the constitutionality of the Odisha Entry Tax Act. On February 18, 2008, the Odisha High Court held that (i) the Odisha entry tax is not compensatory, (ii) there should not be any entry tax on goods coming into Odisha which are not manufactured in Odisha, and (iii) that the Odisha Entry Tax Act is valid. This challenge was with regard to levy of entry tax on indigenous goods. The High Court order was challenged before the Supreme Court of India wherein the court ordered Vedanta to pay the entry tax amount towards earlier dues amounting to Rs. 35 million (\$0.5 million) and amounts accruing from October 2009 on a monthly basis i.e. Rs. 0.8 million per month, until the matter is finally disposed. These amounts have been fully paid under protest.

In a related matter in respect of challenging the levy of entry tax on imported goods, on 9 April 2013 the Supreme Court of India ordered the deposit of 50% of the entry tax amount accrued until 30 September 2012, which amounted to Rs.1,196 million (\$18.5 million). The amounts were paid as per the court order. However, as the entry tax demand was also partially on the SEZ operation, the same was challenged separately before the High Court of Odisha, Cuttack wherein Vedanta paid 50% of the demand under protest as per the court order. The matter is pending adjudication. Meanwhile, the Government of Odisha notified its SEZ Policy 2015 in December 2015, exempting entry tax levy on SEZ operations and Vedanta is seeking exemptions relying on the same.

Furthermore, there was a demand of entry tax on 26 March 2012 for Rs. 727 million (\$11.2 million) and interest of Rs. 492 million (\$7.6 million) for the period from August 2007 to January 2012 on power business of the then SEL. Vedanta has paid the amount in accordance with the interim order of Supreme Court of India which was given pursuant to the holding of the Odisha High Court.

Vedanta is in compliance with the interim orders passed by the Supreme Court of India on both indigenous and imported goods. The main challenges were heard by a nine judge bench of the Supreme Court and the court in its order rejected the compensatory nature of tax as a ground of challenge. The

order maintains status quo with respect to all other issues which have been left open for adjudication by regular benches hearing the matters. The issue pertaining to imported goods is being heard by the regular benches of the Supreme Court. The interim order on domestic goods is to continue for a period of four weeks and parties are free to seek relief from High Courts.

The issue of discrimination has been remanded back to the Odisha High Court with a direction that 50% demand will be payable. Following the order of the SC, Vedanta Limited has filed a fresh writ petition on the issue of discrimination before the High Court. Meanwhile, HZL and Balco have also filed a writ petition before the Rajasthan High Court and Chhattisgarh High Court, respectively.

# Ravva Joint Venture Arbitration proceedings: Base Development Cost

The Ravva joint venture had received a notice from Ministry of Petroleum & Natural Gas, Government of India (GOI) for the period from 2000-2005 for USD 129 million for an alleged underpayment of profit petroleum to the Indian Government, out of which, Cairn India's share is USD 29 million plus potential interest at applicable rate (LIBOR plus 2% as per PSC).

This claim relates to the Indian Government's allegation that the Ravva JV had recovered costs in excess of the Base Development Costs ("BDC") cap imposed in the PSC and that the Ravva JV had also allowed these excess costs in the calculation of the Post Tax Rate of Return (PTRR). The Ravva joint operation partners (excluding ONGC) initiated arbitration proceedings and the arbitral tribunal announced its award on 18 January 2011, broadly allowing companies including Cairn India to recover base development cost spent amounting to \$278 million and disallowed an over-run of \$22.3 million spent in respect of base development cost and directed 50.0% legal cost on the GoI. The High Court of Kuala Lumpur, on 30 August 2012, dismissed the GoI's application for setting aside the award with costs.. The GoI further filed an appeal before the Court of Appeal, Kuala Lumpur, which was dismissed on June 27, 2014. The GoI thereafter filed an application for a leave to appeal against the Court of Appeal's order before the Federal Court, which was dismissed by the Federal Court of Malaysia on 17 May 2016 exhausting GoI's legal remedies to challenge the Award which is now final and binding. Meanwhile, GoI issued a show-cause notice in this matter which Cairn India Limited replied to and subsequently also filed an application for enforcement of the award before the Delhi High Court as an additional measure of caution. The next hearing in the matter is scheduled for 2 August 2017. Additionally a suit has been filed by the GOI challenging the BDC Award arbitration costs proceedings before the Single Bench in the Delhi High Court. The Single Bench restrained the Tribunal from proceeding on quantification of arbitration costs, accordingly ruled in favour of GOI. Thereafter, the order of Single Judge was appealed by the Companies, before the Division Bench, of Delhi High Court, wherein the Court set aside the order of the Single Bench. The suit is listed for hearing on August 3, 2017. By way of a separate challenge, GOI has challenged the order of the Division Bench of the Delhi High Court by way of Special Leave Petition in the Supreme Court, and the next date for the matter will be made available by Court shortly.

## Proceedings, notices and enquires initiated by the Central Excise

The Central Excise department of the GoI had issued in June 2010 an ex-parte notice for reversal of Cenvat credit of Rs. 3,150 million (\$47.3 million) along with interest of Rs. 88 million (\$1.3 million) for the non-compliance of Rules 4(5a) and 4(6) of the Cenvat Credit Rules, in respect of non-return of job work challans for the period March 1, 2009 to September 30, 2009 within a stipulated time. In addition, it also alleged that Vedanta violated the advance license conditions from 2005 to 2009. In 2010, Vedanta filed four writ petitions WP No. 8123, 8135, 9744 and 9755 in the High Court of Madras against the Central Excise department along with an associated contempt petition. All the above petitions were heard on 29 July 2010 and pursuant to the order dated 8 June 2010, the High Court of Madras in relation to WP No. 8123, remanded the matter to be heard and determined afresh by a new set of officers of the Central Excise department. The High Court of Madras further granted a stay in relation to WP No. 8135 in so far as relates to job work challan matter and until a fresh enquiry was made. Further, pursuant to the order dated 29 April 2011 the High Court of Madras dismissed WP No. 9744, 9755 and the contempt petition.

The Central Excise department deputed the Assistant Commissioner of Central Excise to conduct an enquiry for the alleged non-compliance of Rules 4(5a) and 4(6) of the Cenvat Credit Rules in respect of non-return of job work challans. The Assistant Commissioner of Central Excise served a show cause notice on September 9, 2011. Vedanta filed a response before the Assistant Commissioner of Central Excise. After conducting a personal hearing, the Assistant Commissioner passed a favourable order on 1 January 2012 and dropped the entire demand for duty and interest. The department went into appeal before the Commissioner (Appeals) against this order, but the appeal was restricted only to the demand of interest. The Commissioner (Appeals) allowed the appeal on 25 February 2013 on the condition that interest would become applicable only in those cases where goods have not been sent back or cleared from the premises within 180 days from the date of dispatch from the Tuticorin unit. The verification whether any interest is payable or not has been completed and department raised the interest liability of Rs. 2.4 million which Vedanta has challenged before Tribunal on April 7, 2015 and the case has yet to be listed for hearing.

Vedanta filed two writ appeals no. 704 and 705 of 2011 in the High Court of Madras, Division Bench challenging the orders passed with respect to the writ petitions no. 8135 and 9744 of 2010. The writ petitions were admitted on August 1, 2011 and the Court ordered other party to maintain the status quo. In the meanwhile, the Commissioner of Customs Tuticorin issued a show cause notice in January, 2015 based on alleged violation of advance license conditions from 2005 to 2009 expressly mentioning that this show cause notice shall be kept pending and not be adjudicated unless and until directions are obtained from the High Court enabling such adjudication. The show cause notice also sought explaination as to why (i) a sum of Rs. 3,996.08 million along with interest for alleged violation of condition of export obligation should not be demanded as duties of customs; and (ii) the quantity of 77,241.0 metric tonnes of copper should not be held liable for confiscation for violation of export obligation. Vedanta filed writ petition no. 626 of 2015 against this show cause notice, which was tied up with writ appeals no. 704 and 705 of 2011 and heard together. Thereafter, regular hearings took place in the High Court, and on 12 March 2015 the High Court gave an interim order, allowing one of the prayers in writ in form of injunction to the Directorate General of Foreign Trade actions in pursuit of the show cause notice received from customs department. During the course of the hearings, writ appeal no. 704 was withdrawn as it has become infructuous as it relates to the job work challan matter which has already been concluded.

Writ appeal no. 705 of 2011 and writ petition no. 626 of 2015 were heard on 11 March 2016, and were both dismissed in terms of the final judgment of the High Court dated 1 August 2016. The court held that it did not find any impediment to custom authorities issuing show cause notice on basis of material gathered / input received from excise authorities. The court also held that company shall respond to the show cause notice dated 13 January 2015 within two weeks from receipt of the order and directed the Commissioner of Customs to conduct proceedings as expeditiously as possible. Vedanta has filed a Special Leave Petition against the High Court's order before the Supreme Court. The final hearing before the Supreme Court on the Special Leave Petition, as well as the accompanying stay application is awaited. The stay hearing before the Supreme Court on the special leave petition, took place on 21 April 2017 wherein the Supreme Court held that the commissioner of customs, Tuticorin may pass a final order against the notice but that it had to be kept in sealed cover. To date the matter has yet to be listed for final hearing and no order has been passed by the Commissioner of Customs, Tuticorin.

# Writ petition filed in the Delhi High Court by Cairn India Limited relating to extension of tenure of the Production Sharing Contract for the Rajasthan block

Cairn India Limited filed a writ petition before the High Court of Delhi against the MoPNG, the DGH and ONGC regarding the extension of the tenure for the Production Sharing Contract ("PSC") for the RJ-ON-90/1 Block ("RJ Block").

The RJ Block PSC is valid until May 14, 2020. Consistent with the terms of the PSC, given that the RJ Block is also producing natural gas, Cairn India Limited has been requesting an extension of the tenure of the RJ Block PSC for a period of up to 10 years, i.e., until May 14, 2030. ONGC, Cairn India Limited's joint venture partner in the RJ Block, is technically aligned on the recoverable resources potential of the RJ Block beyond the PSC period, until the proposed extension period up to 2030. Cairn India Limited has been making regular requests to the MoPNG for extension of the tenure of the RJ Block PSC since the past few years. However, apart from seeking further technical and financial details, the MoPNG has not yet made a final decision in the matter.

With regards to the MoPNG's delay, a writ petition was filed by Cairn India Limited on December 11, 2015, seeking relief from the High Court of Delhi. During the Court hearing held on December 14, 2015, the MoPNG and DGH contended that no decision had been taken in the matter as the requisite data had not been provided by Cairn India Limited and ONGC. ONGC further contended that it had sought certain commercial particulars from Cairn India Limited which had not been furnished by Cairn India Limited. Through its order dated December 14, 2015, the High Court of Delhi ordered all parties to exchange the requisite information and documents to enable the GoI to make a decision in the matter. The High Court of Delhi imposed timelines on the parties for the exchange of information, namely the GoI, DGH and ONGC to seek data and information within four weeks, Cairn India Limited to provide the requisite information within two weeks thereafter, ONGC to review and revert with commercial alignment on the projects within six weeks thereon and the GoI to take a decision within three months from the date of consensus between Cairn India Limited and ONGC. Following the December 14, 2015 court order, information has been exchanged between Cairn India Limited and ONGC for obtaining ONGC's commercial alignment.

Notwithstanding the above, MoPNG's and ONGC's stance so far has been that due to insufficient data provided by Cairn India Limited, ONGC has not been able to conclude its commercial assessment. In view of this, the High Court of Delhi through its order dated April 5, 2016, ordered ONGC to give a final opportunity to Cairn India Limited to furnish the requisite documents within 2 weeks from the date of the aforesaid order and thereafter to make a final decision on commercial alignment within an additional 2 weeks, in order to enable the GoI to take its decision in the matter as per the timeline stated in the High Court of Delhi's order dated 14 December 2015. Pursuant to the High Court of Delhi order, Cairn India and ONGC have continued the information exchange for the purposes of ONGC's review. On March 22, 2017, the Cabinet Committee on Economic Affairs (CCEA), GoI approved a new policy for the grant of extension to (New Exploration Licensing Policy) PSCs, including RJ block. DGH vide its letter dated April 12, 2017 communicated about the aforesaid extension policy specifying that Cairn should apply thereunder. GOI has also filed an affidavit communicating the aforesaid extension policy and the High Court of Delhi has granted time to Cairn to file its affidavit before the High Court of Delhi. The matter is now listed for hearing on 28 July, 2017.

# Writ petition filed in the Delhi High Court by Cairn India Limited relating to export of crude oil from RJ Block.

Cairn India Limited has filed a writ petition before the High Court of Delhi against the Directorate General of Foreign Trade ("DGFT"), the MoPNG, and Indian Oil Corporation Limited ("IOCL") for the export of crude oil from the RJ Block.

Due to its nature and composition, RJ Block crude has the potential to be valued higher by refineries in other markets, beyond the prices being received from the GoI nominated buyers, namely IOCL and private refiners Reliance Industries Limited and Essar Oil Limited. Since 2009, Cairn has been receiving bids from international buyers and refiners offering prices that are an additional US\$3-4 per bbl more than the domestic sale prices for RJ Block crude.

In accordance with the provisions of the RJ Block PSC and the applicable GoI policies for crude oil export, Cairn India Limited repeatedly requested IOCL and MoPNG to allow it to export RJ Block crude oil, to which there has been no firm response. Cairn India Limited also made written requests to the DGFT to intervene in the matter, which again proved unsuccessful.

In view of the aforesaid, Cairn filed a writ petition in the High Court of Delhi on December 11, 2015 to obtain relief in the form of orders to the DGFT, MoPNG and IOCL for approvals and authorisations to permit and facilitate the export of RJ Block crude oil, to the extent GoI nominated buyers are unable to cover the entire production. Through its order dated December 14, 2015, the High Court ordered the MoPNG, DGFT and IOCL to obtain necessary instructions on whether the GoI was willing to pick up the entire crude oil production from the RJ Block, or in the alternative was ready to grant permission to Cairn to directly export the crude oil not covered by the GoI nominees.

The GoI's stance thus far has been to deny Cairn India Limited's request for export, although it has yet to present its complete arguments to the High Court of Delhi justifying such denial. Relying on the lack of consent from the GoI, DGFT also rejected Cairn's request for export permission on February 16, 2016. During the course of arguments, the High Court of Delhi disagreed with GOI's observations on the construct of Article 18 and observed that there was no embargo on export neither in the PSC nor in the policy. On October 18, 2016, the writ petition was dismissed with liberty to refer the matter to dispute resolution as per PSC. Cairn has filed an appeal before the division bench of the High Court.

# Shenzhen Shandong Nuclear Power Construction Co. Limited has commenced arbitration proceedings against Vedanta

On March 19, 2012, Shenzhen Shandong Nuclear Power Construction Co. Limited ("SSNP") filed a petition before the Bombay High Court under section 9 of the Arbitration and Conciliation Act, 1996, that Vedanta had suppressed the fact that it had failed to obtain environmental clearances in relation to a 210 MW co-generation power plant for a refinery expansion project at Lanjigarh and further alleged the non-payment of dues for construction and other services in relation to the same. This was subsequent to SSNP's notice for termination of the contract dated February 25, 2011 and legal notice dated February 23, 2012 for recovery of its alleged dues. SSNP also made a request for interim relief. Under the petition, SSNP sought for a restraining order on encashment of the advance bank guarantee, injunction from disposing or creating third party right over plant and machinery at the project site and security for the amount due under the contract. During the pendency of the petition, SSNP invoked arbitration by way of a notice dated April 18, 2012. SSNP sought an award for the sums of Rs. 4472.11 million, USD 2380million and Euro 121 million. On April 25, 2012, the High Court of Bombay dismissed SSNP's petition. SSNP appealed against this order before a division bench of the High Court of Bombay, which, by its order of December 12, 2012 ordered Vedanta to deposit a bank guarantee for an amount of Rs. 1,870 million (\$28.8 million) until completion of the arbitration proceedings.

In April 2013, Vedanta also filed a counterclaim for delays in operations caused arguing that SSNP was responsible. Subsequently SSNP filed an application for an interim award of Rs. 2,020 million (\$1.2 million) before the arbitral tribunal, which was not allowed. The final arguments in the matter have been concluded and next hearing is on June 30, 2017 for clarification.

## Proceedings against TSPL relating to its delay in commissioning various units of the power plant

TSPL entered into a long term power purchase agreement with the Punjab State Power Corporation Limited ("PSPCL") for supply of power. TSPL has a contractual obligation to commence commercial operation of various units of the power plant according to the scheduled timelines agreed in terms of the agreement. However, there were delays in implementing the project as compared to the scheduled timelines under the agreement. TSPL received letter from PSPCL, seeking payment of liquidated damages of Rs.3,176.4 million (\$50.0 million) for each delay in commissioning of Units I, II and III totalling Rs.9,529.25 million (\$146.9 million).

Subsequently, PSPCL invoked the bank guarantee of Rs. 1,500 million (\$23.1 million) towards payment of the liquidated damages on account of delay in completion of the commissioning of Unit I. TSPL filed a petition with the Punjab State Electricity Regulatory Commission ("PSERC") for quashing of the claim of liquidated damages and grant of extension of time to complete the

commissioning of various units of the power plant. It claimed that the highlighted delays arose due to PSPCL's delay in the fulfilment of certain obligations under the power purchase agreement, such as those in relation to procuring interconnection and transmission facilities and arranging supply of adequate quantity of fuel for the project, as well as other force majeure reasons. On 22 October 2014, PSERC ordered the matter to be settled through arbitration and the Punjab & Haryan high court allowed the stay on encashment of bank guarantee allowed the stay on encashment of the bank guarantee until further orders. PSPCL submitted an appeal in Appellate Tribunal for Electricity (APTEL) against the PSERC order and on 12 May 2015, APTEL disposed the appeal by directing that the matter will be adjudicated by an arbitral tribunal. The arbitral proceedings have been concluded and is reserved for orders.

# Proceedings against TSPL relating to mega power project benefits

Sterlite Energy Limited (now Vedanta Limited) ("SEL") submitted its bid for setting up a 1980 MW thermal power plant in the state of Punjab under a tariff based international competitive bidding process under a Case-II competitive bidding mechanism on June 2008, which was ultimately awarded to SEL. A power purchase agreement (PPA was entered between TSPL and PSEB on September 2008, which is now known as PSPCL. According to the power purchase agreement, any increase or decrease in the capital cost of the project on the occurrence of any "Change in Law" (as defined therein) after the cut-off date of June 16, 2008, had to be passed on to PSPCL, if it resulted in change in economic position of TSPL.

Because TSPL intended to sell all of the generated electricity to the state of Punjab, it did not meet one of the requirements for the mega power project at the time of bidding, namely that the project had to sell electricity to more than one state. However, the said requirement was amended in October 2009, making TSPL eligible for the mega power project status. Accordingly, TSPL was given the mega power project status in 2010 and thereafter has been receiving the customs and excise exemption.

In July 2013, PSPCL filed a petition before the PSERC, alleging that a TSPL had become entitled to the mega power project status after the cut-off date, the mega power project benefits received by TSPL had to be passed on to PSPCL pursuant to the power purchase agreement's "Change in Law" clause. TSPL in its reply stated that as of the cut-off date, similar benefits were available to it under India's foreign trade policy as a non-mega power project and accordingly, that its economic position had not altered pursuant to the grant of mega power project status to warrant the passing on of such benefits to PSPCL. TSPL has also produced a number of approval letters issued by various Director General of Foreign Trade offices across India, which extended such benefits to non-mega power projects including government power projects or other public sector undertakings.

PSERC passed an order dated December 2, 2014, holding against TSPL. TSPL thereafter filed an appeal on January 2015 along with a stay application before the APTEL, challenging the order of PSERC. The stay application was rejected by APTEL without considering the submissions of TSPL. TSPL then filed a stay application before the Supreme Court, appealing against APTEL's order on the stay application. The Supeme Court granted a stay on 24 April 2015 and subsequently on 28 July 2015, the Supreme Court ordered the stay to continue until given any further orders. Stay granted by the Supreme Court of India was later vacated on 6 Feburary 2017which led to a deduction of Rs. 214 crores whereas basis a subsequentSupreme Court order Rs. 50 crores was later refunded. Post this order APTEL granted a stay for further deductions from the monthly billing cycle against a bank guarantee furnished by the Company. APTEL disallowed TSPL's contentions as per its order dated 4 July 2017 TSPL filed an appeal before the Supreme Court against the adverse APTEL order and a stay order against the deduction of Rs. 90 crore and against encashment of bank guarantee amounting to Rs. 38 crore was granted. The matter is scheduled for further hearing in the Supreme Court on 8 November 2017.

The outstanding receivable on account of the said dispute as of 31 March 2017 was US\$28 million. The Company is treating these balance as recoverable based on the assessment of chance of success in the matter.

# TSPL: Proceedings related to determination of energy changes

Upon PSPCL's refusal to pay energy charges to TSPL as per provisions of power purchase agreement (PPA) between PSPCL and TSPL, TSPL filed a petition in PSERC against PSPCL claiming charges for washing, unloading, surface transportation, transit loss, finance charges, Gross Calorific Value (GCV) loss etc. related to procurement of coal. PSPCL's contention was that fuel charges should only include charges billed by fuel supply company namely Mahanadi Coalfields Limited (MCL) whereas TSPL contended that all costs of fuel procurement are to be considered by PSPCL under PPA since obligation to supply fuel for the project is that of PSPCL under Case II Scenario IV bidding procedure of Ministry of Power. PSPCL's obligation of signing fuel supply agreement with MCL and to supply fuel for project was later upheld by Appellate Tribunal for Electricity (APTEL) in another case between TSPL and PSPCL and that judgement is subsisting since its operation has not been disturbed in PSPCL's appeal to Supreme Court of India.

PSERC gave the final order on 23 November 2015 denying all the claims made by TSPL. TSPL later filed an appeal before APTEL challenging the order of PSERC. On 3 July 2017, APTEL partially allowed the appeal awarding unloading and shunting charges to TSPL whilst it ruled against TSPL on other claims. TSPL is in the process of challenging the same. The claim amount involved is US\$96 million.

The outstanding receivable on account of the said dispute as of 31 March 2017 was US\$89 million. The Company is treating these balance as recoverable based on the assessment of chance of success in the matter.

# Claim for contributions towards the District Mineral Foundation

The District Mineral Foundation was introduced by MMDRA Amendment Act, whereby all the mining lease holder have been made liable to pay contribution towards District Mineral Foundation, which shall be such percentage of royalty as prescribed by the Central Government. The Section 9B of the MMDRA Amendment Act, providing this levy was introduced and made effective from 12 January 2015. In September 2015, a notification was issued by the Ministry of Mines prescribing the rate for the District Mineral Foundation contribution. In October 2015, another notification was issued by the Ministry of Coal whereby rates were prescribed for minerals like coal and lignite, however a separate provision was inserted applying such rates from the date of the said notification or the respective state rules, whichever comes earlier. Subsequently, state rules were formulated for Rajasthan with effect from May 2016 and demand notices were received by HZL for deposit of the District Mineral Foundation contribution from 12 January, 2015. The High Court of Rajasthan in its order dated 8 August 2016 stayed the said demand retrospectively for the period under challenge.

The Federation of Indian Mineral Industries (FIMI) had also filed a writ petition before the High Court of Delhi, obtaining an order for no coercive action, which petition was subsequently transferred to the Supreme Court, wherein the court also allowed individual companies to implead themselves in the matter. HZL has also filed an application to implead in the matter at the Supreme Court. As per the order of the Supreme Court, all matters pending before any of the High Courts will maintain status quo.

In parallel, Vedanta Limited and Balco's challenges against notifications for liability on account of fuel are pending before the High Court of Delhi, whereas Balco's challenge against liability on account of non-fuel is pending before the High Court of Chhattisgarh.

Cairn received a show cause notice from the Indian tax authorities for not withholding tax on payments made while acquiring a subsidiary

In March 2015, Cairn India Limited received a notice from the Indian Tax Authorities ("Tax Authorities") alleging failure by Cairn India Limited to withhold tax on the consideration paid to Cairn UK Holdings Limited ("CUHL") on a transaction which took place in the year 2007-08. The said transaction relates to the acquisition of the shares of Cairn India Holdings Limited ("CIHL"), a 100% subsidiary of Vedanta Limited as of 31 March 2017, from CUHL during the financial year 2006-2007 as a part of group reorganisation by the then ultimate parent company Cairn Energy Plc. Based upon the retrospective amendment(s) made in the year 2012 by inserting explanation 5 of section 9(1)(i) of the Income Tax Act, 1961, the Tax Authorities vide its order dated March 11, 2015, raised a demand of approximately Rs.204,947 million (\$3,160.3 million) comprising tax of approximately Rs.102,474 million (\$1,580.2 million) and interest of an equivalent amount) for not withholding tax on the consideration paid to CUHL, for shares of CIHL. The Tax Authorities stated in the said order that a short term capital gain of Rs. 245,035 million (\$3,778.5 million) accrued to CUHL on transfer of the shares of CIHL to Vedanta Limited in financial year 2006-2007, on which tax should have been withheld by Vedanta Limited. Vedanta Limited understands that a tax demand has also been raised by the Tax Authorities on CUHL with respect to taxability of alleged capital gain earned by CUHL.

In this regard, on 27 March 2015 Vedanta Resources Plc. filed a Notice of Claim against the GoI under the UK-India bilateral investment treaty in order to protect its legal position and shareholder interests. Management was advised that Vedanta Resources Plc. has a good case to defend as per provisions of UK-India bilateral investment treaty, the benefit of which would ultimately accrue to Vedanta Limited. Further, Vedanta Limited has sought independent advice on this issue and has been advised that there could be no liability on Vedanta Limited for the failure to withhold the taxes in the year 2006-07 based on provisions of law prevailing at the time of transaction as the aforesaid retrospective amendment has cast an impossible obligation on Vedanta Limited to deduct tax by having to predict and anticipate that the retrospective amendment will be made by the legislature on a future date. Vedanta Limited has approached the Delhi High Court against the said order and also filed an appeal before the Commissioner of Income Tax (Appeals) to defend its position. The next hearing date before Delhi High Court is scheduled on 17 August 2017.

# Class actions against KCM on behalf of Zambian nationals

Two separate proceedings were issued in England and Wales by two English law firms, Hausfeld and Leigh Day, on behalf of Zambian nationals who allege that they have suffered loss and damages as a result of KCM's operation of the Konkola copper mine.

One 31 July 2015, Leigh Day issued proceedings on behalf of 1813 individual claimants from the Shimulala, Kakosa, Hellen and Hippo Pool communities in the Chingola district in Zambia. The allegations made against the Company and KCM pertain to alleged incidents occurring over an 11 year time period and include claims of personal injury, significant pollution, environmental damage and claims for aggravated and exemplary damages and for injunctive relief. These allegations are currently being investigated by KCM. There has been no hearing or proceeding in any court on the merits of any of these claims to date, none has been scheduled, and the amount of the claims has not been specified.

The Company and KCM have challenged the jurisdiction of the High Court of Justice of England and Wales, *inter alia*, on the basis that (a) there are already existing proceedings in Zambia which have been brought by multiple claimants against KCM in respect of the operation of the Konkola copper mine, (b) some of the claimants have already brought claims in Zambia, (c) the Konkola copper mine is situated, operated and regulated by Zambian regulators pursuant to Zambian law, (d) it is where KCM, the operator of the mine, is domiciled, (e) it is where the minority shareholder of KCM (controlled by the Government of the Republic of Zambia) is domiciled, (f) it is where the claimants

are situated; (g) it is where the damage is alleged to have occurred, (h) it is the where the relevant witnesses are based, the relevant evidence is based, and (i) it is Zambian law which applies to these claims and Zambia has a fully functional legal system which can also accommodate group actions (or class actions) claims.

On 28 May 2016, the English High Court of Justice, Queen's Bench Division, Technology and Construction Court released a judgment disallowing the applications from the Company and KCM, respectively, ruling that the English courts have jurisdiction to hear and adjudicate the claims. The Company and KCM were granted permission to appeal the order and the hearing on the appeals of Vedanta and KCM on the jurisdiction of the UK Courts to adjudicate the claim was concluded on 5-6 July 2017. The order on the same is expected in October 2017.

Hausfeld issued a claim form on 16 July 2015 in the Queen's Bench Division on behalf of 347 claimants in relation to alleged pollution from the Konkola copper mine which was alleged to have led to, amongst other things, personal injury. Whilst no particulars of claim were produced, the claims by Hausfeld appeared to cover materially the same facts and matters as those which form the substance of the claim being brought against the Company and KCM by Leigh Day (referred to above). It subsequently became clear that Leigh Day and Hausfeld were claiming to act for some of the same claimants and, following a case management conference in the English High Court on 24 November 2015, it appears to have been established between Leigh Day and Hausfeld that those "overlapping" claimants wished to instruct Leigh Day rather than Hausfeld, increasing the number of claimants represented by Leigh Day to 1826. The Hausfeld claim form was therefore allowed to lapse without service. That claim on behalf of 347 claimants is therefore at an end.

On 25 January 2016, Hausfeld informed the High Court that they are assessing the viability of potential new claims relating to alleged environmental pollution against KCM and Vedanta, involving 1,099 individuals in the Copperbelt region in Zambia. Hausfeld told the Court that the alleged pollution appeared to emanate from a different source than that which is the subject of the Leigh Day claim, though Hausfeld have indicated that they are awaiting the outcome of Vedanta and KCM's jurisdiction challenges in the Leigh Day claim (referred to below) before deciding whether to pursue those claims. Hausfeld have not yet commenced pre-action correspondence, or taken any other steps, in respect of those potential new claims.

The claim amount is not currently quantifiable.

## Proceedings against KCM by Zambia Consolidated Copper Mines Investment Holdings

KCM and its shareholder, majority State-owned Zambia Consolidated Copper Mines Investment Holdings (ZCCM-IH) have been engaged in discussions with regard to the price participation settlement agreement entered into in December 2012 ("Price Participation Agreement"). In June 2016, ZCCM-IH filed a claim before the English High Court of Justice, Queen's Bench Division, Commercial Court in relation to alleged outstanding amounts pursuant to the terms of the settlement agreement. The Court handed down a judgment on 16 December 2016, allowing ZCCM-IH's application and ruling that \$103,327,244 including contractual interest is payable to ZCCM. ZCCM's application for additional sums under the settlement agreement will be subject to a hearing post March 2017. KCM and ZCCM-IH have engaged in settlement discussions about the payment and have filed a consent order before the court on 13 January 2016. The hearing on additional interest sought by ZCCM is expected to happen in November 2017.

# Sustainability

In fiscal year 2012, Vedanta introduced a series of policies and technical and management standards (the "Sustainability Framework") aligned to international sustainability standards, such as the International Finance Corporation Performance Standards, the International Council on Mining and Metals Sustainable Development Framework and the United Nations Global Compact Principles.

In fiscal year 2013, Vedanta took further steps to implement the Sustainability Framework by requiring its operating subsidiaries to have clear action plans in place with supporting documentation to guide them to further implement the Sustainability Framework, based on self-assessment. In addition to the self-assessment requirement, Vedanta has also adopted an evaluation and internal assurance process and programmes to train and develop its employees and contractors in the Sustainability Framework.

In fiscal year 2015, Vedanta introduced safety performance standards, formal safety risk assessment, industrial hygiene baseline assessment and safety leadership coaching. In fiscal year 2016, Vedanta incorporated safety performance standards into executive remuneration. These standards now form integral part of internal assurance process, known as Vedanta Sustainability Assurance Programme (VSAP) and the businesses performance is tracked against these standards on regular basis.

Vedanta's Board, particularly the Sustainability Committee, is responsible for ensuring the implementation of the Sustainability Framework and to otherwise assist the Board in meeting its responsibilities in relation to sustainability related matters arising out of the activities and operations of Vedanta. See "Management — The Board — Sustainability Committee". The committee which is headed by independent director meets on a quarterly basis and takes stock of Vedanta's sustainability performance and provides guidance on related strategic and policy decisions.

As of 31 March 2017, 100% of existing & running operations are certified to ISO 14001 and OHSAS 18001 standards. Further 44 plants are certified to ISO 9001, 17 plants are certified to ISO 50001 and 10 plants are certified to SA 8000. Vedanta procures required approvals from suppliers and the local community, before it sources its raw materials for its operations.

In its effort to promote health and safety, Vedanta has adopted the Experience Based Risk Quantification & Bow Tie and Making Better Risk Decision approach to enhance its risk assessment, incident investigations and decision making capabilities. Additionally, Vedanta has adopted Consequence Management technique to instill discipline amongst people and avoid repeat incidents. Vedanta's injury rates have declined over the years, the 7 fatalities recorded during the fiscal year 2017 have heightened Vedanta's resolve to create a zero-harm culture across the organisation and raise the profile of health and safety by reviewing safety incidents at the board, business segment and operational levels. The business units have implemented and put forward behavioural based and technical programmes to avoid the reoccurrence of these incidents. Further safety investigations and follow-ups have been improved and quantitative risk assessments have been introduced for all critical areas.

During fiscal 2017 Vedanta engaged an independent agency to conduct a stability assessment of some of its large structures including the tailing dams and fly ash ponds. Vedanta has a tailing dam related business risk as a part of its group risk register and its businesses regularily provide updates.

Vedanta's operations are aligned with regulatory requirements, as applicable, such as the IFC performance standards. With recent developments in relation to climate change and environment protection, Vedanta is in the process of updating its policies and is taking steps to implement measures for environment protection, such as conservation of forests and biodiversity enhancement. Vedanta also engages with third party consultants to effectively mitigate, manage and resolve environment pollution, if any, in locations where it operates.

As of 31 March 2017, Vedanta employed, directly or through contractors, more than 70,000 people. Making a positive contribution to local communities in India and Africa remains a high priority for Vedanta, with around 2.25 million beneficiaries of community development programmes during fiscal year 2017, supported by over 250 partnerships with NGOs, local governments, academia and private hospitals. Vedanta's social investment reached US\$18 million and is aligned with its social vision and community need based approach.

Vedanta also develops local infrastructure, including roads, sanitation, education and medical facilities, in the communities where it operates, investing \$37 million during fiscal year 2017 to provide support for schools, hospitals, health centres and farmers which benefited approximately 2.25 million people.

Additionally, Vedanta paid \$6.0 billion to the various governments during fiscal year 2017 through direct and indirect taxes, royalty and oil tax.

## **Indian Regulatory Matters**

#### Mining Laws

The MMDR Act, the Mineral Concession Rules, 1960 of India, as amended, and the Mineral Conservation and Development Rules, 1988 of India, as amended governs the mining rights and operations of mines in India. The MCD Rules outline the procedures for obtaining a prospecting license or the mining lease, the terms and conditions of such licenses and the model form in which they are to be issued. The GoI announced the National Mineral Policy in 1993 which was replaced by the National Mineral Policy of 2008 ("NMP 2008"). NMP 2008 provides for a change in the role of the GoI and the state governments to incentivise private sector investment in exploration and mining and for ensuring level playing field and transparency in the grant of concessions and promotion of scientific mining within a sustainable development framework so as to protect the interest of local population in mining areas. The Mines and Minerals (Development and Regulation) Amendment Act, 2015 was promulgated on March 27, 2015 and has brought about significant changes in the legal regime for the mining sector including defining bauxite, iron ore, limestone and manganese ore as notified minerals, creation of a new category of mining license i.e. the prospecting license-cum-mining lease, grant of mining lease for a period of 50 years for all minerals other than coal, lignite and atomic minerals, establishment of District Mineral Foundation for the benefit of persons in districts affected by mining related operations, auction of notified and other minerals by competitive bidding, including e-auction etc. The MMDR Act was further amended by the Mines and Minerals (Development and Regulation) Amendment Act, 2016 which permits the transfer of captive mine leases (granted before January 12, 2015) without having to go through an auction processed and also allows the dumping of waste outside of the mining area by including dumping sites within the definition of lease area. The amendment received presidential assent on May 6, 2016.

Working conditions of mine laborers are regulated by the Mines Act, 1952, as amended ("Mines Act") and it sets forth standards of work, including number of hours of work, leave requirements, medical examination, weekly days of rest, night shift requirements and other requirements to ensure the health and safety of mine workers. The Mines (Amendment) Bill, 2011 proposes several amendments to the Mines Act, including significant enhancement to the monetary penalties and terms of imprisonment for violations.

## Oil and Gas Laws

The MoPNG is the principal regulator of oil and natural gas exploration and production in India. The MoPNG established the Directorate General of Hydrocarbons in 1993 to promote the sound management of Indian petroleum and natural gas resources with due regard to the environmental, safety, technological and economic aspects of petroleum activities. The Directorate General of Hydrocarbons is responsible for, *inter alia*, ensuring correct reservoir management practices, reviewing and monitoring exploratory programmes, the development plans of oil companies, and monitoring the production and the optimal utilisation of gas fields.

The MoPNG oversees the Oil Industry Safety Directorate, which develops standards for safety, fire-fighting, training programmes and information dissemination, and conducts periodic safety audits of all petroleum-handling facilities. It also oversees the Oil Industry Development Board, which provides

financial and other assistance for the conductive development of the oil industry. The safety standards prescribed by the Oil Industry Safety Directorate, and the safety regulations prescribed by the Directorate General of Mines Safety in respect of onshore petroleum mining installations, must be complied with.

Oil and natural gas exploration activities are governed by The Oilfields (Regulation and Development) Act, 1948, as amended ("ORDA Act"). This legislation provides for the regulations of oilfields and for the development of mineral oil resources, including natural gas and petroleum. The ORDA Act empowers the GoI to frame rules on the granting of mining leases and petroleum exploration or prospecting licenses, the conservation and development of mineral oils, the production of oil, and the regulation of oilfields.

The Petroleum Exploration License and Petroleum Mining Lease under the Petroleum and Natural Gas Rules, 1959, as amended ("PNG Rules") provide the framework for the granting of petroleum exploration licenses and petroleum mining leases. The PNG Rules prohibits the prospecting or exploitation of any oil or gas unless a license or lease has been granted under the PNG Rules. A petroleum mining lease entitles the lessee to an exclusive right to extract oil and gas from the relevant contract area. Petroleum exploration licenses and petroleum mining leases are granted by the MoPNG for offshore areas and by the relevant state governments, with the prior approval of the GoI, for onshore areas.

The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, as amended regulates the exploration and exploitation of resources of the continental shelf and exclusive economic zone.

The Essential Commodities Act, 1955, as amended makes provisions controlling the production, supply and distribution of certain essential commodities, which include petroleum and petroleum products.

The Petroleum Act, 1934, as amended ("Petroleum Act") provides that no person shall produce, refine, blend, store or transport petroleum except in accordance with the rules framed by the GoI under the Petroleum Act. The Petroleum Rules, 2002, as amended now regulate these activities.

The Petroleum and Natural Gas Regulatory Board Act, 2006, as amended provides for the establishment of the Petroleum and Natural Gas Regulatory Board. The board regulates the refining, processing, storage, transportation, distribution, marketing and sale of petroleum products and natural gas (excluding production of crude oil and natural gas).

The Petroleum and Minerals Pipelines (Acquisition of Right of User in Land) Act, 1962, as amended provides the framework governing the acquisition of right of user in land for laying pipelines for the transportation of petroleum and minerals and other matters connected therewith. This law is limited to the acquisition procedure, restrictions on use of land and compensation payable to the persons interested in the land.

The MoPNG through its notification no. O-32011/4/2013-ONG-I dated March 30, 2016 introduced a new exploration and licensing policy named Hydrocarbon Exploration and Licensing Policy ("HELP"). This is a fundamental change in the Indian oil and gas sector, which introduces a new contractual and fiscal model for the award of hydrocarbon acreages. Four main facets of HELP are: single license, open acreages, revenue sharing model and marketing and pricing freedom.

The MoPNG through its notification no. O-22013/27/2012-ONG-D-V(Vol-II) dated March 21, 2016 introduced the policy for marketing including pricing freedom for the gas to be produced from discoveries in deepwater, ultra-deepwater and high pressure temperature areas. This policy is

applicable to all discoveries in deep water/ultra-deep water/high temperature-high pressure areas which are yet to commence commercial production as of January 1, 2016 and to all future discoveries in such areas. As per the policy the producers will be allowed marketing freedom including pricing freedom subject to a ceiling price on the basis of landed price of alternative fuels.

#### Power Sector

Under the Electricity Act, 2003, as amended ("Electricity Act"), transmission and distribution of, and trading in, electricity require licences from the appropriate Central or State Electricity Regulatory Commissions (respectively, "CERCs" and "SERCs", and collectively, "ERCs"), unless exempted in accordance with the Electricity Act. CERC has jurisdiction over generating companies owned or controlled by the GoI or which have a composite scheme for generation and sale in more than one State. SERCs have jurisdiction over generating stations within State boundaries, except those under CERC's jurisdiction. The respective ERC determines the tariff for supply of electricity from a generating company to a licensee, transmission, wheeling, and retail sale of electricity. The Electricity Act was amended in 2007 to exempt captive power generation plants from licencing requirements.

The Electricity Act allows generating companies open access to transmission lines. The provision of open access is subject to the availability of adequate transmission capacity as determined by the Central or State Transmission Utility. Under the Electricity Act, ERCs determine tariff for supply of electricity by a generating company (as well as for transmission, wheeling and retail sale of electricity).

The Electricity (Amendment) Bill 2014 seeks to segregate the distribution network business and the electricity supply business, and introduce multiple supply licensees in the market. The Bill introduces a supply licensee who will supply electricity to consumers. The distribution licensee will maintain the distribution network and enable the supply of electricity for the supply licensee.

# Environmental Laws

Vedanta's business is subject to environmental laws and regulations. The applicability of these laws and regulations varies from operation to operation and depends on jurisdiction in which Vedanta operates. Vedanta's operations require environmental and other permits covering, amongst other things, water use and discharges, stream diversions, solid waste disposal and air and other emissions. Major environmental laws applicable to Vedanta's operations, as amended from time to time, include the Environment (Protection) Act, 1986, Forest (Conservation) Act, 1980 of India as amended, and the Forest Conservation Rules, 2003, Hazardous Wastes (Management and Handling) Rules, 1989 of India, Water Act, Water (Prevention and Control of Pollution) Cess Act, 1977, Air Act, The Coal Mines (Nationalisation) Act, 1973, or Coal Nationalisation Act, Coking Coal Mines (Nationalisation) Act, 1972, Coal Mines (Taking Over of Management) Act, 1973, Coking Coal Mines (Emergency Provision) Act, 1971, Coal Bearing Areas (Acquisition and Development) Act, 1957, Coal Mines (Conservation and Development) Act, 1974 and the New Coal Distribution Policy, 2007.

The Environmental Protection Act, 1986 as amended from time to time, the Water (Prevention and Control of Pollution) Act, 1974 as amended from time to time and the Air (Prevention and Control of Pollution) Act, 1981 as amended from time to time provide for the prevention, control and abatement of pollution. Pollution control boards have been set up in states in India to exercise the powers under these statutes to prevent and control pollution. Companies must obtain the clearance of state pollution control boards before emitting or discharging effluents into the environment.

In case the project value exceeds Rs. 1 billion for a new project or Rs. 500 million for the expansion of existing oil and gas exploration and production project, the project also requires the approval of the Ministry of Environment and Forest.

The Hazardous Waste (Management and Handling) Rules, 1989 was superseded by the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 which came into force on September 24, 2008. The 2008 Rules was also superseded by the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 ("HWMTM Rules 2016"). The HWMTM Rules 2016, as amended, encourages disposal of waste farther away from the source of generation. It promotes transboundary movement of hazardous wastes.

# Employment and Labor Laws

Vedanta is subject to various labor, health and safety laws which govern the terms of employment of Vedanta's laborers at the mining and manufacturing facilities, their working conditions, the benefits available to them and the general relationship between the management and such laborers. These employment laws applicable to Vedanta, as amended from time to time, include the Industrial Disputes Act, 1947, Factories Act, 1948, Contract Labor (Regulation and Abolition) Act, 1970, Employee State Insurance Act, 1948, Payment of Wages Act, 1936, Minimum Wages Act, 1948, Workmen's Compensation Act, 1923, Payment of Gratuity Act, 1972, Payment of Bonus Act, 1965, and Employees' Provident Funds and Miscellaneous Provisions Act, 1952.

#### Other Laws

In addition to the above, Vedanta is required to comply with the provisions of the Companies Act, 2013, as amended, Companies Act, 1956, to the extent applicable, and rules framed thereunder and other applicable statutes imposed by the central or the state government and authorities for the day-to-day business and operations. Vedanta is also subject to various central and state tax laws.

Moreover, there are various rules and regulations which are framed and amended from time to time by the SEBI in order to regulate the functioning of the securities market, which we are required to comply with. Vedanta is also required to comply with the Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder as amended from time to time, which primarily governs foreign investment in India.

#### Regulation of Foreign Investment

Foreign investment in India is governed primarily by the provisions of the Foreign Exchange Management Act, 1999, as amended (FEMA) which relates to regulation primarily by the Reserve Bank of India (RBI) and the rules, regulations and notifications thereunder, and the policy prescribed by the Department of Industrial Policy and Promotion, Government of India, which is regulated by the Foreign Investment Promotion Board. The FEMA regulates transactions involving foreign exchange and provides that certain transactions cannot be carried out without the general or specific permission of the RBI.

Dividends are freely repatriable without any restrictions (net after Tax deduction at source or Dividend Distribution Tax, if any, as the case may be). The repatriation is governed by the provisions of the Foreign Exchange Management (Current Account Transactions) Rules, 2000, as amended from time to time.

Further, RBI has placed certain restrictions and conditions for the use of debt funds in India which are raised in the overseas market by overseas holding/group companies of Indian companies where such Indian companies account for sole/major operations of the group. Indian companies are also not allowed to issue any direct or indirect guarantee or offer any security in any form for borrowings by their overseas holding/group companies.

# **MANAGEMENT**

The following table sets forth certain information regarding Vedanta's Directors and executive officers and senior management as of 31 March 2017<sup>(1)</sup>.

Name	Nationality	Age	Position
<b>Board of Directors</b>			
Anil Agarwal	Indian	65	Executive Chairman
Navin Agarwal <sup>(2)</sup>	Indian	56	Executive Vice Chairman
Tom Albanese <sup>(2)</sup>	American	60	Chief Executive Officer
Geoffrey Green	British	67	Non-Executive Director
Aman Mehta <sup>(3)</sup>	Indian	70	Non-Executive Director
Deepak Parekh	Indian	72	Non-Executive Director
Ekaterina (Katya) Zotova	Dutch	38	Non-Executive Director
Ravi Rajagopal	British	61	Non-Executive Director
<b>Executive Committee</b>			
Tarun Jain	Indian	57	Director of Finance
Arun Kumar GR	Indian	46	Chief Financial Officer
Dilip Golani	Indian	51	Director, Management Assurance
			Chief Executive Officer of
Samir Cairae	Indian	53	Diversified Metals (India)
Sunil Duggal	Indian	55	Chief Executive Officer, HZL
			CEO Zinc Internaltional & CMT
Deshnee Naidoo	South	41	Africa
Rajagopal Kishore Kumar	Indian	55	Chief Executive Officer, Iron Ore
			Acting Chief Executive Officer and
			Chief Financial Officer — Cairn
Sudhir Mathur		56	India
Mansoor Siddiqi	Indian	64	Group Director — Projects
Kuldip Kaura	Indian	70	President, Chairman's office
			Head — Group HSE and
Philip Turner			sustainability
Suresh Bose	Indian	49	Head — Group human Resources

<sup>(1)</sup> Mr Edward Story was appointed to the Board as a Non-Executive Director of the Company and a member of the Audit Committee with effect from 1 June 2017.

## **Directors and Senior Management**

Other than those interests and relationships disclosed in "Principal Shareholders" and "Related Party Transactions", no conflicts of interest exist between the private interests of the management team and the interests of the Company.

# Directors

The Company's Board is chaired by Mr. Anil Agarwal. The other members of the Board are Messrs. Navin Agarwal, Tom Albanese, Geoffrey Green, Aman Mehta, Deepak Parekh, Ravi Rajgopal, Edward Story and Ms. Ekaterina (Katya) Zotova. The business address of each of the Directors is 16 Berkeley Street, London WIJ 8DZ.

<sup>(2)</sup> Navin Agarwal and Tom Albanese are also members of the Executive Committee.

<sup>(3)</sup> Mr. Aman Mehta will be retiring from the Board following the conclusion of the Company's Annual General Meeting in 2017.

## Executive Directors

Mr. Anil Agarwal founded Vedanta in 1976 and has over three decades of entrepreneurial and mining experience. He has helped to shape Vedanta's strategic vision and under his leadership, Vedanta has grown from an Indian domestic miner into a global natural resources group with a world class portfolio of large, diversified, structurally low-cost assets which are capable of generating strong cash flow. Mr Agarwal is also a director of Sterlite Technologies Limited, Conclave PTC Limited and the Anil Agarwal Foundation.

Mr. Navin Agarwal has over 25 years of senior management experience within Vedanta and is currently the Chairman of the Company's principal subsidiary Vedanta Limited. He is the Chairman of Vedanta's Human Resources Council and has championed personnel training and development initiatives to grow the talent pipeline for senior management succession planning within Vedanta. He has also been instrumental in making the Group's Human Resources function a transformative value driver to the Group's business through the institutionalisation of best-in-class HR practices and leadership development while leveraging technology and digital trends. Mr Agarwal was formerly the Chairman of the Executive Committee until 31 August 2013 and chairman of Cairn India Limited until its merger with Vedanta Limited.

Mr. Tom Albanese has nearly 30 years of international executive experience in the mining industry and has brought a wealth of industry knowledge to the Group. He is currently also a director of Vedanta Limited and Franco Nevada Corporation, a Toronto-based gold-focused royalty and metal streaming company with assets around the world and the Co-Chair of the Confederation of Indian Industry (CII) National Committee on Mining. Mr Albanese was formerly chief executive officer of Rio Tinto Plc from 2007 to January 2013, having joined Rio in 1993 following its acquisition of Nerco Minerals, where he was chief operating officer from 1989 to 1993. He has also previously served on the Board of Ivanhoe Mines Limited, Palabora Mining Company and Turquoise Hill Resources Limited. Mr Albanese has a Bachelor's degree in Mineral Economics and a Master's in Mining Engineering from the University of Alaska. He is also a member of the Sustainability Committee. Mr Albanese will resign as a director on 31 August 2017.

## Non-Executive Directors

Mr. Aman Mehta had over three decades of executive experience and a strong financial background in addition to non-executive director experience. He has been a highly effective chairman of the Audit Committee during a period of significant volatility in the mining industry. He is currently also a non-executive director of Vedanta Limited, Tata Consultancy Services Limited, Tata Steel Limited, PCCW Limited, Wockhardt Limited, Max India Limited, Godrej Consumer Products Limited and HKT Limited, Hong Kong. Mr Mehta has previously held a number of executive positions at Hong Kong and Shanghai Banking Corporation (HSBC) such as chairman and chief executive officer of HSBC USA Inc, deputy chairman of HSBC Bank, Middle East and chief executive officer of HSBC Asia Pacific, a position he held until his retirement. He was also formerly a non-executive director of Jet Airways (India) Limited, Raffle Holdings Ltd, ING Group N.V. and a director of the Indian Council for research on international economic relations. He was also previously a non-executive director of Cairn India Limited until its merger with Vedanta Limited. Mr Mehta has a degree in economics from Delhi University. Mr Mehta is also a member of the Audit, Remuneration and Nominations Committees. Mr Mehta will be retiring from the Board following the conclusion of the Company's 2017 Annual General Meeting. Mr Mehta has been appointed as the non-executive independent director of Vedanta Limited with effect from 17 May 2017.

Mr. Geoffrey Green was a partner of the leading international law firm, Ashurst LLP from 1983 to 2013 and served as Ashurst's senior partner and chairman of its management board for 10 years until 2008. He was subsequently appointed as head of the firm's expanding Asian practice from 2009 to 2013, based in Hong Kong. Mr Green is currently also the non-executive chairman of the Financial Reporting Review Panel, one of the main subsidiary bodies of the Financial Reporting Council. Mr Green has a wealth of knowledge in respect of UK corporate governance, regulatory and strategic

matters, having been an adviser to several major UK listed companies and their boards on a wide variety of corporate and governance issues. He has a degree in law from Cambridge University and qualified as a solicitor at Ashurst LLP. He was appointed as a director of Vedanta in August 2012 and is the Chairman of the Company's Remuneration Committee. He is also a member of the Audit Committee.

Mr. Deepak Parekh is the chairman of Housing Development Finance Corporation, India's leading financial services conglomerate with a presence in banking, asset management, life insurance, general insurance, real estate, venture funds and education loans. He is the non-executive chairman of GlaxoSmithkline Pharmaceuticals and Siemens, in India. Mr Parekh also serves as a director on the Boards of Exide, Mahindra & Mahindra, Indian Hotels and the international Board of DP World in the UAE. In addition, he is on the advisory boards of several Indian and multinational corporations. Mr Parekh was the first international recipient of the Institute of Chartered Accounts in England and Wales outstanding achievement award in 2010. He received the Padma Bhushan in 2006, Knight in the Order of the Legion of Honour in 2010 and the Bundesverdienstkreuz. He is also a member of the Audit, Remuneration and Nominations Committees. Mr Parekh will succeed Mr Mehta as the Senior Independent Director post conclusion of the Company's 2017 Annual General Meeting.

Ms. Katya Zotova has a wide range of commercial experience in the oil & gas industry including strategy, portfolio management, finance and mergers and acquisitions. She was a Principal at L1 Energy LLP. Prior to this, Ms Zotova was Head of International Acquisitions and Divestments for Citigroup's oil and gas division focusing on oil majors and national oil companies. She has also previously held a variety of upstream commercial roles during a 14 year career at Royal Dutch Shell including Head of Portfolio Management for upstream International. She has a summa cum laude degree in finance and management from the Academy of National Economy in Moscow and an MBA from Rotterdam School of Management/Columbia Business School. She was appointed as a director of Vedanta in August 2014 and is the Chairman of Vedanta's Sustainability Committee and is a member of the Nomination and Remuneration Committee.

Mr. Ravi Rajagopal joined Vedanta Resources Plc in July 2016, and is currently a member of Vedanta's Audit and Sustainability Committees. He has worked in a variety of senior finance and operational roles, including CFO for Europe and Group Financial Controller in Diageo plc since December 1996, where he was the Global Head of Business Development of Diageo plc from July 2010 until 2015. Prior to joining Diageo plc, Mr. Rajagopal worked with ITC India (a BAT plc associate in India), where he held a variety of senior positions both in finance and general management. Mr. Rajagopal is also a Non-Executive Director of United Spirits, India and is a Senior Advisor to JM Financial Institutional Securities Limited, a leading Investment Bank in India. He has a degree in Commerce from Madras University and is a fellow of the Institute of Chartered Accountants of India and the Cost and Works Accountants of India. He has also completed the Advanced Management Programme at Harvard Business School. He was appointed as a director of Vedanta in July, 2016 and is a member of the Company's Audit and Sustainability Committees. Mr Rajagopal will succeed Mr Mehta as Chairman of the Company's Audit Committee post conclusion of the Company's 2017 Annual General Meeting.

Mr. Edward Story was appointed to the Board in 1 June 2017. He serves as a member of the Company's Audit Committee. Mr Story is the founder, president and chief executive officer of SOCO International PLC, an international oil and gas exploration and production company listed on the London Stock Exchange with operations in Vietnam, Thailand, Republic of Congo (Brazzaville) and Angola. He brings to the Board over 50 years of global experience in the oil and gas industry, having previously held a number of senior executive positions at various international oil and gas companies such as Snyder Oil Corporation, Conquest Exploration Company, Superior Oil Company, Exxon Corporation and Esso Standard Oil. He was formerly also a non-executive director of Cairn Energy plc and more recently, a non-executive director of Cairn India Limited until its merger with Vedanta Limited. Mr Story holds a Bachelor of Science degree from Trinity University, San Antonio, Texas, a Master's degree in Business Administration from the University of Texas and an honourary Doctorate degree by the Institute of Finance and Economics of Mongolia.

Arun Kumar GR: Mr Kumar was appointed as the Chief Financial Officer of Vedanta in September 2016. Arun joined Vedanta in 2013 as Chief Financial Officer for the company's Aluminium & Power business. In 2014, he moved into the role of Executive Vice President Finance & Deputy Chief Financial Officer, as part of which he was responsible for enhancing the capability of the finance function in the areas of accounting, risk management, driving value creation, strategic planning, re-financing, board reporting and governance and direct taxation. As a Chartered Accountant, Arun has over 21 years of experience at global companies such as Hindustan Unilever and General Electric. Prior to joining Vedanta, Arun was the Chief Financial Officer for General Electric's Asia-Pacific Lighting & Appliances business based out of Shanghai.

Deshnee Naidoo: Ms Naidoo joined the Group in 2014 as Chief Executive Officer designate of Zinc International and Copper Mines of Tasmania (CMT) and was appointed chief executive officer of Zinc International and CMT in February 2015. Ms. Naidoo has over 20 years of experience in the natural resources industry, including platinum, thermal coal, manganese and zinc. Prior to joining the Group, Ms Naidoo held various senior and executive roles at Anglo American such as the strategic long-term planning manager, corporate finance manager and deputy head of the CEO's office. She was appointed as the CFO of Anglo American Thermal Coal in 2011, where she managed thermal coal and manganese across South Africa, South America and Australia. Ms Naidoo holds a Bachelors degree in Chemical Engineering from the University of Natal and Certification in Finance and Accounting from the University of Witwatersrand, Johannesburg.

Dilip Golani: Mr Golani joined the Group in April 2000 and currently heads the Group's Management Assurance function. He has over 25 years of operational experience and previously headed the Sales and Marketing function at Hindustan Zinc Limited and the Group Performance Management function. Prior to joining the Group, Mr. Golani was a member of Unilever's corporate audit team responsible for auditing the Unilever group companies in Central Asia, Middle East and Africa region. He was also formerly responsible for managing the operations and marketing functions for one of the export businesses at Unilever India and has worked at Union Carbide India Limited and Ranbaxy Laboratories. Mr Golani has a degree in mechanical engineering and a post graduate degree in industrial engineering and management from NITIE.

Kuldip Kaura: Mr Kaura was appointed as a President, Chairman's Office in May 2016. He has over four decades of experience across engineering and mining roles having previously served at senior levels in various reputable companies including as Chief Executive Officer of Vedanta Resources Plc, Managing Director at ABB, India and Managing Director and Chief Executive Officer of a cement major in India, ACC Limited. Mr Kaura holds a degree in mechanical engineering, BE (Hons.) from the Birla Institute of Technology and Science (BITS), Pilani and an Executive education at London Business School & Swedish Institute of Management Stockholm, Sweden.

Mansour Siddiqi: Mr Siddiqi joined the Group in 1991 and having risen through various operational roles has 40 years of industry experience. He was formerly chief executive officer, Aluminium and led the setting up of the Group's large aluminium and power projects including BALCO smelters and captive power plants. He also played a key role in setting up the Group's copper smelter at Tuticorin and copper refinery at Silvassa. Prior to joining the Group, Mr Siddiqi held senior positions in Hindustan Copper Limited. Mr Siddiqi has a mechanical engineering degree from the Indian Institute of Technology, New Delhi and a PG Diploma in Management from AIMA, New Delhi.

Philip Turner: Mr Turner joined the Group in September 2014 as Head of Group Health and Safety. He currently heads the Group HSE and Sustainability function. Mr Turner has over 35 years' of experience within mining, heavy engineering and manufacturing organisations. He was previously General Manager Risk & Sustainability of JK Tech, a wholly-owned subsidiary of the University of Queensland. He has also previously held a number of senior corporate and operational roles at Rio Tinto in Australia, Canada and the UK including responsibility for HSE and sustainability assurance. Mr Turner has held senior roles at mining company, North Limited and at BHP Petroleum's offshore

operations. Mr. Turner has a Master of Applied Science degree in Risk Engineering from Ballarat University; Bachelor of Science degree in Chemistry/Physics from Deakin University; Graduate Diploma in Occupational Hygiene from Deakin University; and Graduate Diploma in Occupational Hazard Management from Ballarat C.A.E.

Rajagopal Kishore Kumar: Mr Kumar joined the Group in April 2003 and has over 32 years of experience covering accountancy, commerce, marketing, supply chain management, mergers and acquisitions human capital development, business turnaround, and policy advocacy. Since his appointment as Chief Executive Officer, Iron Ore in February 2015, he has been leading the revival of the Group's iron ore mining operations in Goa/ Karnataka/Jharkhand and Liberia. He currently also leads the Group's Port business. Mr Kumar has previously held various executive roles in the Group including Chief Executive Officer of Sterlite Copper from 2007 to 2008, Chief Executive Officer of KCM from 2008 to 2011, Chief Executive Officer of Zinc International from 2011-2013 and Chief Executive Officer, Africa (Base Metals) from 2013 to 2015. Prior to joining the Group, Mr Kumar worked at Hindustan Lever Limited for 12 years.

Samir Cairae: Mr Cairae was appointed as CEO Diversified Metals in January 2016. He provides operational and strategic leadership for the Group's Aluminium, Copper India, Power and Iron Ore divisions in addition to the commercial and asset optimisation functions. He has extensive and varied experience in a number of corporate roles in India, China, Philippines and France including strategy, M&A, industrial operations and managing industrial operations in both growth and turnaround situations. Prior to joining Vedanta, Mr Cairae headed the global industrial function for Lafarge's 150 cement operations in over 45 countries. He has previously also held various senior leadership positions at Lafarge and Schlumberger. He holds a graduate degree in Electrical Engineering from Indian Institute of Technology (IIT), Kanpur, and a Masters in Management from the Hautes Etudes Commerciales (HEC) School of Management, Paris.

Sudhir Mathur: Mr Mathur joined the Group in September 2012 as chief financial officer of Cairn India Limited and was its Acting chief executive officer from June 2016 until the merger of Cairn India Limited with Vedanta Limited. He has over 31 years of experience working in various industries such as telecommunications, manufacturing, infrastructure and consulting. Mr Mathur began his career with PricewaterhouseCoopers in 1986. Prior to joining the Group, he was chief financial officer of Aircel Cellular Ltd and was responsible for strategy, finance, supply chain management and regulatory affairs. He has substantial expertise, knowledge and experience in several key areas of finance and strategic planning, with a proven track record in deploying significant capital to enable value creation. He has also played a pivotal role in his previous assignments in accelerating business growth. He has previously also held senior executive positions in Delhi International Airport Ltd., Idea Cellular, Ballarpur Industries Limited and Price Waterhouse Coopers India. Mr. Mathur has a Bachelors degree in Economics from Delhi University and a Masters of Business Administration from Cornell University.

Sunil Duggal: Mr Duggal joined the Group in August 2010 and has been a significant driver of Hindustan zinc's growth. His dedication to sustainability has enhanced safety awareness and helped to embed culture of safety at HZL. He has led the value adding adoption of best-in-class mining and smelting techniques, machineries, state of art environment friendly technologies, mechanisation and automation of operational activities. Mr Duggal has over 20 years of prior experience of leading high performance teams and working in leadership positions, nurturing business, evaluating opportunities and risks and successfully improving efficiency and productivity whilst reducing costs and inefficiencies. He is an electrical engineering graduate from Thapar Institute of Engineering & Technology, Patiala and is an Alumni of IMD, Lausanne - Switzerland and IIM, Kolkata.

Suresh Bose: Mr. Bose joined Vedanta in February 2002 and following a long career within various HR specialist roles at several of the Group's businesses including Aluminium, Copper and corporate, was appointed as Head- Group Human Resources in September 2015. Mr Bose has over 24 years of experience in the HR function and has formerly held key HR roles at HMT, Larsen & Toubro, Ford, Mahindra & Mahindra and AGRC Armenia. He has a dual Masters in Personnel Management & Industrial Relations from Tata Institute of Social Sciences, Mumbai and Institute of Social Studies from Hague, Netherlands.

Tarun Jain: Mr Jain is a Whole-Time Director of Vedanta Limited. He joined the Group in 1984 and has over 34 years of executive experience in finance, audit, accounting, taxation, mergers and acquisitions and company secretarial functions. He is responsible for the Group's strategic financial matters including corporate finance, corporate strategy, business development and mergers and acquisitions. Mr Jain also serves on the board of Bharat Aluminium Company Limited, Sterlite (USA) Inc and was a director of Cairn India Limited until its merger with Vedanta Limited. Mr Jain is a graduate of the Institute of Cost and Works Accountants of India and a fellow of the Institute of Chartered Accountants of India and the Institute of Company Secretaries of India.

#### **Corporate Governance**

The Company's shares were listed on the LSE in 2003. Most of Vedanta's assets and management are located in India. Three of Vedanta's subsidiary companies, namely Vedanta Limited and HZL are listed on stock exchanges in India and maintain their own corporate governance arrangements in compliance with Indian regulations. Vedanta Limited also has ADSs listed on the NYSE and is thus subject to NYSE listing requirements. In addition, BALCO, HZL and KCM have government appointees on their boards of directors to represent wider shareholder interests.

Vedanta's Executive Chairman, Mr. Anil Agarwal, is Vedanta's original promoter and founder having built Vedanta from its inception in 1976. Volcan Investments Limited, remains the Company's controlling shareholder with a 69.39% voting shares interests as of 31 March 2017. The relationship between Volcan, Mr. Agarwal and Vedanta is governed by a relationship agreement which was entered into at the time of the Listing and amended in November 2014 due to changes in the Company's Listing Rules (the "Relationship Agreement") to ensure the Company is able to operate independently of the controlling shareholder. See "Related party Transactions - Related Transactions -Relationship Agreement — Vedanta, Volcan, Conclave and Mr. Anil Agarwal". Under the terms of the Relationship Agreement, the Board, and Nominations Committee will at all times consist of a majority of Directors who are all independent of Volcan and the Agarwal family, whilst the Remuneration and Audit Committees shall at all times comprise solely of Non-Executive Directors. Volcan is entitled to nominate for appointment as Director such number of persons as is one less than the number of Directors who are independent of Volcan, the Agarwal family and their associates. The Board considers these to be adequate safeguards in that Directors who are independent of Volcan make up a majority of the Board and the Company's ability to operate independently of Volcan is protected by the Relationship Agreement.

Vedanta does not provide for any benefits to its officers and directors upon the termination of their services.

# Statement of Compliance

The Board has sought to achieve the standards of corporate governance as set out in the UK Corporate Governance Code issued by the Financial Reporting Council of the UK (the "Code") and believes that the Company has complied with the provisions of the Code throughout the financial year ended 31 March 2017, except as follows:

## Code Provision A.3.1

Mr. Anil Agarwal was appointed as Executive Chairman in 2005. Mr. Agarwal is the founder of the Group and has steered its growth since its inception in 1976 including the flotation of Vedanta Resources plc on the London Stock Exchange. This meant that Mr. Agarwal did not meet the independence criteria as defined in the Code on his appointment in 2005 because he was previously the Chief Executive and, through Volcan Investments Limited (Volcan), members of his family have a controlling interest in the Company. Mr. Agarwal is pivotal in helping to achieve the strategic objectives of Vedanta through his skills in seeking out value creating acquisitions and projects. In addition, the fact that he dedicates himself full time to his role of Executive Chairman enables him to balance his executive duties with providing leadership to the Board. As Executive Chairman Mr. Agarwal encourages debate and challenge and sets high ethical standards. For these reasons the Board is unanimously of the opinion that his continued involvement in an executive capacity is important to the success of the Group.

## Code Provision B.1.1

Mr. Aman Mehta, a Non-Executive Director has served on the Company's Board for over twelve years and was also a non-executive director of Cairn India Limited until its merger with Vedanta Limited. He was appointed as a non-executive director of Vedanta Limited on 17 May 2017. The Board was mindful of the potential for his independence to become compromised and carefully reviewed his independence and potential for conflicts of interest. Mr. Mehta did not have any business relationship with the Group other than his directorship at Cairn India (until its merger with Vedanta Limited), Vedanta Limited and Vedanta Resources plc. As he absents himself from discussions in the event of any conflict of interest but otherwise continues to actively participate in Board discussions and provides robust challenge to management, the Board remains satisfied that his independent judgement was not compromised and determined him to be independent. Mr. Mehta will be retiring from the Board following the conclusion of the Company's 2017 Annual General Meeting.

## Code Provision B.2.1

Volcan Investments Limited (Volcan) is a controlling shareholder as per the definition under the UK Listing Rules and has an agreement with the Company to safeguard the independence provisions as set out in the UK Listing Rules (Relationship Agreement). Under the terms of the Relationship Agreement, Volcan will be consulted on all appointments to the Board. The Nominations Committee therefore works collaboratively with Volcan when making appointments to the Board and, to this extent, differs from the process set out in Code Provision B.2.1 which stipulates that the Nominations Committee should lead the process for Board appointments.

## Code Provision E.2.4

The Notice of General Meeting in respect of the all share merger of Vedanta Limited and Cairn India Limited was posted to the Company's shareholders on 19 August 2016 following the approval of the related Circular and Notice of General Meeting by the UK Listing Authority on 19 August 2016. Vedanta did not meet the requirement of the Code to send Notices of General Meetings to shareholders at least 14 working days in advance of the meeting as the Company required its shareholders to vote on the transaction prior to the Court convened meeting of the equity shareholders of Vedanta Limited on 8 September 2016 and Cairn India Limited on 12 September 2016. Notice of General Meeting was given to shareholders 14 clear days before the meeting in accordance with the provisions of the Companies Act 2006 and the resolution which was approved by shareholders at the Company's 2016 Annual General Meeting permitting the calling of general meetings at short notice.

The Board is satisfied that the above deviations from the provisions of the Code are not detrimental to the Company's governance for the reasons highlighted and that good governance remains an intrinsic part of the Group's culture and operations.

#### The Board

## Role and Responsibilities of the Board

The role of the Board is to provide leadership to maximise opportunities to develop the Company's portfolio of businesses profitably while assessing and managing the associated risks. The boards of directors of Vedanta's individual businesses are responsible for managing their businesses profitably while controlling risks. The Board assesses the strategic objectives of each business, monitors performance, ensures the availability of financial, management and other resources required to meet the objectives, sets Vedanta's standards of conduct and ensures that effective controls are in place to manage risk and that the interests of shareholders and other investors are observed. For example, in 2011 a new code of conduct and ethics (the "Code of Conduct and Ethics") was approved to provide overarching standards for Vedanta's individual businesses.

The Board has adopted a schedule of matters reserved for its consideration to ensure that it is in a position to assess strategy, monitor performance and maintain effective controls while delegating operational management to the Executive Committee and Vedanta's businesses. Such matters reserved to the Board include, amongst other things, approving Vedanta's overall strategy and annual budgets, major capital expenditures, acquisitions, appointments, disposals and changes to capital structure and dividend policy.

As part of its decision making processes the Board considers the long-term consequences of its decisions, the interests of various stakeholders including employees, the impact of Vedanta's operations on the environment and the need to maintain high standards of business. This is achieved through a prudent and robust risk management framework and internal controls and strong governance processes. Vedanta's corporate governance framework involves coordination and cooperation amongst shareholders, the Board, Board Committees and management committees.

The Board meets on a regular basis and throughout fiscal year ended 31 March 2017 met 10 times. The Executive Chairman also met with the Non-Executive Directors without the Executive Directors during this period. All of the Board Committees are authorised to obtain legal or other professional advice as necessary, to secure the attendance of external advisers at their meetings and to seek information from any employee of the Company in order to perform their duties.

There are four Board Committees: Nominations, Remuneration, Audit, and Sustainability. Each of the Board Committee reports directly to the Board.

# Board Balance and Independence

The Board comprises the following members as of 31 March 2017:

Mr. Anil Agarwal	Executive Chairman
Mr. Navin Agarwal	Executive Vice Chairman
Mr. Tom Albanese	Chief Executive Officer
Mr. Aman Mehta	Non-Executive Director
Mr. Geoffrey Green	Non-Executive Director
Mr. Deepak Parkh	Non-Executive Director
Mr. Ravi Rajagopal	Non-Executive Director
Ms. Ekaterina Zotova	Non-Executive Director

With the exception of Ravi Rajagopal who was appointed to the board on 1 July 2016, all the Non-Executive Directors served throughout the fiscal year 2017 and up to the date of this Offering Circular.

The Board consists of the Executive Chairman, the Deputy Executive Chairman, Chief Executive Officer and five Non-Executive Directors. The Company regards this as an appropriate board structure. The Company considers all of its Non-Executive Directors as independent Non-Executive Directors within the meaning of "independent" as defined in the Code and free from any business or other relationship which could materially interfere with the exercise of their independent judgment. Aman Mehta has served on the Board for over twelve years and his independence was therefore subject to a particularly rigorous review. As Mr Mehta served as non-executive director on the Board of Cairn India Limited until its merger with Vedanta Limited and was subsequently appointed as a non-executive director of Vedanta Limited, the Board considered the potential conflicts of interest arising from that appointment. Mr Mehta absents himself from discussions in the event of any conflict of interest, continues to actively participate in Board discussions and provides robust challenge to management. Accordingly, the Board concluded that his independent judgement was not compromised and he remains impartial. Mr Mehta will be retiring from the Board following the conclusion of the 2017 Annual General Meeting.

Mr. Aman Mehta is the Senior Independent Director. His primary responsibilities are to lead discussions at meetings of the Non-Executive Directors, provide an effective channel of communication between the Chairman and Non-Executive Directors ensure that the views of the Non-Executive Directors are given due consideration and provide a point of contact for any shareholder who wishes to raise concerns which the normal channels of communication through the Executive Chairman and Chief Executive Officer have failed to resolve, or for which contact is inappropriate.

Mr. Ravi Rajagopal will succeed Mr Mehta as Chairman of the Company's Audit Committee and Mr. Deepak Parekh will succeed Mr Mehta as the Senior Independent Director post conclusion of the Company's 2017 Annual General Meeting. Mr. Edward Story has been appointed as Non-Executive Director of the Company with effect from 1 June 2017.

The Company's Nominations Committee reviewed the Board's succession planning arrangements and commenced the search for a new Chief Executive Officer to succeed Mr. Tom Albanese, who will stepping down from the Board on 31 August 2017.

Executive Chairman and Chief Executive Officer

There is a clear division of the responsibilities between the running of the Board and executive responsibility for running the business, so that no one person should have undue power of decision. In 2005, the Board approved a policy to ensure a clear separation is maintained between the responsibilities of the Executive Chairman and the Chief Executive Officer, as detailed below:

Executive Chairman	Chief Executive Officer			
The Chief Executive Officer is responsible for:	<ul> <li>Ensuring effective implementation of Board decisions;</li> </ul>			
• Leading the Board and ensuring that it has the resources required to function effectively;	<ul> <li>Developing operational business plans for Board approval;</li> </ul>			
• Developing succession plans for Board appointments for Board approval;	<ul> <li>Providing leadership to the senior management team for the delivery of the Group's operational business plans following Board approval;</li> </ul>			

- Helping to identify strategic priorities to enhance shareholder value;
- Providing oversight and management of all of the Group's operations, business activities and performance including environmental, social, governance, health and safety, sustainability, investor relations and external communications;
- Formulating strategic plans for the Board's consideration and approval;
- Managing the Group's risk profile in line with the risk appetite set by the Board;
- Identifying new business opportunities in line with the strategic plans approved by the Board;
- Ensuring that prudent and robust risk management and internal control systems are in place throughout the Group;
- Engaging with the Company's shareholders
   and other stakeholders such as governments,
   communities and employees to ensure that an appropriate balance is maintained between
   the various interests:
- Recommending annual budgets to the Board for approval;
- Providing leadership to the senior management team;
- Making recommendations to the Remuneration Committee on remuneration policy and executive remuneration;
- Upholding the highest standards of integrity,
   probity and governance at Board level and throughout the Group;
- Supporting the Executive Chairman in maintaining effective communications with various stakeholders:
- Facilitating active engagement by all •
  Directors and fostering an environment in
  which Non-Executive Directors can freely
  provide constructive challenge;
- Maintaining a close working relationship with the Chairman; and
- Evaluating the performance of the Board,
   Board committees and individual Directors and acting on the results of such evaluation;
- Leading the Executive Team.
- Reviewing the training needs of the Directors for the fulfilment of their duties;
   and
- Ensuring that new Directors participate in a full, formal and tailored induction programme.

#### Executive Committee

The Executive Committee, comprising the Executive Directors and the senior management within Vedanta who head the principal businesses and corporate functions, meets on a monthly basis to consider the operating performance of each of the principal subsidiaries. Mr. Tom Albanese chairs the Executive Committee and keeps the Board informed of the Executive Committee's activities. The Board's role is to set Vedanta's values and standards, determine its strategic objectives and monitor operational performance.

The Executive Committee supports the Board in fulfilling this role and is essentially responsible for operational performance including: implementing and delivering the strategic plans formulated by the Board, monitoring operational and financial performance, prioritising and allocating resources and developing and reviewing objectives and budgets with subsidiary company boards to ensure that these fall within agreed targets and parameters set by the Board. In addition, the Executive Committee approves capital expenditure (within pre-defined limits) and reviews the Vedanta's Human Resources Policy and Treasury Policy.

#### Nominations Committee

In conjunction with the consultation of Volcan pursuant to the Relationship Agreement, the Committee is responsible for leading the process for Board appointments and for keeping the balance of skills, experience, independence, knowledge and diversity, including gender on the Board under review to ensure the orderly evolution of the membership of the Board and its Committees. In identifying and nominating candidates for approval by the Board, the Committee continues to take account of the Board's aims in relation to diversity, whilst ensuring that the right people with the right range of skills and experience are on the Board and in senior management positions in the coming years.

Mr. Anil Agarwal is Chairman of the Nominations Committee. The other members are Messrs. Aman Mehta, Deepak Parekh and Ms Ekaterina Zotova. The Group Company Secretary acts as the secretary to the Nominations Committee. The Nominations Committee met four times in fiscal year 2017.

The Code requires that all directors be re-elected on an annual basis and that Non-Executive Directors should be appointed for specific terms. The Company's Articles of Association require that at every annual general meeting, all the directors stand for reelection/election. Non-Executive Directors are only put forward for re-election if, following performance evaluation, the Board believes the Director's performance continues to be effective and demonstrates commitment to the role. Accordingly, at the Company's 2016 Annual General Meeting, each of the Company's Directors was proposed and elected/re-elected by shareholders.

#### Remuneration Committee

The Remuneration Committee is responsible for setting the remuneration policy and remuneration packages for the Executive Directors and for maintaining an awareness of the overall remuneration of the key operational and financial heads within Vedanta. In the Remuneration Committee's terms of reference approved by the Board the Remuneration Committee is required to consider and give due regard to the recommendations of the Code and other guidelines published in respect of the remuneration of directors of listed companies such as that produced by the Association of British Insurers and National Association of Pension Funds. A significant proportion of the Executive Directors' remuneration is performance related through the annual bonus and long term incentive schemes. The fees of the Non-Executive Directors are independently reviewed and take into account the time commitments and responsibilities of the role. Mr. Geoffrey Green is Chairman of the Remuneration Committee. The other members are Messrs. Aman Mehta, Ekaterina Zotova and Deepak Parekh. The Remuneration Committee met four times in the fiscal year 2017.

## Audit Committee

Strong corporate governance and risk management is a key part of Vedanta's business model and the Board and the Audit Committee continues to be focused on maintaining high standards of governance and risk management across Vedanta. The Audit Committee oversees the financial reporting process in order to ensure that that the information provided to its shareholders is fair, balanced and understandable and allows assessment of the Company's position, performance, business model and strategy.

In line with best practice, the Board has reviewed the internal control system in place for Vedanta up to the period ended 31 March 2017. During the course of its review of the system of internal control, the Board has not identified nor been advised of any weaknesses or control failure that is significant.

In addition to the requirements of the UK Corporate Governance Code issued in April 2016, certain of the Company's subsidiaries, by virtue of their listings on the Indian stock exchanges or the NYSE, have their own audit committees which are established in accordance with Indian or NYSE corporate governance requirements, as applicable. This provides a second level of financial oversight below Vedanta's Audit Committee which also monitors the discussions and findings of the audit committees of the Company's subsidiaries.

Mr. Aman Mehta is the Chairman of the Audit Committee. The other members are Messrs. Ravi Rajagopal Deepak Parekh and Geoffrey Green. The Group Company Secretary acts as the secretary to the Audit Committee. The Audit Committee met four times in fiscal 2017.

# Sustainability Committee

The role of the Sustainability Committee is to assist the Board in meeting its responsibilities in relation to sustainability-related matters arising out of the activities and operations of Vedanta. For more information on sustainability-related matters arising out of the activities and operations of Vedanta, please see "Business — Sustainability".

Miss Ekaterina Zotova is the Chairman of Vedanta's Sustainability Committee. The other members are Messrs. Tom Albanese, Kishore Kumar and Ravi Rajagopal. The Chief Sustainability Officer acts as the secretary to the committee. The Sustainability Committee met four times in fiscal 2017.

The principal duties and responsibilities of the Sustainability Committee are to:

- advise on sustainability policies and framework, clearly setting out the commitments of the Company to manage matters of sustainable development effectively;
- review and approve targets for sustainability performance and report to the Board with respect to their appropriateness and assess progress towards achieving those targets;
- recommend initiatives required to institutionalise a sustainability culture through involvement of leadership, employees and communities at all levels;
- review and report to the Board, the performance of the Company and Vedanta companies with respect to the implementation of the Vedanta Sustainability Framework through the Sustainability Assurance Programme so that sustainability and reputation related risks are assessed, controlled and managed effectively; and
- approve the Sustainable Development Report prior to publication.

# Directors' and Executive Officers' Compensation

The aggregate compensation the Company paid to its executive directors and executive officers for fiscal year 2017 was \$25.10 million, which includes \$20.1 million paid towards short term benefits comprising salary, bonuses and allowances, \$1 million paid towards post-employment benefits and \$3.9 million in non-cash payments relating to the LTIP. The total compensation paid to the Company's most highly compensated executive during fiscal year 2017 was \$4.41 million, of which \$2.9 million comprised salary, bonus and benefits in kind and \$1.6 million comprised non-cash payments relating to the LTIP.

The aggregate compensation the Company paid its Non-Executive Directors in fiscal year 2017 was £701,000.

The following table sets forth the pre-tax remuneration for fiscal year 2017 for individual Directors who held office in the Company during this period. Payment is generally made in UK pounds sterling although payments in India under service contracts with Vedanta Limited are paid in Indian Rupees.

				Annual	Long term	Total for	Total for
	Base	Taxable		Performance		fiscal year	fiscal year
	Compensation	benefits	Pensions	Bonus	(9)(10)	$2017^{(11)(12)}$	2016(8)
Executive Directors							
Anil Agarwal <sup>(1)</sup>	1,608	124	_	1,029	35	2,796	2,625
Navin Agarwal <sup>(2)(3)(7)</sup>	1,081	83	173	692	25	2,054	1,723
Tom Albanese <sup>(4)(7)</sup>	1,000	138	261	640	_	2,039	1,897
Non-Executive							
Directors <sup>(6)</sup>							
Geoffrey Green (10)	108	_	_	_		108	95
Aman Mehta <sup>(5)</sup>	239	_	_	_		239	225
Euan Macdonald <sup>(11)</sup>	49	_	_	_		49	140
Deepak Parekh <sup>(10)</sup>	109	_	_	_		109	102
Katya Zotova <sup>(10)</sup>	119	_	_	_		119	112
R.Rajgopal	77					77	
Total	4,390	345	434	2,361	60	7,590	6,919

#### Notes:

- 1 Mr Anil Agarwal's taxable benefits in kind include provision of medical benefits; car and fuel in the UK for business purposes.
- There has been no increase in the base compensation of Mr Navin Agarwal and the change in compensation reflected in the table is purely on account of movement in currency exchange (GBP vs INR) during the fiscal year ended 31 March 2017. Furthermore, he is based out of India and is drawing the majority of his remuneration in INR. For the financial year ended 31 March 2017, Mr Navin Agarwal received a Vedanta Limited salary of Rs. 85,618,845 excluding medical and leave travel allowances, Vedanta Resources Plc fees of £85,000, HZL fees of INR 250,000 & Commission of Rs. 10,00,000 and Cairn India Limited fees of Rs. 500,000.
- 3 Mr Navin Agarwal's taxable benefits in kind include housing and related benefits, and use of a car and driver.
- 4 Mr Tom Albanese's taxable benefits in kind include housing and related benefits, and use of a car & driver (Grossed up to Tax) in India and Medical benefits in UK.
- The fee paid to Mr Aman Mehta includes the fees of £98,616 paid by Cairn India Limited. The amount paid in Fiscal 2016 were shown exclusive of the fees of £85,204 paid by Cairn India Limited, which are herewith reflected inclusive of such fees
- Non-Executive Directors are reimbursed for expenses incurred while on Company business. No other benefits are provided to Non-Executive Directors.
- All of the Group's pension schemes are based on cash contribution and do not confirm an entitlement to a defined benefit. Pension contributions are made into the Deputy Executive Chairman and Chief Executive Officer's personal pension schemes (or local provident fund) and will become payable on the retirement, normally at age 58. The Executive Chairman does not receive pension benefits.

- Amounts shown for Fiscal year 2017 relate to the payment of the annual bonus for the year ended 31 March 2017. 50% of the Annual Bonus figures shown in the table are paid in Cash and the balance 50% is paid in the form of Deferred shares to vest in the staggered manner in 3 years in the ratio 40:30:30 subject to continued employment. Further details of this payment are set out below.
- The Performance Period for PSP 2014 came to a close on 31st March, 2017. Upon testing as per the scheme rules, Vedanta stood at 6th Position against its peers in the TSR Basket with a 28.6% TSR Achievement which made the potential EDs eligible for vesting of 60% against the grant made to them. However, this has not been made part of the Remuneration Table as the Vesting Period will conclude on 16 November, 2017.
- Amount shown here pertains to the ESOP 2012 options that the Executive Directors exercised during the fiscal year 2017.
- 11 NIC Contribution as per the statutory requirement is made for all Executive and Non-Executive Directors.
- 12 The exchange rate applicable as at 31 March 2016 was Rs. 98.7645 to £1; and at 31 March 2017 was Rs. 87.7138 to £1.

#### Employee Share Schemes

Vedanta Performance Share Plan

The Company operates the Vedanta Resources Performance Share Plan ("PSP") which was adopted to grant share options to its employees or employees of its subsidiaries. Awards are made to certain senior employees and executive directors on an annual basis. Awards under the PSP may be granted to any employee of the Company or any of its subsidiaries.

The PSP is consistent with the Company's reward philosophy, which aims to provide superior rewards for outstanding performance, and to provide a high proportion of "at risk" remuneration for Executive Directors. The maximum value of the Ordinary Shares which may be conditionally awarded in any fiscal year to a participant in the PSP who is an executive director is restricted to 150% of that Executive Director's annual base salary (including fees).

As of 31 March 2017, the number of options outstanding under the PSP was 9,705,965.

Employee Stock Option Scheme ("ESOS") 2016

During the fiscal year 2017, the company introduced a new Employee Stock Option Scheme ("ESOS 2016") for the employees in its subsidiary, Vedanta Limited. ESOS 2016 aims at rewarding employees with wealth creation opportunities, encouraging high-growth performance and reinforcing employee pride. The Grant under the Employee Stock Option Scheme is consistent with the PSP scheme being administered by the company, which is a combination of Individual Contribution; Business as well as Overall Vedanta Limited Performance. The reward scheme under ESOS 2016 is company's first ever stock option scheme linked to Vedanta Limited. The Executive Directors are not eligible for awards under this scheme.

Long Term Cash Based Plan

Subsequent to the ESOS 2016, the company introduced a Long Term Cash Based Plan for its employees who are not covered under the ESOS 2016. Long Term Cash Based Plan is a cash based Phantom Stock Plan for rewarding performance on pre-determined performance criteria and continued employment with the Company. The pre-determined performance criteria shall focus on rewarding employees based on Vedanta Resources Plc's performance vis-à-vis competition. The vesting of long-term performance based cash will be dependent on Vedanta Resources Plc's performance - measured in terms of Total Shareholder Return ('TSR') (being the movement in a company's share price plus reinvested dividends), compared over the performance period with the performance of the companies in comparator group(s).

The following table sets forth the options granted to the Company's Directors and executive officers during fiscal year 2017:

			Granted						
		31 March	in	Vested in	Lapsed in	31 March			
		2016	2016/17	2016/17	2016/17	2017	Exercise		
		Number	Number	Number	Number	Number	price US	Award	Earliest/latest
		of shares	cents	price £	exercise date				
Anil Agarwal									
8 September 2016	DSBP	_	119,084	_	_	119,084	0	3.753	19 May 17 — 19 May 19
11 November 2016	PSP	_	210,000	_	_	210,000	0.1	8.215	10 Nov 19 — 10 May 20
Navin Agarwal									
8 September 2016	DSBP	_	57,697	_	_	57,697	0	5.177	1 Sept 17 — 1 Sept 19
11 November 2016	PSP	_	125,000	_	_	125,000	0.1	8.215	10 Nov 19 — 10 May 20
Tom Albanese									
8 September 2016	DSBP		53,690	_	_	53,690	0	5.177	1 Sept 17 — 1 Sept 19
11 November 2016	PSP		140,000			140,000	0.1	8.215	10 Nov 19 — 10 May 20
Total			705,471			705,471			

Mr. Anil Agarwal's and Navin Agarwal's interest over ordinary shares of US\$0.10 each in the Company includes their interest over 187,745 and 118,059 forfeitable shares, which were awarded to them under the Company's Deferred Share Bonus Plan or DSBP on 4 January 2016 and 8 September, 2016, of which for Mr. Anil Agarwal 27,465, and for Mr. Navin Agarwal 24,145 shares fully vested and ceased to be subject to restrictions and risk of forfeiture on 22 May 2016 and 12 August 2016 respectively. The remaining 160,280 and 93,914 forfeitable shares held by Mr. Anil Agarwal and Navin Agarwal under the DSBP will vest and cease to be subject to restrictions and at risk of forfeiture as per their respective dates of vesting as per scheme.

# Directors Dealings in Shares

The Company has a policy based on the Market Abuse Regulation, which covers dealings in securities and applies to directors and senior management. A comprehensive insider list is maintained and all participants are notified of closed periods.

#### Limitations on Liability and Indemnification Matters

Section 201 of the Indian Companies Act provides that a company may indemnify any director, officer or auditor against any liability incurred by such director, officer or auditor in defending any civil or criminal proceedings, in which a judgment is given in favour of such director, officer or auditor or in which he or she is acquitted or discharged or in connection with application made by a director or an officer to the High Court of the relevant state for relief, because he or she has reason to apprehend that any proceeding will or might be brought against him in respect of any negligence, default, breach of duty, misfeasance or breach of trust, in which relief has been granted by the High Court of the relevant state.

<sup>(1)</sup> The Grant for PSP 2017 will be included in the above table as and when granted.

<sup>(2) 50%</sup> of the Annual Bonus for previous year was paid as Deferred Shares during the year that will vest in the span of 3 years.

<sup>(3)</sup> The Performance Period for PSP 2014 came to a close on 31st March, 2017. Upon testing as per the scheme rules, Vedanta stood at 6th Position against its peers in the TSR Basket with a 28.6% TSR Achievement which made the EDs eligible for vesting of 60% against the grant made to them.

Section 201 also provides that, except for such indemnity described above, any provision, whether contained in the articles of association of a company or in an agreement with the company or in any other instrument, for exempting any director, officer or auditor of the company from, or indemnifying him or her against, any liability which, by any rule of law, would otherwise attach to such director, officer or auditor in respect of any negligence, default, misfeasance, breach of duty or breach of trust of which he or she may be guilty in relation to the company, shall be void.

# PRINCIPAL SHAREHOLDERS

The following table sets forth information regarding beneficial ownership of Vedanta's Ordinary Shares as of 31 March 2017 held by:

- each person who is known to Vedanta to have more than 5% beneficial share ownership;
- each of Vedanta's Directors and executive officers having more than 1% beneficial share ownership; and
- all of the Vedanta's Directors and executive officers as a group.

Each Ordinary Share is entitled to one vote on all matters that require a vote of shareholders, and none of the Vedanta's shareholders has any contractual or other special voting rights.

As used in this table, beneficial ownership means the sole or shared power to vote or direct the voting or to dispose of or direct the sale of any security. A person is deemed to be the beneficial owner of securities that can be acquired within 60 days upon the exercise of any option, warrant or right. Ordinary Shares subject to options, warrants or rights that are currently exercisable or exercisable within 60 days are deemed outstanding for computing the ownership percentage of the person holding the options, warrants or rights, but are not deemed outstanding for computing the ownership percentage of any other person. The amounts and percentages as of 31 March 2017 are based upon 270,189,014 voting Ordinary Shares (excluding 6,904,995 Ordinary Shares held through global depository receipts, with no voting rights, 22,502,483 treasury shares held by the Company and a further 1,704,333 shares which were purchased pursuant to the Company's buyback programme by an independent company, Gorey Investments Ltd). The Company will not vote on these shares and such shares purchased by Gorey Investments Ltd will be treated in the consolidated accounts of the Company as treasury shares outstanding as of that date.

Shareholders' Name	Number of Ordinary Shares	Percentage of Issued Voting Share Capital
5% shareholders		
Volcan and affiliates <sup>(1)</sup>	187,488,102	69.39%
Loyalist Plaza,		
Don Mackay Boulevard		
P O Box AB-20377		
Marsh Harbour, Abaco		
Bahamas		
Directors and Executive Officers <sup>(2)</sup>		
Anil Agarwal <sup>(3)</sup>	307,042	0.11%
Navin Agarwal <sup>(4)</sup>	366,352	0.14%
Tom Albanese <sup>(5)</sup>	170,423	0.06%
Aman Mehta		_
Ravi Rajagopal	_	_
Geoffrey Green	_	_
Deepak Parekh	_	_
Ekaterina Zotova	_	_
All of the Vedanta's directors and executive officers as a group	188,331,919	69.70%

<sup>(1)</sup> Volcan owns 187,488,102 Ordinary Shares, or 69.39% of the issued voting share capital, of Vedanta as of 31 March 2017. Volcan is owned and controlled by the Anil Agarwal Discretionary Trust (the "Trust"). Conclave PTC Limited ("Conclave") is the trustee of the Trust and controls all voting and investment decisions of the Trust. As a result, shares

beneficially owned by Volcan may be deemed to be beneficially owned by the Trust and, in turn, by Conclave. Mr. Anil Agarwal, the Executive Chairman of the Company and the Non-Executive Chairman of Vedanta Limited, may be deemed to have beneficial ownership of shares that may be owned or deemed to be beneficially owned by Conclave. The Company, Volcan, Conclave and Mr. Anil Agarwal are parties to a relationship agreement that regulates the ongoing relationship among them.

- (2) Those directors and executive officers of the Company that hold shares.
- (3) Mr. Anil Agarwal's interest over ordinary shares of US\$0.10 each in the Company includes his interest over 160,281 forfeitable shares which were awarded to him under the Company's Deferred Share Bonus Plan or DSBP, of which 47,634 shares vested on 19 May 2017 and 20,598 vested on 22 May 2017 and therefore ceased to be subject to restrictions and risk of forfeiture. Of the remaining 92,048 forfeitable shares held by Mr Anil Agarwal under the DSBP, 20,598 will vest on 22 May 2018, 35,725 each will vest on 19 May 2018 and 2019 respectively.
- (4) Mr Navin Agarwal's interest over ordinary shares of US\$0.10 each in the Company includes his interest over 93,915 forfeitable shares which were awarded to him under the DSBP, of which 18,109 shares will vest on 12 August 2017 and 23,079 shares will vest on 1 September 2017 and therefore cease to be subject to restrictions and risk of forfeiture. Of the remaining 52,727 forfeitable shares held by Mr Navin Agarwal under the DSBP, 18,109 will vest on12 August 2018 and 17,309 each will vest and cease to be subject to restrictions and at risk of forfeiture on 1 September 2018 and 2019 respectively. Mr Navin Agarwal's interest over the Company's ordinary shares also includes 51,660 shares held by his wife and sons.
- (5) Mr Tom Albanese's nterest over ordinary shares of US\$0.10 each in the Company includes his interest over 78,854 options which were awarded to him under the DSBP, of which 12,582 shares will vest on 12 August 2017 and 21,476 shares will vest on 1 September 2017 and therefore cease to be subject to restrictions and risk of forfeiture. Of the remaining 44,796 forfeitable shares held by Mr Tom Albanese under the DSBP, 12,582 shares will vest on 12 August 2018 and 16,107 shares each will vest and cease to be subject to restrictions and at risk of forfeiture on 1 September 2018 and 2019 respectively.
- \* Represents beneficial ownership of less than 1.0%.

# RELATED PARTY TRANSACTIONS

The following is a summary of material transactions that Vedanta has engaged in with its controlling shareholder, Volcan, and its subsidiaries and other related parties, including those in which Vedanta or its management has a significant equity interest. In addition, the following contains a discussion of how Vedanta intends to handle conflicts of interest and allocations of business opportunities between itself and its affiliates, Directors and executive officers. For further discussion of related party transactions, see the consolidated financial statements appearing elsewhere in this Offering Circular.

## **Related Parties**

## Volcan and the Agarwal Family

Volcan owns 69.39% of the issued ordinary shares of Vedanta as of 31 March 2017. Volcan is 100% owned and controlled by the Trust. Conclave is the trustee of the Trust and controls all the voting and investment decisions of the Trust. As a result, securities beneficially owned by Volcan may be regarded as being beneficially owned by the Trust and, in turn, by Conclave. Mr. Anil Agarwal, the Executive Chairman of Vedanta and the Chairman emeritus of Vedanta Limited, may be deemed to have beneficial ownership of securities that are owned by Conclave. Vedanta, Volcan, Conclave and Mr. Agarwal are parties to the Relationship Agreement, which regulates the ongoing relationship among them. See "- Related Transactions - Relationship Agreement - Vedanta, Volcan, Conclave and Mr. Anil Agarwal". Mr. Agarwal, his father, Mr. Dwarka Prasad Agarwal, and his son, Mr. Agnivesh Agarwal, the Non-Executive Chairman of HZL, also have a controlling interest in Sterlite Technology Limited ("STL"), a publicly-listed company in India, except for nominal interests in STL held by MEL and Vedanta Limited. In addition, Mr. Anil Agarwal holds is a director of Vedanta with other members of Vedanta and will continue to hold such cross directorships. Mr. Agarwal is also the non-executive chairman of Vedanta Limited. These directorships and positions give rise to situations in which Mr. Agarwal could have a direct or indirect interest that conflicts, or possibly may conflict, with the interests of the Company.

## **Related Transactions**

# Relationship Agreement — Vedanta, Volcan, Conclave and Mr. Anil Agarwal

Vedanta, Volcan, Conclave and Mr. Anil Agarwal are parties to the Relationship Agreement. The principal purpose of the Relationship Agreement is to enable Vedanta to carry on its business independently of Volcan and its direct and indirect shareholders, and their respective associates (the "Volcan Parties") as required by the Listing Rules of the Financial Conduct Authority of the United Kingdom (the "FCA") and to ensure that transactions and relationships, including all matters that are the subject of the Shared Services Agreement (as described below), among the Volcan Parties are at arm's length and on a normal commercial basis. The Relationship Agreement will terminate in respect of Volcan at such time as each of the Volcan Parties, acting individually or jointly by agreement, cease to be a controlling shareholder of Vedanta for the purposes of the Listing Rules of the FCA or if Vedanta is de-listed from the LSE. In addition, the Relationship Agreement will terminate in respect of Conclave and Mr. Anil Agarwal if any of them individually or acting jointly ceases to be a controlling shareholder of Vedanta or Volcan. Currently, a controlling shareholder of a company for the purposes of the Listing Rules of the FCA is any person (or persons acting jointly by agreement whether formal or otherwise) who is entitled to exercise, or to control the exercise of, 30% or more of the rights to vote at general meetings of such company or is able to control the appointment of directors who are able to exercise a majority of the votes at board meetings of such company.

# Under the Relationship Agreement:

• the parties agree to ensure that Vedanta is capable, at all times, of carrying on its business independently of the Volcan Parties as required by the Listing Rules of the FCA;

- the Board and Nominations Committee and any other committee of the Board (other than the Audit Committee or the Remuneration Committee or any committee which may be established by the Board in connection with a specific transaction, the constitution of which is approved by the Board) to which significant powers, authorities or discretions are delegated shall at all times comprise a majority of Directors who are independent of the Volcan Parties and who are free from any business or other relationship with the Volcan Parties which could materially interfere with the exercise of the Director's judgment concerning Vedanta;
- Vedanta's Remuneration Committee and Audit Committee shall at all times consist only of Non-Executive Directors;
- Volcan is entitled to nominate for appointment to the Board such number of persons as is one less than the number of Directors who are independent of the Volcan Parties and who are free from any business or other relationship with the Volcan Parties which could materially interfere with the exercise of the director's judgment concerning Vedanta;
- neither Mr. Anil Agarwal nor any non-independent Directors shall be permitted, unless the independent Directors agree otherwise, to vote on any resolutions of the Board or of a committee of the Board to approve the entry into, variation, amendment, novation or abrogation or enforcement of any contract, arrangement or transaction with any of the Volcan Parties;
- Volcan shall not exercise voting rights attaching to its shares in Vedanta or any resolution to approve the entry into, variation, amendment, novation or abrogation of any transactions or arrangements between Vedanta and the Volcan Parties;
- the Volcan Parties represented and warranted to Vedanta that at the time of the execution of the Relationship Agreement they did not own directly or indirectly any interests in the smelting, refining, mining or sale of any base metals or mineral otherwise than through Vedanta or any member of Vedanta;
- the Volcan Parties agreed to, and agreed to cause each member of the Volcan group, the Agarwal family and their respective associates to, directly or indirectly, acquire or otherwise invest in any company, business, business operation or other enterprise which engages in the smelting, refining or mining of base metals or minerals only through the Company or other member of Vedanta. However, this Relationship Agreement does not prevent, restrict or limit the acquisition or ownership by the Volcan Parties of:
  - (a) not more than 5% in aggregate of any class of shares, debentures or other securities in issue from time to time of any company which engages in the smelting, refining or mining of base metals or minerals which is for the time being listed on any stock exchange; or
  - (b) of, or of any interest in, a base metal or mineral property or asset (together with any associated property, plant and equipment), which is not adjacent or geographically proximate to an existing property or operation of Vedanta so as to give them operational synergies, where the acquisition cost (including assumed indebtedness), including any related capital expenditures committed at the date of acquisition for the following 12 months, is equal to \$50 million or less, for which purpose any acquisitions of two or more related or adjacent base metal or mineral properties or assets shall be aggregated when calculating the acquisition cost, provided that the relevant interested party (i) is not an officer or director of Vedanta; and (ii) before acquiring such property or asset, first made the opportunity to acquire such property or asset available to Vedanta, with a reasonable period for the independent directors

of Vedanta to consider the opportunity, on terms no less favourable than those on which they are proposed to be acquired by the interested party and a majority of the independent directors has determined that Vedanta should not make the acquisition; and

(c) transactions and relationships between Vedanta and the Volcan Parties must be conducted at arm's length and on a normal commercial basis, including those to be provided under the Shared Services Agreement.

#### STL

Vedanta entered into a shared services agreement dated 5 December 2003 with STL (the "Shared Services Agreement") as part of the Listing. Under this Shared Services Agreement, Vedanta Limited (then Sterlite) and Vedanta agreed to continue to provide STL with various commercial services in relation to STL's businesses on an arm's length basis and at normal commercial terms.

_	Year ended 31 March		
_	2015	2016	2017
Sales to STL	126.0	140.4	127.8
Recovery of expenses	0.0	0.2	0.0
Purchases	2.9	1.1	2.6
Net Interest Income	0.6	0.2	1.3
Net amounts receivable at year end	3.7	0.2	4.0
Net amounts payable at year end	_	1.4	0.2
Dividend Income	_	0.0	0.1
Investment in Equity Share	4.2	6.5	9.2

In fiscal years 2015, 2016 and 2017, services provided to STL \$0.02 million, \$0.02 million and \$0.03 million from STL, respectively.

## **SPTL**

Sterlite Power Transmission limited ('SPTL') is related by virtue of having the same controlling party as Vedanta, namely Volcan.

_	Year ended 31 March		
_	2015	2016	2017
Sales to SPTL	_	_	2.6
Purchases	_	_	0.4
Investment in Equity Share	_	_	1.5

## Vedanta Foundation

Vedanta Foundation is a registered not-for-profit entity engaged in computer education and other related social and charitable activities. The Vedanta Foundation is a related party as it is controlled by members of the Agarwal family who control Volcan, the majority owner of Vedanta. During fiscal years 2015, 2016, and 2017 Vedanta paid were \$0.7 million, \$0.5 million and \$10.2 million to Vedanta Foundation, respectively.

## Sesa Goa Community Foundation Limited

Following the acquisition of SGL (now Vedanta Limited), the Sesa Goa Community Foundation Limited, a charitable institution, became a related party of Vedanta on the basis that key management personnel of Vedanta have significant influence on the Sesa Goa Community Foundation Limited. During the years ended 31 March 2015, 2016 and 2017, Vedanta paid \$0.4 million, \$0.4 million and \$0.3 million to Sesa Goa Community Foundation Limited.

#### Loans to Sterlite Iron and Steel Limited

As of 31 March 2017, Vedanta had an outstanding loan balance receivable from Sterlite Iron and Steel Limited of \$0.7 million. Sterlite Iron and Steel Limited is a related party by virtue of having the same controlling party as the Company, namely Volcan.

### Vedanta Medical Research Foundation

In fiscal years 2015, 2016 and 2017, Vedanta gave donations of \$0.7 million, \$2.7 million and \$5.2 million to Vedanta Medical Research Foundation, which is a related party of Vedanta on the basis that key management personnel of Vedanta exercise significant influence.

### Volcan Investments Limited

_	Year ended 31 March		
<u>-</u>	2015	2016	2017
Dividend paid	115.6	75.0	93.7
Net amount receivable at the period/year end	0.4	0.2	0.4
Recovery of expenses	0.3	0.3	0.2
Guarantees given	18.4	17.3	17.7

Volcan is a related party of Vedanta by virtue of being an ultimate controlling party of Vedanta.

## **MATERIAL CONTRACTS**

The following is a summary of each of the Vedanta's material contracts.

### HZL call options

On 11 April 2002, Vedanta Limited acquired a 26.0% interest in HZL from the GoI through its subsidiary, SOVL (which has since merged into Vedanta Limited). Upon Vedanta Limited's acquisition of the 26.0% interest in HZL, the GoI and Vedanta Limited entered into a shareholders' agreement to regulate, among other things, the management of HZL and dealings in HZL's shares.

Under the shareholders' agreement, the GoI granted Vedanta Limited two call options to acquire all the shares in HZL held by the GoI at the time of exercise. Vedanta Limited exercised the first call option on 29 August 2003 and acquired an additional 18.9% on 12 November 2003, taking Vedanta Limited's interest in HZL to 64.9%.

The shareholders' agreement provides that prior to selling shares in HZL to a third party, either party must first issue a sale notice offering those shares to the other party at the price it intends to sell them to the third party. However, a transfer of shares, representing not more than 5.0% of the equity share capital of HZL, by the GoI to the employees of HZL is not subject to such right of first refusal by Vedanta Limited. The GoI has transferred shares representing 1.5% of HZL's share capital to the employees of HZL. The shareholders' agreement also provides that if the GoI proposes to make a sale of its shares in HZL by a public offer prior to the exercise of Vedanta Limited's second call option, then Vedanta Limited shall have no right of first refusal.

The second call option provides Vedanta Limited a right to acquire the GoI's remaining 29.5% shareholding in HZL, subject to the right of the GoI to transfer up to 3.5% of the issued share capital of HZL to employees of HZL, in which case the number of shares that Vedanta may purchase under the second call option will be reduced accordingly. The exercise price for the second call option will be equal to the fair market value of the shares as determined by an independent appraiser. By a letter dated 21 July 2009, Vedanta Limited exercised the second call option.

### BALCO call option

On 2 March 2001, Vedanta Limited acquired a 51.0% interest in BALCO from the GoI. On the same day, Vedanta Limited entered into a shareholders' agreement with the GoI and BALCO to regulate, among other things, the management of BALCO and dealings in BALCO's shares. The shareholders' agreement provides that as long as Vedanta Limited holds at least 51.0% of the share capital of BALCO, it is entitled to appoint one more director to the board of BALCO than the GoI and is also entitled to appoint the managing director.

Under the shareholders' agreement, if either the GoI or Vedanta Limited wishes to sell its shares in BALCO to a third party, the selling party must first offer the shares to the other party at the same price at which it is proposing to sell the shares to the third party. The other party shall then have the right to purchase all, but not less than all, of the shares so offered. If a shareholder does not exercise its right of first refusal, it shall have a tag along right to participate in the sale pro rata and on the same terms as the selling party, except that if the sale is by the GoI by way of a public offer, the tag along right will not apply. However, a transfer of shares representing not more than 5.0% of the equity share capital of BALCO by the GoI to the employees of BALCO is not subject to such right of first refusal by Vedanta Limited. The GoI also granted to Vedanta Limited an option to acquire the remaining shares in BALCO held by the GoI at the time of exercise.

# Volcan relationship agreement between Vedanta, Volcan, the Anil Agarwal Discretionary Trust, Conclave and Anil Agarwal

For details on the Volcan relationship agreement, please see the section "Related Party Transactions — Related Transactions — Relationship Agreement — Vedanta, Volcan, Conclave and Mr. Anil Agarwal".

## Cairn India Purchase Agreement

On 15 August 2010, THL Aluminium Limited, which was at the time in the process of changing its name to Twin Star Energy Holdings Limited ("TSEHL"), entered into the Cairn India Share Purchase Deed with CUKHL and others. Pursuant to the Cairn India Share Purchase Deed, TSEHL agreed to purchase a maximum of 51.0% of the fully diluted share capital of Cairn India at a price of Rs. 355 per Cairn India share. This was subject to an open offer to the shareholders of Cairn India shareholders, of not less than Rs. 355, for up to 20.0% of the issued shares in Cairn India (the "Open Offer"), in accordance with the requirements of the Takeover Code.

Depending on the results of the Open Offer, the number of ordinary shares in Cairn India ("Cairn India Shares") acquired under the Cairn India Share Purchase Deed was therefore subject to a maximum reduction of 11.0% to 40.% of Cairn India's fully diluted share capital on completion.

The Cairn India Share Purchase Deed contained a non-compete clause that required TSEHL to pay to CUKHL on completion a fee of Rs. 50 per Cairn India share acquired, as consideration for the Cairn Energy Group and CUKHL undertaking not to engage in the business of oil or gas extraction and/or its transport or processing in India, Sri Lanka, Pakistan and Bhutan or any other business competing with the business of the Cairn India Group. Please refer to the amendment deed dated 27 June 2011 summarised in paragraph (b) below.

TSEHL and CUKHL agreed reciprocal put and call option arrangements for up to 5.0% of the issued share capital of Cairn India as calculated at the date of exercising the option. The put and call options were exercisable for a period of six months from 31 July 2012 and 31 July 2013.

The maximum aggregate number of shares that TSEHL would be obliged or entitled to acquire under the put and call options was capped at the number of Cairn India Shares equal to 51.0% of the fully diluted share capital of Cairn India at completion minus the aggregate of:

- the number of Cairn India Shares actually acquired at completion;
- the number of Cairn India Shares acquired under the exercise of any of the options; and
- the number of Cairn India Shares sold by CUKHL (and/or members of CUKHL's Group to any person at any price, provided that these shares were first offered to TSEHL at Rs. 405 per share (payable in US dollars at completion of such pre-emptive purchase based on a fixed exchange rate of Rs. 46.765:\$1) within six months of completion.

On 27 June 2011, the Cairn India Share Purchase Deed was amended to provide for:

- 191,920,207 Cairn India Shares to be acquired by TSEHL on or before 11 July 2011, with the balance of the fully diluted equity share capital of Cairn India to be acquired by TSEHL on completion after satisfaction or waiver of the relevant conditions precedent set out in the Cairn India Share Purchase Deed;
- extension of the long stop date for satisfaction of the conditions precedent to completion to 15 December 2011, after which either Vedanta or Cairn Energy may terminate the Cairn India Share Purchase Deed (save for certain provisions relating to the sale of 10.0% of the fully diluted share capital of Cairn India to Vedanta pursuant to the terms of the Cairn India Share Purchase Deed, which completed on 11 July 2011 by giving five business days' notice; and
- removal of all provisions relating to the Rs. 50 per Cairn India share non-compete fee and removal of the associated non-compete undertakings of the Cairn Energy Group.

## Information agreement between Cairn Energy and Cairn India dated 8 December 2011

In accordance with the Cairn India Purchase Agreement, the Cairn Energy Group and Cairn India have entered into an agreement pursuant to which Cairn Energy Group has certain rights to information on the Cairn India Group. This agreement replaces the previous relationship agreement between Cairn Energy, Cairn India and CUKHL. This information agreement requires subject to other conditions that:

- all related party transactions between Cairn India and the Cairn Energy Group, respectively, be on an arm's length basis and approved by the board of directors of Cairn India;
- Cairn India provide, to the extent permitted under applicable law, the information Cairn Energy Group requires in order to comply with its financial and regulatory reporting requirements; and
- Cairn India will provide reasonable assistance and information in the form of marketing material, road shows and presentations for any sale of shares in Cairn India by the Cairn Energy Group.

### Cairn relationship agreement between Cairn India and the Company dated 8 December 2011

In accordance with the Cairn India Purchase Agreement, Vedanta and Cairn India have entered into a relationship agreement which is substantially on similar terms as the relationship agreement which previously existed between Cairn Energy, Cairn India and CUKHL. This relationship agreement requires Vedanta and Cairn India to each exercise all of their respective powers and, so far as they are respectively able to do so, procure that the directors of Cairn India exercise their respective powers to ensure that: (i) the business of Cairn India is at all times carried on independently of any other member of Vedanta; (ii) all dealings between Cairn India and the rest of Vedanta are approved by the Cairn India audit committee; and (iii) the business of Cairn India is managed for the benefit of its shareholders as a whole. The parties also agreed to use their reasonable endeavours to ensure that they can comply with their respective obligations under applicable law or under the rules of the stock exchanges on which their securities are traded. This relationship agreement requires Cairn India to provide Vedanta with such information as it may require in order to comply with its legal, regulatory and reporting obligations for so long as Vedanta's holding in Cairn India is of a level that requires Vedanta to account for the holding as a subsidiary or associated undertaking under IFRS. This relationship agreement requires that any offer, allotment or issue of securities in Cairn India be approved by a securities committee of the board of Cairn India. Any meeting of the securities committee must be quorate, and any decision of that committee is only valid if the majority of the members present are directors of Cairn India who have been nominated in accordance with the articles of association of Cairn India. For so long as Vedanta holds at least 10.0% of the issued equity share capital of Cairn India, Cairn India has agreed that, subject to certain limitations and subject to applicable law, Vedanta has the right to require Cairn India to take such steps as may be reasonably required by it in connection with a proposed sale or disposal of Cairn India Shares by any member of Vedanta. Cairn India is required to comply with such best practice principles, standards, policies and provisions with Vedanta reasonably requires it to comply with and has approved from time to time. With merger of Cairn India becoming effective from 11 April 2017, this agreement has now been terminated.

# Mineral Development Agreement executed relating to the rehabilitation and development of the Western Cluster iron ore deposits with the Government of Liberia

On 3 August 2011, Sesa Goa, BFL, Elenilto, WCL and the Government of Liberia entered into a Mineral Development Agreement relating to the exploration and development of the Western Cluster iron ore deposits (the "MDA"). The MDA became effective on 22 August 2011 (the "Effective Date")

following satisfaction of certain conditions, including ratification of the MDA by the Legislature of the Republic of Liberia. The initial term of the MDA is 25 years from the Effective Date and will automatically be extended to match any extensions of the term of any mining licence granted by the Government of Liberia to WCL pursuant to the MDA.

The MDA provides that exploration licences are to be granted to WCL for the exclusive exploration of iron ore deposits in the Bomi, Mano River and Bea Mountain exploration areas. The MDA provides that WCL be granted land use rights in relation to the land subject to any exploration licence or mining licence; provided WCL pays reasonable compensation to landowners and occupants of the land for loss of or diminution in value of the land. These land use rights terminate at the end of the term of the MDA.

WCL must pay the Government of Liberia a royalty of 4.50% multiplied by the fair market value determined in accordance with the Liberian revenue code. WCL must also pay the Government of Liberia a fee of \$25 million. In addition, WCL is required to develop programmes for the development and maintenance of the communities that have formed and that may form as a result of its operations in the exploration areas and to also make annual contributions ranging from \$2 million to \$3.1 million to a specially managed fund for the benefit of communities in affected counties.

In the event of a transfer of an interest in WCL, WCL or the transferor of such interest must pay a withholding tax to the Government of Liberia of 15.0% of the value of all cash and other consideration received by the transferor or any other entity with respect to the transfer. No change of control of WCL is permitted by the MDA unless the prior written consent of the Government of Liberia is obtained or is otherwise permitted under the MDA. The MDA provides that a change of control of a shareholder of WCL (including Elenilto, BFL and any person who acquires an interest in WCL) will constitute a change of control of WCL. Due to a change in control of WCL pursuant to the share purchase agreement dated 20 December 2012, the Legislature of Liberia is required to approve the amendment to the MDA which is currently in progress.

WCL agreed to indemnify the Government of Liberia and its officers and agents from all losses and liabilities incurred as a direct consequence of death or injury to persons or damage to property directly resulting from the conduct of WCL. Sesa Goa, BFL and Elenilto jointly and severally guaranteed the performance of the obligations of BFL and WCL under the MDA. Furthermore, Sesa Goa agreed to maintain a net worth of at least \$100 million. The MDA is governed by Liberian law.

## Rajasthan Production Sharing Contract

Cairn India is working in partnership with its joint operation partner, ONGC, in the Rajasthan Block. The Rajasthan production sharing contract (the "Rajasthan Block PSC") was signed on 15 May 1995 between the GoI and a consortium consisting of ONGC and Shell India Production Development BV.

Cairn India acquired its interest in the Rajasthan Block PSC in three stages, eventually acquiring a 100 per cent. beneficial interest in the assets and liabilities as of May 2002 and acquiring legal title to this interest on 20 June 2003. Under the Rajasthan Block PSC, the GoI has an option to acquire a participating interest of 30 per cent. in any development area containing a commercial discovery. The GoI exercised its right in all three development areas, specifically DA 1 in 2005, DA 2 in 2007 and DA 3 in 2009, acting through its nominee, ONGC, and acquired a 30 per cent. participating interest.

Under the Rajasthan Block PSC, until such time as India attains self-sufficiency in its crude oil supply, Cairn India is required to sell to the GoI, or its nominee, all of Cairn India's entitlement to crude oil and condensate extracted from the Rajasthan Block to assist in satisfying domestic Indian crude oil demand. The GoI has the option but not an obligation to purchase the entire or part of the crude oil produced from the Rajasthan Block. However, the GoI has granted permission to Cairn India to sell the remaining quantities of crude oil, over and above those allocated to government nominees, to other domestic private refineries. As of 31 March 2017, Cairn India sells the crude oil to both

private refineries and, the public sector undertakings refineries. As of 31 March 2017, commercial sales arrangements were in place for over 200,000 bopd with public sector undertakings and private refineries. Any additional sales to the public sector undertakings refineries, special economic zone refineries and overseas are subject to approval from the GoI.

The Rajasthan Block PSC established a management committee for the Rajasthan Block, which consists of four members, two of whom are nominated by and represent the GoI and the licensee, ONGC, together, and two of whom are nominated by and represent Cairn India. The management committee must unanimously approve annual work programmes, budgets, proposals for the declaration of a discovery as commercial, field development plans, and the delineation of or additions to a development area, whereas all other matters only require a majority vote.

The Rajasthan Block PSC is currently due to expire in May 2020, but it may be extended by mutual agreement among the parties for up to an additional ten years in the case of commercial production of natural gas or, in other cases, up to five years. There is also a provision to further extend the production sharing contract by agreement of the parties if production of crude oil or natural gas is expected to continue after the relevant period.

The Rajasthan Block benefitted from a tax holiday of seven years from the fiscal 2009 (being the year of commencement of commercial production in the Rajasthan Block) to 31 March 2016. However, during this seven year period, minimum alternate tax rules applied resulting in a taxation of book profits calculated in accordance with the generally accepted accounting principles used in India. Any minimum alternate tax paid can be carried forward for a total period of ten years from the year of credit and used to reduce corporate tax due in future years in excess of minimum alternate tax payable in those years.

# Ravva Block Production Sharing Contract for the exploration, development and production of the Ravva field

The production sharing contract for the exploration, development and production of the Ravva field (the "Ravva PSC") was signed on 28 October 1994 between the GoI and a consortium consisting of ONGC, Videocon Petroleum Limited, Ravva Oil and Cairn Energy India Pty Limited (formerly known as Command Petroleum (India) Pty Limited) ("Command Petroleum") with Command Petroleum being designated as the operator. In 1996, Cairn Energy Plc acquired Command Petroleum, including its interest in the Ravva field, and Cairn India became the operator.

Cairn India holds a 22.5 per cent. working interest in the Ravva field, with the remaining interests currently held by ONGC (40 per cent.), Videocon Petroleum Limited (25 per cent.) and Ravva Oil (12.5 per cent.) (together, the "Ravva joint operation"). The Ravva PSC is valid until 27 October 2019, but may be extended by the GoI for up to an additional ten years in the case of commercial production of non-associated natural gas or, in other cases, up to five years.

Under the Ravva PSC, Cairn India is entitled to recover 100 per cent. of exploration, development and costs of production from crude oil and natural gas sales before any profit is allocated among the parties.

Under the Ravva PSC, until such time as India attains self-sufficiency in its crude oil supply, Cairn India is required to sell in the domestic Indian market all of its entitlement to crude oil extracted from the Ravva field to assist in satisfying domestic Indian crude oil demand.

### Cambay basin production sharing contract

Exploration, development and production of the Cambay basin block is governed by a production sharing contract between the GoI and a consortium consisting of ONGC, Tata Petrodyne Limited and Cairn India, (the "Cambay basin joint operation") which was signed on 30 June 1998 and expires in 2023. The production sharing contract can be extended for a period of 35 years in case of

commercial production of non-associated natural gas or for a period not exceeding five years. Cairn India's participating interest in the Cambay basin joint operation consists of a 40 per cent. interest in the Lakshmi, Gauri and CB-X development areas. The remaining interests in these development areas are held by ONGC (50 per cent.) and Tata Petrodyne (10 per cent.).

#### **Conflicts of Interest**

From time to time, conflicts of interest have in the past and will in the future arise between the Company and its affiliates. With respect to transactions between the Company and its affiliates, Directors and executive officers that involve conflicts of interests, the Company has in the past undertaken and will continue in the future to undertake such transactions in compliance with the rules for interested or related party transactions of the LSE on which the Company is listed, the NYSE on which Vedanta Limited is listed and the Indian stock exchanges.

The rules applicable to LSE listed companies require that the details of a related party transaction be notified to a regulatory information service and disclosed to the FCA as soon as possible after the terms of the transaction are agreed upon. There is also a requirement that a circular containing information about the related party transaction be sent to all shareholders and that their approval of the related party transaction be obtained either before the transaction is entered into or, if the transaction is conditional on shareholder approval, before the transaction is completed. The related party and its associates must be excluded from voting on the related party transactions. The requirement of shareholder approval does not apply to transactions where the gross assets of the transaction as a percentage of the gross assets of the listed company, the profits attributable to the assets of the transaction as a percentage of the profits of the listed company, the consideration for the transaction as a percentage of the aggregate market value of all the ordinary shares (excluding treasury shares) of the listed company and the gross capital of the company or business being acquired as a percentage of the gross capital of the listed company, does not exceed 5%. However, the listed company must, before entering into the related party transaction, inform the FCA of the details of the proposed related party transaction, provide the FCA with a written confirmation from an independent adviser acceptable to the FCA that the terms of the proposed related party transaction with the related party are fair and reasonable as far as the shareholders of the listed company are concerned and undertake in writing to the FCA to include details of the related party transaction in the listed company's next published annual financial statements, including, if relevant, the identity of the related party, the value of the consideration for the transaction or arrangement and all other relevant circumstances. Related party transactions where all the above percentage ratios are 0.25% or less have no requirements under the rules applicable to LSE-listed companies. Where several separate transactions occur between a company and the same related party during a 12-month period, the transactions must be aggregated for the purpose of applying the percentage ratio tests.

As part of Vedanta Limited's listing on the NYSE, Vedanta Limited was required to confirm to the NYSE that it will appropriately review and oversee related party transactions on an ongoing basis. Such related party transactions include transactions between Vedanta Limited and the Company, and the Company's affiliates. The NYSE reviews the proxy statements and other public filings of its listed companies as to related party transactions. Under the rules of the NYSE, Vedanta Limited was required to have an independent audit committee comprised of a majority of independent directors within 90 days of listing and comprised entirely of independent directors within one year of listing. Vedanta Limited currently has an independent audit committee comprised entirely of independent directors and expects to continue to do so following the Listing. One of the functions of its independent audit committee is to review any related party transactions by Vedanta Limited or any of its subsidiaries or affiliates. In addition, under the rules of the NYSE, Vedanta Limited is required to obtain shareholder approval for any issuance of its equity shares, or securities convertible into or exercisable for the Company's equity shares, to any related party, except that such approval would not be required for sales of the Company's equity shares to the Company's controlling shareholder or its affiliates in an amount not to exceed 5% of the number of the Company's equity shares outstanding prior to such issuance and at a price equal to or greater than the higher of the book or market value of the Company's equity shares.

Under the listing agreements that the Company's Indian subsidiaries have entered into with the Indian stock exchanges, these subsidiaries are required to ensure that their disclosures in relation to material and significant related party transactions in their annual reports are in compliance with Indian GAAP. Specifically, these subsidiaries are required to place before their audit committee and publish in their annual reports a statement in summary form of the related party transactions entered into by them during the previous fiscal year, providing details of whether such transactions were undertaken in the ordinary course of business and details of material individual transactions with related parties or others which were not on an arm's length basis, together with their management's justification for such transactions. Under the listing agreements, their audit committee is required to review and discuss with the management the disclosures of any related party transactions, as defined under Indian GAAP, in the Company's annual financial statements.

The Company also has used and will continue to use independent appraisers in appropriate circumstances to help determine the terms of related party transactions. The Company has had and will continue to have an Audit Committee comprised entirely of independent directors which is responsible for reviewing any related-party transaction by the Company or any of its subsidiaries or affiliates.

## **DESCRIPTION OF MATERIAL INDEBTEDNESS**

Set forth below is a summary of the terms and conditions of certain of Vedanta's debt instruments that Vedanta considers to be the most material as of the date of this Offering Circular. The summary may not contain all of the information that is important to you. You should read the notes to the financial statements for additional information about the indebtedness of Vedanta.

As of 31 March 2017 Vedanta had \$18,228.7 million of debt outstanding including term loans and working capital facilities. Vedanta expects to use a portion of the proceeds of the offering to fund the concurrent Tender Offers for its any and all outstanding 2019 and 2021 bonds.

In addition, Vedanta had \$920.3 million of undrawn credit facilities. Set forth below is information regarding Vedanta's material debt outstanding as of 31 March 2017.

#### **Material Indebtedness**

## Issue of \$1000.0 million 6.375% bonds due 2022

On 30 January 2017, the Company issued \$1,000.0 million 6.375% bonds due 2022 ("2022 Bonds"). The 2022 Bonds were offered by Barclays Bank PLC, Citigroup Global Markets Limited, J.P. Morgan Securities plc and Standard Chartered Bank as joint global co-ordinators, outside of and within the United States in accordance with Regulation S and Rule 144A, respectively, under the Securities Act.

The interest on the 2022 Bonds is payable semi-annually in arrear on 30 January and 30 July each year, at a rate of 6.375% per annum. The 2022 Bonds will mature on 30 July 2022.

Under the terms and conditions of the 2022 Bonds, the Company is subject to certain covenants restricting it and its material subsidiaries (as defined in the terms and conditions of the bonds) from creating or permitting to subsist any mortgage, charge, pledge, lien or other form of encumbrance or security interest upon the whole or any part of their respective undertaking or assets, present or future to secure any indebtedness or debt, or any guarantee or indemnity in respect of the Company's indebtedness or any relevant debt (as defined in the terms and conditions of the bonds) of its material subsidiaries, unless the bonds are secured equally and rateably therewith or otherwise benefit identically or not materially less beneficial to the bondholders.

## Issue of \$1,200.0 million 6% bonds due 2019 and \$500.0 million 7.125% bonds due 2023

In June 2013, the Company issued \$1,200.0 million bonds bearing a coupon rate of 6% and \$500.0 million at a coupon rate of 7.125%. The same are due for repayment in January 2019 and May 2023 respectively.

The 2023 Bonds were offered by Barclays Bank PLC, BofA Merrill Lynch, Citi, JP Morgan, The Royal Bank of Scotland and Standard Chartered Bank as joint lead managers, outside of and within the United States in accordance with Regulation S and Rule 144A, respectively, under the Securities Act.

The issue price of the bonds was 100% of the principal amount. The interest is payable semi-annually payable on (i) with respect to the 2019 Bonds, 3 June and 3 December of each year and (ii) with respect to the 2023 Bonds, 3 June and 3 December of each year. 2019 Bonds will mature on 31 January 2019 and the 2023 Bonds will mature on 31 May 2023.

Under the terms and conditions of the Bonds, the Company is subject to certain covenants restricting it and its material subsidiaries (as defined in the terms and conditions of the bonds) from creating or permitting to subsist any mortgage, charge, pledge, lien or other form of encumbrance or security interest upon the whole or any part of their respective undertaking, assets or revenues, present

or future to secure any indebtedness or debt or any guarantee or indemnity in respect of the Company's indebtedness or relevant debt (as defined in the terms and conditions of the bonds) of its material subsidiaries, unless the bonds are secured equally and ratably therewith or otherwise benefit identically or not materially less beneficial to the bondholders.

Pursuant to a tender offer floated by Vedanta in January 2017 for the 2019 Bonds, the outstanding amount on the 2019 Bonds as of 31 March 2017 is \$774.94 million.

Concurrent with this offering of the Bonds, Vedanta is conducting a Tender Offer for the 2019 Bonds. Vedanta plans to use a portion of the proceeds from the offering of the Bonds to fund the Tender Offer for these Bonds.

## Issue of \$900.0 million 8.25% bonds due 2021

On 7 June 2011, the Company issued \$900.0 million 8.25% bonds due 2021 ("2021 Bonds"). The 2021 Bonds were offered by Barclays Bank PLC, Citi, Credit Suisse, The Royal Bank of Scotland and Standard Chartered Bank as joint lead managers, outside of and within the United States in accordance with Regulation S and Rule 144A, respectively, under the Securities Act. The issue price of the bonds was 100% of the principal amount. The interest on the 2021 Bonds is payable semi-annually in arrear on 7 June and 7 December each year, at a rate of 8.25% per annum. The 2021 Bonds will mature on 7 June 2021.

Under the terms and conditions of the 2021 Bonds, the Company is subject to certain covenants restricting it and its material subsidiaries (as defined in the terms and conditions of the bonds) from creating or permitting to subsist any mortgage, charge, pledge, lien or other form of encumbrance or security interest upon the whole or any part of their respective undertaking, assets or revenues, present or future to secure any indebtedness or debt or any guarantee or indemnity in respect of the Company's indebtedness or relevant debt (as defined in the terms and conditions of the bonds) of its material subsidiaries, unless the bonds are secured equally and rateably therewith or otherwise benefit identically or not materially less beneficial to the bondholders.

Concurrent with this offering of the Bonds, Vedanta is conducting a Tender Offer for the 2021 Bonds. Vedanta plans to use a portion of the proceeds from the offering of the Bonds to fund the Tender Offer for these Bonds.

## Issue of \$750.0 million 9.50% bonds due 2018

On 2 July 2008, the Company issued \$750.0 million 9.50% bonds due 2018 ("2018 Bonds"). The 2018 Bonds were offered by JPMorgan and Morgan Stanley as joint global co-ordinators, outside of and within the United States in accordance with Regulation S and Rule 144A, respectively, under the Securities Act.

The interest on the 2018 Bonds is payable semi-annually in arrears on 18 January and 18 July each year, at a rate of 9.5% per annum. The 2018 Bonds will mature on 18 July 2018.

Under the terms and conditions of the 2018 Bonds, the Company is subject to certain covenants restricting it and its material subsidiaries (as defined in the terms and conditions of the bonds) from creating or permitting to subsist any mortgage, charge, pledge, lien or other form of encumbrance or security interest upon the whole or any part of their respective undertaking, assets or revenues, present or future to secure any indebtedness or debt (as defined in the trust deed dated 2 July 2008 between the Company and Deutsche Trustee Company Limited), or any guarantee or indemnity in respect of the Company's indebtedness or any relevant debt (as defined in the terms and conditions of the bonds) of its material subsidiaries, unless the bonds are secured equally and rateably therewith or otherwise benefit identically or not materially less beneficial to the bondholders.

Pursuant to a tender offer floated by Vedanta in January 2017 for the 2018 Bonds, the outstanding amount on the 2018 Bonds was \$379.1 million as of 31 March 2017.

These bonds were fully redeemed by the Company in May, 2017.

# \$170.0 million Term Loan Facility between Valliant Jersey Limited and ICICI Bank Limited, DIFC Branch

In March 2013, Valliant Jersey Limited entered into a term loan agreement with ICICI Bank Limited, DIFC Branch for an amount of \$170.0 million. The interest payable is 4.3% above three month US dollar LIBOR. The term loan is unsecured and with a balance average maturity of 2.3 years. As of 31 March, 2017, \$170.0 million was the principal amount outstanding under this facility.

## \$500.0 million Term Loan Facility between Monte Cello Corporation NV and ICICI Bank Limited Bahrain and DIFC Dubai Branch

In July 2011, Monte Cello Corporation NV entered into a term loan agreement with ICICI Bank for an amount of \$500.0 million. The interest payable is 3.9% above three month US dollar LIBOR. The term loan is not secured and is repayable in two equal instalments at the end of six and a half years and seven years of the loan. As of 31 March 2017, \$500.0 million was the principal amount outstanding under this facility.

# \$500.0 million Term Loan Facility between Welter Trading Limited as borrower and Standard Chartered Bank as arrangers

In October 2013, the Company entered into a syndicated facility agreement with Standard Chartered Bank as facility agent for borrowing up to \$500.0 million bearing an interest rate of US\$LIBOR plus 357 basis points. The same is repayable as two equal instalments of \$250.0 million each in October 2017 and January 2018. As at 31 March 2017, the principal amount outstanding under this facility was \$500.0 million.

# \$500.0 million Term Loan Facility dated March 2014 between Twinstar Holding Limited as borrower and Axis Bank Limited as arrangers

In March 2014, the Company has entered into a \$500.0 million syndicated facility agreement with Axis Bank as the lead arranger. The facility bears an interest rate of \$LIBOR plus 352 basis points. The facility was fully drawn in September 2014. The same is repayable as \$100.0 million in December 2018, \$150.0 million in March 2019 and \$250.0 million in September 2019. As at 31 March 2017, the principal amount outstanding under this facility was \$500.0 million.

## \$350.0 million Term Loan Facility between Vedanta Resources Plc with SBI (London Branch)

In March 2015, the Company entered into a facility agreement with State Bank of India for \$350.0 million. Out of said facility \$100.0 million bears an interest rate of \$LIBOR plus 370 basis points and is repayable in March 2020. \$250.0 million bears an interest rate of \$LIBOR plus 403 basis points repayable in two instalments of \$100.0 million and \$150.0 million in June 2021 and June 2022 respectively. As at 31 March 2017, the principal amount outstanding was \$350.0 million under this facility.

### \$300.0 million Term Loan Facility between Vedanta Resources Plc with SBI (London Branch)

In January 2016, the Company entered into a facility agreement with State Bank of India for \$300.0 million. Out of which \$120.0 million bears an interest rate of \$LIBOR plus 450 basis points and is repayable in February 2022. Balance \$180.0 million bears an interest rate of 454 basis points. As at 31 March 2017, the principal amount outstanding was \$300.0 million under this facility.

## \$820.0 million Term Loan Facility to KCM from Standard Bank

A term loan facility of US\$820.0 million has been obtained by KCM from Standard Bank. In November, 2015 the loan agreement was amended and restated with Standard Bank and got a moratorium period for testing of financial covenants. First testing will be done on 30 September 2017. The loan consists of 2 tranches: Facility A (repayable in 11 quarterly installments commencing from 30 September 2016) and Facility B (repayable in 14 quarterly installments commencing from 31 March 2017). The loan is secured against the fixed assets of KCM and a corporate guarantee from Vedanta Resources plc for the amount equivalent to the total outstanding loan. Interest is payable quarterly at LIBOR plus 350 basis points for Facility A and LIBOR plus 300 basis points for Facility B. As at 31 March 2017, the principal amount outstanding was \$478.3 million under this facility.

#### Vedanta Limited

\$1.2 billion Term Loan Facility between TSMHL as borrower and Bank of America, N.A., Barclays Bank PLC, Citigroup Global Markets Asia Limited, JPMorgan Chase Bank N.A., Singapore Branch, The Royal Bank of Scotland plc and Standard Chartered Bank as arrangers

On 15 May 2013, TSMHL entered into a Term Loan facility agreement with Bank of America, N.A., Barclays Bank PLC, Citigroup Global Markets Asia Limited, JPMorgan Chase Bank N.A., The Royal Bank of Scotland plc and Standard Chartered Bank for an amount of \$1.2 billion (the "2013 Term Loan Facility").

The proceeds of the 2013 Term Loan Facility were used to partly refinance \$2,664.4 million drawn to meet the funding requirements for the acquisition of 28.5% stake in Cairn India Limited in December 2011. The facility is due for repayment in four equal annual instalments starting June 2015.

The first two instalments due in June 2015 and June 2016 have been duly repaid.

As at 31 March 2017, the principal amount outstanding is \$600 million. In April, 2017, the outstanding amount of \$600.0 million has been repaid in full.

# \$500.0 million Term Loan Facility between TSMHL as borrower and Standard Chartered Bank and First Gulf Bank PJSC as arrangers

In August 2014, TSMHL tied up a \$500.0 million facility with Standard Chartered Bank and First Gulf Bank PJSC of which \$250.0 million is under a commodity murabaha structure (Islamic financing) and balance \$250 million is under a conventional loan structure. Out of the said facility \$287.5 million bears an interest rate of LIBOR plus 275 basis points with an average maturity of about five years from the date of first drawdown in August 2014 and balance amount of \$212.5 million bears an interest rate of LIBOR plus 340 basis points with an average maturity of about six years from the date of first drawdown in August 2014. As at 31 March 2017, the principal amount outstanding is \$450.0 million. In April 2017, the outstanding amount of \$450.0 million has been repaid in full.

### \$651.0 million Term Loan Facility with CIHL as borrower

In April, 2017, CIHL tied up a \$651.0 million facility with Barclays Bank PLC, Citigroup Global Markets Asia Limited, Credit Suisse AG, Singapore branch, National Bank of Abu Dhabi, Standard Chartered bank, Singapore branch, Axis Bank Limited and ICICI Bank Limited. Out of the said facility, \$155.1 million bears an interest rate of LIBOR plus 171 basis points with an average maturity of about 2.2 years, \$186.0 million bears an interest rate of LIBOR plus 205 basis points with an average maturity of about 3.4 years, and the balance \$309.9 million bears an interest rate of LIBOR plus 215 basis points with an average maturity of about 3.9 years from the date of first drawdown. As at 30 June 2017, the principal amount outstanding is \$651.0 million.

## Axis Bank Limited's Rupee Term Loan of INR 30.0 billion

In June 2016, Vedanta Limited entered into common rupee loan agreement with Axis Bank Limited to avail rupee term loan of Rs.30.0 billion at an interest rate of the bank's 1 year MCLR plus 45 basis points. The facility is secured by hypothecation of movable fixed assets of 1 MTPA of refinery at Langigarh (along with captive power plant of 75 MW) and aluminium smelter of 1.6 MTPA along with a 1,215 MW CPP at Jharsuguda, Odisha and the mortgage by deposit of title deeds of the land pertaining to the project. The facility is repayable in 10 equal semi-annual instalments up to 30 April 2021. As at 31 March 2017, the principal amount outstanding under this facility was \$411.8 million. The interest rate has been reset at Bank's MCLR in May, 2017.

#### Axis Bank Limited's rupee corporate loan of INR 50.0 billion

In November 2015, Vedanta Limited entered into common rupee loan agreement with Axis Bank Limited to avail rupee term loan of Rs.50 billion at interest rate of Axis bank's base rate plus 30 basis points. The facility is secured by first pari passu mortgage and hypothecation over the fixed assets of Vedanta Limited in respect of the specific aluminium division assets in Odisha. The facility is repayable in 60 quarterly instalments up to 31 December 2030. As at 31 March 2017, the principal amount outstanding was \$300.75 million (including the amount outstanding on the portion of loan novated to other banks). The interest rate has been reset at Bank's 1 year MCLR plus 25 basis points in May, 2017.

Axis Bank Limited novated a part of facility to the following banks:

- (1) Loan amount of Rs. 3.0 billion at an interest rate of Canara bank's 1 year MCLR plus 110 basis points per annum, have been novated to Canara Bank. As at 31 March 2017, the principal amount outstanding was \$45.11 million.
- (2) Loan amount of Rs.2.0 billion, at an interest rate of SBH bank's MCLR plus 5 basis points per annum, have been novated to State Bank of Hyderabad. As at 31 March 2017, the principal amount outstanding was \$30.1 million.
- (3) Loan amount of Rs.5.0 billion, at an interest rate of Vijaya bank's base rate plus 15 basis points per annum, have been novated to Vijaya Bank. As at 31 March 2017, the principal amount outstanding was \$75.2 million.
- (4) Loan amount of Rs.3.0 billion, at an interest rate of SBoP bank's MCLR plus 125 basis points per annum, have been novated to State Bank of Patiala. As at 31 March 2017, the principal amount outstanding was \$45.11 million.

State Bank of India's rupee corporate loan of INR 12.5 billion

In December 2015, Vedanta Limited entered into corporate loan agreement with State Bank of India to avail corporate loan of Rs.12.50 billion. At present, this facility carries an interest rate of SBI's 1 year MCLR plus 35 basis points. The facility is secured by first pari passu mortgage and hypothecation over the fixed assets of aluminium division of Vedanta Limited in Odisha. The facility is repayable in 29 quarterly instalments up to 31 March 2025. As at 31 March 2017, the principal amount outstanding was \$192.8 million.

In July 2014, Vedanta Limited entered into corporate loan agreement with State Bank of India to avail corporate loan of INR 50 billion. At present, this facility carries an interest rate of SBI's 1 year MCLR plus 25 basis points. The facility is secured by first pari passu mortgage and charge over the specific fixed assets of aluminium division of Vedanta Limited in Odisha. The facility is repayable in 30 quarterly instalments up to 31 March 2022. As at 31 March 2017, the principal amount outstanding was \$694.0 million.

Bank of Baroda's rupee term loan of INR 20 billion

In April 2014, Vedanta Limited entered into rupee loan agreement with Bank of Baroda to avail term loan of Rs. 20 billion at an interest rate of bank's base rate plus 10 basis points. The facility is secured by first pari passu hypothecation over the specific movable fixed assets and mortgage over specific immovable fixed assets of the Aluminium division of Vedanta Limited. The facility is repayable in 25 equal quarterly instalments up to 31 December 2020. As at 31 March 2017, the principal amount outstanding was \$231.3 million. The interest rate has been reset at Bank's 1 year MCLR plus 15 basis points in May, 2017.

Bank of India's rupee term loan of INR 20 billion

In April 2014, Vedanta Limited entered into rupee loan agreement with Bank of India to avail term loan of Rs. 20 billion at an interest rate of bank's MCLR. The facility is secured by first pari passu hypothecation over the specific movable fixed assets and mortgage over specific immovable fixed assets of the Aluminium division of Vedanta Limited. The facility is repayable in 25 equal quarterly instalments up to 31 December 2020. As at 31 March 2017, the principal amount outstanding was \$219.8 million.

#### Talwandi Sabo Power Limited:

Yes Bank Limited's Rupee Term Loan facility of INR 12.5 billion

In July 2016, the TSPL has entered into a loan agreement with Yes Bank Limited to avail term loan of Rs. 12.5 million at an interest rate of bank's 1 year MCLR plus 25 basis points. The facility is secured by first pari passu charge on the movable and immovable assets of the company along with the corporate guarantee from Vedanta Limited. The facility is repayable in 10 semi-annual instalments starting from January 2018. As at 31 March 2017, the principal amount outstanding was \$192.8 million.

State Bank Of India's Rupee Term Loan facility of INR 20.0 billion

In December 2015, TSPL has entered into a term loan facility agreement with State Bank of India to avail term loan of Rs. 20 billion at an interest rate of bank's base rate plus 40 basis points. The facility is secured by pari passu charge on the assets of TSPL pertaining to the project envisaging development of 1,980 MW coal based thermal power plant, both present and future, with an unconditional and irrevocable corporate guarantee by Vedanta Limited. The facility is repayable in 48 quarterly instalments starting in June 2018. As at 31 March 2017, the principal amount outstanding was \$308.5 million.

### **Non-Convertible Debentures**

Vedanta has non-convertible debentures ("NCDs") aggregating to \$2,109.1 million principal outstanding as at 31 March 2017. These NCDs were issued by Vedanta between October 2012 and March 2017. The details of the material NCDs are as follows:

# Principal Outstanding as at 31 March 2017

Issuer of NCDs	(\$ million)	Interest Rate	Date of Maturity
Vedanta Limited	385.6	9.1%	5 April 2023
Vedanta Limited	308.5	9.7%	17 August 2020

In addition to the above indebtedness, Vedanta has entered into various arrangements with lenders in relation to its long-term and short-term borrowings (which includes commercial paper and credit lines) to fund its working capital requirements. Certain of these financing arrangements are secured by movable and immovable assets of the Company, including the capital stock of its subsidiaries and, in certain instances, guarantees by the Company.

Between 31 March 2017 and 30 June 2017, Vedanta has repaid \$1.4 billion of total debt, out of which \$1.0 billion was at Vedanta Limited and its subsidiaries.

As of 30 June 2017, Vedanta had \$16,786.1 million of debt outstanding including term loans and working capital facilities.

## TERMS AND CONDITIONS OF THE BONDS

The following, other than the paragraphs in italics, is the text of the terms and conditions of the Bonds which will be endorsed on the individual certificates ("Individual Certificates") issued in respect of the Bonds.

The issue of the U.S.\$1,000,000,000 6.125% Bonds due 2024 (the "Bonds", which expression shall, unless the context requires, include any bonds issued pursuant to Condition 15 and forming a single series with the Bonds issued on the Closing Date) was authorised by a resolution of the Board of Directors of Vedanta Resources plc (the "Issuer") on 26 July 2017. The Bonds are constituted by a Trust Deed (the "Trust Deed") to be dated on or about the Closing Date between the Issuer and Citicorp International Limited (the "Trustee", which expression shall include all persons for the time being acting as trustee or trustees under the Trust Deed) as trustee for the Bondholders. These terms and conditions (the "Conditions") include summaries of, and are subject to, the detailed provisions of the Trust Deed, which includes the form of the Bonds. The Issuer will enter into a paying agency agreement to be dated on or about the Closing Date (the "Paying Agency Agreement") among the Issuer, the Trustee, Citibank, N.A., London Branch, as principal paying agent, Citigroup Global Markets Deutschland AG as transfer agent and registrar, and the other paying and transfer agents appointed under it. The principal paying agent, transfer agent, registrar, paying agents and transfer agents for the time being are referred to herein as the "Principal Agent", the "Registrar", the "Paying Agents" (which expression shall include the Principal Agent) and the "Transfer Agents" (which expression shall include the Registrar), respectively, each of which expressions shall include the successors from time to time of the relevant persons, in such capacities, under the Paying Agency Agreement, and are collectively referred to herein as the "Agents". Copies of the Trust Deed and the Paying Agency Agreement are available for inspection during usual business hours at the specified office of the Principal Paying Agent. The Bondholders (as defined in Condition 1(b)) are entitled to the benefit of, are bound by, and are deemed to have notice of, all the provisions of the Trust Deed and are deemed to have notice of the provisions of the Paying Agency Agreement applicable to them.

## 1. Form, Denomination, Title and Status

(a) **Form and denomination**: The Bonds are in registered form in the minimum denomination of U.S.\$200,000 each and in integral multiples of U.S.\$1,000 in excess thereof, without coupons attached. A bond certificate (each, a "Certificate") will be issued to each Bondholder in respect of its registered holding of Bonds. Each Bond and each Certificate will have an identifying number which will be recorded on the relevant Certificate and in the Register (as defined in Condition 2(a)).

Certificates issued with respect to Rule 144A Bonds will bear the Securities Act Legend (as defined in the Trust Deed), unless determined otherwise in accordance with the provisions of the Paying Agency Agreement by reference to applicable law. Certificates issued with respect to the Regulation S Bonds will not bear the Securities Act Legend. Upon issue, the Rule 144A Bonds will be represented by the Restricted Global Certificate and the Regulation S Bonds will be represented by the Unrestricted Global Certificate. The Restricted Global Certificate will be deposited with a custodian for, and registered in the name of Cede & Co. as nominee of, The Depository Trust Company ("DTC") and the Unrestricted Global Certificate will be deposited with a custodian for, and registered in the name of Cede & Co. as nominee of, DTC for the accounts of Euroclear Bank SA/NV ("Euroclear") and Clearstream Banking, S.A. ("Clearstream, Luxembourg"). The Conditions are modified by certain provisions contained in the Global Certificates. See "Summary of Provisions relating to the Bonds while in Global Form."

Except in the limited circumstances described in the Global Certificates and "Summary of Provisions relating to the Bonds while in Global Form," owners of interests in Bonds represented by the Global Certificates will not be entitled to receive Individual Certificates in respect of their individual holdings of Bonds. The Bonds are not issuable in bearer form.

- (b) **Title:** Title to the Bonds passes only by transfer and registration in the Register (as defined in Condition 2(a)). The holder of any Bond will (except as otherwise required by law or as ordered by a court of competent jurisdiction) be treated as its absolute owner for all purposes (whether or not it is overdue and regardless of any notice of ownership, trust or any interest in it or the theft or loss of, the Certificate (if any) issued in respect of it or anything written on it or on the relevant Certificate) and no person will be liable for so treating the holder. In these Conditions, "Bondholder" and (in relation to a Bond) "holder" mean the person in whose name a Bond is registered in the Register from time to time.
- (c) **Status:** The Bonds constitute senior, unsubordinated, direct, unconditional and (subject to Condition 3(a)) unsecured obligations of the Issuer and shall at all times rank pari passu and without any preference among themselves. The payment obligations of the Issuer under the Bonds shall, save for such exceptions as may be provided by applicable legislation and subject to Condition 3(a), at all times rank at least equally with all its other present and future unsecured and unsubordinated obligations.

### 2. Transfer of Bonds

- (a) **The Register:** The Issuer will cause to be kept at the specified office of the Registrar and in accordance with the terms of the Paying Agency Agreement a register (the "Register") on which shall be entered, on behalf of the Issuer, the names and addresses of the Bondholders from time to time and the particulars of the Bonds held by them and of all transfers and redemptions of Bonds. Each Bondholder shall be entitled to receive only one Certificate in respect of its entire holding.
- (b) **Transfers:** Subject to the terms of the Paying Agency Agreement and to Conditions 2(e) and 2(f), a Bond may be transferred by delivering the Certificate issued in respect of it, with the form of transfer on the back duly completed and signed, to the specified office of the Registrar or any of the Transfer Agents. No transfer of a Bond will be valid unless and until entered on the Register.

Transfers of interests in the Bonds evidenced by the Global Certificates will be effected in accordance with the rules of the relevant clearing systems.

Upon the transfer, exchange or replacement of a Rule 144A Bond, a Transfer Agent will only deliver Certificates with respect to Rule 144A Bonds that bear the Securities Act Legend unless there is delivered to such Transfer Agent such satisfactory evidence, which may include an opinion of legal counsel, as may be reasonably required by the Issuer, that neither the Securities Act Legend nor the restrictions on transfer set forth therein are required to ensure compliance with the provisions of the US Securities Act of 1933, as amended (the "Securities Act").

Interests in Bonds represented by the Restricted Global Certificate may be transferred to a person who wishes to take delivery of any such interest in the form of an interest in Bonds represented by the Unrestricted Global Certificate only if a Transfer Agent receives a written certificate from the transferor (in the form provided in the Paying Agency Agreement) to the effect that such transfer is being made in accordance with Rule 903 or 904 of Regulation S under the Securities Act ("Regulation S") or Rule 144 under the Securities Act ("Rule 144A") (if available).

Prior to the 40th day after the day of issue of the Bonds (the "Restricted Period"), an interest in Bonds represented by the Unrestricted Global Certificate may be exchanged for an interest in Bonds represented by the Restricted Global Certificate only if a Transfer Agent receives a written certificate from the transferee of the interest in Bonds represented by the Unrestricted Global Certificate (in the form provided in the Paying Agency Agreement) to the effect that the transferee is a qualified institutional buyer (as defined in Rule 144A) and is obtaining such interest in a transaction meeting the requirements of Rule 144A and any applicable securities laws of any state of the United States or any other jurisdiction. After the expiration of the Restricted Period, this certification requirement will no longer apply to such transfers.

Transfers of Bonds are also subject to the restrictions described under "Plan of Distribution" and "Transfer Restrictions" below.

(c) **Delivery of new Certificates:** Each new Certificate to be issued on transfer of a Bond or Bonds will, within five Business Days of receipt by the relevant Transfer Agent of the duly completed and signed form of transfer, be made available for collection at the specified office of the relevant Transfer Agent or, if so requested in the form of transfer, be mailed by uninsured mail at the risk of the holder entitled to the Bonds transferred (free of charge to the holder), to the address specified in the form of transfer.

Except in the limited circumstances described in "Summary of Provisions relating to the Bonds while in Global Form — Registration of Title", owners of interests in Bonds represented by the Global Certificates will not be entitled to receive physical delivery of Individual Certificates. Issues of Certificates upon transfers of Bonds are subject to compliance by the transferor and transferee with the certification procedures described above and in the Paying Agency Agreement and, in the case of Rule 144A Bonds, compliance with the Securities Act Legend.

Where some but not all of the Bonds in respect of which a Certificate is issued are to be transferred or redeemed, a new Certificate in respect of the Bonds not so transferred or redeemed, will, within five Business Days of delivery or surrender of the original Certificate to the relevant Transfer Agent or Registrar, be made available for collection at the specified office of the relevant Agent or, if so requested by the holder, be mailed by uninsured mail at the risk of the holder of the Bonds not so transferred or redeemed (free of charge to the holder), to the address of such holder appearing on the Register.

In this Condition 2, "Business Day" means a day (other than a Saturday or a Sunday) on which banks are open for business in the city in which the specified office of the Registrar and the relevant Transfer Agent to which the Certificate in respect of the Bonds to be transferred or relevant form of transfer is delivered is situated.

- (d) Formalities free of charge: Registration of transfer of Bonds will be effected without charge by or on behalf of the Issuer or any of the Transfer Agents, but only upon the person making such application for transfer, paying or procuring the payment (or the giving of such indemnity as the Issuer or any of the Transfer Agents may require) of any tax, duty or other governmental charges which may be imposed in relation to such transfer.
- (e) **Closed periods:** No Bondholder may require the transfer of a Bond to be registered during the period of 15 days ending on (and including) the due date for any payment of principal of that Bond or seven days ending on (and including) any Interest Record Date (as defined in Condition 6(a)).
- (f) **Regulations:** All transfers of Bonds and entries on the Register will be made subject to the detailed regulations concerning transfer of Bonds scheduled to the Paying Agency Agreement. The regulations may be changed by the Issuer with the prior written approval of the Trustee and the Registrar. A copy of the current regulations will be mailed (free of charge) by the Registrar to any Bondholder upon written request.

### 3. Covenants

(a) **Negative Pledge:** So long as any Bond remains outstanding (as defined in the Trust Deed), the Issuer will not create or permit to subsist any mortgage, charge, pledge, lien or other form of encumbrance or security interest ("Security") upon any assets directly held by the Issuer, present or

future, to secure any Indebtedness or any guarantee or indemnity in respect of any Indebtedness, unless, at the same time or prior thereto, the Issuer's obligations under the Bonds and the Trust Deed (x) are secured equally and rateably therewith in substantially identical terms thereto, in each case to the satisfaction of the Trustee; or (y) have the benefit of such other security or other arrangement as the Trustee in its absolute discretion shall deem to be not materially less beneficial to the Bondholders or as shall be approved by an Extraordinary Resolution of the Bondholders; *provided* that this clause (a) shall not apply to Security (x) arising by operation of law or (y) created in respect of Indebtedness (which for this purpose shall exclude Relevant Debt) in an aggregate principal amount not exceeding 10% of Total Assets. For the avoidance of doubt, the foregoing restriction shall not apply to Security upon assets held by any Subsidiary (other than assets that are jointly held with the Issuer).

#### As used in these Conditions:

"Excluded Indebtedness" means any Indebtedness to finance or refinance the ownership, acquisition, development and/or operation of projects, assets or installations (the "Relevant Property") in respect of which the person or persons (in this definition the "Lender") to whom any Indebtedness is or may be owed by the relevant borrower (whether or not a member of the Group) has or have no recourse whatsoever to any member of the Group for the repayment of all or any portion of such indebtedness other than recourse to:

- (i) such borrower for amounts limited to the present and future cash flow or net cash flow from the Relevant Property; and/or
- (ii) the proceeds of enforcement of any Security given by such borrower over the Relevant Property or the income, cash flow or other proceeds deriving therefrom (or given by any shareholder or the like in the borrower over its shares or the like in the capital of the borrower) to secure such Indebtedness, provided that (A) the extent of such recourse to such borrower is limited solely to the amount of any recoveries made on any such enforcement, and (B) such Lender is not entitled, by virtue of any right or claim arising out of or in connection with such Indebtedness, to commence proceedings for the winding-up or dissolution of such borrower or to appoint or procure the appointment of any receiver, trustee or similar person or officer in respect of such borrower generally or any of its projects, assets or installations (save for the Relevant Property the subject of such security); and/or
- (iii) such borrower generally, or directly or indirectly to a member of the Group, under any form of assurance, undertaking or support, which recourse is limited to a claim for damages (other than liquidated damages and damages required to be calculated in a specified way) for breach of an obligation (not being a payment obligation or an obligation to procure payment by another person or an indemnity in respect thereof or an obligation to comply or to procure compliance by another person with any financial ratios or other tests of financial condition) by the person against whom such recourse is available; and/or
- (iv) any Subsidiary of the Issuer by way of guarantee of such Indebtedness (but not benefiting from any security or quasi-security from that Subsidiary of the Issuer);

"Group" means the Issuer and its Subsidiaries;

"Indebtedness" means any obligation (whether present or future, actual or contingent, secured or unsecured, as principal, surety or otherwise) for the payment or repayment of money;

"Relevant Debt" means any present or future indebtedness (other than Excluded Indebtedness) of the Issuer or any other person in the form of, or represented by, bonds, notes, debentures, loan stock or other securities, which are for the time being, or are capable of being, quoted, listed or ordinarily dealt in on any stock exchange, over-the-counter or other securities market, have an original maturity

of more than one year from their date of issue and are denominated, payable or optionally payable in a currency other than Rupees or are denominated in Rupees and more than 50% of the aggregate principal amount of which is initially distributed outside India by or with the authority of the Issuer;

"Subsidiary" means any company or other business entity of which the Issuer owns or controls (either directly or through one or more other Subsidiaries) more than 50% of the issued share capital or other ownership interest having ordinary voting power to elect directors, managers or trustees of such company or other business entity or any company or other business entity which at any time has its accounts consolidated with those of the Issuer or which, under English or other applicable law or regulations, or International Financial Reporting Standards, as the case may be, from time to time, should have its accounts consolidated with those of the Issuer; and

"Total Assets" means the aggregate of consolidated total current assets and consolidated total non-current assets of (i) the Issuer as shown in the balance sheet of the latest available audited consolidated financial statements of the Issuer; and (ii) any Subsidiary of the Issuer acquired by the Issuer or any Subsidiary of the Issuer since the date of the latest available audited financial statements of the Issuer as shown in the balance sheet of the latest available audited consolidated financial statements of such Subsidiary.

- (b) Dividend restriction: The Issuer shall not, and shall procure that each of its Material Subsidiaries shall not, create or otherwise cause or permit to exist or become effective any consensual encumbrance or restriction on the ability of any Material Subsidiary to pay dividends or make any other distribution with respect to its Share Capital or to make or repay loans to the Issuer or any other Material Subsidiary of the Issuer, other than (v) the subordination of any Indebtedness made to the Issuer or any of its Material Subsidiaries to any other Indebtedness of the Issuer or any of its Material Subsidiaries; provided that (i) such other Indebtedness is permitted under these Conditions and (ii) such subordination would not singly or in the aggregate have a materially adverse effect on the ability of the Issuer to meet its obligations under the Bonds, (w) such encumbrance or restriction in relation to any Indebtedness of any Material Subsidiary or other assurance against financial loss where such encumbrance or restriction relates to payment of dividends or other distributions during the continuance of an event of default (howsoever described) which has occurred pursuant to the terms of that Indebtedness; (x) such encumbrance or restriction arising by operation of law; (y) such encumbrance or restriction as is in existence on the date of issue of the Bonds; or (z) in respect of any Person (including any existing Subsidiary of the Issuer) which becomes a Material Subsidiary after the date of issue of the Bonds, any encumbrance or restrictions on such Person as may be in existence on the date such Person becomes a Material Subsidiary provided such restrictions were not imposed in contemplation of such Person becoming a Material Subsidiary; provided that this Condition 3(b) shall not restrict any Material Subsidiary from issuing Preferred Stock otherwise in accordance with these terms of the Conditions.
- (c) Limitation on Borrowings: The Issuer shall not, and shall procure that each of its Subsidiaries shall not, Incur directly or indirectly any Borrowings, and the Issuer shall procure that each of its Subsidiaries shall not issue any Preferred Stock; *provided* that (x) the Issuer may Incur Borrowings if, after giving pro forma effect to the Incurrence of such Borrowings and the application of the proceeds thereof, the Fixed Charge Coverage Ratio would be not less than 3.0 to 1.0 and (y) any Subsidiary of the Issuer may Incur Borrowings or issue Preferred Stock if, after giving pro forma effect to the Incurrence of such Borrowings or issuance of Preferred Stock and the application of the proceeds thereof, the Fixed Charge Coverage Ratio would be not less than 3.5 to 1.0.
- (d) Limitation on distribution of Net Proceeds of Asset Sales: The Issuer shall not, and shall procure that each of its Subsidiaries shall not pay any dividend in respect of or otherwise distribute the Net Proceeds from any Asset Sale to any Person (other than to the Issuer or any of its Subsidiaries) if such dividend or distribution, individually or when aggregated with all other dividends or distributions in respect of the Net Proceeds from any Asset Sales in the twelve month period prior to the date of the declaration of such dividend or distribution, exceeds U.S.\$250,000,000 or its equivalent in other currencies.

- (e) **Material Subsidiaries:** So long as any of the Bonds are outstanding (as defined in the Trust Deed), the Issuer or any of its Subsidiaries shall retain Control over, or, directly or indirectly, own more than 50% of the issued equity share capital of, each of its Material Subsidiaries.
- (f) Accounts: The Issuer agrees that (i) as soon as reasonably practicable after the issue or publication thereof and in any event within 180 days after the end of each financial year (beginning with 31 March 2017) it will deliver to the Trustee and the specified office of each of the Paying Agents three copies of its annual report and audited Accounts as at the end of and for the financial year ending on such 31 March and will establish, announce and conduct one conference call with all the holders of Bonds (including the beneficial owners thereof), the contents of which will be limited to such annual report and audited Accounts and any other publicly available information regarding the Issuer and its Subsidiaries; (ii) as soon as reasonably practicable after the issue or publication thereof, it will deliver to the Trustee and the specified office of each of the Paying Agents three copies of its unaudited interim Accounts as of the end of the six month period ending on 30 September (beginning with 30 September 2017), provided that if and to the extent that the financial statements are not prepared or adjusted on a basis consistent with that used for the preceding relevant semi-annual or annual fiscal period, that fact shall be stated, and will establish, announce and conduct one conference call with all the holders of Bonds (including the beneficial owners thereof), the contents of which will be limited to such unaudited interim Accounts and any other publicly available information regarding the Issuer and its Subsidiaries; and (iii) with each set of Accounts delivered by it under this Condition 3, the Issuer will deliver to the Trustee and the specified office of each of the Paying Agents the Compliance Certificate.
- (g) **Covenant suspension:** If, on any date following the date of the Trust Deed, the Bonds have an Investment Grade rating from any two of the Rating Agencies and no Event of Default or Potential Event of Default (as defined in the Trust Deed) has occurred and is continuing (a "Suspension Event"), then, beginning on that day and continuing until such time, if any, at which the Bonds cease to have an Investment Grade rating from either of the Rating Agencies, the provisions of the Trust Deed summarised under the following captions will not apply to the Bonds:
  - (a) Condition 3(c) "Limitation on Borrowings"; and
  - (b) Condition 3(d) "Limitation on distribution of Net Proceeds of Asset Sales."

Such covenants will be reinstituted and apply according to their terms as at and from the first day on which a Suspension Event ceases to be in effect. Such covenants will not, however, be of any effect with regard to actions of the Issuer properly taken in compliance with the provisions of the Trust Deed during the continuance of the Suspension Event.

### (h) **Definitions:** As used in these Conditions:

"Accounts" means (i) as of each 31 March and for the twelve month period then ending, the audited consolidated profit and loss account and balance sheet of the Issuer prepared in accordance with Applicable Accounting Principles and (ii) as of each 30 September and for the six month period then ending, the unaudited consolidated profit and loss account and balance sheet of the Issuer prepared in accordance with Applicable Accounting Principles.

"Adjusted Treasury Rate" means, with respect to any redemption date:

(1) the average of the yields in each statistical release for the immediately preceding week (from the calculation date) designated "H.15" or any successor release published by the Board of Governors of the Federal Reserve System which establishes yields on actively traded U.S. Treasury securities adjusted to constant maturity under the heading "U.S. government securities—Treasury constant maturities—nominal," for the maturity corresponding to the Comparable Treasury Issue; *provided* that if no maturity is within three months before or after the period from the redemption date to the maturity of the

Comparable Treasury Issue, yields for the two published maturities most closely corresponding to the Comparable Treasury Issue will be determined and the Adjusted Treasury Rate will be interpolated or extrapolated from those yields on a straight-line basis rounding to the nearest month; *provided* further that if the period from the redemption date to 9 August 2021 is less than one year, the weekly average yield on actually traded U.S. Treasury securities adjusted to a constant maturity of one year will be used; or

(2) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, calculated using a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

The Adjusted Treasury Rate shall be calculated on the third Business Day preceding the redemption date.

"Affiliate" means, with respect to any Person, any other Person, directly or indirectly controlling, controlled by, or under direct or indirect common control with, such Person. For purposes of this definition, "control" (including, with correlative meanings, the terms "controlling," "controlled by" and "under common control with"), as applied to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

"Applicable Accounting Principles" means the accounting principles and provisions of International Financial Reporting Standards applicable to the Issuer and its Subsidiaries as in effect from time to time.

"Applicable Premium" means with respect to a Bond at any redemption date, the greater of (i) 1.0% of the principal amount of such Bond and (ii) the excess of (A) the present value at such redemption date of the redemption price of such Bond on 9 August 2021, plus all required remaining scheduled interest payments due on such Bond through 9 August 2021 (but excluding accrued and unpaid interest to the redemption date), computed using a discount rate equal to the Adjusted Treasury Rate plus 50 basis points, over (B) the principal amount of such Bond.

"Assets" of any Person means all or any of its shares, business, undertaking, property, assets, revenues (including any right to receive revenues) and uncalled capital.

"Asset Sale" means any sale, transfer or other disposition (including by way of merger, consolidation or sale leaseback transactions) in one or a series of transactions in any twelve month period by the Issuer or any Subsidiary to any Person other than the Issuer or any of its Subsidiaries of a material part of the consolidated Assets of the Issuer.

"Balance Sheet Date" means each 30 September and 31 March or other semi-annual date at which the Issuer prepares its audited or unaudited Accounts.

"Borrowings" means, with respect to any Person at any date, without duplication, (i) all obligations of such Person for borrowed money, (ii) all obligations of such Person to pay the deferred purchase price of property or services, except trade accounts payable arising in the ordinary course of business, (iii) all obligations of such Person as lessee which are capitalised in accordance with Applicable Accounting Principles, (iv) all non-contingent obligations of such Person to reimburse any bank or other Person in respect of amounts paid under a letter of credit or similar instrument, except in respect of trade accounts payable arising in the ordinary course of business, (v) all obligations of such Person representing Disqualified Stock valued at the greater of its voluntary or involuntary liquidation preference and its maximum fixed repurchase price, plus accrued dividends, if any, (vi) all

Borrowings of others guaranteed by such Person, (vii) all Borrowings of others secured by Security on any Asset of such Person (whether or not such Borrowings are assumed by such Person); provided that the amount of such Borrowings will be the lesser of (A) the fair market value of such Asset at such date of determination and (B) the amount of such Borrowings, and (viii) in the case of a Subsidiary of the Issuer, all obligations representing Preferred Stock valued at the greater of its voluntary or involuntary maximum fixed repurchase price, plus accrued dividends, if any; provided that for the purposes of Condition 3(c), Borrowings shall not include (A) Borrowings of the Issuer or any of its Subsidiaries owed to the Issuer or any of its Subsidiaries; provided that where (1) any Subsidiary of the Issuer to which such Borrowing is owed ceases to be a Subsidiary of the Issuer or (2) there is a subsequent transfer of such Borrowing to any Person (other than the Issuer or any of its Subsidiaries), then such Borrowing shall be deemed to constitute a Borrowing for the purposes of Condition 3(c) and (B) Preferred Stock or Disqualified Stock issued by any Subsidiary of the Issuer to the Issuer or any other Subsidiary of the Issuer; provided further that for the purposes of clause (y) of the proviso in Condition 3(c), Borrowings shall not include the Borrowings of any Subsidiary (which is established as a special purpose entity for the sole purpose of engaging in financing activities) of the Issuer, which are guaranteed by the Issuer and have no recourse, directly or indirectly, to any other member of the Group.

"Business Day" means a day (other than a Saturday or Sunday) on which commercial banks are open for business in New York City and London.

"Capital Stock" means, with respect to any Person, any and all shares, interests, participations or other equivalents (however designated, whether voting or non-voting) in equity of such Person, whether outstanding on the date of the Trust Deed or issued thereafter, including, without limitation, all Common Stock and Preferred Stock.

"Change of Control" means the occurrence of either of the following events:

- (1) the Permitted Holders are the beneficial owners of less than 35% of the total voting power of the Voting Stock of the Issuer; or
- (2) any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act")) is or becomes the "beneficial owner" (as such term is used in Rule 13d-3 of the Exchange Act), directly or indirectly, of total voting power of the Voting Stock of the Issuer greater than such total voting power held beneficially by the Permitted Holders.

"Change of Control Triggering Event" means the occurrence of both a Change of Control and a Rating Decline.

"Common Stock" means, with respect to any Person, any and all shares, interests or other participations in, and other equivalents (however designated and whether voting or non-voting) of such Person's common stock or ordinary shares, whether or not outstanding at the date of the Trust Deed, and include, without limitation, all series and classes of such common stock or ordinary shares.

"Comparable Treasury Issue" means the U.S. Treasury security selected by an Independent Investment Bank having a maturity most nearly equal to the period from the redemption date to 9 August 2021.

"Comparable Treasury Price" means, with respect to any redemption date:

- (1) the average of five Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest of such Reference Treasury Dealer Quotations; or
- (2) if the Independent Investment Bank obtains fewer than five Reference Treasury Dealer Quotations, the average of all such quotations.

"Compliance Certificate" means a certificate signed by each of (i) the chief financial officer and (ii) either a director or other authorised signatory of the Issuer confirming compliance with the financial ratios set out in this Condition 3, in each case as of each Balance Sheet Date and in respect of the whole of the financial year for each Balance Sheet Date falling on 31 March and in respect of the whole of the six month period ending on the Balance Sheet Date for each Balance Sheet Date falling on 30 September, and setting out in reasonable detail the computations necessary to demonstrate such compliance.

"Consolidated EBITDA" means, for any period, the amount equal to (i) "operating profit" plus (ii) "depreciation" plus (iii) "special items" reducing "operating profit" minus (iv) "special items" increasing "operating profit," in each case as it is presented on consolidated financial statements of the Issuer and its Subsidiaries prepared in accordance with the Applicable Accounting Principles for such period.

"Consolidated Fixed Charges" means, for any period, the sum (without duplication) of (i) Consolidated Net Interest Expense for such period and (ii) all cash and non-cash dividends accrued or accumulated during such period on any Disqualified Stock or Preferred Stock of the Issuer or any of its Subsidiaries held by Persons other than the Issuer or any of its Subsidiaries.

"Consolidated Net Interest Expense" means, for any period, the amount equal to "finance costs" minus "investment revenue," in each case as it is presented on a consolidated income statement of the Issuer and its Subsidiaries prepared in accordance with the Applicable Accounting Principles for such period.

"Control", "Controlling" or "Controlled" means the right to appoint and/or remove all or the majority of the members of the board of directors or other governing body or the right to direct or cause the direction of the management and policies, in each case whether obtained directly or indirectly, and whether obtained by ownership of share capital, the possession of voting rights, contract or otherwise.

"Disqualified Stock" means any class or series of Capital Stock of any Person that by its terms or otherwise is (1) required to be redeemed prior to the stated maturity of the Bonds, (2) redeemable at the option of the holder of such class or series of Capital Stock at any time prior to the stated maturity of the Bonds or (3) convertible into or exchangeable for Capital Stock referred to in clause (1) or (2) above or Borrowing having a scheduled maturity prior to the stated maturity of the Bonds.

"Fitch" means Fitch Ratings Limited, its affiliates and any successor to or assignee of its ratings business.

"Fixed Charge Coverage Ratio" means, on any Transaction Date, the ratio of (1) the aggregate amount of Consolidated EBITDA for the then most recent two semi-annual periods prior to such Transaction Date for which consolidated financial statements of the Issuer prepared in accordance with the Applicable Accounting Principles (which the Issuer shall use its best efforts to compile in a timely manner) are available (the "Two Semi-annual Period") and have been provided to the Trustee to (2) the aggregate Consolidated Fixed Charges during such Two Semi-annual Period.

"Incur" means, as applied to any obligation, to directly or indirectly, create, incur, issue, assume, guarantee or in any other manner become directly or indirectly liable, contingently or otherwise. Such obligation and "Incurred", "Incurrence" and "Incurring" shall each have a correlative meaning.

"Independent Investment Bank" means a Reference Treasury Dealer appointed by the Issuer as such.

"Investment Grade" means a long term credit rating of "AAA," "AA," "A" or "BBB," as modified by a "+" or "-" indication, or an equivalent rating representing one of the four highest rating categories, by S&P or a long term credit rating of "Aaa," or "Aa," "A" or "Baa," as modified by a "1," "2" or "3" indication, or an equivalent rating representing one of the four highest rating categories, by Moody's or a long term credit rating of "AAA," or "AA," "A" or "BBB," as modified by a "+," or "-" indication, or an equivalent rating representing one of the four highest rating categories, by Fitch or the equivalent long term credit ratings of any internationally recognised rating agency or agencies, as the case may be, which shall have been designated by the Issuer as having been substituted for S&P, Moody's or Fitch or all of them, as the case may be.

"Material Subsidiary" has the meaning specified in Condition 8.

"Moody's" means Moody's Investors Service, Inc., its affiliates and any successor to or assignee of its ratings business.

"Net Proceeds" means the aggregate cash proceeds received by the Issuer or any Subsidiary of the Issuer in respect of any Asset Sale (including, without limitation, any cash received upon the sale or other disposition of any non-cash consideration received in any Asset Sale), net of the direct costs relating to such Asset Sale.

"Offer to Purchase" means an offer to purchase the Bonds by the Issuer from the Bondholders commenced by mailing a notice by first class mail, postage prepaid, to the Trustee and each Bondholder of Bonds at its last address appearing in the Register stating:

- (1) the provision of the Trust Deed pursuant to which the offer is being made and that all Bonds validly tendered will be accepted for payment on a pro rata basis;
- (2) the purchase price and the date of purchase (which shall be a Business Day no earlier than 30 days nor later than 60 days from the date such notice is mailed) (the "Offer to Purchase Payment Date");
- (3) that any Bond not tendered will continue to accrue interest pursuant to its terms;
- (4) that, unless the Issuer defaults in the payment of the purchase price, any Bond accepted for payment pursuant to the Offer to Purchase shall cease to accrue interest on and after the Offer to Purchase Payment Date;
- (5) that Bondholders electing to have a Bond purchased pursuant to the Offer to Purchase will be required to surrender the Bond, together with the form entitled "Option of the Holder to Elect Purchase" on the reverse side of the Bond completed, to the Paying Agent at the address specified in the notice prior to the close of business on the Business Day immediately preceding the Offer to Purchase Payment Date;
- (6) that Bondholders will be entitled to withdraw their election if the Paying Agent receives, not later than the close of business on the third Business Day immediately preceding the Offer to Purchase Payment Date, a facsimile transmission or letter setting forth the name of such Bondholder, the principal amount of Bonds delivered for purchase and a statement that such Bondholder is withdrawing his election to have such Bonds purchased; and

(7) that Bondholders whose Bonds are being purchased only in part will be issued new Bonds equal in principal amount to the unpurchased portion of the Bonds surrendered; *provided* that each Bond purchased and each new Bond issued shall be in a minimum principal amount of U.S.\$200,000 or integral multiples of U.S.\$1,000 in excess thereof.

On the Offer to Purchase Payment Date, the Issuer shall (a) accept for payment on a pro rata basis Bonds or portions thereof tendered pursuant to an Offer to Purchase; (b) deposit with the Paying Agent money sufficient to pay the purchase price of all Bonds or portions thereof so accepted; and (c) deliver, or cause to be delivered, to the Trustee all Bonds or portions thereof so accepted together with a certificate signed by two directors of the Issuer specifying the Bonds or portions thereof accepted for payment by the Issuer. The Paying Agent shall promptly mail to the Bondholders so accepted payment in an amount equal to the purchase price, and the Registrar shall promptly authenticate and mail to such Bondholders a new Bond equal in principal amount to any unpurchased portion of the Bond surrendered; provided that each Bond purchased and each new Bond issued shall be in a principal amount of U.S.\$200,000 or integral multiples of U.S.\$1,000 in excess thereof. The Issuer will publicly announce the results of an Offer to Purchase as soon as practicable after the Offer to Purchase Payment Date. The Issuer will comply with all applicable securities laws and regulations if it is required to repurchase Bonds pursuant to an Offer to Purchase.

The materials used in connection with an Offer to Purchase are required to contain or incorporate by reference information concerning the business of the Issuer and its Subsidiaries which the Issuer in good faith believes will assist such Bondholders to make an informed decision with respect to the Offer to Purchase, including a brief description of the events requiring the Issuer to make the Offer to Purchase, and any other information required by applicable law to be included therein. The offer is required to contain all instructions and materials necessary to enable such Bondholders to tender Bonds pursuant to the Offer to Purchase.

"Permitted Holders" means any or all of the following:

- (1) Mr. Anil Agarwal, Mr. D.P. Agarwal and Mr. Agnivesh Agarwal, individually or collectively;
- (2) Any Affiliate or a direct family member of any of the Persons specified in clause (1) of this definition; and
- (3) Any Person both the Capital Stock and the Voting Stock of which (or in the case of a trust, the beneficial interests in which) are more than 80% owned by Persons specified in clauses (1) and (2) of this definition.

"Person" means any individual, firm, corporation, partnership, association, joint venture, tribunal, limited liability company, trust, government or political subdivision or agency or instrumentality thereof, or any other entity or organisation.

"Preferred Stock" as applied to the Capital Stock of any Person means Capital Stock of any class or classes that by its term is preferred as to the payment of dividends, or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution of such Person, over any other class of Capital Stock of such Person.

"Primary Treasury Dealer" means a primary U.S. government securities dealer in New York City.

"Rating Agencies" means (i) S&P, (ii) Moody's, (iii) Fitch and (iv) if any or all of them shall not make a rating of the Bonds publicly available, an internationally recognised securities rating agency or agencies, as the case may be, selected by the Issuer, which shall be substituted for such Rating Agency or Rating Agencies, as the case may be.

"Rating Date" means the date which is 90 days prior to the earlier of the date of consummation of Change of Control and a public announcement of a Change of Control.

"Rating Decline" means the occurrence on, or within six months after, the earlier of the date of consummation of Change of Control or public announcement of a Change of Control (which period shall be extended so long as the rating of the Bonds is under publicly announced consideration for possible ratings change by any of the Rating Agencies) of any of the events listed below:

- (1) If the Bonds are rated by Moody's, S&P and Fitch on the Rating Date as Investment Grade, the rating of the Bonds by at least two such Rating Agencies shall be below Investment Grade;
- (2) If the Bonds are rated by two of the three Rating Agencies on the Rating Date as Investment Grade, the rating of the Bonds by either such Rating Agency shall be below Investment Grade;
- (3) If the Bonds are rated by one of the three Rating Agencies on the Rating Date as Investment Grade, the rating of the Bonds by such Rating Agency shall be below Investment Grade; or
- (4) If the Bonds are rated by Moody's, S&P and Fitch on the Rating Date as below Investment Grade, the rating of the Bonds by any such Rating Agency shall be below the rating it provided on the Rating Date.

"Reference Treasury Dealer" means:

- (1) each of Axis Bank Limited, Singapore Branch, Barclays Bank PLC, Credit Suisse (Hong Kong) Limited, DBS Bank Ltd., First Abu Dhabi Bank PJSC, ICICI Bank Limited IFSC Banking Unit, J.P. Morgan Securities plc and Standard Chartered Bank and their respective successors or any of their respective affiliates, so long as it is Primary Treasury Dealer; provided that, if any such Person ceases to be a Primary Treasury Dealer, the Issuer will substitute another Primary Treasury Dealer; and
- (2) any other Primary Treasury Dealer selected by the Issuer.

"Reference Treasury Dealer Quotation" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Independent Investment Bank, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Independent Investment Bank by such Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding such redemption date.

"S&P" means Standard & Poor's Ratings Services, a division of the McGraw Hill Companies, Inc., its affiliates and any successor to or assignee of its ratings business.

"Share Capital" means any and all shares, interests (including joint venture and partnership interests), participations or other equivalents of capital stock of a corporation or any and all equivalent ownership interests in a Person.

"Transaction Date" means, with respect to the Incurrence of any Borrowing, the date such Borrowing is to be Incurred.

"Voting Stock" means, with respect to any Person, Capital Stock of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

#### 4. Interest

The Bonds will bear interest from the Closing Date at the rate of 6.125% per annum, payable semi-annually in arrear on 9 February and 9 August of each year, commencing on 9 February 2018 (each such interest payment date, an "Interest Payment Date"). Interest on the Bonds shall accrue from (and including) the most recent date to which interest has been paid and ending on (but excluding) the next Interest Payment Date for the Bonds. Each Bond will cease to bear interest from the due date for redemption unless, upon surrender in accordance with Condition 6, payment of the full amount of principal is improperly withheld or refused or unless default is otherwise made in respect of any such payment. In such event each Bond shall continue to bear interest at the applicable rate (both before and after judgment) until, but excluding whichever is the earlier of (a) the day on which all sums due in respect of such Bond up to that day are received by or on behalf of the relevant holder, and (b) the day which is seven calendar days after the Trustee or the Principal Agent has notified Bondholders of receipt of all sums due in respect of all the Bonds up to that seventh calendar day (except to the extent that there is failure in the subsequent payment to the relevant holders under these Conditions). If interest is required to be calculated for a period of less than one year, it will be calculated on the basis of a 360-day year consisting of 12 months of 30 days each and, in the case of an incomplete month, the number of days elapsed.

### 5. Redemption and Purchase

- (a) **Final redemption:** Unless previously redeemed, or purchased and cancelled as provided herein, the Bonds will be redeemed at their principal amount on 9 August 2024. The Bonds may not be redeemed at the option of the Issuer other than in accordance with this Condition 5.
- (b) **Redemption at the option of the Issuer:** At any time and from time to time prior to 9 August 2021, the Bonds may be redeemed, in whole or in part, at the option of the Issuer on giving not less than 30 nor more than 60 calendar days' written notice to the Trustee and the Bondholders, at a redemption price equal to 100% of the principal amount of the Bonds being redeemed plus the Applicable Premium, plus accrued and unpaid interest, if any, to (but excluding) the redemption date. For the avoidance of doubt, none of the Agents or the Trustee have any responsibility with respect to the calculation of the Applicable Premium.

At any time and from time to time on or after 9 August 2021, the Bonds may be redeemed, in whole or in part, at the option of the Issuer on giving not less than 30 nor more than 60 calendar days' written notice to the Trustee and the Bondholders, at the following redemption prices (expressed as percentages of the principal amount of the Bonds at maturity) plus accrued and unpaid interest, if any, to (but excluding) the redemption date:

Twelve-Month Period Commencing on 9 August in	Redemption Price
2021	103.06250%
2022	101.53125%
2023	100.00000%

Any optional redemption of Bonds and notice of redemption may, at the Issuer's discretion, be subject to the satisfaction (or waiver by the Issuer in its sole discretion) of one or more conditions precedent. If any such redemption or notice is subject to satisfaction of one or more conditions precedent, such notice may state that, in the Issuer's sole discretion, the redemption date may be delayed until such time as any or all such conditions shall be satisfied, or such redemption may not occur and such notice may be rescinded if any or all such conditions shall not have been satisfied by the redemption date, or by the redemption date so delayed.

If fewer than all the Bonds are to be redeemed, the Bonds for redemption will be selected on a pro rata basis, by lot or by such other method as the Trustee in its sole and absolute discretion deems fair and appropriate unless otherwise required by law or requirement of any stock exchange on which the Bonds are listed or DTC or any alternative clearing system; *provided* that Bonds with a principal amount of U.S.\$200,000 will not be redeemed in part.

- (c) Redemption for taxation reasons: The Bonds may be redeemed at the option of the Issuer in whole, but not in part, at any time on giving not less than 30 nor more than 60 calendar days' written notice to the Trustee and the Bondholders (which notice shall be irrevocable), at their principal amount (together with interest accrued and unpaid to (but excluding) the date fixed for redemption), if (i) the Issuer has or will become obliged to pay additional amounts as provided or referred to in Condition 7 as a result of any change in, or amendment to, the laws or regulations of the United Kingdom or any authority therein or thereof having power to tax, or any change in the application or official interpretation of such laws or regulations, which change or amendment becomes effective on or after the date hereof, and (ii) such obligation cannot be avoided by the Issuer taking reasonable measures available to it (provided that changing the jurisdiction of organisation of the Issuer is not a reasonable measure for purposes of this section), provided that no such notice of redemption shall be given earlier than 90 calendar days prior to the earliest date on which the Issuer would be obliged to pay such additional amounts were a payment in respect of the Bonds then due. Prior to the publication of any notice of redemption pursuant to this paragraph, the Issuer shall deliver to the Trustee a certificate signed by two directors of the Issuer stating that the obligation referred to in (i) above cannot be avoided by the Issuer taking reasonable measures available to it and the Trustee shall be entitled to accept such certificate as sufficient evidence of the satisfaction of the condition precedent set out in (ii) above in which event it shall be conclusive and binding on the Bondholders.
- (d) Repurchase of Bonds Upon a Change of Control Triggering Event: Not later than 30 days following the occurrence of a Change of Control Triggering Event, the Issuer will make an Offer to Purchase all outstanding Bonds (a "Change of Control Offer") at a purchase price equal to 101.0% of the principal amount thereof plus accrued and unpaid interest, if any, to (but excluding) the Offer to Purchase Payment Date.

Notwithstanding the above, the Issuer will not be required to make a Change of Control Offer following a Change of Control if a third party makes the Change of Control Offer in the same manner and at the same time and purchases all Bonds validly tendered and not withdrawn under such Change of Control Offer.

Except as described above with respect to a Change of Control, the Trust Deed does not contain provisions that permit the Bondholders to require that the Issuer purchase or redeem the Bonds in the event of a takeover, recapitalisation or similar transaction.

- (e) **Purchase:** Subject to the requirements (if any) of any stock exchange on which the Bonds may be listed at the relevant time the Issuer and any of its Subsidiaries may at any time purchase Bonds in the open market or otherwise at any price. Any purchase of Bonds by tender shall be made available to all Bondholders alike and such Bonds may be retained for the account of the relevant purchaser or otherwise dealt with at its discretion (but may not be resold). The Bonds so purchased, while held by or on behalf of the Issuer or any such Subsidiary, shall not entitle the holder to vote at any meetings of the Bondholders and shall not be deemed to be outstanding for the purposes of calculating quorums at meetings of the Bondholders or for the purposes of Condition 12(a).
- (f) **Cancellation:** All Bonds so redeemed will be cancelled and may not be re-issued or resold. All Bonds purchased pursuant to this Condition may be cancelled at the discretion of the relevant purchaser. Bonds may be surrendered for cancellation by surrendering each such Bond to the Principal Agent and if so surrendered shall be cancelled forthwith (and may not be reissued or resold) and the obligations of the Issuer in respect of any such Bonds shall be discharged.

## 6. Payments

(a) **Principal and Interest:** Payment of principal and interest due other than on an Interest Payment Date will be made in United States dollars by transfer to the registered account of the Bondholder. Payment of principal will only be made after surrender of the relevant Certificate at the specified office of any of the Paying Agents.

Interest on Bonds due on an Interest Payment Date will be paid in United States dollars on the due date for the payment of interest to the holder shown on the Register at the close of business on the fifteenth day before the due date for the payment of interest (the "Interest Record Date"). Payments of interest on each Bond will be made by transfer to the registered account of the Bondholder.

- (b) **Registered accounts:** For the purposes of this Condition, a Bondholder's registered account means the United States dollar account maintained by or on behalf of it with a bank in New York City, details of which appear on the Register at the close of business on the second business day (as defined below) before the due date for payment, and a Bondholder's registered address means its address appearing on the Register at that time.
- (c) **Payments subject to fiscal laws:** All payments are subject in all cases to (i) any applicable fiscal or other laws and regulations in the place of payment, but without prejudice to the provisions of Condition 7; and (ii) any withholding or deduction required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986 (the "Code") or otherwise imposed pursuant to Sections 1471 through 1474 of the Code, any regulations or agreements thereunder, any official interpretations thereof, or any law implementing an intergovernmental approach thereto. No commissions or expenses shall be charged to the Bondholders in respect of such payments.
- (d) **Payment initiation:** Where payment is to be made by transfer to a registered account, payment instructions (for value on the due date or, if that is not a business day (as defined below), for value on the first following day which is a business day) will be initiated on the due date for payment (or, if it is not a business day, the first following day which is a business day) or, in the case of a payment of principal, if later, on the business day on which the relevant Certificate is surrendered at the specified office of a Paying Agent.

Bondholders will not be entitled to any interest or other payment for any delay after the due date in receiving the amount due if the due date is not a business day or if the Bondholder is late in surrendering its Certificate (if required to do so).

- (e) **Business Day:** In this Condition, "business day" means: (i) in the case of payment by transfer to a registered account, a day (other than a Saturday or Sunday) on which commercial banks are open for business in New York City; and (ii) in the case of the surrender of a Certificate, a day in which commercial banks are open for business in the place of the specified office of the Paying Agent to whom the Certificate is surrendered. If an amount which is due on the Bonds is not paid in full, the Registrar will annotate the Register with a record of the amount (if any) in fact paid.
- (f) **Paying Agents:** The initial Paying Agents, Transfer Agents and Registrar and their initial specified offices are listed below. The Issuer reserves the right at any time with the approval of the Trustee to vary or terminate the appointment of any Paying Agent, Transfer Agents or Registrar and appoint additional or other Paying Agents, Transfer Agents or Registrar; *provided* that it will maintain: (i) a Principal Agent; (ii) a Paying Agent in Singapore so long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require; and (iii) a Registrar. Notice of any change in the Paying Agents, Transfer Agents or Registrar or their specified offices will promptly be given to the Bondholders and the SGX-ST (so long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require).

## 7. Taxation

All payments of principal and interest by or on behalf of the Issuer in respect of the Bonds shall be made free and clear of, and without withholding or deduction for, any taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within the United Kingdom or any authority therein or thereof having power to tax, unless such withholding or deduction is required by law. If such withholding or deduction is required by law, the Issuer shall pay such additional amounts as will result in receipt by the Bondholders of such amounts as would have been received by them had no such withholding or deduction been required, except that no such additional amounts shall be payable in respect of any Bond:

- (a) to a holder (or to a third party on behalf of a holder) who is liable to such taxes, duties, assessments or governmental charges in respect of such Bond by reason of his having some connection with the United Kingdom other than the mere holding of the Bond;
- (b) in the case of payment of principal or interest (other than interest due on an Interest Payment Date) if the Certificate in respect of such Bond is presented for payment more than 30 days after the Relevant Date except to the extent that the holder of it would have been entitled to such additional amounts on presenting such Certificate for payment on the last day of such period of 30 days;
- (c) with respect to taxes, duties, assessments or governmental charges in respect of such Bond imposed as a result of the failure of the holder or beneficial owner of the Bond to comply with a written request of the Issuer before any such withholding or deduction would be payable to provide timely or accurate information concerning the nationality, residence or identity of the holder or beneficial owner or to make any valid or timely declaration or similar claim or satisfy any certification, information or other reporting requirement, which is required or imposed by a statute, treaty, regulation or administrative practice of the United Kingdom or any authority therein or thereof having the power to tax as a condition to exemption from all or part of such taxes;
- (d) for any estate, inheritance, gift, sale, transfer, personal property or similar tax or assessment;
- (e) for any Taxes imposed or required to be withheld under Sections 1471 to 1474 (or any successor provisions or amendments thereof) of the Code, any regulations or other official guidance thereunder, any intergovernmental agreement entered into in connection therewith or any law or regulation (or any official interpretation thereof) implementing an intergovernmental approach thereto, or any agreements entered into pursuant to Section 1471(b) of the Code; or
- (f) for any taxes, duties, assessments or governmental charges payable otherwise than by deduction or withholding on payments under the Bonds.

Such additional amounts shall also not be payable where, had the beneficial owner of the Bond been the holder of the Bond, it would not have been entitled to payment of additional amounts by reason of clauses (a) through (f) inclusive above.

"Relevant Date" means whichever is the later of (i) the date on which such payment first becomes due and (ii) if the full amount payable has not been received in New York City by the Principal Agent or the Trustee on or prior to such due date, the date on which, the full amount having been so received, notice to that effect shall have been given to the Bondholders and payment made.

Any reference in these Conditions to principal and/or interest in respect of the Bonds shall be deemed to include any additional amounts which may be payable under this Condition or any undertaking given in addition to or substitution for it under the Trust Deed.

### 8. Events of Default

The Trustee at its discretion may, and if so requested by holders of not less than 25% in principal amount of the Bonds then outstanding or if so directed by an Extraordinary Resolution shall (subject in each case to it being indemnified and/or secured (including by way of payment in advance) to its satisfaction), give notice in writing to the Issuer that the Bonds are, and they shall immediately become, due and payable at their principal amount together with accrued interest, if applicable, if any of the following events (each an "Event of Default") shall have occurred:

- a) **Non-Payment:** (i) the Issuer fails to pay all or any part of the principal of any of the Bonds when the same shall become due and payable, whether at maturity, upon redemption or otherwise and such failure continues for a period of seven calendar days; or (ii) the Issuer fails to pay any instalment of interest upon any of the Bonds as and when the same shall become due and payable, and such failure continues for a period of 14 calendar days; or
- b) **Breach of Other Obligations:** (i) the Issuer fails to make or consummate an Offer to Purchase with respect to any of the Bonds in the manner set out in Condition 5(d); or (ii) the Issuer defaults in the performance or observance of or compliance with any of its other obligations set out in the Bonds or the Trust Deed, which default is incapable of remedy or, if in the opinion of the Trustee such default is capable of remedy, is not in the opinion of the Trustee remedied within 45 calendar days after the date on which written notice specifying such failure, stating that such notice is a "Notice of Default" under the Bonds and demanding that the Issuer remedy the same, shall have been given to the Issuer by the Trustee; or
- c) Cross-Default: (i) any other present or future indebtedness of the Issuer or any of its Material Subsidiaries for or in respect of moneys borrowed or raised becomes due and payable prior to its stated maturity (otherwise than at the option of the Issuer or such Material Subsidiary, as the case may be) by reason of any actual or potential default, event of default or the like (howsoever described); or (ii) any such indebtedness is not paid when due or, as the case may be, within any applicable grace period originally provided for; or (iii) the Issuer or any of its Material Subsidiaries fails to pay when due (or within any applicable grace period originally provided for) any amount payable by it under any present or future guarantee for, or indemnity in respect of, any moneys borrowed or raised; provided that the aggregate amount of the relevant indebtedness, guarantees and indemnities in respect of which any one or more of the events mentioned above in this Condition 8(c) has or have occurred equals or exceeds U.S.\$100,000,000 or its equivalent in other currencies; or
- d) Enforcement Proceedings: a distress, attachment, execution or other legal process (other than distraint or attachment imposed by any government, authority or agent prior to enforcement foreclosure) is levied, enforced or sued out, as the case may be, on or against a substantial part of the property, assets or revenues of the Issuer or all or a substantial part of the property, assets or revenues of any of its Material Subsidiaries and is not (i) either discharged or stayed within 60 calendar days or in circumstances where the levy, enforcement or suing out, as the case may be, of such legal process is not, or does not become, materially prejudicial to the interests of the Bondholders, within 120 calendar days; or (ii) being contested in good faith on the basis of appropriate legal advice provided by reputable independent counsel in the relevant jurisdiction or jurisdictions and by appropriate proceedings; or
- e) **Security Enforced:** an encumbrancer takes possession or a receiver, administrative receiver, administrator, manager or other similar person is appointed over, or an attachment order is issued in respect of, the whole or a substantial part of the undertaking, property, assets or revenues of the Issuer or any of its Material Subsidiaries and in any such case such possession or appointment is not stayed or terminated or the debt on account of which such possession was taken or appointment made is not discharged or satisfied within 60 calendar days of such appointment or the issue of such order; or

- f) Insolvency: the Issuer or any of its Material Subsidiaries (i) is insolvent or bankrupt or is deemed to be insolvent as a result of the court being satisfied that the value of the Issuer's or such Material Subsidiary's assets is less than the amount of its liabilities, taking into account contingent and prospective liabilities or unable to pay its debts or stops, suspends or threatens to stop or suspend payment of all or a substantial part of (or of a particular type of) its debts as they mature; or (ii) applies for or consents to or suffers the appointment of an administrator, administrative receiver, liquidator, manager or receiver or other similar person in respect of the Issuer or any of its Material Subsidiaries or over the whole or a substantial part of the undertaking, property, assets or revenues of the Issuer or any of its Material Subsidiaries; or (iii) proposes or makes or enters into a general assignment or an arrangement or composition with or for the benefit of its creditors in respect of any of such debts or a moratorium is agreed or declared or comes into effect in respect of or affecting all or a substantial part of (or of a particular type of) the debts of the Issuer or any of its Material Subsidiaries, except, in any such case, for the purpose of and followed by a reconstruction, amalgamation, reorganisation, merger or consolidation on terms approved by the Trustee or by an Extraordinary Resolution; or
- g) Winding-up, Disposals: an administrator or an administrative receiver is appointed, an order is made or an effective resolution passed for the winding-up or dissolution or administration of the Issuer or any of its Material Subsidiaries, or the Issuer or any of its Material Subsidiaries ceases or threatens to cease to carry on all or a substantial part of its business or operations, or the Issuer or any of its Material Subsidiaries sells or disposes of all or a substantial part of its assets or business whether as a single transaction or a number of transactions, related or not; except, in any such case, for the purpose of and followed by a reconstruction, amalgamation, reorganisation, merger, consolidation or other similar arrangement (i) on terms previously approved in writing by the Trustee or by an Extraordinary Resolution, or (ii) in the case of a Material Subsidiary, not including arising out of the insolvency of such Material Subsidiary and under which all or substantially all of its assets are transferred to another member or members of the Group or to a transferee or transferees which immediately upon such transfer become(s) a Subsidiary or Subsidiaries of the Issuer; or
- h) **Expropriation:** any governmental authority or agency condemns, seizes, compulsorily purchases or expropriates (excluding any distraint or attachment prior to enforcement or foreclosure) all or a substantial part of the assets or shares of the Issuer or any of its Material Subsidiaries; or
- i) Analogous Events: any event occurs which under the laws of England or, in the case of the Issuer's Material Subsidiaries, the laws of the relevant Material Subsidiary's place of incorporation or principal place of business has an analogous effect to any of the events referred to in paragraphs (d) to (h) above.

Upon any such notice being given to the Issuer, the Bonds will immediately become due and payable at their principal amount together with accrued interest as provided in the Trust Deed, provided that no such notice may be given unless an Event of Default shall have occurred and provided further that, in the case of paragraphs (b)(ii), (d), (e) and (h), the Trustee shall have certified that in its opinion such event is materially prejudicial to the interests of the Bondholders.

For the purposes of paragraph (c) above, any indebtedness which is in a currency other than US dollars shall be translated into US dollars at the middle spot rate for the sale of US dollars against the purchase of the relevant currency quoted by any leading bank selected by the Trustee on any day when the Trustee requests a quotation for such purposes.

"Material Subsidiary" means, at any particular time, a Subsidiary of the Issuer:

- (a) whose (i) total assets or (ii) gross revenues (in each case on an unconsolidated basis) attributable to the Issuer are equal to or greater than 10% of the consolidated total assets or consolidated gross revenues of the Issuer, as applicable (in each case as calculated based on the latest annual unconsolidated financial statements of the Subsidiary and the latest audited annual consolidated financial statements of the Issuer); or
- (b) to which is transferred all or substantially all of the business, assets and undertaking of a Subsidiary of the Issuer which immediately prior to such transfer is a Material Subsidiary, whereupon the transferor Subsidiary of the Issuer shall immediately cease to be a Material Subsidiary and the transferee Subsidiary shall immediately become a Material Subsidiary (subject to the provisions of paragraph (a) above).

A report by two directors of the Issuer that in their opinion a Subsidiary of the Issuer is or is not, or was or was not, at any particular time or throughout any specified period a Material Subsidiary shall, in the absence of manifest error, be conclusive and binding on the Trustee and the Bondholders.

## 9. Consolidation, Amalgamation or Merger

The Issuer will not consolidate with, merge or amalgamate into, or transfer its properties and assets substantially as an entirety to, any corporation or convey or transfer its properties and assets substantially as an entirety to any person (the consummation of any such event, a "Merger"), unless:

- (a) the Person formed by such Merger or that acquired such properties and assets shall expressly assume, by a supplemental trust deed in form and substance satisfactory to the Trustee, all obligations of the Issuer under the Trust Deed and the Bonds and the performance of every covenant and agreement applicable to it contained therein;
- (b) the Person formed by such Merger or that acquired such properties and assets, if not organised under the law of the United Kingdom, shall expressly agree, by a supplemental trust deed in form and substance satisfactory to the Trustee, that its jurisdiction of organisation (or any authority therein or thereof having power to tax) will be added to Condition 7 and clause (c) of Condition 5 in each place therein in which reference is made to the United Kingdom, subject to clause (d) of this Condition 9;
- (c) immediately after giving effect to any such Merger, no Event of Default or Potential Event of Default (as defined in the Trust Deed) shall have occurred or be continuing or would result therefrom as confirmed to the Trustee by (i) a certificate signed by two directors of the Issuer and (ii) a certificate signed by two directors of the Person that would result from such Merger or that would acquire such properties and assets; and
- (d) the Person formed by such Merger or that acquired such properties and assets shall expressly agree, among other things, not to redeem the Bonds pursuant to Condition 5(c) as a result of it becoming obliged to pay any additional amounts (as provided or referred to in Condition 7) arising solely as a result of such Merger.

## 10. Prescription

Claims in respect of principal and interest will become void unless made as required by Condition 6 within a period of 10 years in the case of principal and five years in the case of interest from the appropriate Relevant Date.

## 11. Replacement of Certificates

If any Certificate representing a Bond is lost, stolen, mutilated, defaced or destroyed it may be replaced at the specified office of the Registrar subject to all applicable laws and stock exchange or other relevant authority requirements, upon payment by the claimant of the costs and expenses incurred in connection with such replacement and on such terms as to evidence, security, indemnity and otherwise as the Issuer may require (*provided* that the requirement is reasonable in the light of prevailing market practice). Mutilated or defaced Certificates must be surrendered before replacements will be issued.

#### 12. Meetings of Bondholders, Modification and Waiver

(a) Meetings of Bondholders: The Trust Deed contains provisions for convening meetings of Bondholders to consider matters affecting their interests, including the sanctioning by Extraordinary Resolution of a modification of any of these Conditions or any provisions of the Trust Deed or the Paying Agency Agreement. Such a meeting may be convened by the Issuer or the Trustee at any time and shall be convened by the Trustee if it receives a written request by Bondholders holding not less than 15% in principal amount of the Bonds for the time being outstanding. The quorum for any such meeting convened to consider an Extraordinary Resolution will be two (2) or more persons holding or representing a clear majority in principal amount of the Bonds for the time being outstanding, or at any adjourned meeting two (2) or more persons being or representing Bondholders whatever the principal amount of the Bonds held or represented, unless the business of such meeting includes consideration of proposals, inter alia, (i) to modify the maturity of the Bonds or the dates on which interest is payable in respect of the Bonds, (ii) to reduce or cancel the principal amount of, or interest on, the Bonds, (iii) to change the currency of payment of the Bonds or (iv) to modify the provisions concerning the quorum required at any meeting of Bondholders or the majority required to pass an Extraordinary Resolution, in which case the necessary quorum will be two (2) or more persons holding or representing not less than two-thirds, or at any adjourned meeting not less than one-third, in principal amount of the Bonds for the time being outstanding. Any Extraordinary Resolution duly passed shall be binding on Bondholders (whether or not they were present at the meeting at which such resolution was passed and whether or not they voted in favour).

The expression "Extraordinary Resolution" means a resolution passed at a meeting of Bondholders duly convened and held in accordance with these provisions by a majority consisting of not less than two-thirds of the votes cast.

- (b) **Modification and Waiver:** The Trustee may agree, without the consent of the Bondholders, to (i) any modification to these Conditions or to the provisions of the Trust Deed or the Paying Agency Agreement which is in its opinion of a formal, minor or technical nature or is made to correct a manifest error, and (ii) any other modification (except as provided for in the Trust Deed), and any waiver or authorisation of any breach or proposed breach, of any of the provisions of these Conditions, the Trust Deed or the Paying Agency Agreement which is in the opinion of the Trustee not materially prejudicial to the interests of the Bondholders. Any such modification, authorisation or waiver shall be binding on the Bondholders and such modification shall be notified to the Bondholders as soon as practicable.
- (c) Written resolutions of 90% holders: The Trust Deed provides that a written resolution signed by or on behalf of the holders of not less than 90% of the aggregate principal amount outstanding of Bonds who for the time being are entitled to receive notice of a meeting in accordance with the provisions of the Trust Deed shall be as valid and effective as a duly passed Extraordinary Resolution.
- (d) Entitlement of the Trustee: In connection with the exercise of its powers, trusts, authorisations or discretions (including but not limited to those referred to in this Condition), the Trustee shall have regard to the interests of the Bondholders as a class and shall not have regard to the consequences of such exercise for individual Bondholders (including as a result of their being for

any purpose domiciled or resident in, or otherwise connected with, or subject to the jurisdiction of, any particular territory) and the Trustee shall not be entitled to require, nor shall any Bondholder of Bonds be entitled to claim, from the Issuer any indemnification or payment in respect of any tax consequence of any such exercise upon individual Bondholders.

#### 13. Enforcement

At any time after the Bonds become due and payable, the Trustee may, at its discretion and without further notice, institute such proceedings against the Issuer as it may think fit to enforce the terms of the Trust Deed and the Bonds, but it need not take any such proceedings unless (a) it shall have been so directed by an Extraordinary Resolution or so requested in writing by Bondholders holding at least one-quarter in principal amount of the Bonds outstanding, and (b) it shall have been indemnified and/or secured (including by way of payment in advance) to its satisfaction. No Bondholder may proceed directly against the Issuer unless the Trustee, having become bound so to proceed, fails to do so within a reasonable time and such failure is continuing.

#### 14. Indemnification of the Trustee

The Trust Deed contains provisions for the indemnification of the Trustee and for its relief from responsibility, including provisions relieving it from taking proceedings to enforce repayment unless indemnified and/or secured (including by way of payment in advance) to its satisfaction. The Trustee is entitled to enter into business transactions with the Issuer and any entity related to the Issuer without accounting for any profit.

The Trustee may rely without liability to Bondholders on any certificate or report prepared by the auditors or any other person pursuant to these Conditions and/or the Trust Deed, whether or not addressed to the Trustee and whether or not the auditors liability in respect thereof is limited by a monetary cap or otherwise; any such certificate shall be conclusive and binding on the Issuer, the Trustee, and the Bondholders.

## 15. Further Issues

The Issuer may from time to time without the consent of the Bondholders create and issue further securities either having the same terms and conditions as the Bonds in all respects (or in all respects except for the first payment of interest on them) and so that such further issue shall be consolidated and form a single series with the outstanding securities (including the Bonds) or upon such terms as the Issuer may determine at the time of their issue, *provided* that, if the securities of such further issue are not fungible with the Bonds for U.S. federal income tax purposes, such securities will have a separate CUSIP or ISIN. References in these Conditions to the Bonds include (unless the context requires otherwise) any other securities issued pursuant to this Condition and forming a single series with the Bonds. Any further securities forming a single series with the outstanding securities (including the Bonds) constituted by the Trust Deed or any deed supplemental to it shall, and any other securities may (with the consent of the Trustee), be constituted by a deed supplemental to the Trust Deed.

## 16. Notices

Notices to Bondholders will be valid if published in a leading newspaper having general circulation in Singapore (which is expected to be the Business Times). Any such notice shall be deemed to have been given on the date of such publication or, if published more than once, on the first date on which publication is made.

So long as the Bonds are represented by the Global Certificates and the Global Certificates are held on behalf of DTC or the alternative clearing system (as defined in the Global Certificates), notices to Bondholders may be given by delivery of the relevant notice to DTC or the alternative clearing system, for communication by it to entitled accountholders in substitution for notification as required by the Conditions.

# 17. Contracts (Rights of Third Parties) Act 1999

No person shall have any right to enforce any term or condition of the Bonds under the Contracts (Rights of Third Parties) Act 1999.

## 18. Governing Law and Jurisdiction

- (a) Governing Law: The Trust Deed, the Bonds and all non-contractual matters arising therefrom or in connection therewith are governed by and construed in accordance with English law.
- (b) **Jurisdiction:** The courts of England have exclusive jurisdiction to settle any dispute (a "Dispute") arising from or connected with the Trust Deed or the Bonds and all non-contractual matters arising therefrom or in connection therewith (including a dispute regarding the existence, validity or termination of the Trust Deed or the Bonds or the consequences of their nullity). The submission to the jurisdiction of the courts of England is for the benefit of the Trustee and the Bondholders only and shall not (and shall not be construed so as to) limit the right of the Trustee or any Bondholder to take proceedings relating to a Dispute ("Proceedings") in any other courts with jurisdiction nor shall the taking of Proceedings in any one or more jurisdictions preclude the taking of Proceedings in any other jurisdiction (whether concurrently or not) if any to the extent permitted by law.

# SUMMARY OF PROVISIONS RELATING TO THE BONDS WHILE IN GLOBAL FORM

The Global Certificates contain provisions which apply to the Bonds while they are in global form, some of which modify the effect of the Conditions of the Bonds set out in this Offering Circular. Terms defined in the Conditions have the same meaning in the paragraphs below. The following is a summary of certain of those provisions.

# Book-Entry; Delivery and Form

The certificates representing the Bonds will be issued in fully registered form without interest coupons attached. The Regulation S Bonds will initially be represented by the Unrestricted Global Certificate and will be deposited with a custodian for, and registered in the name of a nominee of, DTC for the accounts of Euroclear and Clearstream. Prior to the 40th day after the date of issue of the Bonds, beneficial interests in the Regulation S Bonds may only be held through Euroclear or Clearstream, and any resale or transfer of such interests to United States persons shall not be permitted during such period unless such resale or transfer is made pursuant to Rule 144A or Regulation S under the Securities Act.

The Rule 144A Bonds will be represented by the Restricted Global Certificate and will be deposited with a custodian for, and registered in the name of a nominee of, DTC.

Each Global Certificate (and any Bonds issued for exchange therefor) will be subject to certain restrictions on transfer set forth therein as described under "Transfer Restrictions".

Ownership of beneficial interests in a Global Certificate will be limited to persons who have accounts with DTC ("participants") or persons who hold interests through participants. Ownership of beneficial interests in a Global Certificate will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC or its nominee (with respect to interests of participants) and the records of participants (with respect to interests of persons other than participants). QIBs may hold their interests in a Restricted Global Certificate directly through DTC if they are participants in such system, or indirectly through organisations which are participants in such system.

Investors may hold their interests in a Regulation S Bond directly through Euroclear or Clearstream, if they are participants in such systems, or indirectly through organisations that are participants in such system. On or after the 40th day following the date of issue of the Bonds, investors may also hold such interests through organisations other than Euroclear or Clearstream that are participants in the DTC system. Euroclear and Clearstream will hold interests in the Regulation S Bonds on behalf of their participants through DTC.

So long as DTC, or its nominee, is the registered owner or holder of a Global Certificate, DTC or such nominee, as the case may be, will be considered the sole owner or holder of the Bonds represented by such Global Certificate for all purposes under the Trust Deed and the Bonds. No beneficial owner of an interest in a Global Certificate will be able to transfer that interest except in accordance with DTC's applicable procedures, in addition to those provided for under the Trust Deed and the Paying Agency Agreement and, if applicable, those of Euroclear and Clearstream.

## Registration of Title

Individual Certificates will not be issued in exchange for interests in the Bonds in respect of which the Global Certificates are issued, except in the event that (where they shall be issued free of charge to the holder) DTC (or any clearing system as shall have been designated by the Company and approved by the Trustee (the "Alternative Clearing System") on behalf of which the Bonds evidenced

by the Restricted Global Certificate may be held) notifies the Company that it is no longer willing or able to discharge properly its responsibilities as depositary with respect to the Bonds, or ceases to be a "Clearing Agency" registered under the Exchange Act or is at any time no longer eligible to act as such and the Company is unable to locate a qualified successor within 90 days of receiving notice of such ineligibility on the part of DTC (or, as the case may be, such Alternative Clearing System).

So long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, the Company shall appoint and maintain a paying agent in Singapore in the event that the Global Certificate is exchanged for Individual Certificates. In addition, in the event that the Global Certificate is exchanged for Individual Certificates, an announcement of such exchange shall be made through the SGX-ST (so long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require) and such announcement will include all material information with respect to the delivery of the Individual Certificates, including details of the paying agent in Singapore.

In such circumstances, the Company will cause sufficient Individual Certificates to be executed and delivered to the Registrar for completion, authentication and despatch to the relevant Bondholders. A person with an interest in the Bonds in respect of which the Global Certificate is issued must provide the Registrar with a written order containing instructions and such other information as the Company and the Registrar may require to complete, execute and deliver such Individual Certificates and, in the case of a person with an interest in the Bonds represented by the Restricted Global Certificate, a fully completed, signed certification substantially to the effect that the exchanging holder is not transferring its interest at the time of such exchange, or in the case of a simultaneous sale pursuant to Rule 144A, Regulation S or Rule 144 under the Securities Act ("Rule 144"), a certification that the transfer is being made in compliance with the provisions of Rule 144A, Regulation S or Rule 144, as the case may be, in accordance with the Paying Agency Agreement. Restricted individual certificates issued in respect of the Rule 144A Bonds shall bear the Securities Act Legends applicable to transfers pursuant to Rule 144A.

## **Payments and Transfers**

Payments of principal and interest in respect of Bonds represented by a Global Certificate will be made to DTC or its nominee, as the case may be, and will be made without presentation or, if no further payment falls to be made in respect of the Bonds, against presentation and surrender, of the Global Certificate to or to the order of the Principal Agent or such other Paying Agent as shall have been notified to the Bondholders for such purpose. None of the Company, the Trustee nor any Paying Agent will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a Global Certificate or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

The Company expects that DTC or its nominee, upon receipt of any payment of principal or interest in respect of a Global Certificate, will credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the principal amount of such Global Certificate as shown on the records of DTC or its nominee. The Company also expects that payments by participants to owners of beneficial interests in such Global Certificate held through such participants will be governed by standing instructions and customary practices, as is now the case with securities held for the accounts of customers registered in the names of nominees for such customers. Such payments will be the responsibility of such participants.

Transfers between participants in DTC will be effected in the ordinary way in accordance with DTC rules and will be settled in same-day funds. Transfers between participants in Euroclear and Clearstream will be effected in the ordinary way in accordance with their respective rules and operating procedures.

The Company expects that DTC will take any action permitted to be taken by a Bondholder (including the presentation of Bonds for exchange as described below) only at the direction of one or more participants to whose account the DTC interests in a Global Certificate is credited and only in respect of such portion of the aggregate principal amount of Bonds as to which such participant or participants has or have given such direction.

The Company understands that DTC is a limited purpose trust company organised under the laws of the State of New York, a "banking organisation" within the meaning of New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the Uniform Commercial Code and a "Clearing Agency" registered pursuant to the provisions of Section 17A of the Exchange Act. DTC was created to hold securities for its participants and to facilitate the clearance and settlement of securities transactions between participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of securities certificates. Indirect access to the DTC system is available to others such as banks, brokers, dealers and trust companies and certain other organisations that clear through or maintain a custodial relationship with a participant, either directly or indirectly ("indirect participants").

Although DTC, Euroclear and Clearstream are expected to follow the foregoing procedures in order to facilitate transfers of interests in a Global Certificate among participants of DTC, Euroclear and Clearstream, they are under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued at any time. None of the Company, the Trustee or any Paying Agent will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

#### **Notices**

So long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, notices will be published in a leading newspaper having general circulation in Singapore (which is expected to be the Business Times). Any such notice shall be deemed to have been given on the date of such publication. So long as the Bonds are represented by a Global Certificate and such Global Certificate is held on behalf of DTC or an Alternative Clearing System, notices to Bondholders may be given by delivery of the relevant notice to that clearing system for communication by it to entitled account holders in substitution for publication as required by the Conditions.

## **Meetings**

The registered holder of each Global Certificate will be treated as being two persons for the purposes of any quorum requirements of a meeting of Bondholders and, at any such meeting, as having one vote in respect of each \$1,000 in principal amount of the Bonds for which the Global Certificates may be exchanged. The Trustee may allow a person with an interest in the Bonds in respect of which a Global Certificate has been issued to attend and speak at a meeting of Bondholders on appropriate proof of his identity and interest.

## **Purchase and Cancellation**

Cancellation of any Bond required by the Conditions to be cancelled following its purchase will be effected by reduction in the principal amount of the Bonds in the register of Bondholders.

## **Trustee's Powers**

In considering the interests of Bondholders while a Global Certificate is registered in the name of a nominee for a clearing system, the Trustee may have regard to any information provided to it by or on behalf of the relevant clearing system or its operator as to the identity (either individually or by category) of its account holders with entitlements to the Bonds and may consider such interests as if such account holders were the Bondholders.

# The Clearing Systems

#### General

DTC, Euroclear and Clearstream have advised the Company as follows:

DTC. DTC is a limited-purpose trust company organised under the laws of the State of New York, a "banking organisation" within the meaning of New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Exchange Act. DTC was created to hold securities of its participants and to facilitate the clearance and settlement of securities transactions among its participants in such securities through electronic book entry changes in accounts of its participants, thereby eliminating the need for physical movement of securities certificates. DTC's participants include securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organisations, some of whom own DTC, and may include the Joint Bookrunners. Indirect access to the DTC system is also available to others that clear through or maintain a custodial relationship with a DTC participant, either directly or indirectly. Transfers of ownership or other interests in Bonds in DTC may be made only through DTC participants. In addition, beneficial owners of Bonds in DTC will receive all distributions of principal of and interest on the Bonds from the Trustee through such DTC participant.

Euroclear and Clearstream. Euroclear and Clearstream hold securities for participating organisations and facilitate the clearance and settlement of securities transactions between their respective participants through electronic book-entry changes in accounts of such participants. Euroclear and Clearstream provide to their participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream interface with domestic securities markets. Euroclear and Clearstream participants are financial institutions such as underwriters, securities brokers and dealers, banks, trust companies and certain other organisations. Indirect access to Euroclear or Clearstream is also available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Euroclear or Clearstream participant, either directly or indirectly.

## Initial Settlement

Initial settlement for the Bonds will be made in immediately available funds. All Bonds issued in the form of global certificates will be deposited with Cede & Co., as custodian for DTC. Investors' interests in Bonds held in book-entry form by DTC will be represented through financial institutions acting on their behalf as direct and indirect participants in DTC. As a result, Euroclear and Clearstream will initially hold positions on behalf of their participants through DTC.

Investors electing to hold their Bonds through DTC (other than through accounts at Euroclear or Clearstream) must follow the settlement practices applicable to United States corporate debt obligations. The securities custody accounts of investors will be credited with their holdings against payment in same day funds on the settlement date.

Investors electing to hold their Bonds through Euroclear or Clearstream accounts will follow the settlement procedures applicable to conventional Eurobonds in registered form. Bonds will be credited to the securities custody accounts of Euroclear holders and of Clearstream holders on the business day following the settlement date against payment for value on the settlement date.

# Secondary Market Trading

Because the purchaser determines the place of delivery, it is important to establish at the time of trading of any Bonds where both the purchaser's and seller's accounts are located to ensure that settlement can be made on the desired value date.

Trading between DTC participants. Secondary market trading between DTC participants will occur in the ordinary way in accordance with DTC rules and will be settled using the procedures applicable to United States corporate debt obligations in same-day funds using DTC's Same-Day Funds Settlement System.

Trading between Euroclear and Clearstream participants. Secondary market trading between Euroclear participants and Clearstream participants will occur in the ordinary way in accordance with the applicable rules and operating procedures of Clearstream and Euroclear and will be settled using the procedures applicable to conventional Eurobonds in same-day funds.

Trading between DTC seller and Euroclear or Clearstream purchaser. When Bonds are to be transferred from the account of a DTC participant to the account of a Euroclear participant or a Clearstream participant, the purchaser must send instructions to Euroclear or Clearstream through a participant at least one business day prior to settlement. Euroclear or Clearstream, as the case may be, will receive the Bonds against payment. Payment will then be made to the DTC participant's account against delivery of the Bonds. Payment will include interest accrued on the Bonds from and including the last interest payment date to and excluding the settlement date, on the basis of a calendar year consisting of twelve 30-day calendar months. For transactions settling on the 31st day of the month, payment will include interest accrued to and excluding the first day of the following month. Payment will then be made to the DTC participant's account against delivery of the Bonds. After settlement has been completed, the Bonds will be credited to the respective clearing system and by the clearing system, in accordance with its usual procedures, to the Euroclear participant's or Clearstream participant's account. Credit for the Bonds will appear on the next day (European time), and cash debit will be backvalued to, and the interest on the Bonds will accrue from, the value date (which would be the preceding day when settlement occurs in New York). If settlement is not completed on the intended value date (i.e., the trade date fails), the Euroclear or Clearstream cash debit will be valued instead on the actual settlement date.

Euroclear participants or Clearstream participants will need to make available to the respective clearing systems the funds necessary to process same-day funds settlement. The most direct means of doing so is to pre-position funds for settlement, either from cash on hand or existing lines of credit, as they would for any settlement occurring within Euroclear or Clearstream. Under this approach, they may take on credit exposure to Euroclear or Clearstream until the Bonds are credited to their accounts one day later.

As an alternative, if Euroclear or Clearstream has extended a line of credit to them, participants can elect not to pre-position funds and allow that credit line to be drawn upon to finance settlement. Under this procedure, Euroclear participants or Clearstream participants purchasing Bonds would incur overdraft charges for one day, assuming they cleared the overdraft when the Bonds were credited to their accounts. However, interest on the Bonds would accrue from the value date. Therefore, in many cases, the investment income on Bonds earned during that one-day period may substantially reduce or offset the amount of such overdraft charges, although this result will depend on each participant's particular cost of funds.

The sale proceeds will be available to the DTC seller on the settlement date. Thus, to the DTC participant, a cross-market transaction will settle no differently than a trade between two DTC participants.

Finally, day traders that use Euroclear or Clearstream and that purchase Bonds from DTC participants for credit to Euroclear participants or Clearstream participants should note that these trades will automatically fail on the sale side unless affirmative action is taken. At least three techniques should be readily available to eliminate this potential problem:

(1) borrowing through Euroclear or Clearstream for one day (until the purchase side of the day trade is reflected in their Euroclear account or Clearstream account) in accordance with the clearing system's customary procedures;

- (5) borrowing the Bonds in the United States from a DTC participant no later than one day prior to settlement, which would give the Bonds sufficient time to be reflected in the borrower's Euroclear account or Clearstream account in order to settle the sale side of the trade; or
- (6) staggering the value dates for the buy and sell sides of the trade so that the value date for the purchase from the DTC participant is at least one day prior to the value date for the sale to the Euroclear participants or Clearstream participants.

Trading between Euroclear or Clearstream seller and DTC purchaser. Due to the time zone differences in their favour, Euroclear participants or Clearstream participants may employ their customary procedures for transactions in which Bonds are to be transferred by the respective clearing system to another DTC participant. The seller must send instructions to Euroclear or Clearstream through a participant at least one business day prior to settlement. In these cases, Euroclear or Clearstream will credit the Bonds to the DTC participant's account against payment. Payment will include interest accrued on the Bonds from and including the last interest payment date to and excluding the settlement date, on the basis of a calendar year consisting of twelve 30-day calendar months. For transactions settling on the 31st day of the month, payment will include interest accrued to the Bonds excluding the first day of the following month. Payment will then be made to the DTC participant's account against delivery of the Bonds. The payment will then be reflected in the account of the Euroclear participant or Clearstream participant the following day, and receipt of the cash proceeds in the Euroclear or Clearstream participant's account will be back-valued to the value date (which would be the preceding day when settlement occurs in New York). If the Euroclear participant or Clearstream participant has a line of credit with its respective clearing system and elects to draw on such line of credit in anticipation of receipt of the sale proceeds in its account, the back-valuation may substantially reduce or offset any overdraft charges incurred over the one-day period. If settlement is not completed on the intended value date (i.e., the trade fails), receipt of the cash proceeds in the Euroclear or Clearstream participant's account would instead be valued on the actual settlement date.

As in the case with respect to sales by a DTC participant to a Euroclear or Clearstream participant, participants in Euroclear and Clearstream will have their accounts credited the day after their settlement date. See "— Trading between DTC seller and Euroclear or Clearstream purchaser" above.

## TRANSFER RESTRICTIONS

Because of the following restrictions, purchasers are advised to consult legal counsel prior to making any offer, resale, pledge or other transfer of the Regulation S Bonds or the Rule 144A Bonds.

This offering is being made in reliance on Rule 144A under the Securities Act and Regulation S under the Securities Act. The Bonds have not been, and will not be, registered under the Securities Act or with any securities regulatory authority of any State in the United States or any other jurisdiction, and may only be offered or sold (a) within the United States to QIBs in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A and (b) to non-US persons outside the United States in reliance on Regulation S under the Securities Act, and in each case in accordance with any other applicable law.

#### Rule 144A Bonds

Each purchaser of the Bonds within the United States pursuant to Rule 144A, by accepting delivery of this Offering Circular, will be deemed to have represented, agreed and acknowledged that it has received such information as it deems necessary to make an investment decision and that:

- It is (a) a QIB within the meaning of Rule 144A, (b) acquiring such Bonds for its own account or for the account of one or more QIBs, (c) not acquiring the Bonds with a view to further distribute such Bonds, and (d) aware, and each beneficial owner of such Bonds has been advised, that the sale of such Bonds to it is being made in reliance on Rule 144A.
- It understands that such Bonds have not been and will not be registered under the Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States and may not be offered, resold, pledged or otherwise transferred except (a) in accordance with Rule 144A to a person that the holder and any person acting on its behalf reasonably believe is a QIB purchasing for its own account or for the account of a QIB, (b) in an offshore transaction in accordance with Rule 903 or Rule 904 of Regulation S, (c) pursuant to an exemption from registration under the Securities Act provided by Rule 144 thereunder (if available) or (d) pursuant to an effective registration statement under the Securities Act, in each case in accordance with all applicable securities laws of the States of the United States; and the purchaser will, and each subsequent holder is required to, notify any subsequent purchaser of the Bonds of the resale restrictions referred to in this clause (2).
- It acknowledges that the Bonds offered and sold hereby in the manner set forth in paragraph (1) above are "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, are being offered and sold in a transaction not involving any public offering in the United States within the meaning of the Securities Act and that no representation is made as to the availability of the exemption provided by Rule 144 for resales of the Bonds.
- It understands that any offer, sale, pledge or other transfer of the Bonds made other than in compliance with the above-stated restrictions may not be recognised by the Company.
- The Company, the Registrar, the Joint Bookrunners and their respective affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements. If it is acquiring any Bonds for the account of one or more QIBs, it represents that it has sole investment discretion with respect to each such account and that it has full power to make (and does make) the foregoing acknowledgments, representations and agreements on behalf of each such account.

- It understands that the Bonds offered in reliance on Rule 144A will be represented by the Restricted Global Certificate. Before any interest in the Restricted Global Certificate may be offered, sold, pledged or otherwise transferred to a person who takes delivery in the form of an interest in the Unrestricted Global Certificate, it will be required to provide a Transfer Agent with a written certification (in the form provided in the Paying Agency Agreement) as to compliance with applicable securities laws.
- It understands that such Bonds, unless otherwise agreed between the Company and the Trustee in accordance with applicable law, will bear a legend to the following effect:

This bond has not been and will not be registered under the United States Securities Act of 1933, (the "Securities Act") or with any securities regulatory authority of any state or other jurisdiction of the United States and may not be offered, sold, pledged or otherwise transferred except (1) pursuant to a registration statement that has been declared effective under the Securities Act, (2) in accordance with Rule 144A under the Securities Act to a person that the holder and any person acting on its behalf reasonably believes is a qualified institutional buyer within the meaning of Rule 144A under the Securities Act purchasing for its own account or for the account of a qualified institutional buyer, (3) in an offshore transaction in accordance with Rule 903 or Rule 904 of RegulationS under the Securities Act, (4) pursuant to Rule 144 under the Securities Act (if available) or (5) pursuant to any other available exemption from the registration requirements of the Securities Act, in each case in accordance with any applicable securities laws of any state of the United States. The holder of this bond will, and each subsequent holder is required to, notify any purchaser of this bond of the resale restrictions referred to above.

## **Regulation S Bonds**

Each purchaser of Bonds offered hereby in reliance on Regulation S under the Securities Act, by accepting delivery of this Offering Circular and the Bonds, will be deemed to have represented, agreed and acknowledged that it has received such information as it deems necessary to make an investment decision and that:

- It understands that such Bonds have not been and will not be registered under the Securities Act, and such Bonds are being offered and sold in reliance on Regulation S.
- It is, or at the time the Bonds are purchased will be, the beneficial owner of such Bonds and (a) it is purchasing the Bonds in an offshore transaction (within the meaning of Regulation S); (b) it is not an affiliate of the Company or a person acting on behalf of such an affiliate and (c) it is not a US person (as defined in Regulation S under the Securities Act) and is located outside the United States and will continue to be located outside the United States at the time the buy order is originated.
- It will not offer, sell, pledge or transfer Bonds, except in accordance with the Securities Act and any applicable laws of the states of the United States and any other jurisdiction.
- The Company, the Registrar, the Joint Bookrunners and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements.

It understands that the Bonds offered in reliance on Regulation S will be represented by the Unrestricted Global Certificate. For the period until and including the 40th day after the commencement of the offering, any interest in the Unrestricted Global Certificate may be offered, sold, pledged or otherwise transferred to a US person or a person located in the United States or a person who takes delivery in the form of an interest in the Restricted Global Certificate, provided that it will be required to provide a Transfer Agent with a written certification (in the form provided in the Paying Agency Agreement) to the effect that the transferee is a "qualified institutional buyer" (as defined in Rule 144A) and as to compliance with applicable securities laws.

It understands that such Bonds will, unless otherwise agreed between the Company and the Trustee in accordance with applicable law, will bear a legend to the following effect:

This bond has not been and will not be registered under the United States Securities Act of 1933 (the "Securities Act") or with any securities regulatory authority of any state or other jurisdiction of the United States and may not be offered, sold, pledged or otherwise transferred in the United States or to, for the account or benefit of, any united states person except pursuant to an available exemption from the registration requirements of the Securities Act and all applicable state securities laws. Terms used above have the meanings given to them in Regulation S under the Securities Act.

## **TAXATION**

## **Certain United Kingdom Taxation Considerations**

The following is a general description of certain UK tax considerations relating to the Bonds. It does not purport to be a complete analysis of all tax considerations relating to the Bonds and it does not generally deal with the tax position of prospective Bondholders who may be subject to tax in a jurisdiction other than the UK. It relates to the position of persons who hold Bonds as an investment and who are the absolute beneficial owners of the same and some aspects do not apply to certain classes of taxpayer (such as dealers in securities, Bondholders who are connected with the Company for relevant tax purposes or those who are treated for tax purposes as having received their Bonds by reason of their employment). Prospective Bondholders should seek their own professional advice as to their tax position. This summary is based on the Company's understanding of UK tax law and HM Revenue & Customs practice as in effect on the date of this Offering Circular and is subject to any change in such law or practice that may take effect after such date (possibly with retrospective effect).

PROSPECTIVE PURCHASERS OF BONDS WHO MAY BE SUBJECT TO TAX IN ANY JURISDICTION OTHER THAN THE UK, OR WHO HAVE ANY DOUBT WHATSOEVER AS TO THEIR TAX POSITION SHOULD CONSULT AN APPROPRIATE PROFESSIONAL ADVISER.

#### Interest on the Bonds

The Bonds will constitute "quoted Eurobonds" within the meaning of section 987 of the Income Tax Act 2007 (the "Act") as long as they are and continue to be listed on a "recognised stock exchange" within the meaning of section 1005 of the Act. SGX-ST is a "recognised stock exchange" for these purposes. The Bonds will be treated as listed on SGX-ST if the Bonds are included in the official list of, and are admitted to trading on (which, in the case of SGX-ST, means quoted on), the Main Board of SGX-ST.

Provided, therefore, that the Bonds are and remain so listed and quoted, payments of interest on the Bonds will be made without deduction or withholding for or on account of UK income tax.

If the Bonds are not, or cease to be, so listed, generally an amount must be deducted or withheld for or on account of UK income tax at the basic rate (currently 20%), subject to any direction to the contrary by HM Revenue & Customs under an applicable double taxation treaty, and except that the deduction or withholding obligation is disapplied in respect of payments of interest to Bondholders who the Company reasonably believes are either UK resident companies or non-UK resident companies carrying on a trade in the UK through a permanent establishment which is, in each case, within the charge to UK corporation tax and to which the interest is attributable, or are partnerships consisting entirely of such persons (unless, in each such case, HM Revenue & Customs directs otherwise), or where any other relevant exception, exemption or relief applies. Any premium payable on redemption may be treated as a payment of interest for UK tax purposes and may accordingly be subject to the withholding tax treatment described above.

Interest on the Bonds will constitute UK source income for UK tax purposes and may be subject to UK income tax or UK corporation tax (as appropriate) by assessment (including self-assessment) even where paid without deduction or withholding for or on account of UK tax. However, interest with a UK source received without deduction or withholding for or on account of UK income tax will not be chargeable to UK tax in the hands of a Bondholder who is not resident for tax purposes in the UK unless that Bondholder: (i) is not a company and carries on a trade, profession or vocation in the UK through a UK branch or agency, or is a company and carries on a trade in the UK through a UK permanent establishment and the interest is received in connection with, or the Bonds are attributable

to, that branch or agency or permanent establishment (as applicable); or (ii) is a trustee in certain circumstances. There are exemptions for interest received by certain categories of agent (such as some brokers and investment managers). The provisions of an applicable double tax treaty may also be relevant for such Bondholders.

## Provision of information

In certain circumstances, HM Revenue & Customs has the power to require any person in the UK (i) paying interest to, or receiving interest on behalf of another person who is an individual; or (ii) paying amounts due on redemption of any Bonds which constitute deeply discounted securities as defined in Chapter 8 of Part 4 of the Income Tax (Trading and Other Income) Act 2005 to, or receiving such amounts on behalf of, another person who is an individual, to disclose the name and address of that Bondholder and to provide information regarding the amounts paid to him or received on his behalf. In relation to the payment or receipt of interest, these provisions will apply whether or not the interest has been paid subject to withholding or deduction for or on account of UK income tax and whether or not the Bondholder is resident in the UK for UK taxation purposes. Where the Bondholder is not so resident, the details provided to HM Revenue & Customs may, in certain cases, be passed on to the tax authorities of the jurisdiction in which the Bondholder is resident for taxation purposes.

#### Transfer and redemption of the Bonds

## UK corporation taxpayers

In general, Bondholders who are within the charge to UK corporation tax in respect of the Bonds will be treated for tax purposes as realising profits, gains or losses (including exchange gains and losses) in respect of the Bonds on a basis which is broadly in accordance with their statutory accounting treatment so long as that accounting treatment is in accordance with generally accepted accounting practice as that term is defined for the relevant tax purposes. Such profits, gains and losses will be taken into account in computing taxable income for UK corporation tax purposes.

## Other UK taxpayers

It is not entirely certain whether or not the Bonds will be treated as "deeply discounted securities" for the purposes of Chapter 8 of Part 4 of the Income Tax (Trading and Other Income) Act 2005. Accordingly, Bondholders are advised to consult their own professional advisers in respect of this issue.

If the Bonds are treated as "deeply discounted securities" for the purposes of Part 4, Chapter 8 of the Income Tax (Trading and Other Income) Act 2005, Bondholders who are not within the charge to UK corporation tax and who are resident for tax purposes in the United Kingdom, or who carry on a trade, profession or vocation in the UK through a branch or agency to which the Bonds are attributable, may be subject to UK tax on income on a disposal of the Bonds (including a disposal occurring on redemption of Bonds). In such a case, no chargeable gain or allowable loss would arise on a disposal of a Bond by a Bondholder (including a disposal occurring on redemption) nor should the accrued income profits and losses regime (as set out below) apply to Bondholders on such a disposal.

If the Bonds are not treated as "deeply discounted securities" for the purposes of Part 4, Chapter 8 of the Income Tax (Trading and Other Income) Act 2005, a disposal of the Bonds (including a disposal occurring on redemption) by an individual Bondholder who is resident for tax purposes in the United Kingdom, or who carries on a trade, profession or vocation in the UK through a branch or agency to which the Bonds are attributable, may give rise to a chargeable gain or allowable loss for the purposes of the UK taxation of chargeable gains. In calculating any gain or loss accordingly, a

taxable profit can arise even where the amount received in a non-sterling currency is the same as, or less than, the amount paid in that currency for the Bond. Special rules may apply to individuals who have ceased to be resident in the United Kingdom and who dispose of their Bonds before becoming once again resident in the United Kingdom.

The provisions of the "accrued income profits and losses" regime (formerly known as the "accrued income scheme") (the "Regime") may apply to Bondholders who are subject to UK income tax in relation to the Bonds. On a transfer of securities with accrued interest, the Regime can, in certain circumstances, apply to deem the transferor to receive an amount of income equal to the accrued interest and to treat the deemed or actual interest subsequently received by the transferee as reduced by a corresponding amount. Generally, persons who are not resident in the UK and who do not carry on a trade in the UK through a branch or agency to which the Bonds are attributable will not be subject to the provisions of these rules. Bondholders are advised to consult their own professional advisers for further information about the rules relating to the Regime.

Stamp duty and stamp duty reserve tax. No UK stamp duty or stamp duty reserve tax should be payable on issue, transfer or redemption of the Bonds.

#### US Federal Income Tax Considerations

The following discussion is a summary of certain material US federal income tax consequences of the purchase, ownership and disposition of the Bonds by a US holder (defined below), (except for discussions on FATCA (as defined below under "- Foreign Account Tax Compliance Act"), which apply to all holders), but does not purport to be a complete analysis of all potential tax effects. This summary is based upon the US Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"), Treasury regulations issued or proposed thereunder, and judicial and administrative interpretations thereof, each as in effect on the date hereof, and all of which are subject to change, possibly with retroactive effect. This discussion does not address all of the US federal income tax consequences that may be relevant to a US holder in light of such US holder's particular circumstances, including the impact of the unearned income Medicare contribution tax or the alternative minimum tax, or to US holders subject to special rules, such as certain financial institutions, US expatriates, insurance companies, dealers in securities or currencies, traders in securities, US holders whose functional currency is not the US dollar, tax-exempt organisations, regulated investment companies, real estate investment trusts, partnerships or other pass-through entities and persons holding the Bonds as part of a "straddle," "hedge," "conversion transaction" or other integrated transaction. In addition, this discussion is limited to persons who purchase Bonds for cash pursuant to this Offering Circular at original issue, at their "issue price" (the first price at which a substantial part of the Bonds are sold to the public for cash, excluding sales to bond houses, brokers or similar persons or organisations acting in the capacity of underwriters, placement agents or wholesalers) and who hold the Bonds as capital assets within the meaning of Section 1221 of the Internal Revenue Code.

For purposes of this discussion, a "US holder" is a beneficial owner of a Bond that is, for US federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation created or organised in the United States or under the laws of the United States, any state thereof or the District of Columbia;
- any estate the income of which is subject to US federal income taxation regardless of its source; or

• any trust if (i) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust, or (ii) a valid election is in place to treat the trust as a United States person.

If an entity treated as a partnership for US federal income tax purposes holds Bonds, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. A holder that is a partnership, and partners in such partnerships, should consult their tax advisers regarding the tax consequences of the purchase, ownership and disposition of Bonds.

Prospective purchasers of Bonds should consult their tax advisers concerning the tax consequences of the purchase, ownership and disposition of the Bonds in light of their particular circumstances, including the application of the US federal income tax considerations discussed below, as well as the application of state, local, foreign or other tax laws.

#### Payments of Interest

It is expected, and the following discussion assumes, that the Bonds will not be issued with original issue discount in excess of a statutorily defined *de minimis* amount. Payments of stated interest on the Bonds generally will be taxable to a US holder as ordinary income at the time that such payments are received or accrued, in accordance with such US holder's method of accounting for US federal income tax purposes.

Interest income on a Bond generally will constitute foreign source income and generally will be considered "passive category income" or, in the case of certain US holders, "general category income" for purposes of the foreign tax credit limitation rules.

Should any foreign tax be withheld, the amount withheld and the gross amount of any additional amounts paid to a US holder as a result of such withholding as described in "Terms and Conditions of the Bonds — Taxation" (such amounts, "Additional Amounts"), will be included in such US holder's income as ordinary income at the time such amount is deemed paid, received or accrued in accordance with such US holder's method of tax accounting. Foreign withholding tax paid at the rate applicable to a US holder would, subject to limitations and conditions, be treated as foreign income tax eligible for credit against such US holder's US federal income tax liability or, at such US holder's election, eligible for deductions in computing taxable income. US holders should consult their tax advisers regarding the creditability or deductibility of any withholding taxes. Any Additional Amounts would generally constitute foreign source income.

# Sale, Exchange, Redemption or Other Disposition of Bonds

Generally, upon the sale, exchange, redemption or other disposition of a Bond, a US holder will recognise taxable gain or loss equal to the difference between the amount realised on the sale, exchange, redemption or other disposition (less any amount attributable to accrued but unpaid interest not previously included in income, which will be taxable as such) and such US holder's adjusted tax basis in the Bond. A US holder's adjusted tax basis in a Bond generally will equal the cost of such Bond to such US holder, less any principal payments received by the US holder.

Such gain or loss generally will be US source capital gain or loss, and will be long-term capital gain or loss if at the time of the sale, exchange, redemption or other disposition the Bond has been held by such US holder for more than one year. Long-term capital gain recognised by a non-corporate US holder will generally be subject to taxation at a reduced rate. The deductibility of capital losses is subject to limitation.

## Information Reporting and Backup Withholding

In general, payments made in the United States or through certain US-related financial intermediaries of interest or principal and the proceeds from sales of Bonds held by a US holder will be required to be reported to the US Internal Revenue Service (the "IRS") unless the US holder is an exempt recipient and when required, demonstrates this fact. In addition, a US holder that is not an exempt recipient may be subject to backup withholding unless it provides a taxpayer identification number and otherwise complies with applicable certification requirements.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a US holder's US federal income tax liability and may entitle the US holder to a refund, provided that the appropriate information is timely furnished to the IRS.

Individuals that own "specified foreign financial assets" with an aggregate value in excess of certain thresholds are generally required to file an information report with respect to such assets with their tax returns. The Bonds generally will constitute specified foreign financial assets subject to these reporting requirements, unless the Bonds are held in certain accounts maintained by certain financial institutions. Under certain circumstances, an entity may be treated as an individual for purposes of these rules.

## Foreign Account Tax Compliance Act

Pursuant to Sections 1471 through 1474 of the Internal Revenue Code (commonly referred to as "FATCA"), a "foreign financial institution" may be required to withhold US tax on certain "foreign passthru payments" made after December 31, 2018. Obligations issued on or prior to the date that is six months after the date on which applicable final regulations defining foreign passthru payments are filed generally would be "grandfathered" unless materially modified after such date. Accordingly, if the Issuer is treated as a foreign financial institution, FATCA could apply to payments on the Bonds if there is a significant modification of the Bonds for U.S. federal income tax purposes after the expiration of this grandfathering period. Non-U.S. governments have entered into agreements with the United States (and additional non-U.S. governments are expected to enter into such agreements) to implement FATCA in a manner that alters the rules described herein. Holders should consult their own tax advisors on how these rules may apply to their investment in the Bonds. In the event any withholding under FATCA is imposed with respect to any payments on the Bonds, there will be no additional amounts payable to compensate for the withheld amount.

## PLAN OF DISTRIBUTION

Each of the Joint Bookrunners has, pursuant to a subscription agreement dated 3 August 2017 (the "Subscription Agreement"), severally and not jointly agreed with the Company, subject to the satisfaction of certain conditions, to subscribe for the principal amount of the Bonds set forth opposite its name below.

Joint Bookrunners	Principal Amount
Axis Bank Limited, Singapore Branch	\$ 142,857,000
Barclays Bank PLC	\$ 142,857,000
Credit Suisse (Hong Kong) Limited	\$ 142,857,000
DBS Bank Ltd.	\$ 142,857,000
First Abu Dhabi Bank PJSC	\$ 142,857,000
ICICI Bank Limited - IFSC Banking Unit	\$ nil
J.P. Morgan Securities plc	\$ 142,857,000
Standard Chartered Bank	\$ 142,858,000
Total	\$1,000,000,000

The Subscription Agreement provides that the Joint Bookrunners will purchase all the Bonds if they purchase any of the Bonds. The Subscription Agreement entitles the Joint Global Coordinators and Joint Lead Managers on behalf of the Joint Bookrunners to terminate the Subscription Agreement in certain circumstances prior to payment being made to the Company. The Company has under the Subscription Agreement agreed to indemnify the Joint Bookrunners against certain liabilities. The Joint Bookrunners may offer and sell the Bonds through certain of their affiliates. The Joint Bookrunners or certain of their affiliates may purchase Bonds and be allocated Bonds for asset management and/or proprietary purposes but not with a view to distribution.

Neither the Company nor any person acting on its behalf will, from the date of this Offering Circular until the date 30 days after the date of this Offering Circular, without the prior written consent of the Joint Bookrunners, issue, offer, sell, contract to sell, pledge or otherwise dispose of (or publicly announce any such issuance, offer, sale or disposal) non-equity-linked debt securities issued or guaranteed (other than guarantees in respect of Indian Rupee denominated non-equity linked debt securities and other than any debt securities that may be issued in connection with the refinancing described in "Summary — Recent Development — Term loans") by the Company and having a maturity of more than one year from the date of issue.

The Bonds are a new issue of securities with no established trading market. Approval in-principle has been received for the listing and quotation of the Bonds on the Official List of the SGX-ST. In connection with this offering, the Stabilising Manager or any of its affiliates (or persons acting on behalf of the Stabilising Manager) may, to the extent permitted by laws and regulations, over-allot or effect transactions with a view to supporting the market price of the Bonds at a level higher than that which might otherwise prevail for a limited time after the issue date of the Bonds. However, there is no assurance that the Stabilising Manager or any of its affiliates (or persons acting on behalf of the Stabilising Manager) will undertake any stabilisation action. Any stabilising action may begin on or after the date on which adequate public disclosure of the terms of the offer of the Bonds is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the Bonds and 60 days after the date of the allotment of the Bonds. Any stabilisation action must be conducted by the Stabilising Manager or any of its affiliates (or persons acting on behalf of the Stabilising Manager or any of its affiliates) in accordance with all applicable laws and rules.

The Joint Bookrunners and their respective affiliates have, in the past, provided banking, investment banking and advisory services for the Company and the group for which they have received customary fees and expenses. Any or all of the Joint Bookrunners and their respective affiliates may, from time to time, engage in transactions with and perform services for the Company, its subsidiaries

and to affiliates in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In particular, certain of the Joint Bookrunners and/or their affiliates act as arrangers and lenders under our loan facilities and may receive a portion of the proceeds of the offering of the Bonds in connection with the repayment thereof. See "Use of Proceeds." It is expected that the Joint Bookrunners and their respective affiliates will continue to provide such services to, and enter into such transactions with, the Company and its subsidiaries and affiliates in the future.

In connection with the offering of the Notes, each Joint Bookrunner and/or its affiliate(s) may act as an investor for its own account and may take up Bonds in the offering and in that capacity may retain, purchase or sell for its own account such securities and any securities of the Company or related investments and may offer or sell such securities or other investments otherwise than in connection with the offering. Accordingly, references herein to the Bonds being offered should be read as including any offering of the Bonds to the Joint Bookrunners and/or their affiliates acting in such capacity. Such persons do not intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

It is expected that delivery of beneficial interests in the Bonds will be made through the facilities of DTC on or about 9 August 2017, which will be the fourth business day following the initial sale of the Bonds. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade Bonds prior to the third business day before the delivery of the Bonds will be required, by virtue of the fact that the Bonds initially will settle on a delayed basis, to agree to a delayed settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of Bonds who wish to make such trades should consult their advisers.

## Public Offer Selling Restriction under the Prospectus Directive

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), each Joint Bookrunner, severally and not jointly, represents and agrees that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of the Bonds which are the subject of the offering contemplated by the Offering Circular to the public in that Relevant Member State except that it may, with effect from and including the Relevant Implementation Date, make an offer of such Bonds to the public in that Relevant Member State:

- at any time to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the relevant bookrunner nominated by the Issuer for any such offer; or
- at any time in any other circumstances falling within Article 3(2) of the Prospectus

provided that no such offer of the Bonds referred to in subparagraphs (a) to (c) above shall require the Issuer or any Joint Bookrunner to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of the Bonds to the public" in relation to any of the Bonds in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Bonds to be offered so as to enable an investor to decide to purchase or subscribe the Bonds, as the same may be varied in that Relevant

Member State by any measure implementing the Prospectus Directive in that Relevant Member State, and the expression "Prospectus Directive" means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU) and includes any relevant implementing measure in the Relevant Member State.

#### Hong Kong

Each Manager represents and agrees that:

- it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Bonds (except for Bonds which are a "structured product" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong ("SFO")) other than (i) to "professional investors" as defined in the SFO and any rules made under the SFO or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and
- it has not issued or had in its possession for the purposes of issue and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Bonds, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Bonds which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the SFO and any rules made under the SFO.

#### India

This document has not been and will not be registered, produced or published as a prospectus or a statement in lieu of prospectus or as an offer document (in respect of a public offer or information memorandum or other offering material in respect of any private placement under the Companies Act, 2013, as amended and the rules framed thereunder or any other applicable Indian laws) with any Registrar of Companies in India. This document has not been and will not be reviewed or approved by any statutory or regulatory authority in India, including the Securities and Exchange Board of India, Reserve Bank of India, any Registrar of Companies in India or any stock exchange in India or regulatory body of like nature. This document and this offering of Bonds are not and should not be construed as an invitation, offer or sale of any securities to the public in India. Other than in compliance with applicable laws and regulations in India, including the Companies Act, 2013, as amended and the rules framed thereunder or any other applicable Indian laws, our Bonds have not been, and will not be, offered or sold to the public or any member of the public in India by means of any document. This document is strictly personal to the recipient and neither this document nor the offering of our Bonds is calculated to result, directly or indirectly, in our Bonds becoming available for subscription or purchase by persons other than those receiving the invitation or offer. This Offering Circular or any other offering document or material relating to the Bonds have not been and will not be circulated or distributed, directly or indirectly, to any person or to the public or any member of the public in India or otherwise generally distributed or circulated in India which would constitute an advertisement, invitation, offer, sale or solicitation of and offer to subscribe for or purchase any securities in violation of applicable Indian laws.

#### Indonesia

The Offering Circular may only be distributed outside Indonesia to persons who are neither citizens of Indonesia (wherever located) nor residents of Indonesia.

## Japan

The Bonds have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "FIEA") and each Joint Bookrunner represents and agrees that it will not offer or sell any Bonds, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (as defined under Item 5, Paragraph 1, Article 6 of the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949, as amended)), or to others for reoffering or resale, directly or indirectly, in Japan or to, or for the benefit of, a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEA and any other applicable laws, regulations and ministerial guidelines of Japan.

## Malaysia

Each Manager acknowledges that no lodgement of the relevant documents with the Securities Commission Malaysia (the "SC") has been or will be made and no approval from the SC under the Capital Markets and Services Act 2007 of Malaysia ("CMSA") has been or will be obtained and the Preliminary Offering Circular or this Offering Circular have not been nor will they be registered with the SC as a prospectus under the CMSA for the offering or issuance of the Bonds on the basis that the Bonds will be offered or sold exclusively to persons outside Malaysia. Accordingly, each Manager represents and warrants that that it has not offered or sold any Bonds or caused such Bonds to be made the subject of an invitation for subscription or purchase nor will it offer or sell such Bonds or cause such Bonds to be made the subject of an invitation for subscription or purchase, nor has it circulated or distributed, nor will it circulate or distribute, either the Preliminary Offering Circular or this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Bonds, whether directly or indirectly, to any person in Malaysia.

## Singapore

Each Joint Bookrunner acknowledges that the Offering Circular has not been registered as a prospectus with the Monetary Authority of Singapore under the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"). Accordingly, each Manager represents and agrees that it has not offered or sold any Bonds or caused the Bonds to be made the subject of an invitation for subscription or purchase and will not offer or sell any Bonds or cause the Bonds to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, the Offering Circular or any document or material in connection with the offer or sale, or invitation for subscription or purchase, of any Bonds, whether directly or indirectly, to any person in Singapore other than

- to an institutional investor under Section 274 of the SFA;
- to a relevant person pursuant to Section 275(1) of the SFA or any person pursuant to Section 275(1A) of the SFA and in accordance with the conditions specified in Section 275 of the SFA; or
- otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Bonds are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor;

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that corporation or that trust has acquired the Bonds pursuant to an offer made under Section 275 of the SFA except:

- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- pursuant to Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

## United Kingdom

Each of the Joint Bookrunners represents and agrees that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any Bonds in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer; and
- it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Bonds in, from or otherwise involving the United Kingdom.

## United States

The Bonds have not been and will not be registered under the Securities Act and may not be offered, sold, pledged or transferred within the United States or to, or for the account or benefit of, U.S. persons, except that the Bonds may be offered or sold to qualified institutional buyers in reliance on an exemption from registration under the Securities Act or outside the United States in accordance with Regulation S. The Bonds are being offered and sold outside the United States to non-US persons in reliance on Regulation S and within the United States to qualified institutional buyers in reliance on Rule 144A or another exemption from registration under the Securities Act. In addition, until 40 days after the commencement of the offering, an offer or sale of the Bonds within the United States (whether or not as part of the offering) may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A under the Securities Act.

The Bonds have not been approved or disapproved by the United States Securities and Exchange Commission, any state securities commission in the United States or any other United States regulatory authority, nor have any of the foregoing authorities passed upon or endorsed the merits of the offering or the accuracy or adequacy of the Offering Circular. Any representation to the contrary is a criminal offence in the United States.

# **LEGAL MATTERS**

Certain legal matters with respect to the Bonds will be passed upon for Vedanta Resources plc by Latham & Watkins LLP as to matters of English law and US federal securities law. Certain legal matters will be passed upon for the Joint Bookrunners by Allen & Overy with respect to English law and US federal securities law. Certain legal matters with respect to the Bonds will be passed upon for Vedanta Resources plc by Khaitan & Co as to Indian law.

# INDEPENDENT AUDITORS

The consolidated financial statements of Vedanta Resources plc as of and for the years ended 31 March 2015 and 2016 incorporated in this Offering Circular have been audited by Deloitte LLP, independent auditors, as stated in their reports incorporated elsewhere in this Offering Circular. Deloitte LLP is a member of the Institute of Chartered Accountants in England and Wales.

The consolidated financial statements of Vedanta Resources plc as of and for the year ended 31 March 2017 incorporated in this Offering Circular have been audited by Ernst & Young LLP, independent auditors, as stated in their report incorporated elsewhere in this Offering Circular. Ernst & Young LLP is a member of the Institute of Chartered Accountants in England & Wales.

The audit reports of Deloitte LLP, with respect to the Company's consolidated financial statements as of and for the fiscal years ended 31 March 2015 and 2016 in accordance with guidance issued by The Institute of Chartered Accountants in England and Wales, include the following limitations: "This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed".

The audit report of Ernst & Young LLP, with respect to the Company's consolidated financial statements as of and for the fiscal year ended 31 March 2017 in accordance with guidance issued by The Institute of Chartered Accountants in England and Wales, include the following limitations: "This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditors' report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed".

## **EXPERTS**

The information included in this Offering Circular regarding Ore Reserves is based on estimates determined by Vedanta and;

- The Mineral Resources and Ore Reserves of KCM's Konkola, Nchanga and Nampundwe mines were audited as of 31 March 2017, by SRK Consulting (South Africa) (Pty) Ltd and are reported in accordance with the terms and definitions of the SAMREC Code (2009). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources of CMT's copper mines are derived from management estimates as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of HZL's mines were audited as of 31 March 2017 by SRK Consulting (UK) Limited and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Mineral Resources and Ore Reserves of Black Mountain Mining's mines are derived from management estimates as of 31 March 2017 and are reported in accordance with the terms and definitions of the SAMREC Code (2009). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Ore Reserves of Skorpion were audited by Axe Valley Mining Consultants Ltd. as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Ore Reserves of BALCO's mines were audited by Geo Solutions Private Limited as of 31 March 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- During the year ended 31 March 2017, the Group recognised an impairment charge in respect of the exploratory assets in West Africa (Western Cluster, Liberia) on account of low iron ore prices, geo-political factors and no plans for any substantive expenditure resulting in continued uncertainty in the project. Therefore, the Company did not get certification of reserves and resources for the current period.
- The Ore Reserves of Vedanta Limited's bauxite mines are derived from management estimates as of 31 March 2017. There has been no bauxite mining in these mines during fiscal years 2015, 2016 and 2017 and are reported in accordance with the terms and definitions of the JORC Code (2012). The details of the responsible Competent Persons are included in Annex C of the Offering Circular.
- The Ore Reserves of Vedanta Limited's iron ore mines are derived from management estimates as of 31 March 2017.

DeGolyer and MacNaughton has independently estimated the information included in this Offering Circular regarding the proved, probable, and possible reserves and contingent resources of Cairn India as of 31 March 2017 according to the PRMS approved in March 2007 by the Society of Petroleum Engineers, the World Petroleum Council, the American Association of Petroleum Geologists, and the Society of Petroleum Evaluation Engineers.

The information included in this Offering Circular regarding the proved, probable and possible oil, condensate, and sales gas reserves and the contingent and prospective resources owned by Cairn India in India is based on estimates determined by Cairn India.

## **DEFINITIONS AND GLOSSARY OF TECHNICAL TERMS**

#### **Definitions**

The following definitions apply throughout this Offering Circular unless the context requires otherwise:

"2019 Bonds" US\$774,772,000 6.00% Bonds due 2019

"2023 Bonds" US\$900,000,000 9.50% Bonds due 2023

"AAI" Aluminium Association of India

"Act" Income Tax Act 2007 of the UK

"ADSs" American Depositary Shares

"Affiliate" a person that directly, or indirectly through one or more

intermediaries, controls, or is controlled by, or is under common control with, a specified person. A person shall be deemed to control another person if such first person possesses, directly or indirectly, the power to direct, or cause the direction of, the management and policies of such other person, whether through the ownership of voting securities,

by contract or otherwise

"Agarwal family" Messrs. Anil Agarwal, Dwarka Prasad Agarwal and Agnivesh

Agarwal, any of their parents, spouses, children, siblings and their children of Vedanta, and the families of any such person

"Air (Prevention and Control of Pollution) Act, 1981 of India,

as amended

"Alcoa" Alcoa Inc.

"aluminium business" the business of Vedanta comprising the aluminium operations

as further described in "Business - Description of the

Businesses — Aluminium Business"

"Annual Financial Statements" the consolidated audited financial information for the

Company as of and for fiscal years ended 31 March 2015,

2016 and 2017.

"associated undertakings" has the meaning ascribed to it under Part 36 of the Companies

Act

"AT&C" Aggregate Technical and Commercial

"Aurubis" The Aurubis Group

"Australia" The Commonwealth of Australia, its possessions and

territories and all areas subject to its jurisdiction or any

political subdivision thereof

"BALCO" Bharat Aluminium Company Limited, a company

incorporated in India

"BHP Billiton" BHP Billiton Limited

"Binani Zinc" Binani Zinc Limited

"Bloomberg" Bloomberg L.P.

"Board" the board of Directors of the Company

"Bondholders" Holders of the Bonds

**"Bonds"** \$1,000,000,000 6.125% Bonds due 2024

"BSE" the Bombay Stock Exchange Limited

"CAGR" Compound annual growth rate

"Cairn Energy" Cairn Energy plc, a company incorporated in England &

Wales

"Cairn Energy Group" Cairn Energy and its subsidiaries

"Cairn India" Erstwhile Cairn India Limited, a company incorporated in

India, which merged with Vedanta Limited pursuant to the

Scheme

"Cairn India Group" Erstwhile Cairn India and its erstwhile subsidiaries, which are

now subsidiaries of Vedanta Limited pursuant to the Scheme

"Cairn India Shares" Ordinary shares of Rs. 10 each in the share capital of Cairn

India

"Canada, its possessions and territories and all areas subject to

its jurisdiction or any political subdivision thereof

"CEA" the Central Electricity Authority of India

"CEC" Copperbelt Energy Corporation PLC, a public company in

Lusaka, Zambia

"CGU" Cash generating unit

"CHALCO" Aluminium Corporation of China Limited

"CIS" Commonwealth of Independent States

"Clearstream" Clearstream Banking, société anonyme

"Closing Date" on or about 9 August 2017

"CMT" Copper Mines of Tasmania Pty Ltd, a company incorporated

in Tasmania, Australia

"Coal India" Coal India Limited, the government-owned coal monopoly in

India

"Code" "The Combined Code on Corporate Governance" issued by

the Financial Reporting Council of the UK

"Codelco" Corporación Nacional del Cobre

"Command Petroleum" Command Petroleum (India) Pty Ltd.

"Commission" US Securities and Exchange Commission

"Companies Act" the United Kingdom Companies Act 1985, as amended

"Conclave" Conclave PTC Limited, the trustee of the Trust

"copper business" the business of Vedanta comprising the copper operations as

further described in "Business - Description of the

Businesses — Copper Business"

"CRISIL" Credit Rating Information Services of India Limited

"CRO" Chingola Refractory Ore

"CUKHL" Cairn UK Holdings Limited, a company incorporated in

England & Wales

"Development Agreement" the development agreement dated 5 November 2004 between

KCM and the Government of Zambia

"DGH" Directorate General of Hydrocarbons

"Directors" the Executive Directors and Non-executive Directors of the

Company

"DTC" The Depository Trust Company

"Essel" Essel Mining & Industries Ltd

"EU" the European Union as established by the Treaty on European

Union

"Euroclear" Euroclear Bank S.A./N.V.

"Exchange Act" United States Securities Exchange Act of 1934, as amended

"Executive Directors" Messrs. Anil Agarwal, Navin Agarwal and Tom Albanese

"Factories Act," Factories Act, 1948, as amended, of India

"Finsider" Finsider International Company Limited, a company

incorporated in England and Wales

"fiscal" the financial year ended or ending 31 March of that year

"Freeport-McMoran" Freeport McMoran Copper and Gold Corporation

"FCA" Financial Conduct Authority of the United Kingdom

"FSMA" the United Kingdom Financial Services and Markets Act

2000, as amended

"GDP" gross domestic product

"GEL" Goa Energy Limited, an independent power producer

"Global Certificate" the Restricted Global Certificate and the Unrestricted Global

Certificates

"GoI" Government of India

"GRIDCO" Grid Corporation of Odisha Limited, a nominee of the State

Government of Odisha

"Group" Vedanta and its subsidiaries on a consolidated basis

"GSPCB" Goa State Pollution Control Board

"Hindalco" Hindalco Industries Limited

"HZL" Hindustan Zinc Limited, a company incorporated in India

"IAS" International Accounting Standards

"IFRS" International Financial Reporting Standards

"ILZDA" India Lead Zinc Development Association

"Income Tax Act, 1961, as amended of India

"INDAL" Indian Aluminium Company Limited

"India" Republic of India

"Indian GAAP" generally accepted accounting principles as used in India

"Interest Payment Day" with respect to the 2019 Bonds, 3 June and 3 December of

each year, commencing 3 December 2013, except that the 3 December 2018 interest payment date will be replaced with an interest payment date on 31 January 2019, and (ii) with respect to the 2021 Bonds, 7 June and 7 December of each

year, commencing 7 December 2011

"Internal Revenue Code"

US Internal Revenue Code of 1986, as amended

"IOCL" Indian Oil Corporation Limited

"iron ore business" the business of Vedanta comprising the iron ore operations as

further described in "Business — Description of the

Businesses — Iron Ore Business"

"IRS" US Internal Revenue Service

"ISO" International Standards Organisation. ISO 14001 refers to the

international standard for environmental management systems

published by the ISO in 1996

"Issuer" Vedanta Resources Plc.

"Joint Global Coordinators" Barclays Bank PLC, Credit Suisse (Hong Kong) Limited,

DBS Bank Ltd., First Abu Dhabi Bank PJSC, J.P. Morgan

Securities plc and Standard Chartered Bank

"Joint Lead Managers and Joint Bookrunners"

Axis Bank Limited, Singapore Branch, Barclays Bank PLC, Credit Suisse (Hong Kong) Limited, DBS Bank Ltd., First Abu Dhabi Bank PJSC, ICICI Bank Limited - IFSC Banking Unit, J.P. Morgan Securities plc and Standard Chartered Bank

"JPY"

Japanese Yen

"Kapasan Project"

The implementation of a 100,000 tpa greenfield zinc smelter plan at Kapasan, State of Rajasthan, by HZL under the terms

of SOVL's shareholders' agreement

"KCM"

Konkola Copper Mines plc, a company incorporated in

Zambia

"KDMP"

Konkola Deep Mining Project

"LIBOR"

London Interbank Offering Rate

"Lisheen"

Lisheen Mine Partnership and its subsidiaries

"Listing"

The Company's listing of the Ordinary Shares on the Official List and admission to trading on the LSE's main market for listed securities on 10 December 2003

"Listing Rules"

the rules relating to admission to the Official List, made in

accordance with Section 73A(2) of FSMA

"LME"

the London Metal Exchange Limited

"LML"

the four large-scale mining licences granted to KCM by the Republic of Zambia on 31 March 2000, each of which has a

term of 25 years

"LOB"

Lower Ore Body, a stratigraphic horizon for mineralisation

"LTIP"

Vedanta Resources Long-Term Incentive Plan

"MALCO"

Madras Aluminium Company Ltd, a company incorporated in

"MBA Fields"

the Mangala, Bhagyam and Aishwariya fields located in the

Rajasthan Block

"MCLR"

Marginal Cost of Funds based Lending Rate

"MCD Rules"

Mineral Conservation and Development Rules, 1988, as

amended, of India

"Mitsui"

Mitsui & Co.

"MLMC"

Mt. Lyell Mining Company Limited, formerly Gold Mines of

Australia

"MMDR Act"

Mines and Minerals (Development and Regulations) Act,

1957 of India, as amended

"MoEF"

Ministry of Environment and Forest of the GoI

"Monte Cello" Monte Cello BV, a company incorporated in The Netherlands

"Moody's" Moody's Investors Service, Inc.

"MoP" Ministry of Power of the GoI

"MoPNG" Ministry of Petroleum and Natural Gas of the GoI

"MOU" Memorandum of Understanding

"MPT" Mangala Processing Terminal

"MSPL" Mineral Sales Private Limited

"NELP" New Exploration Licensing Policy

"NMDC" National Mineral Development Corporation

"No. 1 shaft" the mining operations by underground methods focusing on

the shaft system of the Kirila Bombwe South ore body

"No. 3 shaft" the mining operations by underground methods focusing on

the shaft system of the Kirila Bombwe North ore body

"Non-executive Directors" Messrs. Aman Mehta, Edward Story, Geoffrey Green, Deepak

Parekh, Raj Rajgopal and Ekaterina Zotova

"Noon Buying Rate" the noon buying rate in New York City for cable transfer of

such foreign currency as certified for customs purposes by the

Federal Reserve Bank of New York

"NOP" Nchanga open-pit

"NSE" the National Stock Exchange of India Limited

"NTPC" National Thermal Power Corporation Limited

"NYSE" New York Stock Exchange

"Official List" the official list maintained by the UK Listing Authority for

the purposes of Part VI of the FSMA

"OHSAS" Occupational Health and Safety Assessment Series

"OIDA Cess" Indian Oil Industry (Development) Act 1974, as amended

"OMC" Odisha Mining Corporation Limited

"ONGC" The Oil and Natural Gas Corporation Limited

"Open Offer" the purchase of Cairn India Shares pursuant to an open offer

made to Cairn India Shareholders (other than members of the

Cairn Energy Group)

"Ordinary Shares" ordinary shares of \$0.10 each in the Company

"Paying Agency Agreement" the paying agency agreement to be dated on or about the

Closing Date among the Issuer, the Trustee and the Principal

Agent

"PGCIL" Power Grid Corporation India Limited

"Phase II" the second phase of development of the Rajasthan Block,

including the development of Bhagyam and Aishwariya fields and the construction and installation of the Salaya to Bhogat

section of the Pipeline

"Pipeline" the heated pipeline for the transportation of crude oil

produced at the Rajasthan Block of approximately 600 km

"Platts" Platts, McGraw Hill Financial, a global provider of energy,

petrochemicals, metals and agriculture information, including

benchmark price assessments for commodity markets

"PPAs" power purchase agreements

"Principal Agent" Citibank, N.A., London Branch

"PRMS" Petroleum Resources Management System

"QIB" qualified institutional buyer within the meaning of Rule 144A

"Rajasthan Block" Block RJ-ON-90/1

"Rajasthan Block PSC"

The PSC between the GoI and a consortium consisting of

ONGC, SIPD and Cairn India in relation to the Rajasthan

Block

"Ravva Block" Block PKGM-1

"Ravva PSC" The production sharing contract fot the exploration,

development and production of the Ravva Block

"RBI" Reserve Bank of India

"RBI Reference Rate" the exchange rates certified by the Reserve Bank of India

"Readmission" Admission of the Ordinary Shares to the Official List and to

trading on the LSE's main market for listed securities becoming effective in accordance with, respectively, the Listing Rules and the Admission and Disclosure Standards

"Registrar" Citigroup Global Markets Deutschland AG

"Regulation S" Regulation S under the Securities Act

"Regulation S Bonds" the Bonds which are offered and sold outside the United

States to non-US persons in reliance on Regulation S

"Relationship Agreement" the agreement between the Company, Volcan Investments

Limited and members of the Agarwal family which had originally been entered into at the time of the Company's listing in 2003 and was subsequently amended in 2011 and 2014 to regulate the ongoing relationship between them, the principal purpose of which is to ensure that the Group is capable of carrying on business independently of Volcan, the

Agarwal family and their associates

"Restricted Global Certificate" the restricted global certificate in restricted form initially

representing the Rule 144A Bonds

"Richter" Richter Holding Ltd.

"Rio Tinto" Rio Tinto plc

"Rio Tinto Alcan" Rio Tinto Alcan Ltd.

"Rule 144A" Rule 144A under the Securities Act

"Rule 144A Bonds" the Bonds which are offered and sold in the United States to

QIBs in reliance on Rule 144A

"RPA" Roscoe Postle Associates Inc., an independent consulting firm

"Scheme" Scheme of arrangement under Indian law, Cairn India merged

with Vedanta Limited. For details, see "Summary"

"SEBI" Securities and Exchange Board of India

"SEBs" State Electricity Boards in India

"Securities Act" United States Securities Act of 1933, as amended

"Securities Act Legend" has the meaning as ascribed to in the Trust Deed

"SEPCO" Shandong Electric Power Construction Corporation

"SFA" Securities and Futures Act, Chapter 289 of Singapore

"SFIO" Serious Fraud Investigation Office

"SGL" Sesa Goa Limited, a company incorporated in India

"SGX-ST" Singapore Exchange Securities Trading Limited

"SIL" Sesa Industries Limited, a company incorporated in India,

which was formerly the subsidiary of SGL, which has since amalgamated with SGL with effect from 14 February 2011

and the appointment date of 1 April 2005

"SIPD" Shell India Production Development B.V.

"Skorpion" Skorpion Mining Company (Pty) Ltd and its subsidiaries

"SOVL" Sterlite Opportunities and Ventures Limited, now merged with

and into Sterlite

"SRK SA" independent consulting firm SRK Consulting (South Africa)

Pty Ltd.

"SRK UK" independent consulting firm SRK Consulting (UK) Limited

"SRL" Sesa Resources Limited (previously known as V.S. Dempo &

Co. Private Limited)

"Standard & Poor's" Standard & Poor's Ratings Services, a division of

McGraw-Hill Companies, Inc.

"Sterlite" Sterlite Industries (India) Limited, now merged into Vedanta

Limited

"Sterlite Energy" Sterlite Energy Limited, a company incorporated in India

"STL" Sterlite Technologies Limited, a company incorporated in

India

"Subscription Agreement" the subscription agreement dated 3 August 2017 entered into

by the Company with each Joint Bookrunner

"Tax Department" the Indian Income Tax Department

"TCM" Thalanga Copper Mines Pty Ltd, a company incorporated in

Victoria, Australia

"TLP" tailings leach plant

"TNPCB" Tamil Nadu Pollution Control Board

"Trust" Anil Agarwal Discretionary Trust

"Trust Deed" the trust deed to be dated on or about the Closing Date

between the Company and the Trustee

"Trustee" Citicorp International Limited

"TSEHL" Twin Star Energy Holdings Limited, a company incorporated

in Mauritius

"TSMHL" Twin Star Mauritius Holdings Limited, a company

incorporated in Mauritius

"Twin Star" Twin Star Holdings Limited, a company incorporated in

Mauritius

"UC RUSAL"

United Company RUSAL Ltd.

"TSPL" Talwandi Sabo Power Limited

"UK Corporate Governance The UK Corporate Governance Code issued by the Financial

Code" Reporting Council of the UK in September 2016

"UK GAAP" generally accepted accounting principles as used in the UK

"UK Listing Authority" the FCA acting in its capacity as the competent authority for the purpose of Part VI of the FSMA and in the exercise of its functions in respect of admission to the Official List otherwise than in accordance with Part VI of the FSMA "United Kingdom" or "UK" the United Kingdom of Great Britain and Northern Ireland "United States" or "US" the United States of America, its territories and possessions, any state of the United States of America and the District of Columbia "Unrestricted Global the unrestricted global certificate is registered form initially Certificate" representing the Regulation S Bonds "US GAAP" generally accepted accounting principles as used in the US "USGS" US Geological Survey, a science agency for the US Department of the Interior with a mission to provide for the provision of reliable scientific information to describe and understand the Earth; minimise loss of life and property from natural disasters; manage water, biological, energy, and Mineral Resources; and enhance and protect quality of life "Vedanta" Vedanta and its subsidiaries and "member of Vedanta" shall be construed accordingly "Vedanta Limited" Vedanta Limited, a company incorporated in India Vedanta Limited and its subsidiaries "Vedanta Limited Group" "Volcan" Volcan Investments Limited, a company incorporated in the Bahamas "VRHL" Vedanta Resources Holdings Limited, company incorporated in England and Wales "Water Act" Water (Prevention and Control of Pollution) Act, 1974 of India "Water Cess Act" Water (Prevention and Control of Pollution) Cess Act, 1977 of "WCA" Workmen's Compensation Act, 1923 of India "Xstrata" Xstrata AG

"Zambia" the Republic of Zambia

"ZCI" Zambia Copper Investments Ltd, a company incorporated in

Zambia

"ZESCO" Zambia Electricity Supply Corporation Limited

"zinc business" the business of Vedanta comprising the zinc operations as

further described in "Business — Description of the

Businesses — Zinc Business"

### Terms and Definitions of the SAMREC Code (2009)

"Mineral (Ore) Reserve"

the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project and a Life of Mine Plan for an operation must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.

"Proved Mineral (Ore) Reserve" the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

"Probable Mineral (Ore) Reserve" the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

"Mineral Resource"

a concentration or occurrence of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, or estimated from specific geological evidence, sampling and knowledge interpreted from an appropriately constrained and portrayed geological model. Mineral Resources are subdivided, and must be so reported, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated or Measured categories.

"Measured Mineral Resource"

that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

"Indicated Mineral Resource"

that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on information from exploration, sampling and testing of material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological or grade continuity but are spaced closely enough for continuity to be assumed.

"Inferred Mineral Resource"

that part of a Mineral Resource for which volume or tonnage, grade and mineral content can be estimated with only a low level of confidence. It is inferred from geological evidence and sampling and assumed but not verified geologically or through analysis of grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited in scope or of uncertain quality and reliability.

### Terms and Definitions of the JORC Code (2012)

"Ore Reserves"

those portions of Mineral Resources that, after the application of all Modifying Factors, result in an estimated tonnage and grade which, in the opinion of the Competent Person making the estimates, can be the basis of a technically and economically viable project, after taking account of material relevant Modifying Factors. Deriving an Ore Reserve without a mine design or mine plan through a process of factoring of the Mineral Resource is unacceptable.

"Proved Ore Reserve"

the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.

"Probable Ore Reserve"

the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.

"Mineral Resource"

a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

"Measured Mineral Resource"

that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

"Indicated Mineral Resource"

that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

"Inferred Mineral Resource"

that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

### **Glossary of Technical Terms**

The following definitions shall apply to the technical terms used herein:

"2D" two dimensional

"2P" gross proved plus probable reserves

"3D" three dimensional

"4D" four dimensional

"alloy" a compound of two or more metals

"alumina" the calcined product from an alumina refinery containing at

least 98% aluminium oxide (Al2O3)

"anode" the electrode by which current enters the cell. For copper refining, the impure copper is used as an anode. For zinc

refining, lead anodes are used. For aluminium refining, a

carbon anode is used

"anode slime"

a deposit of insoluble residue formed from the dissolution of the anode in commercial electrolysis. In copper refining, this slime contains the precious metals that are recovered from it

"API"

a specific gravity scale developed by the American Petroleum Institute for measuring the relative density of various petroleum liquids

"AS"

acid soluble (pertaining to copper)

"ASP"

alkaline surfactant polymer

"assay"

a test to determine the level of a particular element in a sample

"asset capacity"

the maximum throughput of fixed facilities such as a processing plant or material handling system, which can vary over the life of the facility from the initial nameplate capacity

"bboe"

billion barrels of oil equivalent

'boepd"

barrels of oil equivalent per day

"bopd"

barrels of oil per day

"bauxite"

a general term for a rock composed of a mixture of hydrated aluminium oxides and hydroxides and generally contaminated with compounds of iron; it is the main ore from which aluminium is produced

"Bayer process"

this is the principal industrial means of refining bauxite to produce alumina. In the Bayer process, bauxite is washed with a hot solution of sodium hydroxide at 175°C (digestion). This converts the alumina to aluminium hydroxide which dissolves in the hydroxide solution. The other components of bauxite do not dissolve and are filtered from the solution as solid impurities (clarification). The mixture of solid impurities is called red mud, and presents a disposal problem. Next, the hydroxide solution is cooled, and the dissolved aluminium hydroxide precipitates out as a white, fluffy residue. When then heated to 1,050°C, the aluminium hydroxide decomposes to alumina (calcination), giving off water vapour in the process. A large amount of the alumina so produced is then subsequently smelted in order to produce aluminium

"beneficiation"

beneficiation is a variety of processes whereby minerals suitable for further processing or direct use are separated from extracted ore

"Blast Hole Mining method"

this mining method involves the drilling of blast holes within an ore block in an upward and/or downward direction which are then filled with explosives. These explosives are set off in stages to break up the ore block in order to extract it from the mine. The broken ore is removed by loading and transportation equipment at the mine. The cavity in the ore block is filled with mill tailing and cement to maintain the stability of the mine

"brownfield" development project to upgrade, modify or further develop an

existing property

"bwpd" barrels of water per day

"calcined" to be heated to a high temperature, but below the melting or

fusing point causing loss of moisture, reduction or oxidation or thermal decomposition (a chemical reaction where a single compound breaks up into two or more simpler compounds or

elements when heated)

"cathode" the cathode is the conductor through which electricity leaves

the cell. For copper refining, the cathode is where the refined copper is deposited. For aluminium smelting, the cathode is

known as the pot lining

"cells" cells are the containers in which the electrolytic process for

formation of metal takes place. For aluminium smelting, these

are known as pots

"concentrate" material which has been processed to increase the percentage

of the valuable mineral to facilitate transportation and

downstream processing

"copper concentrate" a product of the flotation process with a copper content

typically ranging between 24% and 40%

"CPP" captive power plant

"cut-off grade" the lowest grade of mineralised material considered economic

to mine; cut-off grade is used in the calculation of the Ore

Reserves for a given deposit

"Darcy" A darcy unit, a unit to measure permeability

"DCQ" daily contract quantity

"de-bottlenecking" the removal of a constraint on production by increasing the

productivity of one part of an operation

"deposit" a deposit is a concentration (or occurrence) of material

ofpossible economic interest, in or on the earth's crust, that may include mineralised material that cannot be estimated with sufficientconfidence to be classified in the Inferred category. Portions of adeposit, that do not have reasonable and realistic prospects foreventual eonomic extraction are not

alincluded in a Mineral Resource

"Development" activities related to a mineral deposit commencing at the point

economically recoverable reserves can reasonably be estimated to exist and generally continuing until commercial

production begins

"dmt" dry metric tonnes

"dmtu" dry metric tonne unit. Iron ore prices are quoted in dmtu

"DOC" declaration of commerciality

"DORS II" Dynamic Ore Reserve System II; an in-house system

developed to calculate the Nchanga underground reserves by applying the grade factor to the resource based on the percentage of ore drawn and forecasts of the grades to be

mined

"Draft" with respect to a ship's hull, the vertical distance between the

waterline and the bottom of the hull (keel), with the thickness

of the hull included

"DTH" down the hole; a drilling method in all application segments

including blasthole, water well, foundation, oil and gas, cooling systems, and drilling for heat exchange pumps

"dwt" dead weight tonnes; refers to the maximum amount of tonnes

of cargo a ship is able to carry

"economic feasibility of the the de

reserves"

the degree on the other hand categorising the resources under economic, marginally economic and sub-economic according to the relationship between prices and extraction costs and

technological exploitability

"EOR" enhanced oil recovery

"exploration" prospecting, sampling, mapping, drilling and other work

Involved in searching for ore

"EUR" estimated ultimate recovery

"g/t" grams per tonne

"Fe" symbol for the chemical element, iron

"flotation" a wet chemistry process by which particular minerals are

induced to become attached to bubbles and to float, while

other minerals sink

"flue gas" gas that exits to the atmosphere via a flue, which is a pipe or

channel for conveying exhaust gases from a fireplace, oven,

furnace, boiler or steam generator

"FOB" Free on Board

"footwall" the rock which lies below the ore

"frame contracts" prospecting, sampling, mapping, drilling and other work

involved in searching for ore

"GAMI technology"

technology from Guiyang Aluminium — Magnesium Design & Research Institute of China. In the GAMI technology, pots are cut into the circuit by taking complete power outage. This involves loss of production as well as regular operational disturbances to pot operation. Fuses are designed to bypass the line current, until the pot was cut into the circuit. After a calculated safe period of time, the fuses melted resulting in the pot coming into potline circuit. The GAMI technology potline has a capacity for producing initially 245,000 tpa aluminium

"GBA"

gas balancing agreement

"Geostatistics"

geostatistics is a branch of statistics used to predict probability distributions of ore grades for mining operations

"grade"

proportion (by weight) of the valuable element within the

mineralised rock

"greenfield"

new development project on previously undeveloped land that

is built from scratch

"GW"

gigawatt, a unit of electrical energy equal to 1 billion watts

"HG"

high grade; an international standard of grading for zinc

ingots

"hydrometallurgical"

the treatment of metal or the separation of metal from ores and ore concentrates by liquid processes, such as leaching, extraction and precipitation to extract and recover metals

from their ores

"IPP"

independent power plant

"IsaProcess(TM)",

an electrolytic refining process developed by MIM Holdings

Ltd.'s Process Technologies

"IsaSmelt $^{(TM)}$ "

a lance-based intensive bath smelting technology developed by MIM Holdings Ltd.'s Process Technologies

"JORC Code (2012)"

Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition, prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia

"Kcal/kg"

thousands of calories per kilogramme, a measurement of energy per unit mass

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"Koepe winder"

a system where the winding drum is replaced by a large wheel or sheave. Both cages are connected to the same rope, which passes around some 200 degrees of the sheave in a groove of friction material. The Koepe sheave may be mounted on the ground adjacent to the headgear or in a tower over the shaft. The drive to the rope is the frictional resistance between the rope and the sheave. It requires the use of a balance rope. It is often used for hoisting heavy loads from deep shafts and has the advantage that the large inertia of the ordinary winding drum is avoided. The system has been widely used in Europe for many years, and some large projects in the UK are being equipped with winders of this type

"km" kilometres

"km<sup>2</sup>" square kilometres

"kt" kilotonnes

"ktpa" kilotonnes per annum

"ktpm" thousand tonnes per month

"KV" kilovolts

"kVA" kilovolt-ampere

"kWh" kilowatt-hours

"lb" imperial pound (mass) equivalent to 0.4536 kilograms

"leaching" extracting a soluble metallic compound from an ore by

selectively dissolving it in a suitable solvent

"lead concentrate" product of the flotation process with a lead content typically

ranging between 50% and 70%

"life of mine" the remaining life of a mine in years calculated by deducting

the scheduled production rates (i.e. the rate at which material will be removed from the mine, from the current defined

reserves)

"m<sup>3</sup>" cubic metres

"MAT" minimum alternate tax

"metcoke" metallurgical coke which is produced by the carbonisation of

coals or coal blends at temperatures up to 1,400 K (1,127 degrees Celsius) to produce a macroporous carbon material of

high strength and relatively large lump size.

"mill" a plant in which ore is treated and metals are recovered or

prepared for smelting; also a revolving drum used for the

grinding of ores in preparation for treatment

"million oz" millions of ounces

"mineral" a natural, inorganic, homogeneous material that can be

expressed by a chemical formula

"mineralisation" the process by which minerals are introduced into a rock.

More generally, a term applied to accumulations of potentially economic or related minerals in quantities ranging

from anomalous to economically recoverable

"Million Units" Million kilo watt hours

"mm" millimetres

"mmbbls" million barrels

"mmboe" million barrels of oil equivalent

"mmbtu" million British thermal units

"mmscfd" million standard cubic feet per day

"mt" metric tonnes

"mtpa" million tonnes per annum

"MW" megawatt, a unit of electrical energy equal to one million

watts

"OIIP" oil initially in place

"open-pit mine" a mine that is entirely on the surface. Also referred to as an

open-cut or opencast mine

"ore" a mineral or mineral aggregate containing precious or useful

minerals in such quantities, grade and chemical combination

to make extraction economic

"overburden" waste material overlying ore in an open-pit mine

"pH" potential of Hydrogen; a measure of the acidity or alkalinity

of a solution

"pig iron" pig iron is raw iron that is the immediate product of smelting

iron ore with coke and limestone in a blast furnace

"plant" fixed or moveable equipment required in the process of

winning or processing the ore

"plant load factor" in relation to a given period, is expressed as the percentage of

total kilowatt hours per unit (Kwh) generated at generator terminals to installed capacity, expressed in kilowatts (Kw)

multiplied by number of hours in that period

"ppm" parts per million (in relation to silver)

"Properzi" technology for fabricating wire, sheets and ingots sold by

Continuous Properzi S.p.A., Italy

"Properzi CCR"

Properzi Continuously Cast and Rolled; a copper rod technology from Continuous-Properzi S.p.A. to produce copper rods

"PSC"

production sharing contracts. These contracts are a common type of contract signed between a government and a resource extraction company (or group of companies) concerning how much of the resource (usually oil) extracted from the country each will receive

"PSU"

public sector undertaking

"PTRR"

post tax rate of return regime

"PW"

Prime Western; an international standard of grading for zinc ingots

"Pyrometallurgical"

pertaining to metallurgical operations that involve processing temperatures above ambient conditions, generally involving chemical reactions as distinct from metal casting substantially which involves only a physical transformation, such as, solidification

"Rc"

refining charge; the price paid by mining companies to smelters for refining the contained precious metals (and copper) in their concentrates to produce a payable metal. The Rc is based on the payable metal content (after deductions)

"refining"

the final process of upgrading of the metal quality, although for aluminium, it is the intermediate stage of converting bauxite to alumina

"refining charge"

the fees charged by a refinery for purifying crude metallic products

"RLE"

roast-leach-electro win; a process utilised in many hydrometallurgical zinc smelters whereby zinc concentrate is first roasted to remove the Sulphur content, which comes out in the form of Sulphur Dioxide gas, and then subjected to leaching and electrolysis

"RoM"

run of mine, which includes all material mined including the waste

"SAG"

semi-autogenous

"SAMREC Code (2009)"

the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves which sets out minimum standards, recommendations and guidelines for public reporting of exploration results, Mineral Resources and Mineral Reserves in South Africa

"SCF"

slag cleaning furnace

"SHG"

Special High Grade; an international standard of grading for zinc ingots

"slag" the vitreous mass separated from the fused metals in the

smelting process

"SLOS" sub land open stopping

"smelting" a thermal process whereby molten metal is liberated from a

concentrate, with impurities separating into a lighter slag

"SNIF degasser" a spinning nozzle inert flotation (SNIF) in-line

degassing/filtration system for treatment of molten aluminium

"spot market" a market in which commodities are bought and sold for cash

and delivered immediately

"spot price" the current price of a metal for immediate delivery

"STOIIP" stock tank oil initially in place

"stope" the underground excavation within the ore body where the

main production takes place; depending on the ore body

qualities, stopes can range from 5 kt to 2 mt

"strip ratio" the number of units of waste material in a surface mine which

must be removed in order to extract one unit of ore

"sustaining capital expenditure" capital expenditure to maintain Vedanta's operating capacity

"SX-EW" solvent extraction/electro winning

"synchronise"/"synchronisation" Synchronisation is the process of matching the speed and

frequency of a generator or other source to a running network necessary to commence operations at an electricity-generating

power plant

"t" or "tonne" metric tonne equivalent to 2,204.62 lb or 1,000 kilograms

"tailing dam" a low-lying depression used to confine tailings, the prime

function of which is to allow enough time for heavy metals to settle out or for cyanide to be destroyed before water is

discharged into the local watershed

"Tc" treatment charge

"TcRc" treatment charge and refining charge levied by smelters and

refineries for the smelting and refining of copper concentrate

from mines into copper metal

"TCu" total copper

"toll smelter" a smelter that is independent of the concentrate supplier and

charges a fee for smelting the concentrate

"total production" that part of production at mines and operations in which

subsidiaries of the Company have an interest; in this Offering Circular, unless expressly stated otherwise, production also

refers to total production

"total reserves"

that part of the reserves from a mine in which subsidiaries of the Company have an interest; in this Offering Circular, unless expressly stated otherwise, reserves also refer to total reserves

"tpa"

tonnes per annum

"Vertical Crater Retreat method"

a comparatively new method of blast hole mining in which only large diameter in-the-hole drills are used to blast down horizontal slices of ore into an opening below the block of ore being mined

"VSS technology"

Vertical Stud Soderberg technology; a method of primary aluminium reduction using the Soderberg process in which the electrical current is introduced to self-baking anodes by steel rods, or studs, inserted into the top of a monolithic anode

"Whittle 4X multi-element optimisation software"

this software is used for strategic planning and provides information which is used to determine the life of an open pit mine. This software helps define the economically workable limits of an open pit mine and provides a template for the pit design. Using this template, the KCM Group is able to determine the quantity of waste that is required to be mined in order to extract a known quantity of copper ore

"zinc concentrate"

product of flotation process with a zinc content typically ranging between 45% and 60%

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<sup>\*</sup> Certain references in the consolidated financial statements refer to sections in annual reports, which are not included or incorporated by reference in this Offering Circular.

### INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF VEDANTA RESOURCES PLC

We present our audit report on the Group and Company financial statements (as defined below) of Vedanta Resources plc, which comprise the Group primary statements and related notes set out on pages 166 to 242 and the Company primary statements and related notes set out on pages 243 to 250.

### **OUR OPINION ON THE FINANCIAL STATEMENTS**

In our opinion:

- Vedanta Resources plc's Group financial statements and Parent Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 March 2017 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice including FRS 101 "Reduced Disclosure Framework": and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

### WHAT WE HAVE AUDITED

The Group and Parent Company financial statements of Vedanta Resources plc for the year ended 31 March 2017 comprise:

the Consolidated Income Statement;

the Consolidated Statement of Comprehensive Income;

the Consolidated Statement of Financial Position;

the Consolidated Cash Flow Statement:

the Consolidated Statement of Changes in Equity; and

the related notes 1 to 45 to the financial statements.

Parent company

the Company Balance Sheet: and

the related notes 46 to 59 to the financial statements.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice), including FRS 101 "Reduced Disclosure Framework"

### OVERVIEW OF OUR AUDIT APPROACH

The following areas were highlighted as audit focus areas for the year ended 31 March 2017 audit:

### Materiality

- Overall Group materiality of \$64m which represents approximately 2% of EBITDA.
- EBITDA represents a less volatile metric than profit before tax for determining materiality and we consider this to be the most relevant performance measure to the stakeholders of the entity.

- Audit scope We performed an audit of the complete financial information of 14 components and audit procedures on specific balances for a further 4 components.
  - The components where we performed full or specific audit procedures accounted for 100% of EBITDA, 99% of revenue and 90% of total assets.
  - · For the remaining 40 components in the Group we have performed limited procedures appropriate to respond to the risk of material misstatement.
  - We have obtained an understanding of the entity-level controls of the Group which assists us in identifying and assessing risks of material misstatement due to fraud or error, as well as assisting us in determining the most appropriate audit strategy.

### What has changed

- This is our first year of auditing Vedanta Resources plc. Our scope is broadly consistent with that adopted by the previous auditor. The main change was the removal of the Lisheen mine following its operational closure in
- Accounting for assets under construction was considered a new focus area for our audit. This was due to the ageing of certain assets under construction as at 31 March 2017 and a number of projects entering commercial production in the year.

### **OUR ASSESSMENT OF FOCUS AREAS**

We identified the risk areas to be included with our audit opinion based on issues that had the greatest impact on the financial statements and which involved the most of senior team member involvement. Further details of why we identified issues as areas of focus and our audit response are set out in the table below. This is not a complete list of all the procedures we performed in respect of these areas nor is it a complete list of all the risks identified in our audit.

We identified the risk and focus areas described below as those that had the greatest effect on our overall audit strategy, the allocation of resources in the audit and the direction of the efforts of the audit team. In addressing these risks, we have performed the procedures below which were designed in the context of the financial statements as a whole and, consequently, we do not express any opinion on these individual areas.

### **CHANGES FROM THE PRIOR YEAR**

As this is our first year as external auditors of the Group, the starting point for our audit focus areas were the same as those identified by Deloitte for the year ended 31 March 2016. The audit focus areas have since been amended following our experience gained from the understanding of developments in the business, and time spent during the year end audit.

Audit focus area Our audit approach What we reported to the Audit Committee

### Revenue recognition and receivable recoverability

Refer to the Audit Committee Report on pages 123 to 128 and the disclosures in notes 2b and 4 of the Group financial statements on pages 185 to 189 and 192.

Group revenue: \$11,520m (2016: \$10,738m)

Revenue recognition and receivable recoverability has been identified as an audit focus area due to the diverse and complex revenue streams across the Group.

We have identified the following key areas for consideration:

- complex calculation of power tariff agreements and associated disputed receivables outstanding with Grid Corporation of Odisha Limited ("GRIDCO") and Punjab State Power Corporation Limited ("PSPCL").
- calculation of revenue due to complexity associated with the calculation of profit petroleum at the Cairn India oil and gas joint ventures.
- determination of when risks and rewards have transferred, especially in relation to determining to which accounting period sales relate.
- correct accounting treatment of differing shipping terms across the Group.
- measurement of revenue due to provisional pricing agreements where prices are only finalised after the balance sheet date.

The risk has increased in the current year due to increased disputed receivable balances across the Group, particularly in the power division.

We performed our audit procedures across the Group's revenue streams considering the revenue recognition policies and receivable recoverability. Our procedures were performed mainly by the component teams under the direction and supervision of the UK Group engagement team.

To address this focus area we have:

- performed walkthroughs of the revenue recognition processes at each full scope component and assessed the design effectiveness of key controls.
- assessed the recoverability of the GRIDCO and PSPCL trade receivables by:
  - inspecting the state regulatory commission and appellate tribunal rulings.
  - examining the underlying power purchase agreements.
  - Inspecting external legal opinions in respect of the merits of the cases.
- reviewed the terms of Cairn's profit sharing agreements and tested the underlying cost recovery and profit petroleum calculations. This included challenging the aging profile of current unapproved cost receivables to test recoverability.
- selected a sample of sales across the Group made pre and post year end, agreeing the date of revenue recognition to third party support, such as bills of lading, to confirm sales are recognised in the correct period.
- examined invoice samples with complex shipping terms to ensure that revenue has been recognised appropriately.
- re-calculated the value of provisional pricing adjustments and validated the prices used to third party data.

Based on the procedures performed we consider revenue recognition and the recoverability of receivables to be fairly stated in the financial statements.

Audit focus area Our audit approach What we reported to the Audit Committee

Accounting for assets under construction

Refer to the Audit Committee Report on pages 123 to 128 and the disclosures in note 17 of the Group financial statements on page 201

Group Assets under construction: \$2,366m We performed our audit procedures across (2016: \$3.363m) Based on our evaluation of the asset under construction balances

Accounting for assets under construction has been identified as an audit focus area due to:

We performed our audit procedures across the asset under construction balances across the Group. Due to the local considerations impacting our assessments our procedures were performed predominantly by the component teams Based on our evaluation of the asset under construction projects and other procedures performed, we are comfortable that projects completed in the current year have been treated in accordance with IAS 16 and that long outstanding balances are recoverable.

- the significant judgment involved in assessing when an asset is available for use as intended by management. At this point, revenue and operating costs associated to the asset cease to be capitalised to the statement of financial position and depreciation should commence.
- Multiple construction projects across the Group that have been placed on hold. There is therefore a risk relating to the viability of these projects and thus the recoverability of the balance.

Additionally we considered recent impairment charges recognised in respect of assets under construction where licences have expired or projects have ceased.

The risk has increased in the current year due to some significant projects being commissioned in the current year as well as the increased ageing of projects on hold and awaiting approval.

under the direction and supervision of the UK Group engagement team.

To address this focus area we have:

- considered the stage of completion of ongoing projects specifically in relation to ascertaining when the assets will be available for use as intended by management.
- assessed project timelines by tracking project progress against forecast spend and management budgets.
- assessed the accounting treatment of testing revenue and associated costs during the testing phase where applicable.
- ensured costs associated to assets which came into production in the year cease to be capitalised and depreciation charges commenced.
- assessed the viability and recoverability of long outstanding projects and performed inspections to confirm that the machinery and material related to these projects is not obsolete.

Audit focus area Our audit approach What we reported to the Audit Committee

Litigation, environmental and regulatory risk

Refer to the Audit Committee Report on pages 123 to 128 and the disclosures in note 38 of the Group financial statements on pages 231 to 234

The Group has disclosed in note 38 contingent liabilities of \$1,361m for litigation, environmental and regulatory matters excluding income tax figures.

Litigation, environmental and regulatory risk has been identified as an area of audit focus due to the large number of complex legal claims across the Group and impact to the Group's operations of potential noncompliance with environmental and regulatory requirements.

There is significant judgment required by management in classifying each case as probable, possible or remote as per IAS 37 and thus a risk that such cases may not be adequately provided for or disclosed.

It is not unusual in the jurisdictions in which the company operates for claims to remain outstanding for a number of years, with the complex regulatory environment and regulators focusing on the environmental and social impacts of the operations.

Any adverse litigation may have a material impact on both the solvency and liquidity as well as the reputation of the Group.

The risk has not increased or decreased in the current year.

At both a component team and group level, we have understood and tested management's process for identifying and assessing litigation, environmental and regulatory risk.

To address this focus area we have:

- obtained the Group legal summary and critically assessed management's position through discussions with the head of legal and operational management, on both the probability of success in significant cases, and the magnitude of any potential loss.
- inspected external legal opinions (where considered necessary) and other evidence to corroborate management's assessment of the risk profile in respect of legal claims.
- considered the terms and conditions of applicable licences, environmental exposures and regulatory requirements and performed procedures to gain assurance over compliance with these terms.
- assessed the appropriateness of legal provisions and disclosures included in the Group financial statements and thus ensured adequate disclosure in accordance with IAS 37.

We are satisfied the accounting treatment in respect of legal cases is appropriate based on our procedures performed.

Audit focus area Our audit approach What we reported to the Audit Committee

Taxation claims and exposures

Refer to the Audit Committee Report on pages 123 to 128 and the disclosures in note 38 of the Group financial statements on pages 231 to 234

The Group has disclosed contingent liabilities of \$4,352m for income tax claims and exposures.

Taxation claims and exposures have been identified as an audit focus area due to the large number of tax claims across the Group, particularly in relation to the operations located in India.

There is significant judgment required by management in assessing the exposure of each tax case and thus a risk that such cases may not be adequately provided for or disclosed.

Recent material tax cases have included:

- In the current year, the Supreme Court in India upheld the constitutional validity for each state to levy an entry tax. The Groups potential exposure in respect of this matter is \$165 million.
- In 2015 a demand was received by Cairn India Limited (CIL) ordering payment to the Tax Authority of withholding taxes not paid on the acquisition of Cairn India.

Management judgment is also required in assessing the recoverability of the Minimum Alternative Tax (MAT) asset, which is based on forecasted future profits.

We focused on this area because of the potential financial impact on the Consolidated financial statements and the judgements involved. We consider the risk to have remained high in the current year.

Our procedures were performed centrally where tax cases impacted a number of components. For location specific issues component teams undertook the majority of the procedures under the direction and supervision of the Group audit team.

To address this focus area we have:

- obtained the Group tax summary and challenged management through discussions with the head of tax and operational management, on both the probability of success in significant cases, and the magnitude of any potential loss.
- inspected external legal opinions and correspondence with tax authorities (where applicable) to corroborate management's risk classification.
- engaged internal tax specialists to technically appraise the tax positions taken by management with respect to local tax issues.
- reviewed and challenged the assumptions used in the model by management in justifying the recoverability of deferred tax and MAT assets. In challenging these assumptions we took account of actual results, external data and market conditions.
- ensured that the management assessment of similar cases is aligned across the Group or that differences in positions are adequately justified.
- assessed the appropriateness of tax provisions and disclosures made in the Group financial statements in respect of tax claims and exposures.

We are satisfied the accounting treatment in respect of potential tax exposures is appropriate based on our procedures performed.

Audit focus area Our audit approach What we reported to the Audit Committee

Recoverability of property, plant and equipment and E&E assets

Refer to the Audit Committee Report on pages 123 to 128 and the disclosures in notes 2b and 17 of the Group financial statements on pages 185 to 189 and 201

Group property, plant and equipment: \$16,806m (2016: \$16,648m) including, Group E&E assets: \$1,400m (2016: \$1,471m)

Recoverability of fixed and Exploration and evaluation (E&E) assets has been identified as an audit focus area due to the significance of the carrying value of the assets being assessed, the number and size of recent impairments, the current economic environment in the Group's operating jurisdictions and because the assessment of the recoverable amount of the Group's Cash Generating Units ("CGUs") involves significant judgements about the future results of the business and the discount rates applied to future cash flow forecasts.

In particular we focused our effort on those CGU's with impairment indicators. The key judgment centred on forecast volumes. No impairment charges were recorded in the year.

In addressing this area of focus audit procedures were performed by both our Group and Component teams.

Macroeconomic assumptions and consistency of approach was ensured by the Group team with location specific inputs addressed by component teams.

To address this focus area we have:

- critically assessed, whether there were any indicators of impairment (or reversal of impairment) in line with IAS 36 for fixed assets and IFRS 6 for E&E assets across the Group.
- specifically in relation to the CGUs where impairment and impairment reversal indicators were assessed, we have obtained and evaluated the valuation models used to determine the recoverable amount by challenging the key assumptions used by management including:
- considering forecasted volumes in relation to asset development plans

Overall we are comfortable that the key assumptions used in the Cairn India impairment reversal models fall within a reasonable range and that there are no impairments at other CGUs in the Group. Management have also reflected known changes in the circumstances of the CGUs in their forecast for forthcoming periods.

We also focused our effort on the Rajasthan and Ravva blocks at Cairn India for which an impairment reversal, net of the impact of an adjustment in the decommissioning liability relating to a prior year and associated impact on the asset (note 30), has been recognised in the year. The key judgments relate to the forecast long term Brent crude price and the weighted average cost of capital. A net \$13m impairment reversal was recorded in relation to the Rajasthan block.

The overall Group impairment risk has decreased in the current year due to improved zinc, oil and aluminium prices.

- critically assessing management's forecasting accuracy by comparing prior year forecasts to actual results.
- corroborating the price assumptions used in the models against the analyst consensus.
- testing the appropriateness of the weighted average cost of capital used to discount the impairment models through engaging our internal valuations experts.

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### **OUR APPLICATION OF MATERIALITY**

The scope of our work is influenced by materiality. We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

As we develop our audit strategy, we determine materiality at the overall level and at the individual account level (referred to as our 'performance materiality').

Materiality \$64 million million

Performance materiality \$32 million

Reporting threshold \$0.8

### **MATERIALITY**

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be \$64 million (Deloitte 2016: \$40 million), which is 2% of EBITDA. The higher materiality threshold was due to an increase in Group EBITDA to \$3,191m (2016: \$2,336m) driven by higher commodity prices and increased volumes in certain components compared to the prior year. Our materiality amount provides a basis for determining the nature and extent of risk assessment procedures, identifying and assessing the risk of material misstatement and determining the nature and extent of further audit procedures. Materiality is assessed on both quantitative and qualitative grounds. With respect to disclosure and presentational matters, amounts in excess of the quantitative thresholds above may not be adjusted if their effect is not considered to be material on a qualitative basis.

### **RATIONALE FOR BASIS**

We have used an earnings based measure as our basis of materiality. It was considered inappropriate to calculate materiality using Group profit or loss before tax due to the historic volatility of this metric. EBITDA is a key performance indicator for the Group and is also a key metric used by the Group in the assessment of the performance of management. We also noted that market and analyst commentary on the performance of the Group uses EBITDA as a key metric. We therefore, considered EBITDA, to be the most appropriate performance metric on which to base our materiality calculation as we considered that to be the most relevant performance measure to the stakeholders of the entity.

### PERFORMANCE MATERIALITY

The application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

We set our performance materiality at 50% of planning materiality calculated as \$32 million. This was based upon our overall risk analysis, our assessment of the Group's control environment, the short reporting cycle, potential for misstatements and the fact this is a first year audit engagement.

Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component. In the current year, the range of performance materiality allocated to components was \$5 million to \$19 million.

### REPORTING THRESHOLD

An amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of \$0.8

million (Deloitte 2016 \$0.8 million) in line with the prior year threshold as requested by the Audit Committee. In addition, we have reported any difference below that threshold that, in our view, warranted reporting on qualitative grounds.

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

### SCOPE OF THE AUDIT OF THE FINANCIAL STATEMENTS

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of whether the accounting policies are appropriate to the Group's and the parent company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the Vedanta Resources plc Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

### TAILORING THE SCOPE

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each entity within the Group. Taken together, this enables us to form an opinion on the consolidated financial statements. We take into account size, risk profile, the organisation of the Group and effectiveness of Group-wide controls, changes in the business environment and other factors such as recent internal audit results when assessing the level of work to be performed at each entity.

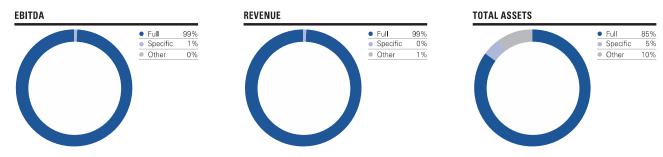
In assessing the risk of material misstatement to the Group financial statements and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, we focused our Group audit scope on 18 out of the 58 Group components. Of these selected components 14 were subject to a full audit, in India, Namibia, Zambia, South Africa and the UAE. The remaining 4 components were subject to an audit of specified account balances that we considered had the potential for the greatest impact on the Group financial statements. We have also considered requirements for certain local statutory audits to be finalised before our audit report date in determining our audit scope which increased the total coverage.

For the current year, the full scope components contributed 99% of the Group's EBITDA, 99% of the Group's Revenue and 85% of the Group's Total assets. The specific scope components contributed 1% of the Group's EBITDA, 0% of the Group's Revenue and 5% of the Group's Total assets. The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of significant accounts tested for the Group.

For the remaining 40 components that together represent 0% of the Group's EBITDA we performed other procedures, including analytical reviews, reviews of internal audit reports, consolidation adjustment audit procedures and statutory financial statement audits. This ensured we responded appropriately to any potential risks of material misstatement to the Group financial statements.

We have obtained an understanding of the entity-level controls of the Group as a whole which assisted us in identifying and assessing risks of material misstatement due to fraud or error, as well as assisting us in determining the most appropriate audit strategy.

The charts below illustrate the coverage obtained from the work performed by our audit teams.



### **CHANGES FROM THE PRIOR YEAR**

This is our first year of auditing Vedanta Resources plc. Our scope is broadly consistent with that adopted by the previous auditor. The main change was the removal of the Lisheen mine following its operational closure in November 2015

### INTEGRATED TEAM STRUCTURE

The overall audit strategy is determined by the senior statutory auditor, Mirco Bardella. The senior statutory auditor is based in the UK however, since Group management and many operations reside in India, the Group audit team

includes members from both the UK and India. The senior statutory auditor visited India four times during the current year's audit and members of the Group audit team in both jurisdictions work together as an integrated team throughout the audit process. Whilst in India, he focused his time on the audit focus areas, interactions with management and Group and component teams. During the current year's audit he reviewed key working papers and met with key representatives of the integrated and Indian component audit teams for all full scope components to discuss the audit approach and issues arising from their work.

### INVOLVEMENT WITH COMPONENT TEAMS

In establishing our overall approach to the Group audit, we determined the split of work that needed to be undertaken at each of the components by the Group audit engagement team, or by component auditors from other EY global network firms operating under the Group team instruction.

It was concluded that audit procedures on all of the 14 full scope components would be performed directly by the component audit team. The Group team reviewed this work and ensured sufficient audit evidence had been obtained as a basis to form part of our opinion on the Group as a whole. In addition the integrated Group team also included key members of certain full scope components ensuring knowledge was transferred effectively through the team. The work on all of the specific scope components was performed by the Group audit team directly.

The Group audit team established a programme of planned visits. During the current year's audit cycle, visits were undertaken by senior members of the Group audit team to certain component teams in India together with teams in Zambia, Namibia and South Africa. These visits involved key members of the Group audit team meeting with local management and discussing the audit approach with the Component teams together with any issues arising from their work. In addition members from all of the Indian based component teams physically attended a global planning event with the Group team. Additionally the Group audit team participated in key discussions, via conference calls with all full scope entities.

### RESPECTIVE RESPONSIBILITIES OF DIRECTORS AND AUDITOR

As explained more fully in the Directors' Responsibilities Statement set out on page 155, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

### OPINION ON OTHER MATTERS PRESCRIBED BY THE COMPANIES ACT 2006 In our opinion:

- the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006; and
- · based on the work undertaken in the course of the audit:
  - the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements.
  - the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

### MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

### ISAs (UK and Ireland) reporting

We are required to report to you if, in our opinion, financial and non-financial information in the annual report is:

ents:

- materially inconsistent with the information in the audited financial statements; or
- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the Group acquired in the course of performing our audit; or
- otherwise misleading.

In particular, we are required to report whether we have identified any inconsistencies between our knowledge acquired in the course of performing the audit and the directors' statement (included on page 155 of the Annual Report) that they consider the annual report and accounts taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the entity's performance, business model and strategy; and whether the annual report appropriately addresses those matters that we communicated to the audit committee that we consider should have been disclosed

We have no exceptions to report.

### Companies Act 2006 reporting

In light of the knowledge and understanding of the Company and its environment obtained in the course of the audit, we have identified no material misstatements in the Strategic Report or the Directors' Report set out on pages 02–155 of the

We have no exceptions to report.

### Annual Report.

We are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us: or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made;
- we have not received all the information and explanations we require for our audit.

### Listing Rules review requirements

We are required to review:

- the directors' statement in relation to going concern, set out on page 154, and longer-term viability, set out on page 68;
- the part of the Corporate Governance Statement relating to the company's compliance with the provisions of the UK Corporate Governance Code specified for our review.

We have no exceptions to report.

### STATEMENT ON THE DIRECTORS' ASSESSMENT OF THE PRINCIPAL RISKS THAT WOULD THREATEN THE SOLVENCY OR LIQUIDITY OF THE ENTITY

### ISAs (UK and Ireland) reporting

We are required to give a statement as to whether we have anything material to add or to draw attention to in relation to:

- the directors' confirmation in the annual report that they have carried out a robust assessment of the principal risks facing the entity, including those that would threaten its business model, future performance, solvency or liquidity;
- the disclosures in the annual report that describe those risks and explain how they are being managed or mitigated;
- the directors' statement in the financial statements about whether they
  considered it appropriate to adopt the going concern basis of accounting in
  preparing them, and their identification of any material uncertainties to the
  entity's ability to continue to do so over a period of at least twelve months from
  the date of approval of the financial statements; and
- the directors' explanation in the annual report as to how they have assessed
  the prospects of the entity, over what period they have done so and why they
  consider that period to be appropriate, and their statement as to whether they
  have a reasonable expectation that the entity will be able to continue in
  operation and meet its liabilities as they fall due over the period of their
  assessment, including any related disclosures drawing attention to any
  necessary qualifications or assumptions.

We have nothing material to add or to draw attention to.

### Mirco Bardella (senior statutory auditor)

for and on behalf of Ernst & Young LLP, Statutory Auditor London 23 May 2017

### Notes:

- The maintenance and integrity of the Vedanta Resources plc web site is the responsibility of the directors; the work carried out by the auditors does not involve
  consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they
  were initially presented on the web site.
- were initially presented on the web site.

  Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Vedanta Resources plc

## CONSOLIDATED INCOME STATEMENT

(US\$ million except as stated)

		Year e	Year ended 31 March 2017		Year	Year ended 31 March 2016	
	Note	Before Special items	Special items	Total	Before Special items	Special items	Total
Revenue	4	11,520.1		11,520.1	10,737.9		10,737.9
Cost of sales		(8,789.2)	•	(8,789.2)	(9,241.1)	1	(9,241.1)
Gross profit		2,730.9		2,730.9	1,496.8		1,496.8
Other operating income		73.4	•	73.4	101.7	•	101.7
Distribution costs		(274.9)	•	(274.9)	(223.8)	•	(223.8)
Administrative expenses		(368.8)	•	(368.8)	(493.5)	•	(493.5)
Special items	5		(17.3)	(17.3)	. 1	(5,210.1)	(5,210.1)
Operating profit/ (loss)		2,160.6	(17.3)	2,143.3	881.2	(5,210.1)	(4,328.9)
Investment revenue	9	642.6	•	642.6	8.769		8.769
Finance costs	7	(1,382.2)	•	(1,382.2)	(1,280.4)	•	(1,280.4)
Other gains and (losses) [net]	8	(23.8)	1	(23.8)	(72.5)		(72.5)
Profit/ (loss) before taxation (a)		1,397.2	(17.3)	1,379.9	226.1	(5,210.1)	(4,984.0)
Tax credit/ (expense)- special items	12	1	(4.9)	(4.9)	1	1,737.4	1,737.4
Net tax expense- others	12	(495.4)	1	(495.4)	(255.5)		(255.5)
Net tax credit/ (expense) (b)	12	(495.4)	(4.9)	(500.3)	(255.5)	1,737.4	1,481.9
Profit/ (loss) for the year from continuing operations (a+b)		901.8	(22.2)	9.628	(29.4)	(3,472.7)	(3,502.1)
Attributable to:							
Equity holders of the parent		(6.8)	(15.9)	(22.7)	(392.9)	(1,444.5)	(1,837.4)
Non-controlling interests		908.6	(6.3)	902.3	363.5	(2,028.2)	(1,664.7)
Profit/ (loss) for the year from continuing operations		8.106	(22.2)	9.628	(29.4)	(3,472.7)	(3,502.1)
Loss per share (US cents)							
Basic loss per ordinary share	13	(2.5)	(5.7)	(8.2)	(142.4)	(523.4)	(665.8)
Diluted loss per ordinary share	13	(2.5)	(5.7)	(8.2)	(142.4)	(523.4)	(865.8)

Financial Statements For The Year Ended 31 March 2017

### CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

		(US\$ million)
	Year ended 31 March 2017	Year ended 31 March 2016
Profit/(Loss) for the year from continuing operations	879.6	(3,502.1)
Income and expenses recognised directly in equity:		
Items that will not be reclassified subsequently to income statement:		
Remeasurement of net defined benefit plans	(0.8)	8.0
Tax effects on net defined benefit plans	0.6	(2.5)
Total (a)	(0.2)	5.5
Items that may be reclassified subsequently to income statement:		
Exchange differences arising on translation of foreign operations	216.3	(810.2)
Gain in fair value of available-for-sale financial assets (note 18)	4.1	2.3
Cumulative Gains/(Losses) of cash flow hedges	9.5	(24.5)
Tax effects arising on cash flow hedges	(5.7)	(2.8)
Gain on cash flow hedges recycled to income statement	(12.2)	(3.0)
Tax effects arising on cash flow hedges recycled to income statement	4.2	1.6
Total (b)	216.2	(836.6)
Other comprehensive income/(loss) for the year (a+b)	216.0	(831.1)
Total comprehensive income/(loss) for the year	1,095.6	(4,333.2)
Attributable to:		
Equity holders of the parent	64.5	(2,223.6)
Non-controlling interests	1,031.1	(2,109.6)
Total comprehensive income/ (loss) for the year	1,095.6	(4,333.2)

### CONSOLIDATED STATEMENT OF FINANCIAL POSITION

		As at	(US\$ million <b>As at</b>
	Note	31 March 2017	31 March 2016
Assets			
Non-current assets			
Goodwill	15	16.6	16.6
Intangible assets	16	95.6	92.2
Property, plant and equipment	17	16,806.1	16,647.8
Financial asset investments	18	10.7	6.5
Non-current tax assets	31	434.6	361.7
Other non-current assets	19	544.4	237.9
Financial instruments (derivatives)	29	0.6	0.8
Deferred tax assets	31	1,111.0	1,255.4
		19,019.6	18,618.9
Current assets			
Inventories	20	1,670.1	1,365.8
Trade and other receivables	21	1,084.8	1,344.3
Financial instruments (derivatives)	29	1.6	18.3
Current tax assets		2.1	35.5
Liquid investments	22	8,043.0	8,508.2
Cash and cash equivalents	23	1,682.2	428.3
		12,483.8	11,700.4
Total assets		31,503.4	30,319.3
Liabilities		01,00011	00,010.0
Current liabilities			
Short term borrowings	24	(7,658.5)	(3,726.6)
Convertible bonds	28	(7,030.3)	(587.2)
Trade and other payables	27a	(6,223.4)	(5,876.1)
Financial instruments (derivatives)	29	(126.9)	(67.7)
Retirement benefits	33	,	` ′
Provisions	30	(7.5)	(4.9)
Current tax liabilities	30	(17.5)	(132.1)
Current tax habilities		(37.8)	(17.0)
Not assument (lightlities)/secots		(14,071.6)	(10,411.6)
Net current (liabilities)/assets		(1,587.8)	1,288.8
Non-current liabilities	2.4	(10.550.0)	/11 040 F)
Medium and long-term borrowings	24	(10,570.2)	(11,949.5)
Trade and other payables	27b	(68.5)	(223.5)
Financial instruments (derivatives)	29	(8.6)	(1.2)
Deferred tax liabilities	31	(371.1)	(620.2)
Retirement benefits	33	(59.6)	(61.6)
Provisions	30	(327.3)	(187.4)
Non equity non-controlling interests	25	(11.9)	(11.9)
		(11,417.2)	(13,055.3)
Total liabilities		(25,488.8)	(23,466.9)
Net assets		6,014.6	6,852.4
Equity			
Share capital	35	30.1	30.1
Share premium		201.5	201.5
Treasury shares		(557.9)	(557.2)
Share-based payment reserve	32	28.2	29.9
Convertible bond reserve		-	6.0
Hedging reserve		(90.9)	(87.7)
Other reserves		140.5	(1.4)
Retained earnings		(160.0)	(334.0)
Equity attributable to equity holders of the parent		(408.5)	(712.8)
1 / F		(/	(- ==.0)

		As at	As at
	Note	31 March 2017	31 March 2016
Total equity		6,014.6	6,852.4

Financial Statements of Vedanta Resources plc, registration number 4740415 were approved by the Board of Directors on 23rd May 2017 and signed on their behalf by

Tom Albanese - Chief Executive Officer

### CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 March 2017

			(US\$ million)
	Note	Year ended 31 March 2017	Year ended 31 March 2016
Operating activities	11000	011/14/10/12/20	011/141011 2010
Profit / (loss) before taxation		1,379.9	(4,984.0)
Adjustments for:			, ,
Depreciation and amortisation		1,030.5	1,455.2
Investment revenues		(642.6)	(697.8)
Finance costs		1,382.2	1,280.4
Other gains and (losses)[net]		23.8	72.5
(Profit) /loss on disposal of property, plant and equipment		5.2	1.5
Write-off of unsuccessful exploration costs		6.5	4.5
Share-based payment charge		13.4	15.6
Impairment charges		17.3	5,187.0
Other non-cash items		3.5	2.7
Operating cash flows before movements in working capital		3,219.7	2,337.6
(Increase) / decrease in inventories		(266.7)	163.7
Decrease in receivables		18.8	343.3
Increase in payables		522.3	657.4
Cash generated from operations		3,494.1	3,502.0
Dividend received		0.1	0.3
Interest income received		298.0	633.1
Interest paid		(1,417.5)	(1,268.4
Income taxes paid		(778.7)	(354.7
Dividends paid		(138.4)	(110.6
Net cash inflow from operating activities		1,457.6	2,401.7
Cash flows from investing activities Purchases of property, plant and equipment and intangibles Proceeds on disposal of property, plant and equipment Proceeds from redemption of liquid investments Purchases of liquid investments	26 26	(873.9) 25.2 15,284.8 (14,363.3)	(872.4) 10.0 15,839.7 (16,839.6)
Net cash from / (used in) investing activities		72.8	(1,862.3)
Cash flows from financing activities			
Issue of ordinary shares		0.0	0.1
Purchase of shares under DSBP scheme		(2.0)	(0.9
Dividends paid to non-controlling interests of subsidiaries		(1,393.3)	(325.5
Acquisition of additional interests in subsidiary/ share purchase by subsidiary		(18.5)	
Proceeds from working capital loan	26	46.1	32.5
Proceeds from other short-term borrowings	26	11,335.8	6,353.2
Repayment of other short-term borrowings	26	(10,803.0)	(7,407.8
Buyback of non-convertible bond	26	(858.5)	(7.0
Proceeds from medium and long-term borrowings	26	2,146.4	2,383.
Repayment of medium and long-term borrowings	26	(205.9)	(951.0
Buyback/repayment of convertible bond	20	(590.3)	(523.6
Net cash from / (used in) financing activities		(343.2)	(446.8
		1,187.2	92.0
Net increase / (decrease) in cash and cash equivalents			
Effect of foreign exchange rate changes		66.7	(18.0)
Cash and cash equivalents at beginning of the year	22. 8	428.3	353.7
	23 &	4.000.0	400
Cash and cash equivalents at end of the year	26	1,682.2	428.3

Vedanta Resources plc

Financial Statements For The Year Ended 31 March 2017

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(US\$ million)

,			A	stributable to	Attributable to equity holders of the Company	f the Company					
	Share			Share-based						Non-	
	capital	Share	Treasury	payment	Convertible	Hedging	Other	Retained		controlling	Total
	(note 35)	premium	Shares	reserves	reserves bond reserve	reserve	reserves <sup>(1)</sup>	earnings	Total	Interests	equity
At 1 April 2016	30.1	201.5	(557.2)	29.9	0.9	(87.7)	(1.4)	(334.0)	(712.8)	7,565.2	6,852.4
Profit for the year	ı	1	1	ı	1	1	1	(22.7)	(22.7)	902.3	9.628
Other comprehensive income for the year	-	-	-	-	-	(3.2)	90.4	-	87.2	128.8	216.0
Total comprehensive income/(loss) for the	1	1	1	1	1	(3.2)	90.4	(22.7)	64.5	1,031.1	1,095.6
year											
Acquisition of shares under DSBP scheme	1	ı	(0.8)	1	1	1	1	(1.2)	(2.0)	1	(2.0)
Convertible bond transfer (note 28)	1	1	1	1	(0.9)	1	1	0.9	1	1	1
$Transfers^{(1)}$	1	ı	1	1	1	1	51.5	(51.5)	1	1	1
Dividends paid/payable (note 14)	1	ı	1	1	1	1	1	(137.5)	(137.5)	(1,340.1)	(1,477.6)
Exercise of stock options	0.0	1	0.1	(15.1)	1	1	1	15.0	1	1	0.0
Recognition of share-based payment (note 32)	1	ı	1	13.4	1	1	ı	1	13.4	1	13.4
Change in non-controlling interest- merger (note 42)	1	1	1	1	1	ı	1	368.4	368.4	(817.1)	(448.7)
Other changes in non-controlling interests*	-	-	1	-	-	-	-	(2.5)	(2.5)	(16.0)	(18.5)
At 31 March 2017	30.1	201.5	(557.9)	28.2	1	(6006)	140.5	(160.0)	(408.5)	6,423.1	6,014.6

\*Includes purchase of shares by Vedanta Limited through ESOP trust for its stock options and additional stake purchased during the year in erstwhile Cairn India Limited and share based payment charge by subsidiaries.

Vedanta Resources plc

Financial Statements For The Year Ended 31 March 2017

										2)	(US\$ million)
			A	ttributable to	Attributable to equity holders of the Company	f the Company					
•	Share			Share-based						Non-	
	capital	Share	Treasury	payment	payment Convertible	Hedging	Other	Retained	Total	controlling Interests	Total
At 1 April 2015	30.0	198.5	(556.9)	27.4	38.4	(74.7)	339.9	1,600.5	1,603.1	10,654.3	12,257.4
Loss for the year	1	1	,	1	1	· 1	1	(1,837.4)	(1,837.4)	(1,664.7)	(3,502.1)
Other comprehensive loss for the year	1	1	1	1	1	(13.0)	(373.2)	. 1	(386.2)	(444.9)	(831.1)
Total comprehensive loss for the year	1	1	1	1	1	(13.0)	(373.2)	(1,837.4)	(2,223.6)	(2,109.6)	(4,333.2)
Acquisition of shares under DSBP scheme	1	1	(0.3)	1	•	. 1		(9.0)	(6.0)		(6.0)
Convertible bond transfer (note 28)	1	1		ı	(24.6)	1	1	24.6		1	. 1
Conversion of bond into equity	0.0	3.0	1	1	(0.1)	1	1	1	2.9	1	2.9
Convertible bond buy back	1	1	1	1	(7.7)	1	1	5.1	(2.6)	1	(2.6)
$Transfers^{(1)}$	1	1	•	1		ı	31.9	(31.9)	. 1	1	
Dividends paid/payable (note 14)	1	1	•	1	•	1	•	(110.6)	(110.6)	(979.5)	(1,090.1)
Exercise of LTIP awards	0.1	ı	•	(13.1)	•	1	•	13.1	0.1		0.1
Recognition of share-based payment (note 32)	1	1	1	15.6	•	1	1	1	15.6	1	15.6
Others <sup>(3)</sup>	1	1	1	1		1	•	3.2	3.2		3.2
At 31 March 2016	30.1	201.5	(557.2)	29.9	6.0	(87.7)	(1.4)	(334.0)	(712.8)	7,565.2	6,852.4

### OTHER RESERVES COMPRISE(1)

(US\$ million)

	Currency translation	Merger Investment revaluation	nent revaluation	General	
	reserve	reserve <sup>(2)</sup>	reserve	reserves <sup>(4)</sup>	Total
At 1 April 2015	(1,876.5)	4.4	2.6	2,209.4	339.9
Exchange differences on translation of foreign operations	(378.7)	•	1	•	(378.7)
Gain in fair value of available-for-sale financial assets		•	1.5	•	1.5
Remeasurements	1	•	•	4.0	4.0
Transfer from retained earnings <sup>(1)</sup>	1	•	•	31.9	31.9
At 1 April 2016	(2,255.2)	4.4	4.1	2,245.3	(1.4)
Exchange differences on translation of foreign operations	6.78	•	-	•	87.9
Gain in fair value of available-for-sale financial assets	1	•	2.5	•	2.5
Remeasurements	1	•	•	0.0	0.0
Transfer from retained earnings <sup>(1)</sup>	1	•	1	51.5	51.5
At 31 March 2017	(2,167.3)	4.4	9.9	2,296.8	140.5

<sup>(1)</sup> Transfer to general reserve during the Year ended 31 March 2016 includes US\$51.5 million and US\$31.9 million of debenture redemption reserve arose on incorporation of the Company during the year ended 31 March 2004. The investment in Twin Star had a carrying amount value of US\$20.0 million in the accounts of Volcan. As required by the Companies Act 1985, Section 132, upon issue of 156,000,000 Ordinary shares to Volcan, Twin Star's issued share capital and share premium account have been eliminated and a merger reserve of US\$4.4 million arose, being the difference between the carrying value of the investment in Twin Star in Volcan's accounts and the nominal value of the shares issued to Volcan.

(3) Others: US\$3.2 million of tax refund received on appropriation of reserves in BALCO during the year 2015-16 (2016-17: Nil).

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(4) Under Indian law, a general reserve was created through an annual transfer of net income to general reserve at a specified percentage in accordance with applicable regulations. The purpose of these transfers is to ensure that the total dividend distribution is less than total distributable reserves for that year.

### NOTES TO THE FINANCIAL STATEMENTS

### 1. Presentation of financial statements

### General information

Vedanta Resources plc ('Company' or 'VRplc') is a company incorporated and domiciled in the United Kingdom and is a London listed diversified global natural resources major. The group produces aluminium, copper, zinc, lead, silver, iron ore, oil & gas and commercial energy. Vedanta has operations in India, Zambia, Namibia, South Africa, Ireland, Liberia, UAE and Australia. These financial statements are presented in US dollars being the functional currency of the Company and all values are rounded to one decimal of the nearest million except where otherwise indicated.

### Compliance with applicable law and IFRS

The financial statements have been prepared in accordance with those parts of the Companies Act 2006 applicable to companies reporting under International Financial Reporting Standards (IFRS), Article 4 of the IAS Regulation and IFRS as adopted by the European Union and related interpretations.

### Basis of preparation

The financial statements have been prepared on a historical cost basis, except for derivative financial instruments, available-for-sale financial assets, liquid investments and defined benefit pension obligations that have been measured at fair value as per the principles of Fair value measurement under IFRS 13 or IAS 19, as applicable.

The following Standards have been issued but are not yet effective up to the date of authorisation of these financial statements (and in some cases had not yet been adopted by EU):

**Amendments resulting from Annual Improvements 2014-2016 Cycle:** The amendments are effective for annual periods beginning on or after 1 January 2018, although entities are permitted to apply them earlier.

IAS 7 Statement of Cash Flows: Narrow-scope amendments: The amendments introduce an additional disclosure that will enable users of financial statements to evaluate changes in liabilities arising from financing activities. The Group will be required to provide information on movements in gross liabilities arising from financing activities in addition to the net debt reconciliation currently provided. The amendments are effective for annual periods beginning on or after 1 January 2017, although entities are permitted to apply them earlier.

Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses. These amendments on the recognition of deferred tax assets for unrealised losses clarify how to account for deferred tax assets related to debt instruments measured at fair value. The amendments are effective for annual periods beginning on or after 1 January 2017, although entities are permitted to apply them earlier.

**IFRIC 22: Foreign Currency Transactions and Advance Consideration**: not yet endorsed by the EU: The Interpretation, which was issued on 8 December 2016, addresses how to determine the date of a transaction for the purpose of determining the exchange rate to use on initial recognition of an asset, expense or income (or part of it) when a related non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration in a foreign currency is derecognised. The amendments are effective for annual periods beginning on or after 1 January 2018, although entities are permitted to apply them earlier.

**IAS 40 Investment Property:** Paragraph 57 has been amended to state that an entity shall transfer a property to, or from, investment property when, and only when, there is evidence of a change in use. A change of use occurs if property meets, or ceases to meet, the definition of investment property. A change in management's intentions for the use of a property by itself does not constitute evidence of a change in use. The list of evidence in paragraph 57(a) – (d) was designated as non-exhaustive list of examples instead of the previous exhaustive list. The amendments are effective for periods beginning on or after 1 January 2018. Earlier application is permitted.

**IFRS 2 Share-based Payment:** Few amendments to clarify the classification and measurement of share-based payment transactions have been issued. The amendments are effective for annual periods beginning on or after 1 January 2018. Earlier application is permitted. The amendments are to be applied prospectively. However, retrospective application is allowed if this is possible without the use of hindsight.

**IFRS 4 Insurance Contracts:** Amendments regarding the interaction of IFRS 4 and IFRS 9 has been issued. An entity choosing to apply the overlay approach retrospectively to qualifying financial assets does so when it first applies IFRS 9. An entity choosing to apply the deferral approach does so for annual periods beginning on or after 1 January 2018.

### IFRS 9 - Financial Instruments

In July 2014, the International Accounting Standards Board issued the final version of IFRS 9, Financial Instruments. The standard reduces the complexity of the current rules on financial instruments as mandated in IAS 39. IFRS 9 has fewer classification and measurement categories as compared to IAS 39 and has eliminated the categories of held to maturity, available for sale and loans and receivables. Further it eliminates the rule based requirement of segregating embedded derivatives and tainting rules pertaining to held to maturity investments. For an investment in an equity instrument which is not held for trading, IFRS 9 permits an irrevocable election, on initial recognition, on an individual share-by- share basis, to present all fair value changes from the investment in other comprehensive income. No amount recognized in other comprehensive income would ever be reclassified to profit or loss. It requires the entity, which chooses to measure a liability at fair value, to present the portion of the fair value change attributable to the entity's own credit risk in the other comprehensive income. IFRS 9 replaces the 'incurred loss model' in IAS 39 with an 'expected credit loss' model. The measurement uses a dual measurement approach, under which the loss allowance is measured as either 12 month expected credit losses or lifetime expected credit losses. The standard also introduces new presentation and disclosure requirements. The effective date for adoption of IFRS 9 is annual periods beginning on or after 1 January 2018, though early adoption is permitted.

The indicative impacts of adopting IFRS 9 on the Group are as follows. The work is ongoing and additional impacts may be identified later in the implementation process.

- Classification and measurement: IFRS 9 establishes a principle based approach for classification of financial assets based on cash flow characteristics of the asset and the business model in which an asset is held. The Group anticipates no significant changes in the classification of financial assets and liabilities under this model.
- Impairment: Based on Group's initial assessment, the impairment of financial assets held at amortised cost is not expected to have material impact on the Group's results, given the low exposure to counterparty default risk as a result of the credit risk management processes that are in place.
- **Hedge accounting**: The adoption of the new standard would not materially change the amounts recognised in relation to existing hedging arrangements.

### IFRS 15 - Revenue from Contracts with Customers

IFRS 15 – Revenue from contracts with Customers outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. The standard replaces most current revenue recognition guidance. The core principle of the new standard is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods or services. The new standard also will result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively including service revenues and contract modifications and improve guidance for multiple-element arrangements. The new Standard will come into effect for the annual reporting periods beginning on or after 1 January 2018 with early application permitted.

The indicative impacts of implementing IFRS 15 on the Group results are detailed below. The work is ongoing and additional impacts may be identified later in the implementation process.

The timing of the recognition of revenue- The new standard introduces the concept of 'control' for revenue recognition, in contrast to the "risk and rewards" approach in IAS 18. Accordingly, the revenue recognition model will change from one based on the transfer of risk and reward of ownership to the transfer of control of ownership. The Group's revenue is predominantly derived from commodity sales, where the point of recognition is dependent on the contract sales terms, known as the International Commercial terms (Incoterms). As the transfer of risks and rewards generally coincides with the transfer of control at a point in time for the Incoterms as part of the Group's commodity sales arrangements, the timing and amount of revenue recognised for the sale of commodities is unlikely to be materially affected for the majority of sales.

### IFRS 16 - Leases

IFRS 16- Leases, specifies recognition, measurement and disclosure criteria for leases. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17. The new Standard will come into effect for annual reporting periods beginning on or after 1 January 2019. Earlier application is permitted if IFRS 15 Revenue from Contracts with Customers has also been applied.

The Group is currently in the process of determining the potential impact of adopting the above standard.

### Adoption of new and revised standards and pronouncements:

The Group has adopted with effect from 1 April 2016, the following new amendment and pronouncements. Their adoption has not had any significant impact on the amounts reported in the financial statements.

- Amendments to IAS 1: Disclosure Initiative
- Annual Improvements to IFRSs: 2012-2014 Cycle
- Amendments to IAS 27: Equity method in separate financial statements
- Amendments to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortisation
- Amendments to IFRS 11: Accounting for Acquisitions of Interests in Joint Operations

### Vedanta Resources plc

### Financial Statements For The Year Ended 31 March 2017

- Amendment to IFRS 10, IFRS 12 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture.
- Amendments to IFRS 10, IFRS 12 and IAS 28: Investment entities : Applying the Consolidation Exemption

The Group has not early adopted any other amendments, standards or interpretations that have been issued but are not yet effective.

### **Parent Company financial statements**

The financial statements of the parent company, Vedanta Resources plc, incorporated in the United Kingdom, have been prepared in accordance with FRS 101 and UK company law. The Company financial statements and associated notes are presented in note 46 to 59.

### 2 (a) Accounting policies

### (i) Basis of consolidation

### Subsidiaries:

The consolidated financial information incorporates the results of the Company and all its subsidiaries (the "Group"), being the companies that it controls. Control is evidenced where the Company has power over the investee, is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Power is demonstrated through existing rights that give the ability to direct relevant activities, which significantly affect the entity returns.

The financial statements of subsidiaries are prepared for the same reporting year as the parent Company. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with accounting policies used by the Group.

For non-wholly owned subsidiaries, a share of the profit for the financial year and net assets is attributed to the non-controlling interests as shown in the consolidated income statement, consolidated statement of comprehensive income and consolidated balance sheet.

For acquisitions of additional interests in subsidiaries, where there is no change in control, the Group recognises a reduction to the non-controlling interest of the respective subsidiary with the difference between this figure and the cash paid, inclusive of transaction fees, being recognised in equity. In addition, upon dilution of controlling interests the difference between the cash received from sale or listing of the subsidiary shares and the increase to non-controlling interest is also recognised in equity. The results of subsidiaries acquired or disposed of during the year are included in the consolidated income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate.

All intercompany balances and transactions, including unrealised profits arising from intra-Group transactions, have been eliminated in full. Unrealised losses are eliminated unless costs cannot be recovered.

### Joint arrangements

A Joint arrangement is an arrangement of which two or more parties have joint control. Joint control is considered when there is contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

■ The Group has Joint operations within its Oil & Gas segment, the Group participates in several unincorporated joint operations which involve the joint control of assets used in oil

and gas exploration and producing activities. The Group accounts for its share of assets, liabilities, income and expenditure of joint ventures in which the Group holds an interest, classified in the appropriate balance sheet and income statement headings. In addition, where the Group acts as operator to the joint venture, the gross liabilities and receivables (including amounts due to or from non-operating partners) of the joint operations are included in the Group balance sheet.

### (ii) Revenue recognition

Revenues are measured at the fair value of the consideration received or receivable, net of discounts, volume rebates, outgoing sales taxes excise duty and other indirect taxes. Revenues from sales are recognised when all significant risks and rewards of ownership of the commodity sold are transferred to the customer and the commodity has been delivered to the shipping agent. Revenues from sale of by-products are included in revenue.

Certain of the Group's sales contracts provide for provisional pricing based on the price on The London Metal Exchange ("LME"), as specified in the contract, when shipped. Final settlement of the price is based on the applicable price for a specified future period. The Group's provisionally priced sales are marked to market using the relevant forward prices for the future period specified in the contract and is adjusted in revenue.

- Revenue from oil, gas and condensate sales represent the Group's share of oil, gas and condensate production, recognised on a direct entitlement basis, and tolling income received for third party use of operating facilities and pipelines in accordance with agreements.
- Revenue from sale of power is recognised when delivered and measured based on rates as per bilateral contractual agreements with buyers and at rate arrived at based on the principles laid down under the relevant Tariff Regulations as notified by the regulatory bodies, as applicable.
- Where the Group acts as a port operator, revenues and costs relating to each construction contract of service concession arrangements are recognised over the period of each arrangement only to the extent of costs incurred that are probable of recovery. Revenues and costs relating to operating phase of the port contract are measured at the fair value of the consideration received or receivable for the services provided.
- Revenue from rendering of services is recognised on the basis of work performed.
- Dividend income recognised when the right to receive payment is established is accounted for as investment income in consolidated income statement.
- Interest income is recognised using the effective interest rate method, accounted for as investment income in consolidated income statement.
- The fair value gain/ (loss) in relation to financial assets held for trading is accounted for as investment income in consolidated income statement.

### (iii) Special items

Special items are those items that management considers, by virtue of their size or incidence (including but not limited Impairment charges and acquisition and restructuring related costs), should be disclosed separately to ensure that the financial information allows an understanding of the underlying performance of the business in the year, so as to facilitate comparison with prior periods. Also tax charges related to Special items and certain one-time tax effects are considered Special. Such items are material by nature or amount to the year's result and require

separate disclosure in accordance with IFRS. The determination as to which items should be disclosed separately requires a degree of judgement.

### (iv) Business combinations

The results of subsidiaries acquired or sold during the year are consolidated for the periods from, or to, the date on which control passed. Acquisitions are accounted for under the acquisition method. The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition are recognised at their fair value at the acquisition date, except certain assets and liabilities required to be measured as per the applicable standards.

The identifiable assets, liabilities and contingent liabilities of a subsidiary, which can be measured reliably, are recorded at their provisional fair values at the date of acquisition. The difference between the fair value of the consideration transferred (including contingent consideration and previously held non-controlling interests) and Group's share of the fair value of the identifiable net assets on acquisition is recognised as Goodwill. Goodwill arising on acquisitions is reviewed for impairment at least annually.

Where the fair values of the identifiable assets and liabilities exceed the cost of acquisition, the surplus is credited to the income statement in the Year of acquisition. If the fair value of the identifiable net assets acquired is in excess of the aggregate consideration transferred, the Group reassesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognised at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognised in statement of profit or loss and other comprehensive income.

Where it is not possible to complete the determination of fair values by the date on which the first post-acquisition financial statements are approved, a provisional assessment of fair values is made and any adjustments required to those provisional fair values, and the corresponding adjustments to purchased goodwill, are finalised within 12 months of the acquisition date.

Any non-controlling interest in an acquiree is measured at fair value or as the non-controlling interest's proportionate share of the acquiree's identifiable net assets, excluding goodwill. This accounting choice is made on a transaction-by-transaction basis.

Acquisition expenses are charged to the income statement.

If the Group acquires a group of assets or equity in a company that does not constitute a business combination in accordance with IFRS 3 Business Combinations (2008 revised), the cost of the acquired group of assets or equity is allocated to the individual identifiable assets acquired based on their relative fair value.

### **Common Control transactions**

A business combination involving entities or businesses under common control is a business combination in which all of the combining entities or businesses are ultimately controlled by the same party or parties both before and after the business combination and the control is not transitory. The transactions between entities under common control are scoped out of IFRS 3 and there is no authoritative literature for these transactions under IFRS. As a result, the Group adopted accounting principles similar to the pooling-of-interest method based on the predecessor values. The assets and liabilities of the acquired entity are recognised at the book values recorded in the ultimate parent entity's consolidated financial statements with the exception of certain income tax and deferred tax benefits arising on account of the common control transaction but relating to previous years, which are recognised retrospectively. The components of equity of the acquired companies are added to the same components within

Group equity except that any share capital and investments in the books of the acquiring entity is cancelled and the differences, if any, is adjusted in the opening retained earnings. The Company's shares issued in consideration for the acquired companies are recognized from the moment the acquired companies are included in these financial statements and the financial statements of the commonly controlled entities would be combined, retrospectively, as if the transaction had occurred at the beginning of the earliest reporting period presented. However, the prior years' comparative information is only adjusted for periods during which the entities were under common control.

### (v) Intangible assets

Intangibles assets are measured at cost less accumulated amortisation and accumulated impairment losses, if any. The Group determines the amortisation period as the period over which the future economic benefits will flow to the Group after taking into account all relevant facts and circumstances. Amortisation method, residual values and estimated useful life of intangible assets are reviewed annually or more frequently if events or changes in circumstances indicate a potential impairment.

Intangible assets arising out of service concession arrangements are accounted for as intangible assets where the Company has a contractual right to charge users of services when the projects are completed and is measured at the cost of such construction services completed. Such assets are amortised on straight line basis over the balance of license period, usually between 3 to 30 years.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset are recognised in the consolidated income statement when the asset is derecognised.

### (vi) Property, plant and equipment

### Relating to mineral assets- Mining properties and leases

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment under the heading 'Mining properties and leases' in the year in which they are incurred.

When a decision is taken that a mining property is viable for commercial production (i.e. when the Group determines that the mining property will provide sufficient and sustainable returns relative to the risk and decides to proceed with the development), all further pre-production primary development expenditure other than land, buildings, plant and equipment is capitalised as part of the cost of the mining property until the mining property is capable of commercial production. From that point, capitalised mining properties and lease costs are amortised on a unit-of-production basis over the total estimated remaining commercial reserves of each property or group of properties.

Exploration and evaluation assets acquired are recognised as assets at their cost of acquisition subject to meeting the commercial production criteria mentioned above and are subject to impairment review on an event of indication for impairment.

Exploration and evaluation expenditure incurred after obtaining the right to mine or the legal right to explore, is capitalised as property, plant and equipment and stated at cost less any impairment. Exploration and evaluation assets are transferred to the appropriate category of property, plant and equipment when the technical feasibility and commercial viability has been determined. Exploration and evaluation assets are assessed for impairment and impairment loss, if any, is recognised prior to reclassification. Exploration and evaluation expenditure

incurred prior to obtaining the mining right or the legal right to explore are expensed as incurred.

Exploration expenditure includes all direct and allocated indirect expenditure associated with finding specific mineral resources which includes depreciation and applicable operating costs of related support equipment and facilities and other costs of exploration activities:

- Acquisition costs costs associated with acquisition of licences and rights to explore, including related professional fees.
- General exploration costs costs of surveys and studies, rights of access to properties to conduct those studies (e.g., costs incurred for environment clearance, defence clearance, etc.), and salaries and other expenses of geologists, geophysical crews and other personnel conducting those studies.
- Costs of exploratory drilling and equipping exploratory and appraisal wells.

The stripping cost incurred during the production phase of a surface mine are deferred to the extent the current period stripping cost exceeds the average period stripping cost over the life of mine and recognised as an asset if such cost provides a benefit in terms of improved access to ore in future periods and certain criteria are met. Deferred stripping costs are included in mining properties within Property, plant and equipment and disclosed as a part of mining properties. After initial recognition, the stripping activity asset is depreciated on a unit of production method over the expected useful life of the identified component of the ore body.

In circumstances where a mining property is abandoned, the cumulative capitalised costs relating to the property are written off in the period in which it occurs i.e. when the group determines that the mining property will not provide sufficient and sustainable returns relative to the risks and the group decides not to proceed with the mine development.

Commercial reserves are proved and probable reserves as defined by the 'JORC' Code and 'SAMREC' Code. Changes in the commercial reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

# Relating to oil and gas assets- Exploration & evaluation assets and developing/producing assets

For oil and gas assets a successful efforts based accounting policy is followed. Costs incurred prior to obtaining the legal rights to explore an area are expensed immediately to the income statement. Expenditure incurred on the acquisition of a licence interest is initially capitalised on a licence-by-licence basis. Costs are held, are not amortised or depreciated, within exploration and evaluation assets until such time as the exploration phase on the licence area is complete or commercial reserves have been discovered.

Exploration expenditure incurred in the process of determining oil and gas exploration targets is capitalised initially within property, plant and equipment- exploration and evaluation assets and subsequently allocated to drilling activities (under oil and gas properties and/or exploration and evaluation assets as appropriate). Exploration drilling costs are initially capitalised on a well-by-well basis until the success or otherwise of the well has been established. The success or failure of each exploration effort is judged on a well-by-well basis. Drilling costs are written off on completion of a well unless the results indicate that hydrocarbon reserves exist and there is a reasonable prospect that these reserves are commercial.

Following appraisal of successful exploration wells, if commercial reserves are established and technical feasibility for extraction demonstrated, then the related capitalised exploration costs are transferred into a single field cost centre within property, plant & equipment -

development/producing assets (oil and gas properties) after testing for impairment. Where results of exploration drilling indicate the presence of hydrocarbons which are ultimately not considered commercially viable, all related costs are written off to the income statement.

All costs incurred after the technical feasibility and commercial viability of producing hydrocarbons has been demonstrated are capitalised within property, plant & equipment - development/producing assets (oil and gas properties) on a field-by-field basis. Subsequent expenditure is capitalised only where it either enhances the economic benefits of the development/producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

Net proceeds from any disposal of an exploration asset are initially credited against the previously capitalised costs. Any surplus proceeds are credited to the income statement. Net proceeds from any disposal of development/producing assets are credited against the previously capitalised cost. A gain or loss on disposal of a development/producing asset is recognised in the income statement to the extent that the net proceeds exceed or are less than the appropriate portion of the net capitalised costs of the asset.

#### Other property, plant and equipment

The initial cost of property, plant and equipment comprises its purchase price, including import duties and non-refundable purchase taxes, and any directly attributable costs of bringing an asset to working condition and location for its intended use, including relevant borrowing costs and any expected costs of decommissioning. This policy is set out under 'Borrowings Costs'. Expenditure incurred after the property, plant and equipment have been put into operation, such as repairs and maintenance, are charged to the income statement in the period in which the costs are incurred. Major shut-down and overhaul expenditure is capitalised as the activities undertaken improve the economic benefits expected to arise from the asset.

#### (vii) Assets under construction

Assets under construction are capitalised in the assets under construction account. At the point when an asset is operating at management's intended use, the cost of construction is transferred to the appropriate category of property, plant and equipment and depreciation commences (see below). Costs associated with the commissioning of an asset and any obligatory decommissioning costs are capitalised where the asset is available for use but incapable of operating at normal levels until a period of commissioning has been completed. Revenue generated from production during the trial period is capitalised. Borrowing costs and certain foreign exchange gains or losses are in certain circumstances capitalised in the cost of the asset under construction. This policy is set out under 'Borrowing Costs'.

#### (viii) Depreciation and amortisation

#### Relating to mining properties

Mining properties and other assets in the course of development or construction, freehold land and goodwill are not depreciated or amortised. Capitalised mining properties are depreciated and lease costs are amortised once commercial production commences, as described in "Property, plant and equipment – mining properties and leases". Leasehold land and buildings are depreciated on a straight-line basis over the period of the lease or, if shorter, their useful economic life.

#### Relating to oil and gas assets

All expenditure carried within each field is depreciated from the commencement of production on a unit of production basis, which is the ratio of oil and gas production in the period to the estimated quantities of commercial reserves at the end of the period plus the production in the

period, generally on a field-by-field basis or group of fields which are reliant on common infrastructure.

Commercial reserves are proven and probable oil and gas reserves, which are defined as the estimated quantities of crude oil, natural gas and natural gas liquids which geological, geophysical and engineering data demonstrate with a specified degree of certainty to be recoverable in future years from known reservoirs and which are considered commercially producible. There should be a 50 per cent statistical probability that the actual quantity of recoverable reserves will be more than the amount estimated as proven and probable reserves and a 50 per cent statistical probability that it will be less.

Costs used in the unit of production calculation comprise the net book value of capitalised costs plus the estimated future field development costs required to access commercial reserves. Changes in the estimates of commercial reserves or future field development costs are dealt with prospectively.

#### Others

Other buildings, plant and equipment, office equipment and fixtures, and motor vehicles are stated at cost less accumulated depreciation and any provision for impairment. Depreciation commences when the assets are ready for their intended use. Depreciation is provided at rates calculated to write off the cost, less estimated residual value, of each asset on a straight-line basis over its expected useful life, as follows:

Buildings operations and administration	30-60 years
Plant and machinery	15-40 years
Office equipment and fixtures	5–10 years
Motor vehicles	8-10 years

The Group reviews the residual value and useful life of an asset annually and, if expectations differ from previous estimates, the change is accounted for as a change in accounting estimate.

Major overhaul costs are depreciated over the estimated life of the economic benefit to be derived from the overhaul. The carrying amount of the remaining previous overhaul cost is charged to the income statement if the next overhaul is undertaken earlier than the previously estimated life of the economic benefit.

Property, plant and equipment held for sale or which is part of a disposal Group held for sale is not depreciated. Property, plant and equipment held for sale is carried at the lower of its carrying value and fair value less disposal cost and is presented separately on the face of the balance sheet.

#### (ix) Impairment

#### Financial assets

A financial asset is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount, and the present value of the estimated future cash flows discounted at the original effective interest rate. An impairment loss in respect of an available-for-sale financial asset is calculated by reference to its fair value.

Significant financial assets are tested for impairment on an individual basis. The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics.

All impairment losses are recognized in the consolidated statements of income. Any cumulative loss in respect of an available-for-sale financial asset recognized previously in the consolidated statements of comprehensive income is transferred to the consolidated statements of income on recognition of impairment. An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognized. For financial assets measured at amortised cost and available-for-sale financial assets that are debt securities, the reversal is recognized in the consolidated statements of income. For available-for-sale financial assets that are equity securities, the change in fair value is recognized directly in the consolidated income statement.

In respect of trade and other receivables, the Group would provide for impairment losses unless the Company is satisfied that no recovery of the amount owing is possible; at that point the amounts are considered irrecoverable and are written off against the financial asset directly.

#### Non-financial assets

Impairment charges and reversals are assessed at the level of cash-generating units. A cash-generating unit (CGU) is the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or group of assets.

Formal impairment tests are carried out annually for goodwill. In addition, formal impairment tests for all assets are performed when there is an indication of impairment. The Group conducts an internal review of asset values annually, which is used as a source of information to assess for any indications of impairment or reversal of previously recognised impairment losses. Internal and external factors, such as worse economic performance than expected, changes in expected future prices, costs and other market factors are also monitored to assess for indications of impairment or reversal of previously recognised impairment losses.

If any such indication exists then an impairment review is undertaken, the recoverable amount is calculated, as the higher of fair value less costs of disposal and the asset's value in use.

Fair value less costs of disposal is the price that would be received to sell the asset in an orderly transaction between market participants less costs of disposal and does not reflect the effects of factors that may be specific to the entity and not applicable to entities in general. Fair value for mineral and oil and gas assets is generally determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset, including any expansion prospects, and its eventual disposal, using assumptions that an independent market participant may take into account. These cash flows are discounted at an appropriate post-tax discount rate to arrive at the net present value.

Value in use is determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset in its present form and its eventual disposal. The cash flows are discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which estimates of future cash flows have not been adjusted. Value in use is determined by applying assumptions specific to the Group's continued use and cannot take into account future development. These assumptions are different to those used in calculating fair value and consequently the value in use calculation is likely to give a different result to a fair value calculation.

The carrying amount of the CGU is determined on a basis consistent with the way the recoverable amount of the CGU is determined. The carrying amount is net of deferred tax liability recognised in the fair value of the assets acquired in a business combination.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount. An impairment loss is recognised in the consolidated income statement.

Any reversal of the previously recognised impairment loss is limited to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had previously been recognised except if initially attributed to goodwill.

#### Exploration & evaluation assets:

In assessing whether there is any indication that an exploration and evaluation asset may be impaired, the company considers, as a minimum, the following indicators:

- the period for which the entity has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- substantive expenditure on further exploration for and evaluation of mineral resources in the specific area is neither budgeted nor planned;
- exploration for and evaluation of mineral resources in the specific area have not led to the discovery of commercially viable quantities of mineral resources and the entity has decided to discontinue such activities in the specific area;
- sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale; and
- reserve information prepared annually by external experts.

When a potential impairment is identified, an assessment is performed for each area of interest in conjunction with the group of operating assets (representing a cash-generating unit) to which the exploration and evaluation assets is attributed. Exploration areas in which reserves have been discovered but require major capital expenditure before production can begin, are continually evaluated to ensure that commercial quantities of reserves exist or to ensure that additional exploration work is under way or planned. To the extent that capitalised expenditure is no longer expected to be recovered, it is charged to the income statement.

#### (x) Non-current assets held for sale and discontinued operations

Non-current assets are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when a sale is highly probable from the date of classification, management are committed to the sale and the asset is available for immediate sale in its present condition. Non-current assets are classified as held for sale from the date these conditions are met and are measured at the lower of carrying amount and fair value (less costs to sell). Any resulting impairment loss that is material is recognised in the income statement as a special item. On classification as held for sale the assets are no longer depreciated and moved to current assets.

#### (xi) Government grants

Government grants related to assets, including non monetary grants at fair value, have been deducted in arriving at the carrying amount of the asset.

#### (xii) Inventories

Inventories and work-in-progress are stated at the lower of cost and net realisable value.

Cost is determined on the following basis:

■ Purchased copper concentrate is recorded at cost on a first-in, first-out ("FIFO") basis; all other materials including stores and spares are valued on weighted average basis; except in Oil and Gas business where stores and spares are valued on a FIFO basis.

#### Financial Statements For The Year Ended 31 March 2017

- Finished products are valued at raw material cost plus costs of conversion, comprising labour costs and an attributable proportion of manufacturing overheads based on normal levels of activity; and by-products and scrap are valued at net realisable value.
- Net realisable value is determined based on estimated selling price, less further costs expected to be incurred to completion and disposal.

#### (xiii) Taxation

Tax expense represents the sum of tax currently payable and deferred tax.

Current tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is provided, using the balance sheet method, on all temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Exceptions to this principle are:

Tax payable on the future remittance of the past earnings of subsidiaries where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future;

Deferred income tax is not recognised on the impairment of goodwill which is not deductible for tax purposes or on the initial recognition of an asset or liability in a transaction that is not a business combination, which at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

Deferred tax assets are recognised only to the extent that it is more likely than not that they will be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the balance sheet date. Tax relating to items recognised directly in other comprehensive income is recognised in the consolidated statements of comprehensive income and not in the income statement.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and is adjusted to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the asset to be recovered.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current income tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Deferred tax is provided on temporary differences arising on acquisitions that are categorised as Business Combinations. Deferred tax is recognised at acquisition as part of the assessment of the fair value of assets and liabilities acquired. Any deferred tax is charged or credited in the income statement/other comprehensive income as the underlying temporary difference is reversed.

#### (xiv) Retirement benefit schemes

The Group operates or participates in a number of defined benefits and contribution schemes, the assets of which are (where funded) held in separately administered funds.

For defined benefit schemes the cost of providing benefits under the plans is determined each year separately for each plan using the projected unit credit method by independent qualified actuaries.

#### Financial Statements For The Year Ended 31 March 2017

Re-measurement gains and losses arising in the year are recognised in Other Comprehensive Income and are not recycled to the income statement.

Net interest is calculated by applying a discount rate to the net defined benefit liability or asset. Defined benefit costs are split into current service cost, past service cost, net interest expense or income and remeasurement.

Current service cost and past service costs is recognised within cost of sales and administrative expenses. Net interest expense or income is recognised within finance costs.

For defined contribution schemes, the amount charged to the income statement in respect of pension costs and other post-retirement benefits is the contributions payable in the year.

#### (xv) Share-based payments

Certain employees (including executive directors) of the Group receive part of their remuneration in the form of share-based payment transactions, whereby employees render services in exchange for shares or rights over shares ('equity-settled transactions').

The resultant increase in equity is recorded in share based payment reserve.

The cost of equity-settled transactions with employees is measured at fair value at the date at which they are granted. The fair value of share awards with market-related vesting conditions are determined with the assistance of an external valuer and the fair value at the grant date is expensed on a proportionate basis over the vesting period based on the Group's estimate of shares that will eventually vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet date up to the vesting date at which point the estimate is adjusted to reflect the current expectations.

In case of cash-settled transactions, a liability is recognised for the fair value of cash-settled transactions. The fair value is measured initially and at each reporting date up to and including the settlement date, with changes in fair value recognised in employee benefits expense. The fair value is expensed over the period until the vesting date with recognition of a corresponding liability. The fair value is determined with the assistance of an external valuer.

#### (xvi) Provisions for liabilities and charges

Provisions are recognised when the Group has a present obligation (legal or constructive), as a result of past events, and it is probable that an outflow of resources, that can be reliably estimated, will be required to settle such an obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows to net present value using an appropriate pre-tax discount rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Unwinding of the discount is recognised in the income statement as a finance cost. Provisions are reviewed at each balance sheet date and are adjusted to reflect the current best estimate.

#### (xvii) Restoration, rehabilitation and environmental costs

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production of a mine or oil fields. Costs arising from the decommissioning of plant and other site preparation work are provided for based on their discounted net present value, with a corresponding amount being capitalised at the start of each project. The amount provided for is recognised, as soon as the obligation to incur such costs arises. These costs are charged to the income statement over the life of the operation through the depreciation of the asset and the unwinding of the discount on the provision. The cost estimates are reviewed periodically and are adjusted to reflect known

#### Financial Statements For The Year Ended 31 March 2017

developments which may have an impact on the cost estimates or life of operations. The cost of the related asset is adjusted for changes in the provision due to factors such as updated cost estimates, new disturbance and revisions to discount rates. The adjusted cost of the asset is depreciated prospectively over the lives of the assets to which they relate. The unwinding of the discount is shown as a finance cost in the income statement.

Costs for restoration of subsequent site damage which is caused on an ongoing basis during production are provided for at their net present values and charged to the income statement as extraction progresses. Where the costs of site restoration are not anticipated to be significant, they are expensed as incurred.

#### (xviii) Operating leases

#### Group as a lessee

Rentals under operating leases are charged on a straight-line basis over the lease term, even if the payments are not made on such a basis.

#### Group as a lessor

Leases in which the Group does not transfer substantially all the risks and rewards of ownership of an asset are classified as operating leases. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

#### (xix) Finance leases

Assets held under finance leases are recognised as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the Balance Sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged to the Income Statement, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the Group's policy on borrowing costs.

#### (xx) Foreign currency translation

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. For all principal operating subsidiaries, the functional currency is the local currency of the country in which it operates with the exception of KCM and Oil and gas business which has a US Dollar functional currency as that is the currency of primary economic environment in which it operates. In the financial statements of individual Group companies, transactions in currencies other than the functional currency are translated into the functional currency at the exchange rates ruling at the date of transaction. Monetary assets and liabilities denominated in other currencies are translated into the functional currency at exchange rates prevailing on the balance sheet date. Non-monetary assets and liabilities denominated in other currencies and measured at historical cost or fair value are translated at the exchange rates prevailing on the dates on which such values were determined.

All exchange differences are included in the income statement, except, where the monetary item is designated as an effective hedging instrument of the currency risk of designated forecast sales. These include the exchange differences recognised in equity and exchange differences on foreign currency borrowings relating to asset under construction, and for future productive use,

#### Financial Statements For The Year Ended 31 March 2017

and are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings.

For the purposes of consolidation, the income statement items of those entities for which the US dollar is not the functional currency are translated into US dollars at the average rates of exchange during the period. The related consolidated statements of financial position are translated at the rates as at the reporting date. Exchange differences arising on translation are recognised in the consolidated statements of comprehensive income. On disposal of such entities the deferred cumulative exchange differences recognised in equity relating to that particular foreign operation are recognised in the consolidated statements of profit or loss.

#### (xxi) Financial asset investments

Financial asset investments are classified as available for sale under IAS 39 and are initially recorded at fair value plus transaction costs that are directly attributable to the acquisition of financial asset investments and then remeasured at subsequent reporting dates to fair value. Unrealised gains and losses on financial asset investments are recognised directly in equity. On disposal or impairment of the investments, the gains and losses in equity are recycled to the income statement.

Investments in equity instruments are recorded in non-current assets unless they are expected to be sold within one year.

Investments in unquoted equity instruments that do not have a market price and whose fair value cannot be reliably measured are measured at cost.

The Group assesses at each reporting date whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists if one or more events that has occurred since the initial recognition of the asset (an incurred 'loss event') has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

#### (xxii) Liquid investments

Liquid investments represent short-term investments that do not meet the definition of cash and cash equivalents for one or more of the following reasons:

- They have a maturity profile greater than 90 days;
- They may be subject to a greater risk of changes in value than cash;
- They are held for investment purposes.

These include Short-term marketable securities and other Bank Deposits.

Short-term marketable securities are categorized as held for trading and are initially recognised at fair value with any gains or losses arising on remeasurement recognised in the consolidated statements of profit or loss.

Other bank deposits are subsequently measured at amortised cost using the effective interest method.

The value of trading investments incorporates any dividend and interest earned on the held for trading investments.

#### (xxiii) Cash and cash equivalents

Cash and cash equivalents in the balance sheet comprise cash at bank and in hand, short-term deposits with banks and short-term highly liquid investments that are readily convertible into

#### Financial Statements For The Year Ended 31 March 2017

cash which are subject to insignificant risk of changes in value and are held for the purpose of meeting short-term cash commitments.

#### (xxiv) Trade receivables

Trade receivables are stated at their transaction value as reduced by appropriate allowances for estimated irrecoverable amounts. An allowance for impairment of trade receivables is made where there is an event, which based on previous experience, is an indication of a reduction in the recoverability of the carrying value of the trade receivables.

Trade receivables are subsequently measured at amortised cost using the effective interest method, less any impairment. Interest income is recognised on non-current receivables on specific items by applying the effective interest rate method.

#### (xxv) Trade payables

Trade and other payables are recognised at their transaction cost, which is its fair value, and subsequently measured at amortised cost.

#### (xxvi) Bills of exchange payable

The Group enters into arrangements whereby financial institutions make direct payments to suppliers for raw materials and project materials. The financial institutions are subsequently repaid by the company at a later date providing working capital timing benefits. These are normally settled up to twelve months (for raw materials) and up to 36 months (for project materials). Where these arrangements are for raw materials with a maturity of up to twelve months, the economic substance of the transaction is determined to be operating in nature and these are recognised as Bills of exchange (under Trade and other payables). Where these arrangements are for project materials with a maturity up to thirty six months, the economic substance of the transaction is determined to be financing in nature, and these are classified as projects buyers' credit within borrowings in the statement of financial position.

#### (xxvii) Equity instruments

Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

#### (xxviii) Borrowings

Interest bearing loans and overdrafts are recorded at the fair value. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis and charged to the income statement using the effective interest method. They are netted against the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

#### (xxix)Convertible bonds

Convertible bonds denominated in the functional currency of the issuing entity are accounted for as compound instruments. The equity components and the liability components are separated out on the date of the issue. The equity component is recognised in a separate reserve and is not subsequently remeasured. The liability component (net of transaction cost) is held at amortised cost. The interest expense on the liability component is calculated by applying the effective interest rate, being the prevailing market interest rate at the date of issuance for similar non-convertible debt. The difference between this amount and interest paid is added to the carrying amount of the liability component.

Convertible bonds not denominated in the functional currency of the issuing entity or where a cash conversion option exists, are split into two components: a debt component and a component representing the embedded derivative in the convertible bond. The debt component represents a liability for future coupon payments and the redemption of the principal amount. The embedded derivative, a financial liability, represents the value of the option that bondholders have to convert into ordinary shares. At inception the embedded derivative is recorded at fair value and the remaining balance, after deducting a share of issue costs, is recorded as the debt component. Subsequently, the debt component is measured at amortised cost and the embedded derivative is measured at fair value at each balance sheet date with the change in the fair value recognised in the income statement. The embedded derivative and the debt component are disclosed together and the current/non-current classification follows the classification of the debt component which is the host contract.

#### (xxx) Borrowing costs

Borrowing costs directly relating to the acquisition, construction or production of a qualifying capital project under construction are capitalised and added to the project cost during construction until such time that the assets are substantially ready for their intended use in accordance with the Group policy which is when they are capable of commercial production. Where funds are borrowed specifically to finance a qualifying capital project, the amount capitalised represents the actual borrowing costs incurred. Where surplus funds are available out of money borrowed specifically to finance a project, the income generated from such short-term investments is also capitalised to reduce the total capitalised borrowing cost. Where the funds used to finance a project form part of general borrowings, the amount capitalised is calculated using a weighted average of rates applicable to relevant general borrowings of the Group during the year.

All other borrowing costs are recognised in the income statement in the period in which they are incurred.

Capitalisation of interest on borrowings related to construction or development projects is ceased when substantially all the activities that are necessary to make the assets ready for their intended use are complete or when delays occur outside of the normal course of business.

#### (xxxi) Available for sale financial assets

Equity shares held by the Group that are traded in an active market are classified as being available for sale (AFS) financial assets and are stated at fair value. Unrealised gains and losses on financial asset investments are recognised directly in equity. On disposal or impairment of the investments, the gains and losses in equity are recycled to the income statement. Dividends received from investees accounted for as equity instruments are recognised in income statement when the right to receive the payment is established.

#### (xxxii) Financial instruments fair valued through profit and loss

#### Held for trading financial assets

Financial assets are classified as held for trading if they have been acquired principally for the purpose of selling in the near term. The change in fair value of trading investments incorporates any dividend and interest earned on the held for trading investments and is accounted for in the income statement.

#### Derivative financial instruments

In order to hedge its exposure to foreign exchange, interest rate and commodity price risks, the Group enters into forward contracts, option contracts, swap contracts and other derivative

financial instruments. The Group does not hold derivative financial instruments for speculative purposes.

Derivative financial instruments are initially recorded at their fair value on the date of the derivative transaction and are re-measured at their fair value at subsequent balance sheet dates. The resultant gains or losses are recognised in the income statement unless these are designated as effective hedging instruments.

#### (xxxiii) Hedge accounting

The Group designates certain hedging instruments, which include derivatives and nonderivatives in respect of foreign currency risk, as either fair value hedges or cash flow hedges. Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement. The hedged item is recorded at fair value and any gain or loss is recorded in the income statement and is offset by the gain or loss from the change in the fair value of the derivative.

Changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recorded in equity. This includes certain non-derivative liabilities that are designated as hedge of the foreign currency risk on future, highly probable, forecast sales. Amounts deferred in equity are recycled to the income statement in the periods when the hedged item is recognised in the income statement.

The gain or loss on hedging instruments relating to the effective portion of a net investment hedge is recognised in equity. The ineffective portion is recognised immediately in the income statement. Gains or losses accumulated in equity are reclassified to the income statement on disposal of the foreign operations to which they relate.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting. Any cumulative gain or loss on the hedging instrument recognised in equity is kept in equity until the forecast transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is transferred to the income statement.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not carried at fair value with unrealised gains or losses recognised in the income statement.

For derivative instruments that are designated and qualify as a hedge of a net investment in a foreign operations, the gain or loss is reported in the consolidated statements of comprehensive income as part of the exchange difference on translation of foreign operations to the extent it is effective. Any ineffective portions of net investment hedges are recognized in other income/expense in the consolidated statement of profit or loss immediately. Under a hedge of a net investment, the cumulative gain or loss remains in the consolidated statements of comprehensive income when the hedging instrument expires or is sold, terminated or exercised, or when the hedge no longer qualifies for hedge accounting or the Group revokes designation of the hedge relationship. The cumulative gain or loss is recognised in the consolidated income statement as part of the gain / loss on disposal when the net investment in the foreign operation is disposed.

Derivative financial instruments that do not qualify for hedge accounting are marked to market at the financial position date and gains or losses are recognised in the consolidated income statement immediately.

# 2(b) Critical accounting judgment and estimation uncertainty

The preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions, that affect the application of accounting policies and the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities at the date of these consolidated financial statements and the reported amounts of revenues and expenses for the years presented. Actual results may differ from these estimates under different assumptions and conditions.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and future periods affected. The Group considers the following areas as the key sources of estimation uncertainty:

#### (i) Oil & Gas reserves

Oil & Gas reserves are estimated on a proved and probable entitlement interest basis. Proven and probable reserves are estimated using standard recognised evaluation techniques. The estimate is reviewed annually. Future development costs are estimated taking into account the level of development required to produce the reserves by reference to operators, where applicable, and internal engineers.

Net entitlement reserves estimates are subsequently calculated using the Group's current oil price and cost recovery assumptions, in line with the relevant agreements.

Changes in reserves as a result of factors such as production cost, recovery rates, grade of reserves or commodity prices could impact the depreciation rates, carrying value of assets and environmental and restoration provisions.

#### (ii) Carrying value of exploration and evaluation Oil and gas assets

The recoverability of a project is assessed under IFRS 6. Exploration assets are assessed by comparing the carrying value to higher of fair value less cost of disposal or value in use. Change to the valuation of exploration assets is an area of judgement. Further details on the Group's accounting policies on this are set out in accounting policy above. The amounts for exploration and evaluation assets represent active exploration projects. These amounts will be written off to the income statement as exploration costs unless commercial reserves are established or the determination process is not completed and there are no indications of impairment. The outcome of ongoing exploration, and therefore whether the carrying value of exploration and evaluation assets will ultimately be recovered, is inherently uncertain.

Details of impairment charge/reversal impact and the assumptions used are disclosed in note 5.

#### (iii) Carrying value of developing/producing oil and gas assets

Management perform impairment tests on the Group's developing/producing oil and gas assets where indicators of impairment are identified in accordance with IAS 36.

The impairment assessments are based on a range of estimates and assumptions, including:

Estimates/assumptions	Basis
Future production	proved and probable reserves, resource estimates and, in certain cases, expansion
	projects
Commodity prices	management's best estimate benchmarked with external sources of information, to
	ensure they are within the range of available analyst forecast
Discount to price	management's best estimate based on historical prevailing discount
Extension of PSC	assumed that PSC for Rajasthan block would be extended till 2030 on the expected
	commercial terms
Discount rates	cost of capital risk-adjusted for the risk specific to the asset/ CGU

Any subsequent changes to cash flows due to changes in the above mentioned factors could impact the carrying value of the assets.

Details of impairment charge and the assumptions used are disclosed in note 5.

### (iv) Mining properties and leases

The carrying value of mining property and leases is arrived at by depreciating the assets over the life of the mine using the unit of production method based on proved and probable reserves. The estimate of reserves is subject to assumptions relating to life of the mine and may change when new information becomes available. Changes in reserves as a result of factors such as production cost, recovery rates, grade of reserves or commodity prices could thus impact the carrying values of mining properties and leases and environmental and restoration provisions.

Management performs impairment tests when there is an indication of impairment. The impairment assessments are based on a range of estimates and assumptions, including:

Estimates/assumptions	Basis
Future production	proved and probable reserves, resource estimates (with an appropriate conversion factor) considering the expected permitted mining volumes and, in certain cases, expansion projects
Commodity prices	management's best estimate benchmarked with external sources of information, to ensure they are within the range of available analyst forecast
Exchange rates	management best estimate benchmarked with external sources of information
Discount rates	cost of capital risk-adjusted for the risk specific to the asset/ CGU

Details of impairment charge are disclosed in note 5.

#### (v) Useful economic lives and impairment of other assets

Property, plant and equipment other than mining properties, oil and gas properties, and leases are depreciated over their useful economic lives. Management reviews the useful economic lives at least once a year and any changes could affect the depreciation rates prospectively and hence the asset carrying values. The Group also reviews its property, plant and equipment, including mining properties and leases, for possible impairment if there are events or changes in circumstances that indicate that carrying values of the assets may not be recoverable. In assessing the property, plant and equipment for impairment, factors leading to significant reduction in profits such as changes in commodity prices, the Group's business plans and changes in regulatory environment are taken into consideration. The carrying value of the assets of a cash generating unit (CGU) is compared with the recoverable amount of those assets, that is, the higher of fair value less costs of disposal and value in use. Recoverable value is based on the management estimates of commodity prices, market demand and supply, economic and regulatory climates, long-term plan, discount rates and other factors. Any subsequent changes to cash flow due to changes in the abovementioned factors could impact the carrying value of the assets.

#### (vi) Assessment of impairment at Lanjigarh Refinery

During the previous year, the Group has received the necessary approvals for expansion of the Lanjigarh refinery to 4 million tonnes per annum (MTPA). Approval for expansion from 4 MTPA to 6 MTPA is dependent upon certain conditions.

Accordingly, second stream operation has commenced in Alumina refinery from April 2016 thus, taking it to the debottlenecked capacity of 1.7 - 2.0 MTPA (contingent on bauxite quality). Further ramp up to 4 MTPA will be considered after tying up the local bauxite sources. The Group has considered the delay in tying up local bauxite sources as an indication of impairment. Hence, the Group has reviewed the carrying value of its property, plant and equipments at Lanjigarh as at balance sheet date, estimated the recoverable amounts of these assets and concluded that there was no impairment because the recoverable amount (estimated based on fair value less cost of disposal) exceeded the carrying amounts.

The key assumptions and estimates used in determining the fair value less cost of disposal of these assets were:

- The State of Odisha has abundant bauxite resources and given the initiatives by the Government of Odisha, management is confident that bauxite will be made available in the short to medium term. The company has entered into agreements with various suppliers internationally and domestically to ensure the availability of bauxite to run its refinery. In the initial years, the Company has assumed that bauxite will be purchased from third party suppliers in India and other countries, till the bauxite is sourced from own mines.
- The State of Odisha has taken certain measures including reservation of areas for mining operations or undertaking prospecting and constitution of Ministerial Committee for formulation of policy for supply of ores to Odisha based industries on long term basis. GOI has amended the existing MMDR Act. The major change is in the process of grant of concessions i.e. from First come First serve basis to more transparent process of auction and to expedite the grant process.
- Management expects that the conditions for construction of the alumina refinery beyond 4 MTPA will be fulfilled and it is assumed that the final unconditional approval for the expansion of the refinery would be received for commencement of production by fiscal 2020.

The government of Odisha has cancelled all the old reservations for mine allotment and has formed a more transparent process of auction of mines under the MMDR Act, which will improve the chances of local bauxite availability.

Management expects that the mining approvals for various local bauxite mines will be received.

The Group has carried out a sensitivity analysis on the key variables including delay in obtaining bauxite mining approval, depreciation of US dollar against Rupee, discount rate and London Metal Exchange aluminium prices. The most significant variable is the estimated timeframe for obtaining regulatory approval for the mining and/or gaining access to local bauxite. The sensitivity analysis indicates that even if regulatory approvals for mines /access to local bauxite are delayed by a year, the recoverable amount is still expected to exceed the carrying value and costs. As at March 31, 2017 the carrying amount of property plant and equipment related to alumina refinery operations at Lanjigarh and related mining assets is US\$1,099.4 million (31 March 2016: US\$1,079.0 million).

#### (vii) Assessment of Impairment of Karnataka and Goa iron ore mines:

#### Karnataka mining

The mining ban in Karnataka was lifted on 17 April 2013 and the mining operations resumed in December 2013. The mining operations were suspended since August 2014 pending environment clearances. On execution of Mining Lease Deed and final forest clearance, the operations were resumed towards the end of February 2015. Currently the permissible extraction capacity is fixed at 2.29 MTPA which is based on lowest of Reserves and Resources (R & R) capacity, dumping capacity and road capacity as assessed by Indian Council of Forestry Research and Education. Subsequently, based on reassessment of R & R and other factors, the modified mining plan has been submitted to Indian Bureau of Mines in March 2016 for enhancement of production to 6 MTPA. Management has estimated the recoverable amounts of these assets considering the increase in the extraction capacity in FY 2018.

A delay of one year in increase in the allocated capacity would result in reduction in the recoverable amount by approximately 1% and the recoverable amount would continue to be sufficiently in excess of the carrying value.

The carrying value of assets as at 31 March 2017 is US\$140.2 million (31 March 2016: US\$145.6 million).

#### Goa mining

The Ministry of Environment and Forest revoked its earlier order which had kept the environment clearances for iron ore mines in Goa in abeyance. The State Government has issued a mining policy and has lifted the ban on Iron ore mining in Goa. The Group has been allocated with an interim annual mining quantity of 6.9 million tonnes per annum (MTPA) (out of the total interim mining cap of 20 MTPA for FY 2016) of saleable ore.

The Expert Committee, constituted by the Supreme Court of India for conducting the Macro-Environmental Impact Assessment study on the ceiling of annual extraction of iron ore mining in Goa has recommended the enhancement of mining cap to 30 MTPA. This has been recommended to be further enhanced to 37 MTPA after the review of Macro Environment Impact Assessment and augmenting the carrying capacity. The report is pending for consideration of Supreme Court. Post the Supreme Court clearance, the State Government will allocate the limits. It has been assumed that the allocation will be made based on the proportionate share of the current EC limits.

The mining operations resumed in October, 2015. Management has estimated the recoverable amounts of these assets considering the mining cap of 30 MTPA in FY 2018 and 37 MTPA from FY 2019 and onwards.

A delay of one year in increase in the mining cap to 30 MTPA and 37 MTPA would result in a reduction in the recoverable amount by approximately 4% and the recoverable amount would continue to be sufficiently in excess of the carrying value.

The carrying value of assets as at 31 March 2017 is US\$635.2 million (31 March 2016: US\$643.9 million).

Management has reviewed the carrying value of Karnataka and Goa mining assets as at the balance sheet date, estimated the recoverable amounts of these assets and concluded that there was no impairment as the recoverable amount (estimated based on fair value less costs of disposal) exceeded the carrying amounts.

The Group has also carried out a sensitivity analysis on key variables including delay in increase in the mining cap, movement in iron ore prices, discount rate and appreciation of

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rupee against US dollar. Based on the sensitivity analysis, the recoverable amount is still expected to exceed the carrying value.

Details of impairment charge are disclosed in note 5.

# (viii) Assessment of Impairment at Konkola Copper Mines (KCM)

The KCM operations in Zambia have experienced, lower equipment availability, throughput constraints, and other operational challenges including production ramp up. Due to these factors, the Group has reviewed the carrying value of its property, plant and equipments at KCM as at balance sheet date, estimated the recoverable amounts of the assets and concluded that there was no impairment because the recoverable amount (estimated based on fair value less costs of disposal) exceeded the carrying amounts.

The Group has also carried out a sensitivity analysis on key variables like movement in copper prices, discount rate and production. Based on the sensitivity analysis, the recoverable amount is still expected to exceed the carrying value.

The carrying value of assets as at 31 March 2017 is US\$1,663.6 million (31 March 2016: US\$1,744.9 million).

#### (ix) Restoration, rehabilitation and environmental costs

Provision is made for costs associated with restoration and rehabilitation of mining sites as soon as the obligation to incur such costs arises. Such restoration and closure costs are typical of extractive industries and they are normally incurred at the end of the life of the mine or oil fields. The costs are estimated on an annual basis on the basis of mine closure plans and the estimated discounted costs of dismantling and removing these facilities and the costs of restoration are capitalised as soon as the obligation to incur such costs arises. The critical accounting judgement is associated with calculating the provision for decommissioning oil and gas assets is based on the current estimate of the costs for removing and decommissioning producing facilities, the forecast timing and currency of settlement of decommissioning liabilities and the appropriate discount rate.

A corresponding provision is created on the liability side. The capitalised asset is charged to the income statement over the life of the operation through the depreciation of the asset and the provision is increased each period via unwinding the discount on the provision. Management estimates are based on local legislation and/or other agreements. The actual costs and cash outflows may differ from estimates because of changes in laws and regulations, changes in prices, analysis of site conditions and changes in restoration technology.

#### (x) Provisions and liabilities

Provisions and liabilities are recognised in the period when it becomes probable that there will be a future outflow of funds resulting from past operations or events that can be reasonably estimated. The timing of recognition requires the application of judgement to existing facts and circumstances which may be subject to change especially when taken in the context of the legal environment in India. The actual cash outflows may take place over many years in the future and hence the carrying amounts of provisions and liabilities are regularly reviewed and adjusted to take into account the changing circumstances and other factors that influence the provisions and liabilities. This is set out in note 30.

#### (xi) Contingencies and commitments

In the normal course of business, contingent liabilities may arise from litigation, taxation and other claims against the Group. A tax provision is recognised when the group has a present

obligation as a result of a past event, it is probable that the group will be required to settle that obligation.

Where it is management's assessment that the outcome cannot be reliably quantified or is uncertain the claims are disclosed as contingent liabilities unless the likelihood of an adverse outcome is remote. Such liabilities are disclosed in the notes but are not provided for in the financial statements.

When considering the classification of a legal or tax cases as probable, possible or remote there is judgement involved. This pertains to the application of the legislation, which in certain cases is based upon management's interpretation of country specific tax law, in particular India, and the likelihood of settlement. Management uses in-house and external legal professionals to inform their decision.

Although there can be no assurance regarding the final outcome of the legal proceedings, the Group does not expect them to have a materially adverse impact on the Group's financial position or profitability. These are set out in note 38.

#### (xii) The HZL and BALCO call options

The Group had exercised its call option to acquire the remaining 49% interest in BALCO and 29.5% interest in HZL. The Government of India has however, contested the validity of the options and disputed their valuation performed in terms of the relevant agreements the details of which are set out in note 40. In view of the lack of resolution on the options, the non-response to the exercise and valuation request from the Government of India, the resultant uncertainty surrounding the potential transaction and the valuation of the consideration payable, the Group considers the strike price of the options to be at fair value, accordingly, the value of the option would be nil, and hence, the call options have not been recognised in the financial statements.

#### (xiii) Assessment of IFRIC 4- Determining whether an arrangement contains a lease

The Group has ascertained that the Power Purchase Agreement (PPA) entered into between one of the Subsidiary and a State Grid qualifies to be an operating lease under IAS 17 "Leases". Accordingly, the consideration receivable under the PPA relating to recovery of capacity charges towards capital cost have been recognised as operating lease rentals and in respect of variable cost that includes fuel costs, operations and maintenance etc. is considered as revenue from sale of products/services.

Significant judgement is required in segregating the capacity charges due from State Grid, between fixed and contingent payments. The Group has determined that since the capacity charges under the PPA are based on the number of units of electricity made available by its Subsidiary which would be subject to variation on account of various factors like availability of coal and water for the plant, there are no fixed minimum payments under the PPA, which requires it to be accounted for on a straight line basis.

#### (xiv) Revenue recognition and receivable recovery in relation to the power division

In certain cases, the Group's power customers are disputing various contractual provisions of Power Purchase Agreements (PPA). Significant judgement is required in both assessing the tariff to be charged under the PPA in accordance with IAS 18 and to assess the recoverability of withheld revenue currently accounted for as receivables.

In assessing this critical judgment management considered favorable legal opinions the Group has obtained in relation to the claims and favorable court judgements in the related matter. In addition the fact that the contracts are with government owned companies implies the credit risk is low.

# 3. Segment information

The Group is diversified natural resources group engaged in exploring, extractive and processing minerals and oil and gas. We produce Zinc, Lead, Silver, Copper, Aluminium, Iron ore, Oil and gas and commercial power and have presence across India, Zambia, South Africa, Namibia, UAE, Ireland, Australia and Liberia. The Group is also in the business of port operations in India.

The Group's reportable segments defined in accordance with IFRS 8 are as follows:

- Zinc- India
- Zinc-International
- Oil & Gas
- Iron Ore
- Copper-India/Australia
- Copper-Zambia
- Aluminium
- Power

The components not meeting the quantitative threshold for reporting are being reported as 'Others'.

Management monitors the operating results of reportable segments for the purpose of making decisions about resources to be allocated and for assessing performance. Segment performance is evaluated based on the EBITDA of each segment. Business segment financial data includes certain corporate costs, which have been allocated on an appropriate basis. Intersegment sales are charged based on prevailing market prices.

The following tables present revenue and profit information and certain asset and liability information regarding the Group's reportable segments for the years ended 31 March 2017 and 31 March 2016. Items after operating profit are not allocated by segment.

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(a) Reportable segments

Year ended 31 March 2017

	Zinc-India	Zinc- International	Oil and gas	Iron Ore	Copper-India/ Australia	Copper- Zambia	Aluminium	Power	reportable segment	Others	Elimination	Total operations
REVENUE Sales to external customers	2,521.9	332.4	1,222.7	6.609.3	3,131.4	830.1	2,037.1	822.6	11,507.5	12.6	1	11,520.1
Inter-segment sales <sup>(3)</sup>	3.1	1	1	6.1	2.3	44.2	2.9	13.3	71.9	1.0	(72.9)	·
Segment revenue	2,525.0	332.4	1,222.7	615.4	3,133.7	874.3	2,040.0	835.9	11,579.4	13.6	(72.9)	11,520.1
Segment Result												
EBITDA <sup>(1)</sup>	1,423.2	138.3	597.2	194.2	252.2	5.9	344.2	244.8	3,200.0	(8.9)	1	3,191.1
Depreciation and amortisation <sup>(2)</sup>	(149.2)	(27.5)	(411.0)	(6.69)	(28.9)	(113.3)	(141.0)	(88.2)	(1,029.0)	(1.5)	ı	(1,030.5)
Special items	_	-	12.6	-	-	-	(29.9)	-	(17.3)	_	_	(17.3)
Operating profit	1,274.0	110.8	198.8	124.3	223.3	(107.4)	173.3	156.6	2,153.7	(10.4)	1	2,143.3
Finance costs												(1,382.2)
Other gains and (losses) [net]												(23.8)
PROFIT BEFORE TAXATION												1,379.9
Segments assets	2,422.7	553.2	2,548.9	1,409.0	1,183.5	2,006.8	7,103.5	5, 2,837.5	20,065.1	85.6	1	20,150.7
Financial asset investments												10.7
Deferred tax assets												1,111.0
Liquid investments												8,043.0
Cash and cash equivalents												1,682.2
Tax assets												436.7
Others												69.1
TOTAL ASSETS												31,503.4
Segment liabilities	(615.7)	(173.7)	(716.7)	(228.2)	(1,708.1)	(570.0)	(1,561.5)	(266.0)	(5,839.9)	(25.9)	1	(5,865.8)
Short-term borrowings												(7,658.5)
Current tax liabilities												(37.8)
Medium and long-term borrowings												(10,570.2)
Deferred tax liabilities												(371.1)
Others												(985.4)
TOTAL LIABILITIES												(25,488.8)
Other segment information												
Additions to property, plant and	324.2	72.3	151.9	10.5	24.2	28.2	285.8	79.0	976.1	1	1	976.1
equipment												
Impairment losses	1	1	12.6	'	'	1	(29.9)	'	(17.3)	1		(17.3)

EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax. Depreciation and amortisation is also provided to the chief operating decision maker on a regular basis.

(3) Transfer prices for inter segment sales are on an arm's length basis in a manner similar to transactions with third parties. However, inter segment sales at BALCO amounting to US\$6.2 million for the year ended 31 March 2017 (31 March 2016 US\$6.6 million), is at cost

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Year ended 31 March 2016

											7)	(US\$ million)
	Zinc-India	Zinc- International	Oil and gas	Iron Ore	Copper-India/ Australia	Copper- Zambia	Aluminium	Power	Total reportable segment	Others 1	Total Elimination operations	Total Operations
REVENUE												
Sales to external customers	2,111.0	391.5	1,322.3	341.8	3,196.8	2.996	1,692.3	691.7	10,714.1	23.8	1	10,737.9
Inter-segment sales <sup>(3)</sup>	1	1	1	8.2	0.4	5.8	2.0	15.8	32.2	•	(32.2)	1
Segment revenue	2,111.0	391.5	1,322.3	350.0	3,197.2	972.5	1,694.3	707.5	10,746.3	23.8	(32.2)	10,737.9
Segment Result												
EBITDA <sup>(1)</sup>	0.566	68.1	570.4	73.4	336.6	(17.9)	106.7	196.3	2,328.6	7.8	1	2,336.4
Depreciation and amortisation <sup>(2)</sup>	(119.9)	(56.4)	(826.3)	(62.5)	(32.3)	(179.5)	(101.8)	(74.1)	(1,452.8)	(2.4)	1	(1,455.2)
Special items	(4.6)	(0.3)	(0.3) (4,934.2)	(252.4)	(7.6)	(0.5)	(10.5)		(5,210.1)	. 1	1	(5,210.1)
Operating profit / (loss)	870.5	11.4 (5,1	(5,190.1)	(241.5)	296.7	(197.9)	(5.6)	122.2	(4,334.3)	5.4		(4,328.9)
Investment revenue Finance costs												697.8
Other gains and (losses) [net]												(72.5)
LOSS BEFORE TAXATION												(4,984.0)
Segments assets	2,326.1	444.6	3,096.4	1,402.1	1,166.1	2,066.0	5,809.6	3,193.3	19,504.2	147.1	ı	19,651.3
Financial asset investments												6.5
Deferred tax assets												1,255.4
Liquid investments												8,508.2
Cash and cash equivalents												428.3
Tax assets												397.2
Others												72.4
TOTAL ASSETS												30,319.3
Segment liabilities	(442.7)	(125.8)	(803.6)	(172.2)	(1,974.5)	(591.9)	(682.2)	(572.1)	(5,365.0)	(37.8)	ı	(5,402.8)
Short-term borrowings												(4,313.8)
Current tax liabilities												(17.0)
Medium and long-term borrowings												(11,949.5)
Deferred tax liabilities												(620.2)
Others												(1,163.6)

Impairment losses

\* The allocation of segment assets and liabilities has been revised to more accurately reflect how these are managed. Previous Year amounts have been reclassified to ensure consistency.

(23,466.9)

750.7

7.3

743.4

50.3

119.6

27.6

18.4 (7.6)

14.8 (245.2)

58.5 214.3

239.9

Additions to property, plant and equipment

TOTAL LIABILITIES
Other segment information

(5,187.0)

# 3. Segment information (continued)

#### (b) Geographical segmental analysis

The Group's operations are located in India, Zambia, Namibia, South Africa, UAE, Liberia, Ireland, Australia and UAE. The following table provides an analysis of the Group's sales by region in which the customer is located, irrespective of the origin of the goods.

(US\$ million) Year ended Year ended 31 March 2017 Percentage 31 March 2016 Percentage India 6,712.1 58% 6,807.8 63% China 1,501.9 13% 747.8 7% Middle East 974.2 9% 1,075.1 10% Others 2,331.9 20% 2,107.2 20% **Total** 11,520.1 100% 10,737.9 100%

The following is an analysis of the carrying amount of non-current assets, and additions to property, plant and equipment, analysed by the country in which the assets are located. No material non-current assets are located in the United Kingdom and no significant additions to property, plant and equipment have been made there.

				(US\$ million)
	Carrying a of non-curren		Additions to plant and eq	
	As at 31 March 2017	As at 31 March 2016	Year ended 31 March 2017	Year ended 31 March 2016
Australia	3.4	4.4	-	2.6
India	15,247.1	14,752.9	875.5	651.7
Zambia	1,770.9	1,863.3	28.2	27.6
Namibia	114.7	119.7	9.0	35.4
Ireland	6.0	6.7	-	-
South Africa	331.3	254.0	63.3	23.1
Sri Lanka	-	-	-	7.3
Other	-	-	0.1	3.0
Total	17,473.4	17,001.0	976.1	750.7

<sup>(1)</sup> Non-current assets do not include deferred tax assets, non-current tax assets and derivative assets.

#### Information about major customer

No customer contributed 10% or more to the Group's revenue during the Year ended 31 March 2017 and 31 March 2016.

#### 4. Total Revenue

(US\$ million) Year ended Year ended 31 March 2017 31 March 2016 Sale of products (including excise duty) 11,998.7 11,151.5 Less: Excise duty (588.2)(569.9)Sale of products (net of excise duty) 11,410.5 10,581.6 Sale of services 71.4 102.8 38.2 Export incentives 53.5 **Total Revenue** 11,520.1 10,737.9

# 5. Special items

(US\$ million)

	Year er	nded 31 March	2017	Year	ended 31 March	2016
		Tax effect of			Tax effect of	
	5	special items/	Special		Special items/	Special
	Special	Special	items	Special	Special	items
	items	tax items	after tax	items	tax items	after tax
Impairment of oil & gas assets(1)(a)	12.6	(4.9)	9.7	(4,934.2)	1,903.3	(3,030.9)
Impairment of mining reserves and assets						
Iron ore <sup>(1)(b)</sup>	-	-	-	(245.2)	-	(245.2)
Copper <sup>(1)(c)</sup>				(7.6)	-	(7.6)
Aluminium <sup>(1)(d)</sup>	(29.9)	-	(29.9)	-	-	-
Total impairment charge	(17.3)	(4.9)	(22.2)	(5,187.0)	1,903.3	(3,283.7)
Voluntary retirement schemes (redundancy	-	-	-	(23.1)	7.9	(15.2)
costs) <sup>(2)</sup>						
Special tax item <sup>(3)</sup>	-	-	-	-	(173.8)	(173.8)
Special items	(17.3)	(4.9)	(22.2)	(5,210.1)	1,737.4	(3,472.7)

- 1a. During the year ended 31 March 2017, the Group has recognized net impairment reversal of US\$12.6 million relating to Rajasthan block net of the charge in relation to change in the decommissioning liability due to change in discount rate as explained in note 30. Of this net reversal, US\$63.0 million charge has been recorded against oil and gas properties and US\$75.6 million reversal has been recorded against exploratory and evaluation assets. During the year ended 31 March 2016, the Group had recognised impairment charge on its oil and gas assets of US\$4,934.2 million mainly relating to Rajasthan block, triggered by the significant fall in the crude oil prices, prevailing discount of Rajasthan crude and adverse long term impact of revised cess. Of this charge, US\$1,143.5 million had been recorded against oil and gas properties and US\$3,790.7 million against exploratory and evaluation asset.
  - The recoverable amount of the CGU, US\$2,007.0 million (March 2016: US\$2,204 million), was determined based on the fair value less costs of disposal approach, a level-3 valuation technique in the fair value hierarchy, as it more accurately reflects the recoverable amount based on our view of the assumptions that would be used by a market participant. This is based on the cash flows expected to be generated by the projected oil or natural gas production profiles up to the expected dates of cessation of production sharing contract (PSC)/cessation of production from each producing field based on current estimates of reserves and risked resources. Reserves assumptions for fair value less costs of disposal discounted cash flow tests consider all reserves that a market participant would consider when valuing the asset, which are usually broader in scope than the reserves used in a value-in-use test. Discounted cash flow analysis used to calculate fair value less costs of disposal uses assumption for oil price of US\$54 per barrel for FY2018 (March 2016: US\$51 per barrel) and the long-term nominal price of US\$68 per barrel (March 2016: US\$70 per barrel) derived from a consensus of various analyst recommendations. Thereafter, these have been escalated at a rate of 2.5% per annum. The cash flows are discounted using the post-tax nominal discount rate of 10.2% (March 2016: 11.0%) derived from the post-tax weighted average cost of capital. The impairment loss relates to the Oil & Gas business reportable segments.
- 1b. During the year ended 31 March 2016, the Group had recognized US\$227.5 million impairment charge in respect of the exploratory assets in West Africa (Western Cluster, Liberia) on account of low iron ore prices, geo-political factors and absence of plans for any substantive expenditure resulting in continued uncertainty in the project and an additional, US\$17.7 million impairment charge in the carrying amount of idle assets grouped under assets under construction at Bellary, Karnataka in India.
- 1c. During theyear ended 31 March 2016, the Group had recognised US\$7.6 million impairment charge relating to its operation in the Copper Mines of Tasmania Pty Ltd, Australia on account of extended care and maintenance, lower copper prices and continued uncertainty in start-up of operations.
- 1d. During the year ended 31 March 2017, the Group has recognised US \$ 29.9 million impairment charge relating to certain old items of capital work-in-progress at the Alumina refinery operations.
- US\$23.1 million incurred under a Group wide voluntary retirement initiative across various Group entities during the year ended March 2016.
- 3. As a result of amendments to the Zambian Mining Tax regime, effective from 1 January 2015, the tax rate on integrated mining operations (excluding custom smelting mineral processing activities) was reduced from 30% to 0%. The deferred tax liability in relation to mining operations was subsequently reversed during the year ended 31 March 2016, resulting in a net credit to the income statement of US\$52.8 million. Consequent to the subsequent amendments to the Zambian Mining Tax regime, effective from 1 July 2015 the tax rate on mining operations has been restored from 0% to 30%. Further, the set off of carried forward losses relating to mining operations has been restricted to a maximum of 50% of the income for the year. Accordingly, a total deferred tax charge of US\$173.8 million resulting from the amendments had been recognised under 'Special tax items' during the year ended 31 March 2016.

# 6. Investment revenue

(US\$ million)

		(aby million)
	Year ended 31 March 2017	Year ended 31 March 2016
Fair value gain on financial assets held for trading	483.5	541.3
Interest Income:		
Interest - financial assets held for trading	87.3	69.5
Interest - bank deposits	26.5	55.1
Interest - loans and receivables	48.3	26.4
Dividend Income:		
Dividend - available for sale investments	0.1	0.1
Dividend - financial assets held for trading	-	0.3
Foreign exchange gain/(loss) (net)	(3.1)	5.1
	642.6	697.8

#### 7. Finance costs

(US\$ million)

	Year ended 31 March 2017	Year ended 31 March 2016
Interest cost:		
Interest on bonds and other borrowings	1,210.0	1,101.3
Coupon interest on convertible bonds	15.5	62.4
Accretive Interest on convertible bonds	3.1	28.7
Unwinding of discount on provisions (note 30)	13.0	13.5
Other borrowing and finance costs (including bank charges)	186.3	160.3
Net interest on defined benefit arrangements	12.4	10.4
Loss on redemption of bonds/(Gain) on buy back of convertible bond	41.6	(20.6)
Capitalisation of finance costs/borrowing costs (note 17)	(99.7)	(75.6)
	1,382.2	1,280.4

All borrowing costs are capitalised using rates based on specific borrowings with the interests ranging between of 3.3% to 9.1% per annum.

# 8. Other gains and (losses) (net)

(US\$ million)

	Year ended 31 March 2017	Year ended 31 March 2016
Gross foreign exchange (losses)	(16.4)	(103.7)
Qualifying exchange losses capitalised (note 17)	1.9	10.1
Net foreign exchange (losses)	(14.5)	(93.6)
Change in fair value of financial liabilities measured at fair value	(0.4)	(0.9)
Net (loss)/ gain arising on qualifying hedges and non-qualifying hedges	(8.9)	22.0
	(23.8)	(72.5)

# 9(a). Profit/ (Loss) for the year has been stated after charging/ (crediting):

(US\$ million) Year ended Year ended 31 March 2017 31 March 2016 Depreciation & amortisation 1,030.5 1,455.2 3,808.4 3,708.0 Costs of inventories recognised as an expense Auditor's remuneration for audit services (note 11) 2.2 2.4 1.2 0.8 Research and development Net Loss/ (profit) on disposal of Property plant and equipment 5.2 1.5 Provision for receivables 3.8 Impairment of mining reserves and assets 29.9 252.8 (Impairment reversal)/ impairment charge of oil & gas assets (12.6)4,934.2 Employee costs 591.1 639.7

# 9(b). Exchange gain/ (loss) recognised in the consolidated income statement:

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Cost of sales	6.4	(7.6)
Investment revenue	(3.1)	5.1
Other gains and losses	(14.5)	(93.6)
Total	(11.2)	(96.1)

# 10. Employee numbers and costs

Average number of persons employed by the Group in the year

Class of business	Year ended 31 March 2017	Year ended 31 March 2016
Zinc	6,170	6,780
- India	4,556	4,935
- International	1,614	1,845
Iron ore	2,928	3,034
Copper	7,994	8,273
- India/Australia	1,196	1,058
- Zambia	6,798	7,215
Aluminium	5,684	5,266
Power	335	334
Oil & Gas	1,763	1,527
Other	161	321
	25,035	25,535

Costs incurred during the year in respect of Employees and Executive Directors

(US\$ million)

		$(ab\phi minon)$
	Year ended	Year ended
	31 March 2017	31 March 2016
Salaries and wages	531.5	575.8
Defined contribution pension scheme costs (note 33)	22.1	30.1
Defined benefit pension scheme costs (note 33)	21.2	18.2
Share- based payments charge	16.3	15.6
	591.1	639.7

#### 11. Auditor's remuneration

The table below shows the fees payable globally to the Company's auditor, Ernst & Young LLP (for year ended 31 March 2017) and Deloitte LLP (for year ended 31 March 2016), for statutory external audit and audit related services, as well as fees paid to other accountancy firms for statutory external audit and audit related services in each of the two years ended 31 March:

		(US\$ million)
	Year ended 31 March 2017	Year ended 31 March 2016
Fees payable to the Company's auditor for the audit of Vedanta Resources plc annual accounts	0.7	0.6
The audit of the Company's subsidiaries pursuant to legislation	1.5	1.8
Total audit fees	2.2	2.4
Fees payable to the Company's auditor and their associates for other services to the Group		
Other services pursuant to legislation <sup>(1)</sup>	1.8	1.4
Tax services <sup>(2)</sup>	0.0	0.4
Corporate finance services <sup>(3)</sup>	0.7	0.7
Other services <sup>(4)</sup>	0.2	0.2
Total non-audit fees	2.7	2.7
Total fees paid to the Company's auditor	4.9	5.1
Audit fees payable to other auditors of the Group's subsidiaries	-	0.3
Non-audit fees payable to other auditors of the Group's subsidiaries	-	0.2
Total fees paid to other auditors	-	0.5

<sup>(1)</sup> Other services pursuant to legislation principally comprise assurance services, being quarterly reviews of the Group's subsidiaries results and the half year review of the Group's results.

### 12. Tax

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Current tax:		
Current Tax on profit for the year	589.5	553.9
Charge/(credit) in respect of current tax for earlier years	(1.5)	(17.2)
Total current tax	588.0	536.7
Deferred tax: (Note 31)		
Origination and reversal of temporary differences	(83.0)	(293.7)
Charge in respect of deferred tax for earlier years	(9.6)	12.5
Charge / (credit) in respect of Special items (note 5)	4.9	(1,911.2)
Deferred tax charge/(reversal) due to change in tax regime in	-	
Zambia		173.8
Total deferred tax	(87.7)	(2,018.6)
Net tax expense/(credit)	500.3	(1,481.9)
Effective tax rate	36.2%	29.7%

<sup>(2)</sup> Tax services principally comprise certification and assurance services as required by Indian and overseas tax regulations.

<sup>(3)</sup> Corporate finance services principally comprise Group simplification and other acquisition related certifications. These assurance-related services are ordinarily provided by the auditor.

<sup>(4)</sup> Includes certification related services.

#### Tax expense

		(US\$ million)
	Year ended 31 March 2017	Year ended 31 March 2016
Tax effect of special items (note 5)	4.9	(1,911.2)
Deferred tax charge/(reversal) due to change in tax regime in		
Zambia (note 5)	-	173.8
Net tax expense/ (credit)	4.9	(1,737.4)
Tax expense – others	495.4	255.5
Net tax expense/ (credit)	500.3	(1,481.9)

A reconciliation of income tax expense applicable to accounting profit/ (loss) before tax at the Indian statutory income tax rate to income tax expense/ (credit) at the Group's effective income tax rate for the year ended 31 March 2017 is as follows. Given majority of the Group's operations are located in India, the reconciliation has been carried out from Indian statutory income tax rate.

		(US\$ million)
	Year ended 31 March 2017	Year ended 31 March 2016
Accounting profit/(loss) before tax	1,379.9	(4,984.0)
Statutory income tax rate	34.608%	34.608%
Tax at local statutory income tax rate	477.6	(1,724.9)
Disallowable expenses	58.0	18.9
Non-taxable income	(147.6)	(111.4)
Tax holidays and similar exemptions	(204.8)	(311.0)
Effect of tax rates differences of subsidiaries operating in other jurisdictions	76.1	67.5
Impact of change in tax regime *	-	201.9
Dividend distribution tax	244.5	248.5
Unutilized tax losses net of utilization due to uncertainty	149.2	224.2
Investment allowances	(74.7)	(52.7)
Charge/(credit) in respect of previous years	(11.1)	(4.7)
Others	(66.9)	(38.2)
Total	500.3	(1,481.9)

to Includes US\$173.8 million due to change in tax regime in Zambia (note 5) and US\$28.1 million due to change in Indian statutory rate from 33.99% to 34.61%

Certain businesses of the Group within India are eligible for specified tax incentives which are included in the table above as tax holidays and similar exemptions. Most of such tax exemptions are relevant for the companies operating in India. These are briefly described as under:

#### The location based exemption

In order to boost industrial and economic development in undeveloped regions, provided certain conditions are met, profits of newly established undertakings located in certain areas in India may benefit from a tax holiday. Such a tax holiday works to exempt 100% of the profits for the first five years from the commencement of the tax holiday, and 30% of profits for the subsequent five years. This deduction is available only for units established up to 31 March 2012. However, such undertaking would continue to be subject to the Minimum Alternative tax ('MAT').

The Group has such types of undertakings at Haridwar and Pantnagar, which are part of Hindustan Zinc Limited (Zinc India). In the current year, Haridwar and Pantnagar units are eligible for deduction at 30% of taxable profits respectively.

#### Sectoral Benefit - Power Plants

To encourage the establishment of certain power plants, provided certain conditions are met, tax incentives exist to exempt 100% of profits and gains for any ten consecutive years within the 15 year period following commencement of the power plant's operation. The Group currently has total operational capacity of 8.4 Giga Watts (GW) of thermal based power generation facilities and wind power capacity of 274 MW. However, such undertakings generating power would continue to be subject to the MAT provisions.

The Group has power plants which benefit from such deductions, at various locations of Hindustan Zinc Limited (where such benefits has been drawn), Talwandi Sabo Power Limited, Vedanta Limited and Bharat Aluminium Company Limited (where no benefit has been drawn).

#### Sectoral benefit - oil & gas

Provided certain conditions are met, profits of newly constructed industrial undertakings engaged in the oil & gas sector may benefit from a deduction of 100% of the profits of the undertaking for a period of seven consecutive years. This deduction is only available to blocks licensed prior to 31 March 2011. However, such businesses would continue to be subject to the MAT provisions.

In the Group, Cairn India Limited benefits from such deductions. Previous year was the last year for claiming such benefit.

In addition, the subsidiaries incorporated in Mauritius are eligible for tax credit to the extent of 80% of the applicable tax rate on foreign source income.

The total effect of such tax holidays and exemptions was US\$204.8 for the year ended 31 March 2017 (31 March 2016: US\$311.0 million).

# 13. Earnings/ (loss) per share

Basic earnings/ loss per share amounts are calculated by dividing net profit/ loss for the year attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year.

Weighted average number of treasury shares, 24,347,664 (2016 : 24,231,160) outstanding during the year are excluded from the total outstanding shares for the calculation of EPS.

Diluted earnings per share amounts are calculated by dividing the net profit attributable to ordinary equity holders by the weighted average number of ordinary shares outstanding during the year (adjusted for the effects of dilutive options and the Group's convertible bonds). The following reflects the income and share data used in the basic and diluted earnings per share computations:

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Net loss attributable to equity holders of the parent	(22.7)	(1,837.4)

#### Computation of weighted average number of shares

	Year ended 31 March 2017	Year ended 31 March 2016
Weighted average number of ordinary shares for basic earnings per share		
(million)	277.3	276.0
Effect of dilution:		
Potential ordinary shares relating to share option awards	5.0	-
Adjusted weighted average number of shares of the Company in issue		
(million)	282.3	276.0

## Loss per share based on loss for the year

Loss per share on loss for the year

	(US\$ million except as stated)	
	Year ended 31 March 2017	Year ended 31 March 2016
Loss for the year attributable to equity holders of the parent (US\$ million)	(22.7)	(1,837.4)
Weighted average number of shares of the Company in issue (million)	277.3	276.0
Loss per share on loss for the year (US cents per share)	(8.2)	(665.8)

#### Diluted loss per share on loss for the year

	(US\$ million except as stated)	
	Year ended 31 March 2017	Year ended 31 March 2016
Loss for the year attributable to equity holders of the parent (US\$ million) Adjusted weighted average number of shares of the Company in issue	(22.7)	(1,837.4)
(million)	277.3	276.0
Diluted loss per share on loss for the year (US cents per share)	(8.2)	(665.8)

The effect of 5.0 million (2016: 6.8 million) potential ordinary shares, which relate to share option awards under the LTIP scheme, on the attributable loss for the year was anti-dilutive and thus these shares were not considered in determining diluted loss per share.

The loss for the year would have decreased if holders of the convertible bonds in Vedanta exercised their right to convert their bond holdings into Vedanta equity. The impact on loss for the year of this conversion would be the reduction in interest payable on the convertible bond.

The adjustment in respect of convertible bonds had an anti-dilutive impact on earnings and was thus not considered in determining diluted EPS.

# Earnings/ (Loss) per share based on Underlying profit/ (loss) for the year (Non-GAAP)

Underlying earnings is an alternative earnings measure, which the management considers to be a useful additional measure of the Group's performance. The Group's Underlying profit/ loss is the loss for the year after adding back special items, other losses/(gains) [net] (note 8) and their resultant tax (including taxes classified as special items) and non-controlling interest effects. This is a Non-GAAP measure.

			(US\$ million)
			Year ended
		Year ended 31	31 March
	Note	March 2017	2016
Loss for the year attributable to equity holders of the parent		(22.7)	(1,837.4)
Special items	5	17.3	5,210.1
Other (gains)/losses [net]	8	23.8	72.5
Tax and non-controlling interest effect of special items (including taxes		(15.4)	(3,809.3)

classified as special items) and other losses/(gains)

Underlying attributable profit/ (loss) for the year	3.0	(364.1)

Basic earnings/ (loss) per share on Underlying profit/ (loss) for the year (Non-GAAP)

	(US\$ million except as stated)	
	Year ended 31 March 2017	Year ended 31 March 2016
Underlying profit/ (loss) for the year (US\$ million)	3.0	(364.1)
Weighted average number of shares of the Company in issue (million)	277.3	276.0
Earnings/ (Loss) per share on Underlying loss for the year (US cents per		
share)	1.1	(131.9)

#### Diluted earnings/ (loss) per share on Underlying profit/ (loss) for the year (Non-GAAP)

	(US\$ million except as	
	Year ended	Year ended
	31 March 2017	31 March 2016
Underlying profit/ (loss) for the year (US\$ million)	3.0	(364.1)
Adjusted weighted average number of shares of the Company in issue (		
million)	282.3	276.0
Diluted earnings/ (Loss) per share on Underlying loss for the year (US		_
cents per share)	1.1	(131.9)

The outstanding awards under the LTIP (5.0 million) are reflected in the diluted underlying earnings per share through an increased number of weighted average shares for the year ended 31 March 2017.

The effect of 6.8 million potential ordinary shares, which relate to share option awards under the LTIP scheme, on the attributable profit/(loss) for the year ended 31 March 2016 was antidilutive and thus these shares were not considered in determining diluted underlying loss per share.

The profit for the year would be decreased if holders of the convertible bonds in Vedanta exercised their right to convert their bond holdings into Vedanta equity. The impact on loss for the year of this conversion would be the reduction in interest payable on the convertible bond.

The adjustment in respect of convertible bonds had an anti-dilutive impact on earnings and was thus not considered in determining diluted underlying EPS for the year ended 31 March 2016.

#### 14. Dividends

		(US\$ million)
	Year ended 31 March 2017	Year ended 31 March 2016
Amounts recognised as distributions to equity holders:		
Equity dividends on ordinary shares:		
Final dividend for 2015-16: 30.0 US cents per share	82.8	110.6
(2014-15: 40.0 US cents per share)		
Interim dividend paid during the year: 20.0 US cents per share	55.6	-
(2015-16: Nil)		
Proposed for approval at AGM		
Equity dividends on ordinary shares:		
Final dividend for 2016-17: 35 US cents per share		
(2015-16: 30.0 US cents per share)	97.6	82.8

#### 15. Goodwill

		(US\$ million)
	As at 31 March 2017	As at31 March 2016
Cost (gross carrying amount)	16.6	16.6
Accumulated impairment losses	-	-
Net carrying amount at 31 March	16.6	16.6

Goodwill is allocated for impairment testing purposes to the following CGU's. The allocation of goodwill to CGU's is as follows:

- US\$12.2 million Copper India
- US\$4.4 million arising on acquisition of Goa Energy Limited.

The Group tests goodwill annually for impairment or more frequently if there are indications that goodwill might be impaired.

The Company has undertaken an impairment review of goodwill of US\$16.6 million as at 31 March 2017. The carrying amount of goodwill allocated to the relevant cash generating unit is considered to be insignificant in comparison with the total carrying value of the cash generating unit. The carrying amount of goodwill was evaluated using the higher of Fair value less cost of disposal ('FVLCD') or value in use based on discounted future cash flows of the cash generating unit to which the goodwill pertains and comparing this to the total carrying value of the relevant cash generating units. It was determined that the carrying amount of goodwill is not impaired and nor was impairment indicated following a reasonably possible change in a key assumption.

# 16. Intangible assets

Intangible assets include Port concession rights to operate a general cargo berth for handling coal at the outer harbour of the Visakhapatnam port on the east coast of India, software licences and others.

			(	US\$ million)
		Software		
	Port concession rights(1)	license	Others	Total
Cost				
As at 1 April 2015	96.7	10.6	8.0	115.3
Addition	-	1.0	1.8	2.8
Foreign exchange differences	(5.2)	(1.1)	(0.5)	(6.8)
As at 1 April 2016	91.5	10.5	9.3	111.3
Addition	0.4	7.1	0.8	8.3
Disposal	(1.0)	(0.6)	-	(1.6)
Foreign exchange differences	2.1	0.6	0.2	2.9
As at 31 March 2017	93.0	17.6	10.3	120.9
Accumulated amortisation				
As at 1 April 2015	7.3	5.3	0.8	13.4
Charge for the year	3.5	3.2	-	6.7
Foreign exchange differences	(0.4)	(0.5)	(0.1)	(1.0)
As at 1 April 2016	10.4	8.0	0.7	19.1
Charge for the year	3.4	2.4	0.4	6.2
Disposal	(0.1)	(0.6)	-	(0.7)
Foreign exchange differences	0.3	0.4	-	0.7
As at 31 March 2017	14.0	10.2	1.1	25.3
Net book value				
As at 1 April 2015	89.4	5.3	7.2	101.9
As at 1 April 2016	81.1	2.5	8.6	92.2
As at 31 March 2017	79.0	7.4	9.2	95.6

<sup>(1)</sup> Vizag General Cargo Berth Private Limited (VGCB), a special purpose vehicle, was incorporated for the coal berth mechanization and upgrades at Visakhapatnam port. VGCB is wholly owned by Vedanta Limited as on 31 March 2017 (99.99% as on 31 March 2016). The project is to be carried out on a design, build, finance, operate, transfer basis and the concession agreement between Visakhapatnam Port and VGCB was signed in June 2010. In October 2010, VGCB was awarded with the concession after fulfilling conditions stipulated as a precedent to the concession agreement. Visakhapatnam Port has provided, in lieu of license fee an exclusive license to VGCB for designing, engineering, financing, constructing, equipping, operating, maintaining, and replacing the project/project facilities and services. The concession Year is 30 years from the date of the award of the concession. The capacity of upgraded berth would be 10.18 mmtpa and that the Vishakhapatnam Port would be entitled to receive 38.10% share of the gross revenue as royalty. VGCB is entitled to recover a tariff from the user(s) of the project facilities and services aper its tariff notification. The tariff rates are linked to the Wholesale Price Index (WPI) and would accordingly be adjusted as specified in the concession agreement every year. The ownership of all infrastructure assets, buildings, structures, berths, wharfs, equipment and other immovable and movable assets constructed, installed, located, created or provided by VGCB at the project site and/or in the port's assets pursuant to concession agreement would be with VGCB until expiry of this concession agreement. The cost of any repair, replacement or restoration of the project facilities and services shall be borne by VGCB during the concession period. VGCB has to transfer all its rights, titles and interest in the project facilities and services free of cost to Visakhapatnam Port at the end of the concession period.

Vedanta Resources plc

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17. Property, plant and equipment

							(US	(US\$ million)
	Mining property and leases	Land and buildings	Plant and equipment <sup>(1)</sup>	Assets under construction	Oil & Gas properties	Exploratory and evaluation assets	Others	Total
Cost								
At 1 April 2015	3,125.7	1,458.9	10,715.1	5,112.0	9,635.7	2.206'6	147.1	40,102.2
Additions	121.1	20.9	129.0	249.7	134.5	6.62	15.6	750.7
Transfers	11.7	329.5	1,313.0	(1,673.8)	•	•	19.6	1
Unsuccessful exploration costs	•	1	•		1	(4.5)	•	(4.5)
Disposals <sup>(4)</sup>	(490.4)	(7.6)	(184.1)	1	•		•	(682.1)
Foreign exchange differences	(152.6)	(296.7)	(551.8)	(278.7)	•		(32.8)	(1,112.6)
At 1 April 2016	2,615.5	1,705.0	11,421.2	3,409.2	9,770.2	9,983.1	149.5	39,053.7
Additions	141.6	24.4	226.1	419.9	151.1	•	13.0	976.1
Transfers	8.0	15.4	1,492.0	(1,382.3)	•	(140.2)	7.1	1
Reclassification	77.1	1	(43.8)	(29.3)	1		(33.3)	(29.3)
Unsuccessful exploration costs	•	•	•	•	1	(6.5)	•	(6.5)
Disposal	(54.8)	(8.1)	(63.6)	(18.0)	•		(38.6)	(183.1)
Foreign exchange differences	75.9	45.1	295.4	45.1	-	-	15.9	477.4
At 31 March 2017	2.863.3	1,781.8	13,327.3	2,444.6	9,921.3	9,836.4	113.6	40,288.3
Accumulated depreciation, amortization and								
impairment								
At 1 April 2015	1,695.5	288.8	3,607.0	28.8	6,577.6	4,493.6	58.9	16,750.2
Charge for the year	155.9	37.1	433.6	•	817.9	•	4.0	1,448.5
Impairment of assets (note 5)		1	9.7	17.6	1,143.5	4,018.3	1	5,187.0
Disposal <sup>(4)</sup>	(490.4)	(9.9)	(173.6)	•	1	•	1	(670.6)
Foreign exchange differences	(60.1)	(26.7)	(198.5)	•	•		(23.9)	(309.2)
At 1 April 2016	1,300.9	292.6	3,676.1	46.4	8,539.0	8,511.9	39.0	22,405.9
Charge for the year	125.4	0.79	410.9	1	409.7	•	11.3	1,024.3
Disposal	(54.8)	(7.3)	(24.2)	1	1	•	(37.9)	(124.2)
Reclassification	23.0	1.0	(30.5)	1	1		6.5	1
Impairment/(impairment reversal) of assets (note 5)	•	•	•	29.9	63.0	(75.6)	1	17.3
Foreign exchange differences	30.8	13.9	100.1	2.0	-	-	12.1	158.9
At 31 March 2017	1,425.3	367.2	4,132.4	78.3	9,011.7	8,436.3	31.0	23,482.2
Net book value								
At 1 April 2015	1,430.2	1,170.1	7,108.1	5,083.2	3,058.1	5,414.1	88.2	23,352.0
At 1 April 2016	1,314.6	1,412.4	7,745.1	3,362.8	1,231.2	1,471.2	110.5	16,647.8
At 31 March 2017	1,438.0	1,414.6	9,194.9	2,366.3	9.606	1,400.1	82.6	16,806.1
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Plant and equipment include refineries, smelters, power plants and related facilities. Other tangible fixed assets include office equipment and fixtures, and light vehicles. At 31 March 2017, land with a carrying value of US\$131.1 million (31 March 2016: US\$132.5 million) was not depreciated. (1)

<sup>&</sup>lt;u>5</u> <u>6</u>

During the year ended 31 March 2017, interest and foreign exchange losses capitalised was US\$101.6 million (31 March 2016: US\$85.7 million).
Certain property, plant and equipment are pledged as collateral against borrowings, the details related to which have been described in note 24 on Borrowings.
Subsequent to end of life of mines in Lisheen, US\$585.0 million has been removed from gross block and US\$580.7 million from accumulated depreciation during the year ended 31 March 2016.

#### 18. Financial asset investments

Financial asset investments represent investments classified and accounted for as available-forsale investments

#### Available-for-sale investments

(US\$ million) As at 31 March As at 2017 31 March 2016 At 1 April 6.5 4.2 4.1 Movements in fair value 2.3 0.1 Exchange difference 10.7 6.5 At 31 March

Financial assets investment represents quoted investments in equity shares that present the Group with an opportunity for returns through dividend income and gains in value. These securities are held at fair value based on market prices. These are classified as non-current as on 31 March 2017.

#### 19. Other non-current assets

(US\$ million)

		(0104 1111111011)
	As at	As at
	31 March 2017	31 March 2016
Site restoration fund	50.5	38.9
Others <sup>(1)</sup>	248.7	30.3
Financial (A)	299.2	69.2
Deposits with Government Authorities	57.5	99.8
Claims and other receivables	187.7	68.9
Non-financial (B)	245.2	168.7
Total (A+B)	544.4	237.9

 $<sup>(1) \</sup> Includes \ receivables \ in \ Power \ business \ transferred \ from \ current \ to \ non-current \ during \ the \ year.$ 

#### 20. Inventories

(US\$ million)

		(0104 1111111111)
	As at	As at
	31 March 2017	31 March 2016
Raw materials and consumables	896.6	852.4
Work-in-progress	585.1	385.3
Finished goods	188.4	128.1
	1.670.1	1,365.8

Inventories with a carrying amount of US\$790.4 million (2016: US\$758.1 million) have been pledged as security against certain bank borrowings of the Group.

Inventory held at net realizable value amounted to US\$71.0 million (2016: US\$142.8 million). The write down of inventories amounts to US\$2.2 million (2016: US\$53.7 million) has been charged to income statement.

# 21. Trade and other receivables

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
Trade receivables	387.4	406.6
Trade receivables from related parties	1.5	2.7
Cash call / receivables from joint operations	130.3	355.6
Other receivables	34.4	89.8
Financial (A)	553.6	854.7
Balance with Government authorities	231.8	264.0
Advances for supplies	183.1	113.9
Other receivables	116.3	111.7
Non Financial (B)	531.2	489.6
Total (A+B)	1,084.8	1,344.3

The credit period given to customers ranges from zero to 90 days. Other receivables, under non-financial primarily include excise balances, customs balances, advances to suppliers and claims receivables.

# 22. Liquid investments

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
Bank deposits <sup>(1)</sup>	882.6	530.3
Other investments	7,160.4	7,977.9
	8,043.0	8,508.2

Includes US\$28.3 million of restricted bank deposits for securing banking facilities. The amount in the prior year relates to US\$28.2 million of bank deposits that are restricted as directed by courts in relation to a relief claim filed by a vendor.

Bank deposits are made for periods of between three months and one year depending on the cash requirements of the companies within the Group and earn interest at the respective fixed deposit rates.

Other investments include mutual fund investments which are held for trading and recorded at fair value with changes in fair value reported through the income statement. Investments in liquid schemes of mutual funds do not qualify for recognition as cash and cash equivalents due to their maturity period and risk of change in value of the investments.

# 23. Cash and cash equivalents

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
Cash and cash equivalents consist of the following		
Cash at bank and in hand	1,323.7	217.2
Short-term deposits	185.3	166.3
Restricted cash and cash equivalents(1)	173.2	44.8
Total	1,682.2	428.3

(1) Restricted cash and cash equivalents includes US\$156.0 million (2016: US\$44.8 million) kept in a specified bank account to be utilized solely for the purposes of payment of dividends to non-controlling shareholders, which is being carried as a current liability. Of the same, US\$99.0 million (2016: US\$Nil) has been utilized to pay dividends to the non-controlling shareholder subsequent to the Balance Sheet date. Restricted cash and cash equivalents further includes US\$17.2 million (2016: US\$Nil) kept in short term deposits under lien, which can be utilized by the Group for the repayment of bills of exchange facilities against which these have been pledged as security.

Short-term deposits are made for periods of between one day and three months, depending on the immediate cash requirements of the Group, and earn interest at the respective short-term deposit rates.

# 24. Borrowings

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
Short-term borrowings consist of:		
Banks and financial institutions	5,587.9	1,803.4
Current portion of medium and long-term borrowings	2,070.6	1,923.2
Short-term borrowings (A)	7,658.5	3,726.6
Medium and long-term borrowings consist of:		
Banks and financial institutions	6,595.5	8,139.4
Bonds	3,457.6	3,982.1
Non-convertible debentures	2,109.1	1,737.6
Preference shares (Note 42)	464.2	-
Other	14.4	13.6
Medium and Long-term borrowings	12,640.8	13,872.7
Less: Current portion of medium and long-term borrowings	(2,070.6)	(1,923.2)
Medium and Long-term borrowings, net of current portion (B)	10,570.2	11,949.5
Total (A+B)	18,228.7	15,676.1

At 31 March 2017, the Group had available US\$911.0 million (2016: US\$1,087.3 million) of undrawn committed borrowing facilities in respect of which all conditions precedent had been met. The group facilities are subject to certain financial and non-financial covenants. During the year ended 31 March 2016, the Group has agreed with the lenders for a moratorium period for testing of certain financial covenants and relaxed level for others. Certain of these financial covenants will be reset to their original levels beginning March 2019. The primary covenants which must be complied with include fixed charge cover ratio, net borrowing to EBITDA ratio, total net assets to borrowings ratio and net interest expense to EBITDA ratio.

# Details of the bonds and Non-convertible debentures issued by the Group have been provided below-

(US\$ million) **Particulars** As at 31 March 2017 As at 31 March 2016 Bonds: 6.75% bonds due June, 2016 728.0 9.50% bonds due July, 2018 361.1 731.2 6.00% bonds due January, 2019 744.3 1,165.4 8.25% bonds due June, 2021 865.4 864.2 6.375% bonds due July, 2022 991.5 7.125% bonds due May, 2023 495.3 493.3 3,982.1 3,457.6 Non-Convertible Debentures 9.24% NCDs due December, 2022 77.1 75.4 9.10% NCDs due April, 2023 385.6 376.9 9.17% NCDs due July, 2023 185.1 180.9 9.70% NCDs due August, 2020 308.5 301.5 9.24% NCDs due October, 2022 77.1 75.4 9.40% NCDs due November, 2022 77.1 75.4 9.40% NCDs due December, 2022 77.1 75.4 9.36% NCDs due October, 2017 150.4 147.0 9.36% NCDs due December, 2017 81.0 79.1 37.7 8.60% NCDs due May, 2016 10.25% NCDs due August, 2017 77.1 75.4 9.60% NCDs due September, 2016 18.1 9.70% NCDs due September, 2017 27.8 27.1 9.27% NCDs due November, 2017 30.8 30.2 8.91% NCDs due April, 2018 153.9 150.8 8.20% NCDs due November, 2019 46.3 7.75% NCDs due September, 2019 38.6 9.00% NCDs due May, 2016 11.3 8.65% NCDs due September, 2019 23.1 8.70% NCDs due April, 2020 92.5 8.75% NCDs due April, 2021 38.6 8.75% NCDs due September, 2021 38.6 46.3 8.25% NCDs due October, 2019 7.95% NCDs due April, 2020 46.3 7.50% NCDs due November, 2019 30.2 2,109.1 1,737.6

# **Security Details**

The Group has taken borrowings in various countries towards funding of its acquisitions and working capital requirements. The borrowings comprise of funding arrangements from various banks and financial institutions taken by the parent and subsidiaries. Out of the total borrowings of US\$18,228.7 million (2016: US\$15,676.1 million) shown above total secured borrowings are US\$6,037.8 million (2016: US\$5,206.1 million) and unsecured borrowings are US\$12,190.9 million (2016: US\$10,470.0 million). The details of security provided by the Group in various countries, to various banks on the assets of Parent and subsidiaries are as follows:

			(US\$ million)
Facility Category	Security details	As at 31 March 2017	As at 31 March 2016
Buyers Credit	Secured by exclusive charge on the assets of Vedanta Limited's Jharsuguda Aluminium division imported under facility and first charge on Jharsuguda Aluminium's current assets on pari passu basis.	1.8	-
	Secured by first charge on pari passu basis on all the movable assets of TSPL.	110.7	85.7
	Secured by exclusive charge only on assets imported under the facility in Balco.	2.9	58.1
Cash credit	Secured by a charge on Inventory and Receivables of Vedanta Limited's copper division in India	3.7	3.3
	Secured by hypothecation of stock of raw materials, work-in-progress, semi- finished, finished products, consumable stores and spares, bills receivable, book debts and all other movables, both present and future in Balco. The charges ranks pari passu among banks under multiple banking arrangements, both for fund based and non-fund based facilities.	0.1	18.2
ECB	Secured by all present and future movable assets of Vedanta Limited's Jharsuguda Aluminium division including its movable plant and machinery, equipment, machinery spare tools and accessories.	99.9	299.2
	Secured by first pari passu charge over Fixed Assets of Balco with Minimum Security cover of 1.25 times	73.9	-
	Secured by first pari passu charges on Project assets related to 1200 MW Power Plant and 3.25 LTPA Smelter both present and future along with secured lenders in Balco.	49.8	49.6
	Secured by first pari passu charges on all the fixed assets (excluding land) of the 3.25 LTPA Aluminium Smelter along with a Thermal Power Plant of 1200 MW at Korba, both present and future along with secured lenders	133.3	200.0
NCD	The Principal together with interest (in respect of the amount so subscribed and issued) is secured by the first pari pasu charge over specific identified fixed asset of Vedanta Limited's iron ore division with the minimum security cover of 1.25 times.	231.3	226.1
	Secured by first pari passu charge over fixed assets (excluding leasehold properties) of Balco with Minimum Security cover of 1.25 times	77.1	75.4
	Secured by security cover of 1.25 times on the face value of outstanding debentures by way of charge on the assets of Vedanta Limited and/or assets of 2400 MW Thermal Power at Jharsuguda, Orissa at all times during the tenure of the debenture.	231.2	226.1
	Secured by way of first pari-passu charge on the specific movable and/or immovable Fixed Assets, as may be identified and notified by the Issuer to the Security Trustee from time to time, with minimum asset coverage of 1	1,033.1	934.7

	time of the aggregate face value of Bonds outstanding at any point of time. The whole of the movable fixed assets of the 1.6 MTPA Aluminium Smelter along with 1215 MW captive power plant in Jharsuguda and 1 MTPA alumina refinery along with 75 MW co-generation plant in Lanjigarh are covered		
	Secured by first pari passu charge over the fixed assets of Vedanta Limited's Lanjigarh Expansion and Lanjigarh 2 MTPA Assets with a minimum security cover of 1 times of the outstanding amount of the debenture	239.1	-
	Secured by first pari passu charge on all the movable fixed assets of TSPL both present and future, with a minimum asset cover of 1.1 times during the lifetime of the NCDs	297.3	207.7
Term Loans	Secured by first pari passu charge by way of hypothecation on the entire movable Fixed Assets (including WIP) of the Aluminium and Power Project, both present and future; and mortgage by deposit of documents of title of the land pertaining to the Fixed Assets. Aluminium and Power project shall mean the manufacturing facilities comprising of (i) alumina refinery having output of 1 MTPA along with co-generation captive power plant with an aggregate capacity of 75 MW at Lanjigarh, Orissa. (ii) aluminium smelter having an output of 1.6 MTPA along with a 1215 (9x135) MW CPP at Jharsuguda, Orissa.	410.1	-
	Secured by first charge on pari passu basis on all the movable assets of TSPL	561.4	351.5
	Secured by a first pari passu charge on movable & immovable fixed assets of Vedanta Limited's Refinery expansion Project (beyond 2 MTPA & upto 6 MTPA)	151.8	-
	Secured by creating first pari-passu charge by way of hypothecation of the movable fixed assets and mortgage on all the immovable fixed assets of the Aluminium Division of Vedanta Limited, both present and future, including leasehold land.	692.1	713.9
	Secured by creating first pari-passu charge by way of hypothecation of the movable fixed assets and mortgage on all the immovable fixed assets of the Aluminium Division of Vedanta Limited, both present and future, including leasehold land.	741.0	861.3
	Secured by a first pari passu charge by way of hypothecation on the entire movable fixed Assets (including CWIP) of the project at Vedanta Limited's Jharsuguda Aluminium division, both present and future; and mortgage by deposit of documents of title of the land pertaining to the fixed Assets.	299.5	296.4
	Secured by aggregate of the Net Fixed Assets of Aluminium Division and the Lanjigarh Expansion Project reduced by the outstanding amount of other borrowings having first pari passu charge on the fixed assets of Aluminium division and the Lanjigarh Expansion Project,	192.0	188.4
	Secured by creating first pari-passu charge by way of hypothecation of the movable fixed assets and mortgage on all the immovable fixed assets of the Aluminium Division of Vedanta Limited, both present and future, including leasehold land.	57.8	67.0
	Secured by 2nd pari passu charge on specific fixed assets of Vedanta Limited related to 2400 MW power project in Jharsuguda (except agricultural land)	67.4	103.4
	Secured by first pari passu charges on movable fixed assets (excluding Coal Block assets) both present and future along with secured lenders in Balco.	237.8	240.1
	Secured by collateral security of current assets of VGCB	41.7	-

Total 6,037.8 5,206.1

# 25. Non-equity non-controlling interests

As at 31 March 2017, non-equity non-controlling interests amounts to US\$11.9 million (2016: US\$11.9 million), being deferred shares in KCM held by ZCCM. The deferred shares have no voting rights or rights to KCM's dividends, but are entitled on a winding up to a return of up to US\$0.99 per share once all of KCM's ordinary shares have received a distribution equal to their par value and any share premium created on their issue and which remains distributable to them.

The deferred shares are held at historic cost, being the fair value attributed to them at the time of initial acquisition of KCM in the year ended 31 March 2005. They are classified as non-current liabilities as they are repayable only on the winding up of KCM, for an amount different than the pro rata share of net assets upon liquidation. The shares have been valued at US\$0.99 per share, which is the maximum amount payable to the deferred shareholders. These deferred shares have not been discounted as the effect would not be material.

Financial Statements For The Year Ended 31 March 2017

# 26. Movement in net debt<sup>(1)</sup>

(US\$ million)

				Debt due within one			
				year	Debt due after one year	ne year	
	Cash and cash	Liquid	Total cash and	Debt	Debt	Debt-related	
	equivalents	investments	liquid investments	carrying value	carrying value	derivatives <sup>(2)</sup>	Total Net Debt
At 1 April 2015	353.7	7,856.1	8,209.8	(3,179.2)	(13,488.6)	(2.3)	(8,460.3)
Cash flow	92.6	6.666	1,092.5	1,022.1	(901.6)	1	1,213.0
Other non-cash changes (3)	1	59.4	59.4	(2,280.6)	2,195.6	0.3	(25.3)
Foreign exchange differences	(18.0)	(407.2)	(425.2)	123.9	245.1	-	(56.2)
At 1 April 2016	428.3	8,508.2	8,936.5	(4,313.8)	(11,949.5)	(2.0)	(7,328.8)
Cash flow	1,187.2	(921.5)	265.7	74.1	(1,144.6)	1	(804.8)
Other non-cash changes <sup>(3)</sup>	1	321.0	321.0	(3,266.6)	2,643.4	2.0	(300.2)
Foreign exchange differences	2.99	135.3	202.0	(152.2)	(119.5)	-	(69.7)
At 31 March 2017	1,682.2	8,043.0	9,725.2	(7,658.5)	(10,570.2)	1	(8,503.5)

Net debt being total debt and debt related derivative reduced by cash and cash equivalents and liquid investments, as carried at fair value under IAS 32 and 39.

Debt related derivatives exclude derivative financial assets and liabilities relating to commodity contracts and forward foreign currency contracts.

Other non-cash changes comprises of mark to market of embedded derivatives, interest accretion on convertible bonds, amortisation of borrowing costs, foreign exchange difference on net debt and preference shares to be issued on merger, for which there is no cash movement and reclassification between debt due within one year and debt due after one year. It also includes US\$312.1 million (2016: US\$59.4 million) of fair value movement in investments. 3 G G

# 27. Trade and other payables

# (a) Current trade and other payables

(US\$ million) As at As at 31 March 2017 31 March 2016 1,550.8 1,500.0 Bills of exchange Dividend payable to NCI 671.6 536.3 Trade payables 1,515.8 1,268.8 974.8 Project creditors 578.8 Other payables 729.8 576.3 Financial (A) 5,046.8 4,856.2 311.2 Dividend distribution tax payable Statutory liabilities 308.2 180.6 Advance from customers(1) 783.9 396.8 Other payables 84.5 131.3 Non-Financial (B) 1,176.6 1,019.9 Total(A+B)6,223.4 5,876.1

Non-interest bearing trade payables are normally settled on 60 to 90-day terms.

Interest bearing trade and other payables amount to US\$1,550.8 million (2016: US\$1,500.0 million).

Bills of exchange are interest-bearing liabilities and are normally settled within a period of twelve months. These represent arrangements whereby operational suppliers of raw materials are paid by financial institutions, with the Company recognising the liability for settlement with the institutions at a later date.

The fair values of the trade and other payables are not materially different from the carrying values presented.

# (b) Non-current trade and other payables

(US\$ million) As at As at 31 March 2017 31 March 2016 0.2 157 Security deposits and retentions 47.1 Project creditors 46.0 Others 21.2 3.7 Financial (A) 68.5 65.4 Advance from customers(1) 150.5 Others 7.6 Non-Financial (B) 158.1 Total (A+B) 68.5 223.5

<sup>(1)</sup> Advance from customers include amounts received under long term supply agreements. The advance payment plus a fixed rate of return will be settled by supplying copper over a period up to twenty four months under an agreed delivery schedule as per the terms of the respective agreements. As these are contracts that the group expects, and has the ability, to fulfil through delivery of a non-financial item, these are recognised as advance from customers and will be released to the income statement as copper is delivered under the agreements. The portion of the advance that is expected to be settled within the next 12 months has been classified as a current liability.

# 28. Convertible bonds

#### A.

Vedanta Resource Jersey Limited ("VRJL") issued 5.5% US\$1,250.0 million guaranteed convertible bonds on 13 July 2009. The bonds are first convertible into exchangeable redeemable preference shares to be issued by VRJL, which will then be automatically exchanged for ordinary shares of Vedanta Resources plc. The bondholders had the option to convert at any time from 24 August 2009 to 6 July 2016. Conversion options exercised before 15 August 2012 were convertible at US\$36.5 per share. Conversion options exercised on or after 15 August 2012 were convertible at US\$35.6 per share.

If the notes have not been converted, they will be redeemed at the option of the Company at any time on or after 28 July 2012 subject to certain conditions, or be redeemed at the option of the bondholders on 13 July 2014 or at the time of final maturity on 13 July 2016.

During the previous year in January 2016 and February 2016, the company bought back the convertible bonds of a face value of US\$549.3 million and carrying value of US\$541.6 million from market for a consideration of US\$522.4million. The buyback consideration including buy back cost of US\$1.1 million has been split between the liability and equity. Accordingly, US\$2.6 million has been debited to convertible bond reserve and net gain of US\$20.7 million has been recognised in the income statement.

During the year the company further bought back convertible bonds of a face value of US\$67.4 million and repaid the balance US\$514.8 million on its due date in July 2016.

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Opening liability	579.9	1096.4
Effective interest cost	17.5	90.1
Conversion of Convertible bonds	-	(2.9)
Repayment of Convertible bonds	(514.8)	-
Buy back of Convertible bonds	(67.4)	(541.6)
Coupon interest paid/ accrued	(15.2)	(62.1)
Closing liability	-	579.9

The interest charged for the year is calculated by applying an effective interest rate of 8.2% (March 2016: 8.2%).

The fair value of the convertible bond as at 31 March 2017 is Nil (March 2016: US\$573.1 million).

#### В.

Vedanta Resource Jersey II Limited ("VRJL - II") issued 4.0% US\$883 million guaranteed convertible bonds on 30 March 2010. The bonds were first convertible into exchangeable redeemable preference shares to be issued by VRJL-II, which will then be automatically exchanged for ordinary shares of Vedanta Resources plc. The bondholders have the option to convert at any time from 10 May 2010 to 23 March 2017. Conversion option exercised before 15 August 2012, were convertible at US\$51.9 per share. Conversion Options exercised on or after 15 August 2012, are convertible at US\$50.6 per share, as per the terms of offering circular.

If the notes have not been converted, they will be redeemed at the option of the Company at any time on or after 14 April 2013 subject to certain conditions, or be redeemed at the option of the bondholders on 29 April 2013 or on 30 March 2015 or at the time of final maturity on 30 March 2017.

During the year the company repaid US\$8.1 million on its due date in March 2017.

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		(6184 1111111611)
	Year ended	Year ended
	31 March 2017	31 March 2016
Opening liability	7.3	6.6
Effective interest cost	1.1	1.0
Repayment of Convertible Bonds	(8.1)	-
Coupon interest paid/accrued	(0.3)	(0.3)
Closing Liability	-	7.3

The interest charged for the year is calculated by applying an effective interest rate of 15.1% (2016: 15.1%).

The fair value of the convertible bond as at 31 March 2017 is Nil (March 2016: US\$7.3 million).

# Summary of convertible bond movements:

(US\$ million) Year ended

Year ended

	31 March 2017	31 March 2016
Opening Liability	587.2	1,103.0
Effective interest cost	18.6	91.1
Coupon interest paid/ accrued	(15.5)	(62.4)
Repayment of bonds	(522.9)	-
Conversion of Convertible bonds	-	(2.9)
Buy back of Convertible bonds	(67.4)	(541.6)
Closing Liability	-	587.2

# 29. Financial instruments

The accounting classification of each category of financial instruments, and their carrying amounts, are set out below:

						(US\$ million)
	Held	Loans and	Available	<b>5</b>	Total	Total
	for	receivables		Derivatives	carrying	fair
As at 31 March 2017	trading		101 5410		value	value
Financial Assets						
Financial instruments (derivatives)	-	-	-	2.2	2.2	2.2
Financial asset investments held at	-	-	10.7	-	10.7	10.7
fair value						
Liquid investments						
- Bank deposits	-	882.6	-	-	882.6	882.6
- Other investments	7,160.4	-	-	-	7,160.4	7,160.4
Cash and cash equivalents	-	1,682.2	-	-	1,682.2	1,682.2
Trade and other receivables	-	553.6	-	-	553.6	553.6
Other non-current assets	-	299.2	-	-	299.2	299.2
Total	7,160.4	3,417.6	10.7	2.2	10,590.9	10,590.9

As at 31 March 2017	Amortized cost	Derivatives	Total carrying value	Total fair value
Financial Liabilities				
Financial instruments (derivatives)	-	(135.5)	(135.5)	(135.5)
Trade and other payables	(5,115.3)	-	(5,115.3)	(5,115.3)
Borrowings	(18,228.7)	-	(18,228.7)	(17,310.2)
Total	(23,344.0)	(135.5)	(23,479.5)	(22,561.0)

						(US\$ million)
As at 31 March 2016		Loans and receivables		Derivatives	Total carrying value	Total fair value
Financial Assets						_
Financial instruments (derivatives)	-	-	-	19.1	19.1	19.1
Financial asset investments held at fair value	-	-	6.5	-	6.5	6.5
Liquid investments						
- Bank deposits	-	530.3	-	-	530.3	530.3
- Other investments	7,977.9	-	-	-	7,977.9	7,977.9
Cash and cash equivalents	-	428.3	-	-	428.3	428.3
Trade and other receivables	-	854.7	-	-	854.7	854.7
Other non-current assets	-	69.2	-	-	69.2	69.2
Total	7,977.9	1,882.5	6.5	19.1	9,886.0	9,886.0

As at 31 March 2016	Amortized cost	Derivatives	Total carrying value	Total fair value
Financial Liabilities				
Financial instruments (derivatives)	-	(68.9)	(68.9)	(68.9)
Trade and other payables	(4,921.6)	-	(4,921.6)	(4,921.6)
Borrowings <sup>(1)</sup>	(16,263.3)	-	(16,263.3)	(15,118.2)
Total	(21,184.9)	(68.9)	(21,253.8)	(20,108.7)

 $<sup>(1) \</sup>quad Includes \ amortised \ cost \ liability \ portion \ of \ convertible \ bonds \ US\$587.2 million.$ 

IFRS 7 requires additional information regarding the methodologies employed to measure the fair value of financial instruments which are recognised or disclosed in the accounts. These methodologies are categorised per the standard as:

Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 fair value measurements are those derived from inputs other than quoted prices that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

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The below table summarises the categories of financial assets and liabilities measured at fair value:

	(US\$ million)		
		s at rch 017	
	Level 1	Level 2	Level 3
Financial assets			
At fair value through profit or loss			
- Held for trading	2,891.9	4,268.5	-
- Financial instruments (derivatives)	-	2.2	-
Available-for-sale investments			
- Financial asset investments held at fair value	9.2	-	1.5
Total	2,901.1	4,270.7	1.5
Financial liabilities	•	•	
At fair value through profit or loss/ designated for hedging			
- Financial instruments (derivatives)	-	135.5	-
Total	-	135.5	-

	31	As at March 2016 <sup>(1)</sup>
	Level 1	Level 2
Financial assets		
At fair value through profit or loss		
- Held for trading	3,473.7	4,504.2
- Financial instruments (derivatives)	-	19.1
Available-for-sale investments		
- Financial asset investments held at fair value	6.5	-
Total	3,480.2	4,523.3
Financial liabilities	•	
At fair value through profit or loss/ designated for hedging		
- Financial instruments (derivatives)	-	(68.9)
Total	-	(68.9)

<sup>(1)</sup> Held for trading disclosure at 31 March 2016 has been restated to appropriately disclose the bonds valued using inputs other than quoted price as Level 2 rather than Level 1.

There were no transfers between Level 1, Level 2 and Level 3 during the year.

Short-term marketable securities traded in active markets are determined by reference to quotes from the financial institutions; for example: Net asset value (NAV) for investments in mutual funds declared by mutual fund house. For other listed securities traded in markets which are not active, the quoted price is used wherever the pricing mechanism is same as for other marketable securities traded in active markets. Other short term marketable securities are valued on the basis of market trades, poll and primary issuances for securities issued by the same or similar issuer and for similar maturities or based on the applicable spread movement for the security derived based on the aforementioned factor(s).

Fair value of long-term fixed-rate and variable-rate borrowings have been determined by the Group based on parameters such as interest rates, specific country risk factors, and the risk characteristics of the financed project. Listed bonds are fair valued based on the prevailing market price. For all other long-term fixed-rate and variable-rate borrowings, either the carrying amount approximates the fair value, or fair value have been estimated by discounting the expected future cash flows using a discount rate equivalent to the risk free rate of return adjusted for the appropriate credit spread. For all other financial instruments, the carrying amount is either the fair value, or approximates the fair value.

The fair value of financial asset investments represents the market value of the quoted investments and other traded instruments. For other financials assets the carrying value is considered to approximate fair value.

The fair value of financial liabilities is the market value of the traded instruments, where applicable. Otherwise fair value is calculated using a discounted cash flow model with market assumptions, unless the carrying value is considered to approximate fair value.

The Group has no financial instruments with fair values that are determined by reference to significant unobservable inputs.

# Derivative instruments and risk management

The Group's businesses are subject to several risks and uncertainties including financial risks.

The Group's documented risk management policies act as an effective tool in mitigating the various financial risks to which the businesses are exposed in the course of their daily operations. The risk management policies cover areas such as liquidity risk, commodity price risk, foreign exchange risk, interest rate risk, credit risk and capital management (the latter covered in note 34).

Risks are identified at both the corporate and individual subsidiary level with active involvement of senior management. Each operating subsidiary in the Group has in place risk management processes which are in line with the Group's policy. Each significant risk has a designated 'owner' within the Group at an appropriate senior level. The potential financial impact of the risk and its likelihood of a negative outcome are regularly updated. The risk management process is coordinated by the Management Assurance function and is regularly reviewed by the Group's Audit Committee. The Audit Committee is aided by the CFO Committee and the Risk Management Committee, which meets regularly to review risks as well as the progress against the planned actions. Key business decisions are discussed at the meetings of the CFO Committee and Executive Committee. The overall internal control environment and risk management programme including financial risk management is reviewed by the Audit Committee on behalf of the Board.

#### Treasury management

Treasury management focuses on liability management, capital protection, liquidity maintenance and yield maximisation. The treasury policies are approved by the Committee of the Board. Daily treasury operations of the subsidiary companies are managed by their respective finance teams within the framework of the overall Group treasury policies. Long-term fund raising including strategic treasury initiatives are handled by a central team while short-term funding for routine working capital requirements is delegated to subsidiary companies. A monthly reporting system exists to inform senior management of investments, debt, currency, commodity and interest rate derivatives. The Group has a strong system of internal control which enables effective monitoring of adherence to Group policies. The internal control measures are supplemented by regular internal audits.

The investment portfolio is independently reviewed by CRISIL Limited and our portfolio has been rated as "Very Good" meaning highest safety. The investments are made keeping in mind safety, liquidity and yield maximisation.

The Group uses derivative instruments to manage the exposure in foreign currency exchange rates, interest rates and commodity prices. The Group does not acquire or issue derivative financial instruments for trading or speculative purposes. The Group does not enter into complex derivative transactions to manage the treasury and commodity risks. Both treasury and commodities derivative transactions are normally in the form of forward contracts and interest rate and currency swaps and these are in line with the Group policies.

# Commodity risk

The Group is exposed to the movement of base metal commodity prices on the London Metal Exchange. Any decline in the prices of the base metals that the Group produces and sells will have an immediate and direct impact on the profitability of the businesses. As a general policy, the Group aims to sell the products at prevailing market prices. The commodity price risk in import of Copper Concentrate & Alumina is hedged on back-to back basis ensuring no price risk for the business. Entities with integrated operations aim to achieve the monthly average of the commodity prices for sales realization. Hedging is used primarily as a risk management tool to secure future cash flows in cases of high volatility by entering into forward contracts or similar instruments. The hedging activities are subject to strict limits set out by the Board and to a strictly defined internal control and monitoring mechanism. Decisions relating to hedging of commodities are taken at the Executive Committee level and with clearly laid down guidelines for their implementation by the subsidiaries.

Whilst the Group aims to achieve average LME prices for a month or a year, average realised prices may not necessarily reflect the LME price movements due to a variety of reasons such as uneven sales during the year and timing of shipments.

The Group is also exposed to the movement of international crude oil price and the discount in the price of Rajasthan crude oil to Brent price.

# Copper

The Group's custom smelting copper operations at Tuticorin is benefited by a natural hedge except to the extent of a possible mismatch in quotational periods between the purchase of concentrate and the sale of finished copper. The Group's policy on custom smelting is to generate margins from Treatment charges /Refining charges, improving operational efficiencies, minimising conversion cost, generating a premium over LME on sale of finished copper, sale of by-products and from achieving import parity on domestic sales. Hence, mismatches in quotational periods are managed to ensure that the gains or losses are minimised. The Group hedges this variability of LME prices through forward contracts and tries to make the LME price a pass-through cost between purchases of copper concentrate and sales of finished products, both of which are linked to the LME price.

TC/RCs are a major source of income for the Indian copper smelting operations. Fluctuations in TC/RCs are influenced by factors including demand and supply conditions prevailing in the market for mine output. The Group's copper business has a strategy of securing a majority of its concentrate feed requirement under long-term contracts with mines.

KCM is largely an integrated copper producer and whenever hedging is done it is with an intention to protect the Group from price fluctuations in copper. KCM also engages in hedging for its custom smelting operations in line with the Group's policy on custom smelting at Tuticorin, as explained above.

#### Aluminium

The requirement of the primary raw material, alumina, is partly met from own sources and the rest is purchased primarily on negotiated price terms. Sales prices are linked to the LME prices. At present the Group on selective basis hedges the aluminium content in imported alumina to protect its margins.

The Group also enters into hedging arrangements for its aluminium sales to realise month of sale LME prices.

#### Zinc and lead

The sales prices are linked to the LME prices. The Group also enters into hedging arrangements for its Zinc and Lead sales to realise month of sale LME prices.

#### Iron ore

The Group Sells its Iron Ore production from Goa on the prevailing market prices and from Karnataka through e-auction route as mandated by State Government of Karnataka in India.

#### Oil and Gas

The prices of various crude oils are based upon the price of the key physical benchmark crude oil such as Dated Brent, West Texas Intermediate, and Dubai/Oman etc. The crude oil prices move based upon market factors like supply and demand. The regional producers price their crude basis these benchmark crude with a premium or discount over the benchmark based upon quality differential and competitiveness of various grades.

Natural gas markets are evolving differently in important geographical markets. There is no single global market for natural gas. This could be owing to difficulties in large-scale transportation over long distances as compared to crude oil. Globally, there are three main regional hubs for pricing of natural gas, which are USA (Henry Hub Prices), UK (NBP Price) and Japan (imported gas price, mostly linked to crude oil).

# Provisionally priced financial instruments

On 31 March 2017, the value of net financial liabilities linked to commodities (excluding derivatives) accounted for on provisional prices was a liability of US\$465.5 million (2016: liability of US\$416.3 million). These instruments are subject to price movements at the time of final settlement and the final price of these instruments will be determined in the financial year beginning 1 April 2017.

Set out below is the impact of 10% increase in LME prices on profit/ (loss) for the year and total equity as a result of changes in value of the Group's commodity financial instruments as at 31 March 2017:

			(US\$ million except as stated)
	Closing LME as at	Effect on profit/(loss) of a 10% increase in the LME	Effect on total equity of a 10% increase in the LME
	31 March 2017	31 March 2017	31 March 2017
Commodity price sensitivity	US\$	(US\$ million)	(US\$ million)
Copper	5,849.0	(54.3)	(54.3)
Zinc	2,782.5	0.5	0.5
Lead	2,310.0	1.1	1.1

			(US\$ million except as stated)
Commodity price	Closing LME as at 31 March 2016		Effect on total equity of a 10% increase in the LME 31 March 2016
sensitivity	US\$	(US\$ million)	(US\$ million)
Copper	4,855.5	(44.5)	(44.5)
Zinc	1,785.0	0.2	0.2
Lead	1,704.5	0.6	0.6

The above sensitivities are based on volumes, costs, exchange rates and other variables and provide the estimated impact of a change in LME prices on profit and equity assuming that all other variables remain constant. A 10% decrease in LME prices would have an equal and opposite effect on the Group's financial instruments.

#### Financial Statements For The Year Ended 31 March 2017

Further, the impact of a 10% increase in closing copper LME for provisionally priced copper concentrate purchased at Vedanta Limited Copper division custom smelting operations is US\$48.2 million (2016: US\$50.0 million), which is pass through in nature and as such will not have any impact on the profitability.

#### Financial risk and sensitivities

The Group's Board approved financial risk policies comprise liquidity, currency, interest rate and counterparty risk. The Group does not engage in speculative treasury activity but seeks to manage risk and optimise interest and commodity pricing through proven financial instruments.

#### (a) Liquidity

The Group requires funds both for short-term operational needs as well as for long-term investment programmes mainly in growth projects. The Group generates sufficient cash flows from the current operations which together with the available cash and cash equivalents and liquid financial asset investments provide liquidity both in the short term as well as in the long term. Anticipated future cash flows, together with undrawn fund based committed facilities of US\$911.0 million, and cash and liquid investments of US\$9,725.2 million as at 31 March 2017, are expected to be sufficient to meet the liquidity requirement of the Group in the near future.

The Group's current corporate family ratings from Standard & Poor's and Moody's are B+/Stable Outlook (B/Stable as on March 31, 2016) and B1/ Stable Outlook (B2/Negative as on March 31, 2016), respectively. The rating upgrades during the year reflect the Group's improving financial and operating performance and improving commodity prices. The Group strives to maintain a healthy liquidity, gearing ratio and retains flexibility in the financing structure (Refer note 34).

The maturity profile of the Group's financial liabilities based on the remaining period from the balance sheet date to the contractual maturity date is given in the table below. The figures reflect the contractual undiscounted cash obligation of the Group:

#### At 31 March 2017

					(US\$ million)
Payment due by period	< 1 year	1-3 years	3-5 years	> 5 years	Total
Trade and other payables	5,046.8	38.3	-	30.2	5,115.3
Bank and other borrowings(1)	8,560.5	5,387.9	4,508.7	2,735.0	21,192.1
Derivative liabilities	126.9	8.6	-	-	135.5
Total	13,734.2	5,434.8	4,508.7	2,765.2	26,442.9

# At 31 March 2016

					(US\$ million)
Payment due by period	< 1 year	1-3 years	3-5 years	> 5 years	Total
Trade and other payables	4,856.2	-	59.2	6.2	4,921.6
Bank and other borrowings(1)	4,711.2	7,614.2	3,465.7	3,388.3	19,179.4
Convertible bonds(1)	595.5	-	-	-	595.5
Derivative liabilities	67.7	1.2	-	-	68.9
Total	10,230.6	7,615.4	3,524.9	3,394.5	24,765.4

(1) Includes contractual interest payment based on interest rate prevailing at the end of the reporting period

At 31 March 2017, the Group had access to funding facilities (both fund based and non-fund based) of US\$19,400.8 million, of which US\$911.0 million fund based and US\$710.8 million non-fund based, was not yet drawn, as set out below.

			(US\$ million)
Funding facilities	Total facility	Drawn	Undrawn
Less than 1 year	8,341.6	6,786.0	1,555.6
1-2 years	3,791.7	3,791.7	-

2-5 years and above	7,267.5	7,201.3	66.2
Total	19,400.8	17,779.0	1,621.8

At 31 March 2016, the Group had access to funding facilities (both fund based and non-fund based) of US\$18,140.7 million of which US\$1,087.3 million fund based and US\$716.2 million non-fund based, was not yet drawn, as set out below.

			(US\$ million)
Funding facilities	Total facility	Drawn	Undrawn
Less than 1 year	6,104.2	4,310.0	1,794.2
1-2 years	2,642.7	2,642.7	-
2-5 years and above	9,393.8	9,384.5	9.3
Total	18,140.7	16,337.2	1,803.5

'Fund based' facilities represent contractual agreements for financial institutions to provide cash, such as cash credit limits and term loans, whereas 'non-fund based' facilities only give rise to an obligation to provide cash upon fulfilment of certain conditions, such as bank guarantees and letters of credit.

# (b) Foreign currency

The Group's presentation currency is the US dollar. The majority of the assets are located in India and the Indian Rupee is the functional currency for the Indian operating subsidiaries except for Oil and Gas business where the functional currency is US Dollar. Exposures on foreign currency loans are managed through the foreign exchange hedging policy, which is reviewed periodically to ensure that the risk from fluctuating currency exchange rates is appropriately managed. Natural hedges available in the business are identified at each entity level and hedges are placed only for the net exposure. Short-term net exposures are hedged progressively based on their maturity. Longer exposures beyond one year for trade and other current account transactions are reviewed and hedges taken accordingly. However, all new exposures on account of long term borrowing are being hedged.

The carrying amount of the Group's financial assets and liabilities in different currencies are as follows:

				(US\$ million)
	At 31 March 2017		At 31 March	n 2016
	Financial	Financial	Financial	Financial
	Assets	liabilities	Assets	liabilities
USD	1,551.9	11,624.7	1,260.9	12,519.9
INR	8,951.4	11,727.6	8,524.6	8,502.5
Kwacha	0.2	31.0	0.8	120.9
AUD	2.1	1.2	0.4	9.3
CAD	-	0.2	-	0.1
EURO	27.9	41.6	46.6	47.4
ZAR	19.0	29.3	18.3	18.6
NAD	12.1	16.0	5.0	5.0
Others	26.3	7.9	29.4	30.1
Total	10,590.9	23,479.5	9,886.0	21,253.8

The Group's exposure to foreign currency arises where a Group company holds monetary assets and liabilities denominated in a currency different to the functional currency of that entity with USD (US Dollar)being the major foreign currency exposure of the Group's main operating subsidiaries. Set out below is the impact of a 10% change in the US dollar on profit/(loss) and equity arising as a result of the revaluation of the Group's foreign currency financial instruments:

			(US\$ million)
		31 March 2017	
		Effect of	Effect of
		10% strengthening	10% strengthening
	Closing	of US dollar on	of US dollar on
	exchange rate	net earning	total equity
INR	64.8386	(317.3)	(317.1)
Kwacha	9.6570	(2.2)	(2.2)

			(US\$ million)		
	31 March 2016				
		Effect of	Effect of		
		10% strengthening	10% strengthening		
	Closing	of US dollar on	of US dollar on		
	exchange rate	net earnings	total equity		
INR	66.3329	(191.1)	(230.2)		
Kwacha	7.5811	(10.1)	(10.1)		

The sensitivities are based on financial assets and liabilities held at 31 March 2017 where balances are not denominated in the functional currency of the respective subsidiaries. The sensitivities do not take into account the Group's sales and costs and the results of the sensitivities could change due to other factors such as changes in the value of financial assets and liabilities as a result of non-foreign exchange influenced factors. A 10% depreciation of the US\$ would have an equal and opposite effect on the Group's financial instruments.

#### (c) Interest rate risk

At 31 March 2017, the Group's net debt of US\$8,503.5 million (2016: US\$7,328.8 million net debt) comprises cash, cash equivalents and liquid investments of US\$9,725.2 million (2016: US\$8,936.5 million) offset by debt of US\$18,228.7 million (2016: US\$16,263.3 million) and debt derivative liability of Nil (2016: US\$ 2.0 million).

The Group is exposed to interest rate risk on short-term and long-term floating rate instruments and on the refinancing of fixed rate debt. The Group's policy is to maintain a balance of fixed and floating interest rate borrowings and the proportion of fixed and floating rate debt is determined by current market interest rates. As at 31 March 2017, 55% (2016: 48.0%) of the total debt was at a fixed rate and the balance was at a floating rate. The USD floating rate debt is linked to US dollar LIBOR and INR Floating rate debt to Bank's base rate. The Group also aims to opt for a higher proportion of long-term debt to fund growth projects to extend its maturity profile. The Group invests cash and liquid investments in short-term deposits and debt mutual funds, some of which generate a tax-free return, to achieve the Group's goal of maintaining liquidity, carrying manageable risk and achieving satisfactory returns.

Floating rate financial assets are largely mutual fund investments which have debt securities as underlying assets. The returns from these financial assets are linked to market interest rate movements; however the counterparty invests in the agreed securities with known maturity tenure and return and hence has manageable risk. Additionally, the investments portfolio is independently reviewed by CRISIL Limited, and our investment portfolio has been rated as "Very Good" meaning highest safety.

#### Financial Statements For The Year Ended 31 March 2017

The exposure of the Group's financial assets to interest rate risk is as follows:

(US\$ million)

						(a y minon)
	At 31 March 2017				At 31 March 20	016
	Floating rate financial assets	Fixed rate financial assets	Non- interest bearing financial assets	Floating rate financial assets	Fixed rate financial assets	Non- interest bearing financial assets
Financial assets	5,379.4	3,043.0	2,166.3	6,334.0	2,601.8	931.1
Derivative assets	-	-	2.2	-	-	19.1
Total financial assets	5,379.4	3,043.0	2,168.5	6.334.0	2,601.8	950.2

The exposure of the Group's financial liabilities to interest rate risk is as follows:

(US\$ million)

	At 31 March 2017			At 31 March 2016		
	Floating rate financial liabilities	Fixed rate financial liabilities	Non-interest bearing financial liabilities	Floating rate financial liabilities	Fixed rate financial liabilities	Non-interest bearing financial liabilities
Financial liabilities	8,253.5	11,896.7	3,193.8	8,454.3	9,294.2	3,436.4
Derivative liabilities		-	135.5	-	-	68.9
Total financial liabilities	8,253.5	11,896.7	3.329.3	8,454.3	9,294.2	3,505.3

The weighted average interest rate on the fixed rate financial liabilities is 7.5% (2016: 8.2%) and the weighted average period for which the rate is fixed is 2.4 years (2016: 2.4 years).

Considering the net debt position as at 31 March 2017 and the investment in bank deposits, corporate bonds and debt mutual funds, any increase in interest rates would result in a net loss and any decrease in interest rates would result in a net gain. The sensitivity analysis below has been determined based on the exposure to interest rates for both derivative and non-derivative instruments at the balance sheet date.

The below table illustrates the impact of a 0.5% to 2.0% change in interest rate of floating rate borrowings on profit/(loss) and equity and represents management's assessment of the possible change in interest rates.

At 31 March 2017

(US\$ million)

Change in interest rates	Effect on profit for the year	Effect on total equity
0.5%	41.3	41.3
1.0%	82.5	82.5
2.0%	165.1	165.1

#### At 31 March 2016

(US\$ million)

		( , ,
Change in interest rates	Effect on loss for the year	Effect on total equity
0.5%	42.3	42.3
1.0%	84.5	84.5
2.0%	169.1	169.1

#### (d) Credit risk

The Group is exposed to credit risk from trade receivables, cash and cash equivalents, liquid investments and other financial instruments.

#### Financial Statements For The Year Ended 31 March 2017

The Group has clearly defined policies to mitigate counterparty risks. Cash and liquid investments are held primarily in debt schemes of mutual funds, Bonds and bank deposits with good credit ratings. Defined limits are in place for exposure to individual counterparties in case of mutual fund houses and banks.

The large majority of receivables due from third parties are secured. Moreover, given the diverse nature of the Group's businesses trade receivables are spread over a number of customers with no significant concentration of credit risk. During the year ended 31 March 2017 and 31 March 2016, no single customer accounted for 10% or more of the Group's net sales or for any of the Group's primary businesses. The history of trade receivables shows a negligible provision for bad and doubtful debts. Therefore, the Group does not expect any material risk on account of non-performance by any of our counterparties.

The Group's maximum gross exposure to credit risk at 31 March 2017 is US \$ 10,589.3 million (2016: US\$\$9,886.0 million).

Of the year end trade and other receivable balance the following, though overdue, are expected to be realised in the normal course of business and hence, are not considered impaired as at 31 March 2017:

		(US\$ million)
	2017	2016
Neither past due nor impaired	181.4	581.5
Past due but not impaired		
- Less than 1 month	130.6	49.8
- Between 1 - 3 months	34.0	74.3
- Between 3 - 12 months	199.3	92.9
- Greater than 12 months	188.6	56.2
Total	733.9	854.7

# Derivative financial instruments

The fair value of all derivatives is separately recorded on the balance sheet within other financial assets (derivatives) and other financial liabilities (derivatives), current and non-current. Derivatives that are designated as hedges are classified as current or non-current depending on the maturity of the derivative.

#### **Embedded derivatives**

Derivatives embedded in other financial instruments or other contracts are treated as separate derivative contracts, when their risks and characteristics are not closely related to those of their host contracts.

# Cash flow hedges

The Group also enters into forward exchange and commodity price contracts for hedging highly probable forecast transactions and accounts for them as cash flow hedges and states them at fair value. Subsequent changes in fair value are recognised in equity until the hedged transactions occur, at which time the respective gains or losses are transferred to the income statement.

The fair value of the Group's open derivative positions at 31 March 2017, recorded within financial instruments (derivative) is as follows:

(US\$ million)

	As at 31 March	a 2017	As at 31 March	2016
	Liability	Asset	Liability	Asset
Current				
Cash flow hedges				
- Commodity contracts	(13.2)	0.1	(0.9)	0.2
- Forward foreign currency contracts	(2.1)	0.1	(8.3)	5.5
Fair value hedges				
- Commodity contracts	(0.5)	-	-	0.1
- Forward foreign currency contracts	(82.1)	-	(37.4)	1.3
Non Qualifying hedges				
- Commodity contracts	(3.7)	1.4	(1.2)	2.9
- Forward foreign currency contracts	(25.1)	-	(19.7)	8.3
- Other (Foreign currency swap)	(0.2)	-	(0.2)	0.0
Total	(126.9)	1.6	(67.7)	18.3
Non-current				
Fair Value Hedges				
-Forward foreign currency contracts	(8.6)	0.6	(1.2)	0.8
Total	(8.6)	0.6	(1.2)	0.8
Grand Total	(135.5)	2.2	(68.9)	19.1

The majority of cash flow hedges taken out by the Group during the year comprises commodity contracts and foreign currency forward contracts for firm future commitments.

The cash flows related to the majority of cash flow hedges above are expected to occur during the year ended 31 March 2018 and consequently may impact the income statements for that year depending upon the change in the commodity prices and foreign exchange rate movements.

# Non-qualifying hedges

The majority of these derivatives comprise foreign currency forward contracts which are economic hedges but which do not fulfil the requirements for hedge accounting of IAS 39 Financial Instruments: Recognition and Measurement.

# Fair value hedges

The fair value hedges relate to foreign currency forward contracts taken to hedge currency exposure on purchase of raw materials and capital imports.

# Hedging reserve reconciliation

			(US\$ million)
		Non-controlling	
	Hedging reserves	interests	Total
At 1 April 2015	(74.7)	(44.7)	(119.4)
Amount recognised directly in equity	(17.2)	(10.1)	(27.3)
Amount transferred to income statement	(0.8)	(0.7)	(1.5)
Exchange difference	5.0	2.9	7.9
At 1 April 2016	(87.7)	(52.6)	(140.3)
Amount recognised directly in equity	3.3	0.5	3.8
Amount transferred to income statement	(5.0)	(3.0)	(8.0)
Exchange difference	(1.5)	(0.9)	(2.4)
At 31 March 2017	(90.9)	(56.0)	(146.9)

# 30. Provisions

(US\$ million) Restoration, rehabilitation **KCM** Copper and Price environmental Other Participation Total At 1 April 2015 224.9 91.9 27.4 344.2 Charged to income statement 1.7 5.1 3.4 Unwinding of discount (note 7) 10.3 2.5 0.7 13.5 Cash paid (43.9)(0.7)(44.6)Exchange differences (3.0)7.6 (3.3)1.3 At 1 April 2016 319.5 191.7 102.0 25.8 12.5 Additions 4.1 16.6 (12.8)Amounts used (6.0)(1.2)(20.0)Unwinding of discount (note 7) 12.6 0.4 13.0 Change in estimates 112.4 112.4 Reclassifications to trade payables (96.3)(4.4)(100.7)Exchange differences 8.8 4.0 (0.1)(4.7)316.8 At 31 March 2017 28.0 344.8 Current 2017 9.8 7.7 17.5 Non-current 2017 307.0 20.3 327.3 316.8 28.0 344.8 Current 2016 17.5 102.0 12.6 132.1 Non-current 2016 174.2 13.2 187.4 191.7 102.0 25.8 319.5

#### Restoration, rehabilitation and environmental

The provisions for restoration, rehabilitation and environmental liabilities represent the Management's best estimate of the costs which will be incurred in the future to meet the Group's obligations under existing Indian, Australian, Zambian, Namibian, South African and Irish law and the terms of the Group's mining and other licences and contractual arrangements. These amounts, calculated by considering discount rates within the range of 2% to 13%, become payable on closure of mines and are expected to be incurred over a period of one to thirty years. Within India, the principal restoration and rehabilitation provisions are recorded within Cairn India where a legal obligation exists relating to the oil and gas fields, where costs are expected to be incurred in restoring the site of production facilities at the end of the producing life of an oil field. The Group recognises the full cost of site restoration as a liability when the obligation to rectify environmental damage arises.

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production from a producing field.

In the current period, the Group identified an adjustment to the discount rate applied to the decommissioning liability in relation to a prior year in the Group's Oil and Gas segment. The discount rate has been revised from 8% to 3.5% p.a. to reflect the risk free rate of return of the currency in which the majority of the expenses are likely to be incurred. The consequential increase in decommissioning provision and property, plant and equipment of US\$125.0 million, which the Group believes is not material when comparing to the overall net assets, has been recognised in the current period.

# KCM copper price participation

During the year 31 March 2013, the Group and ZCCM-IH agreed a final settlement for the copper price participation liability. Pursuant to this agreement KCM had paid US\$6.0 million during the first quarter of current year and subsequently KCM and ZCCM-IH had agreed to amend the scheduled dates of payment in respect of price participation through a Consent order as recorded in the English Court. Pursuant to the terms of the order, KCM agreed to an amended schedule of payment with ZCCM-IH as US\$20 million by 31 January 2017, US\$22 million by 28 February 2017 and US\$2.55 million at the end of every month (commencing 31 March 2017) for next 24 months until the judgment sum is paid in full. Consequent to the removal of uncertainty with respect to timing and amount, US\$96.3 million has been reclassified to trade payables during the current year.

#### Other

Other includes provision on post- retirement medical benefits. The expected Year of utilisation is 18 years.

# 31. Non-current tax assets and Deferred tax (assets) / liabilities

Non-current tax assets of US \$ 434.6 million (2016 : 361.7 million) mainly represents income tax receivable from Indian tax authorities by Vedanta Limited relating to refund arising consequent to the Scheme of Amalgamation & Arrangement made effective in August 2013 pursuant to approval by the jurisdiction High Court and receivables relating to matters in tax disputes in Group companies including tax holiday claim.

The Group has accrued significant amounts of deferred tax. The majority of the deferred tax liability represents accelerated tax relief for the depreciation of capital expenditure and the depreciation on fair value uplifts created on acquisitions, net of losses carried forward by Vedanta Limited (post the re-organisation) and MAT credits carried forward in Vedanta Limited, Cairn and Hindustan Zinc.

The amounts of deferred tax on temporary differences, recognized or not recognized, in the consolidated statement of financial position is as follows:

# Deferred tax (assets) / liabilities

For the	uear end	led 31	March	2017	alls\$	million

	Opening balance as at 1 April 2016	Charged/ (credited) to income statement	Charged/ (credited) to OCI	Exchange difference transferred to translation of foreign operation	Total as at 31 March 2017
Property, plant & equipment, Exploration& Evaluation and other intangible assets	2,175.0	(42.0)	-	47.3	2,180.3
Unabsorbed depreciation/business loss	(813.9)	(94.6)	-	(22.0)	(930.5)
Voluntary retirement scheme	(8.9)	1.7	-	(0.2)	(7.4)
Employee benefits	(7.9)	(1.3)	(0.6)	(0.3)	(10.1)
Fair value of derivative assets/liabilities	2.6	19.8	1.5	0.8	24.7
Fair value of other assets/ liabilities	134.2	23.4	-	4.1	161.7
MAT credits entitlement	(1,966.7)	96.4	-	(45.3)	(1,915.6)
Other temporary differences	(149.6)	(91.1)	-	(2.3)	(243.0)
Total	(635.2)	(87.7)	0.9	(17.9)	(739.9)

# Unrecognised deferred tax assets

As at 31 March 2017 (US\$ million)

	Within one year	Greater than one year, less than five years	Greater than five years	No expiry date	Total
Unutilised business losses	302.2	869.7.	212.3	1,520.3	2,904.5
Unabsorbed depreciation	-	-	-	261.3	261.3
Capital losses	-	-	-	-	-
Unused tax credit	-	-	-	1.3	1.3
Total	302.2	869.7	212.3	1,782.9	3167.1

# Deferred tax asset/liabilities

For the year ended 31 March 2016 (US\$ million)

	Opening balance as at 1 April 2015	Charged/ (credited) to income statement	Charged/ (credited) to OCI	Exchange difference transferred to translation of foreign operation	Total as at 31 March 2016
Property, plant & equipment, Exploration& Evaluation and other intangible assets	3,478.3	(1,490.5)	-	187.2	2,175.0
Unabsorbed depreciation/business loss	(445.1)	(275.9)	-	(92.9)	(813.9)
Voluntary retirement scheme	(7.7)	(2.2)	-	1.0	(8.9)
Employee benefits	(10.8)	1.2	2.5	(0.8)	(7.9)
Fair value of derivative assets/ liabilities	2.4	1.3	1.2	(2.3)	2.6
Fair value of other assets/ liabilities	215.1	(98.3)	-	17.4	134.2
MAT credits entitlement	(1,898.0)	37.9	-	(106.6)	(1,966.7)
Other temporary differences	2.2	(192.1)	-	40.3	(149.6)
Total	1,336.4	(2,018.6)	3.7	43.3	(635.2)

# Unrecognised deferred tax assets

For the year ended 31 March 2016 (US\$ million)

			i ine yeur enueu	i 51 Murch 2016 (C	λοφ million)
		Greater than			
	Within one	one year, less	Greater than		
	year	than five years	five years	No expiry date	Total
Unutilised business losses	218.7	880.7	515.4	1,292.6	2907.4
Unabsorbed depreciation	-	-	-	587.3	587.3
Capital losses	-	40.7	143.0	-	183.7
Unused tax Credit	-	-	-	1.3	1.3
Total	218.7	921.4	658.4	1,881.2	3,679.7

No deferred tax asset has been recognised on these unutilized tax losses as there is no evidence that sufficient taxable profit will be available in future against which they can be utilised by the respective entities.

# **Unrecognised MAT Credit**

		(US\$ million)
	As at 31 March	As at 31 March
	2017	2016
2021	3.1	3.0
2022	16.0	15.6
2023	2.1	2.1
2024	8.0	7.8
2025	8.0	7.8
2026	16.0	15.6
2027	9.8	9.5
2028	1.2	1.2
2029	0.5	0.5
Total	64.7	63.1

Deferred tax assets in the Group have been recognised to the extent there are sufficient taxable temporary differences relating to the same taxation authority and the same taxable entity which are expected to reverse.

# 32. Share-based payments

# **Employee share schemes**

The Group aims to provide superior rewards for outstanding performance and a high proportion of 'at risk' remuneration for Executive Directors. Three employee share schemes were approved by shareholders on Listing in 2003. In 2014, the Board introduced a Performance Share Plan ('PSP') which is the primary arrangement under which share-based incentives are provided to the Executive Directors and the wider management group. In 2015, the Board also introduced a Deferred Share Bonus Plan (DSBP). In 2016, Vedanta Limited (subsidiary of Vedanta Resources plc) introduced an Employee Stock Option Scheme 2016 ("ESOS"), which was approved by the Vedanta Limited shareholders.

# The Vedanta Resources Long-Term Incentive Plan (the 'LTIP') and Employee Share Ownership Plan (the 'ESOP') and Performance Share Plan (the 'PSP')

The maximum value of shares that can be conditionally awarded to an Executive Director in a year is 150% of annual salary. In respect of Mr. Navin Agarwal and Mr Tom Albanese, salary means the aggregate of their salary payable by Vedanta and their cost to company (CTC) payable by Vedanta Limited. The maximum value of shares that can be awarded to members of the wider management group is calculated by reference to the grade average CTC and individual grade of the employee. The performance conditions attaching to outstanding awards are as follows:

PSP - Dependent on the level of employee, part of these awards will be subject to a continued service condition only with the remainder measured in terms of Total Shareholder Return ('TSR') (being the movement in a company's share price plus reinvested dividends), is compared over the performance period with the performance of the companies as defined in the scheme from the grant date. The extent to which an award vests will depend on the Company's TSR rank against a group or groups of peer companies at the end of the performance period and as moderated by the Remuneration Committee. The vesting schedule

is shown in the table below, with adjusted straight-line vesting in between the points shown and rounding down to the nearest whole share.

# **Vedanta's TSR Performance against Comparator Group**

	(% of award vesting)
Below median	-
At median	30
At or above upper quintile	100

The performance condition is measured by taking the Company's TSR over the three months immediately preceding the date of grant and over the three months immediately preceding the end of the performance period, and comparing its performance with that of the comparator group or groups. The information to enable this calculation to be carried out on behalf of the Remuneration Committee ('the Committee') is provided by the Company's advisers. The Committee considers that this performance condition, which requires that the Company's total return has out-performed a group of industry peers, provides a reasonable alignment of the interests of the Executive Directors and the wider management group with those of the shareholders.

Initial awards under the PSP were granted on 17 November 2014, 1 January 2015 and subsequently on 30 December 2015 and 12 May 2016. All these plans were equity settled. The exercise price of the awards is 10 US cents per share and the performance period is three years, with no re-testing being allowed. On 2 March 2017 the Company also launched a cash based plan under the same scheme.

**ESOP** - measured in terms of business performance set against business plan for the financial year comprising operational deliverables, enabler parameters and sustainability performance specific to each company. The vesting schedule is graded over three years and varies from company to company with a minimum vesting of 30% triggering at either 80% or 85% business score. In another tranche, the vesting schedule is staggered over a period of three years from the date of grant, with 70% vesting based on the achievement of business performance and the remaining 30% based on continued employment with the Group until the end of the third year.

Initial awards under ESOP were granted on 24 September 2012 with further awards being made on 16 May 2013. The exercise price of the awards is 10 US cents per share and the performance period is one year.

The exercise period is six months from the date of vesting.

LTIP - measured in terms of Total Shareholder Return ('TSR') (being the movement in a company's share price plus reinvested dividends), is compared over the performance period with the performance of the companies as defined in the scheme from the grant date. The extent to which an award vests will depend on the Company's TSR rank against a group of peer companies ("Adapted Comparator Group") at the end of the performance period and as moderated by the Remuneration Committee. The vesting schedule is shown in the table below, with adjusted straight-line vesting in between the points shown and rounded down to the nearest whole share.

## Vedanta's TSR Performance against Adapted Comparator Group

	(% of award vesting)
Below median	-
At median	40
At or above upper quartile	100

The performance condition is measured by taking the Company's TSR over the four weeks immediately preceding the date of grant and over the four weeks immediately preceding the end of the performance period, and comparing its performance with that of the comparator group described above. The information to enable this calculation to be carried out on behalf of the Remuneration Committee ('the Committee') is provided by the Company's advisers. The Committee considers that this performance condition, which requires that the Company's total return has out-performed a group or groups of industries peers, provides a reasonable alignment of the interests of the Executive Directors and the wider management group with those of the shareholders.

Initial awards under the LTIP were granted on 26 February 2004. As on 31 March 2016 the awards outstanding are the awards issued on 1 August 2011, 1 October 2011, 1 January 2012 and 1 April 2012. During the year, the Company further issued awards under the LTIP scheme on 11 November 2016. The exercise price of the awards is 10 US cents per share and the performance period is three years, with no re-testing being allowed.

The Vedanta Resources Deferred Share Bonus Plan (the DSBP) - In 2015, Vedanta introduced the DSBP, with initial awards being made in May 2015 & August 2015. Further in 2016, fresh awards were granted in May 2016 and September 2016. Under the plan, a portion of the annual bonus is deferred into shares and the awards granted under this scheme are not subject to any performance conditions, but only to service conditions being met. The vesting schedule is staggered over a period of one to three years. In case of DSBP, the shares are purchased from open market and allotted to employees, officers and directors. As on 31 March 2017, the options outstanding under the DSBP scheme are 417,446.

In general, the awards will be settled in equity. The awards are accounted for in accordance with the requirements applying to equity settled share-based payment transactions. The fair value of each award on the day of grant is equal to the average of the middle market quotations of its share price for 5 dealing days before the grant date.

Further details on these schemes are available in the Remuneration Report of the Annual Report.

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The details of share options for the year ended 31 March 2017 and 31 March 2016 is presented below:

ot Grant	Exercise Date	price US cents per share	Options outstanding 1 April 2016	Options granted during the year	Options lapsed during the year	Options lapsed during the year owing to performance conditions	Options exercised during the year	Options outstanding at 31 March 2017
2011	1 October 2014 - 1 April 2015*	10	3,200			-	(3,200)	1
2012	1 January 2015 - 1 July 2015*	10	2,800	•	•	•	(2,800)	•
2012	1 April 2015 - 1 October 2015*	10	1,760	•	(1,080)	•	(089)	•
2012	24 September 2013 - 24 March 2016*	10	74,750	•	(16,749)	•	(58,001)	•
2013	16 May 2014 - 16 November 2016	10	781,997	•	(66,227)	1	(715,770)	1
2014	17 November 2017- 17 May 2018	10	4,658,329	•	(411,046)	1	. 1	4,247,283
2015	1 January 2018 – 1 July 2018	10	21,500	•	. 1	•	•	21,500
2015	30 December 2018 - 30 June 2019	10	5,418,842	•	(488,659)	•	•	4,930,183
2016	12 May 2019 - 12 November 2019	10	1	32,000	,	•	•	32,000
2016	11 November 2019 - 11 May 2020	10	1	475,000	ı	1	•	475,000
2017	2 March 2020 - 2 September 2020 (cash	1		679,270	(720)	1	ı	678,550
	based plan)		1					
			10,963,178	1,186,270	(984,481)	•	(780,451)	10,384,516
		Exercise				,		
Year		price US	Options			Options lapsed during		Options
or Grant	Exercise Date	cents per share	outstanding 1 April 2015	Options granted during the year	Options Tapsed during the year	the year owing to performance conditions	Options exercised during the year	outstanding at 31 March 2016
2011	1 July 2014 - 1 January 2015	10	009	,	•	•	(009)	1
2011	1 August 2014 - 1 February 2015	10	118,527	1	(15,120)	1	(103,407)	1
2011	1 October 2014 - 1 April 2015*	10	2,000	•	ı	(1,800)	•	3,200
2012	1 January 2015 - 1 July 2015*	10	2,000	•	ı	(4,200)	•	2,800
2012	1 April 2015 - 1 October 2015*	10	62,800	•	(37,850)	(58,190)	•	1,760
2012	24 September 2013 - 24 March 2016*	10	368,952	1	(19,515)	•	(274,687)	74,750
2013	16 May 2016 - 16 November 2016	10	1,302,785	ı	(159,288)	•	(361,500)	781,997
2014	17 November 2017- 17 May 2018	10	5,335,500	1	(677,171)	1	1	4,658,329
2015	1 January 2018 – 1 July 2018	10	1	21,500	1	l	1	21,500
2015	30 December 2018 – 30 June 2019	10	1	5,484,575	(65,733)	-	-	5,418,842
			7,236,164	5,506,075	(974,677)	(64,190)	(740,194)	10,963,178

 $^{*}$  The exercise period of the schemes expiring before 31 March 2016 was extended up to June 2016.

In the year ended 31 March 2017, 984,481 (Year ended 31 March 2016: 1,038,867) options lapsed in total and 780,451 (Year ended 31 March 2016: 740,194) options exercised. As at 31 March 2017, 10,384,516 options remained outstanding and nil options were exercisable at the year end. The Weighted average share price for the share options exercised during the year ended 31 March 2017 was GBP 4.82 (Year ended 31 March 2016: GBP 4.1). The weighted average maturity period for the options outstanding as on 31 March 2017 is 23 months (31 March 2016: 31 months).

Most of the share-based awards of the Group are equity-settled as defined by IFRS 2 "Share-based Payment". The fair value of these awards has been determined at the date of grant of the award allowing for the effect of any market-based performance conditions. This fair value, adjusted by the Group's estimate of the number of awards that will eventually vest as a result of non-market conditions, is expensed on a straight-line basis over the vesting period. Where an award is cash-settled the fair value is recalculated at each reporting date until the liability is settled.

The fair values were calculated using the Stochastic valuation model with suitable modifications to allow for the specific performance conditions of the respective schemes. The inputs to the model include the share price at date of grant, exercise price, expected volatility, expected dividends, expected term and the risk free rate of interest. Expected volatility has been calculated using historical return indices over the period to date of grant that is commensurate with the performance period of the award. The volatilities of the industry peers have been modelled based on historical movements in the return indices over the period to date of grant which is also commensurate with the performance period for the option. The history of return indices is used to determine the volatility and correlation of share prices for the comparator companies and is needed for the Stochastic valuation model to estimate their future TSR performance relative to the Company's TSR performance. All options are assumed to be exercised immediately after vesting.

The assumptions used in the calculations of the charge in respect of the PSP/LTIP awards granted during the year ended 31 March 2017 and 31 March 2016 are set out below:

	31	Year ended March 2017 PSP / LTIP		Period ended 31 March 2016 PSP
	March 2017 No	vember 2016	May 2016	December 2015
Number of instruments	679,270	475,000	32,000	5,484,575
Exercise price	US\$0.10	US\$0.10	US\$0.10	US\$0.10
Share price at the date of grant	GBP8.92	GBP8.22	GBP3.45	GBP2.72
Contractual life	3years	3years	3years	3years
Expected volatility	66.3%	63.5%	61.4%	55.9%
Expected option life	3years	3years	3years	3years
Expected dividends	4.6%	4.8%	6.0%	9.9%
Risk free interest rate	0.10%	0.31%	0.38%	0.91%
Expected annual forfeitures	10%p.a.	10%p.a.	10%p.a.	10%p.a.
Fair value per option granted	GBP5.6/GBP7.8	GBP5.15	GBP1.80	GBP0.79/GBP1.95

The Group recognised total expenses of US\$13.4 million (including expenses on DSBP of US\$1.6 million) and US\$15.6 million (including expenses on DSBP of US\$1.3 million) related to equity settled share-based payment transactions in the year ended 31 March 2017 and 31 March 2016 respectively.

The total expense recognised on account of cash settled share based plan during the year ended 31 March 2017 is US\$0.1 million and the carrying value of cash settled share based compensation liability as at 31 March 2017 is US\$0.1 million.

# The Vedanta Limited Employee Stock Option Scheme (ESOS) 2016

During the year 2016, Vedanta Limited (subsidiary of Vedanta Resources plc) introduced an Employee Stock Option Scheme 2016 ("ESOS"), which was approved by the Vedanta Limited shareholders. The maximum value of shares that can be conditionally awarded to an Executive Committee in a year is 125% of annual salary. The maximum value of options that can be awarded to members of the wider management group is calculated by reference to the grade average CTC and individual grade of the employee. The performance conditions attached to the award is measured by comparing company's performance in terms of TSR over the performance period with the performance of the companies as defined in the scheme. The extent to which an award vests will depend on the Vedanta Limited's TSR rank against a group or groups of peer companies at the end of the performance period and as moderated by the Remuneration Committee. Dependent on the level of employee, part of these awards will be subject to a continued service condition only with the remainder measured in terms of TSR. The vesting schedule is shown in the table below, with adjusted straight-line vesting in between the points shown and rounding down to the nearest whole share.

# Vedanta's TSR performance against comparator group

	(% of award vesting)
Below median	-
At median	30
At or above upper decile	100

The performance condition is measured by taking Vedanta Limited's TSR at the start and end of the performance period (without averaging), and comparing its performance with that of the comparator group or groups. The information to enable this calculation to be carried out on behalf of the Remuneration Committee (the Committee) is provided by the Company's advisers. The Committee considers that this performance condition, which requires that the Vedanta Limited's total return has outperformed a group of industry peers, provides a reasonable alignment of the interests of participants with those of the shareholders.

Initial awards under the ESOS were granted on 15 December 2016. The exercise price of the awards is 1 INR per share and the performance period is three years, with no re-testing being allowed.

#### The details of share options for the year ended 31 March 2017 is presented below:

	ESOS December 2016
Options outstanding at 1 April 2016	
Options granted during the year	8,000,000
Options lapsed during the year	184,450
Options exercised during the year	-
Options outstanding at 31 March 2017	7,815,550

In the year ended 31 March 2017, 184,450 options lapsed. As at 31 March 2017, 7,815,550 options remained outstanding.

The fair value of all awards has been determined at the date of grant of the award allowing for the effect of any market-based performance conditions. This fair value, adjusted by the Group's estimate of the number of awards that will eventually vest as a result of non-market conditions, is expensed on a straight-line basis over the vesting period.

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The fair values were calculated using the Stochastic valuation model with suitable modifications to allow for the specific performance conditions of the respective schemes. The inputs to the model include the share price at date of grant, exercise price, expected volatility, expected dividends, expected term and the risk free rate of interest. Expected volatility has been calculated using historical return indices over the period to date of grant that is commensurate with the performance period of the award. The volatilities of the industry peers have been modelled based on historical movements in the return indices over the period to date of grant which is also commensurate with the performance period for the option. The history of return indices is used to determine the volatility and correlation of share prices for the comparator companies and is needed for the Stochastic valuation model to estimate their future TSR performance relative to the Vedanta Limited's TSR performance. All options are assumed to be exercised immediately after vesting.

The assumptions used in the calculations of the charge in respect of the ESOS awards granted during the period ended 31 March 2017 are set out below:

	ESOS
	December 2016
Number of instruments	8,000,000
Exercise price	INR 1
Share price at the date of grant	INR 235.9
Contractual life	3 years
Expected volatility	48%
Expected option life	3 years
Expected dividends	3.2%
Risk free interest rate	6.5%
Expected annual forfeitures	10%p.a.
Fair value per option granted	INR 213.6/INR 82.8

The Group recognized total expenses of US\$1.0 million related to equity settled share-based plan under the above scheme in the year ended 31 March 2017.

#### 33. Retirement benefits

The Group operates pension schemes for the majority of its employees in India, Australia, Africa and Ireland.

#### (a) Defined contribution schemes

# Indian pension schemes

#### Central Recognised Provident Fund

The Central Recognised Provident Fund relates to all full-time Indian employees of the Group. The amount contributed by the Group is a designated percentage of 12% of basic salary less contributions made as part of the Pension Fund (see below), together with an additional contribution of 12% (limited to a maximum contribution of 30% in case of Iron Ore Segment) of the salary of the employee.

The benefit is paid to the employee on their retirement or resignation from the Group.

#### **Superannuation**

Superannuation, another pension scheme applicable in India, is applicable only to executives in grade M4 and above. However, in case of the Cairn India Group and Iron Ore Segment, the

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benefit is applicable to all executives. In Cairn India, it is applicable from the second year of employment. Certain companies hold policies with the Life Insurance Corporation of India ("LIC"), to which they contribute a fixed amount relating to superannuation, and the pension annuity is met by the LIC as required, taking into consideration the contributions made. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

#### Pension Fund

The Pension Fund was established in 1995 and is managed by the Government of India. The employee makes no contribution to this fund but the employer makes a contribution of 8.33% of salary each month subject to a specified ceiling per employee. This must be provided for every permanent employee on the payroll.

At the age of superannuation, contributions cease and the individual receives a monthly payment based on the level of contributions through the years, and on their salary scale at the time they retire, subject to a maximum ceiling of salary level. The Government funds these payments, thus the Group has no additional liability beyond the contributions that it makes, regardless of whether the central fund is in surplus or deficit.

#### Australian Pension Scheme

The Group also operates defined contribution pension schemes in Australia. The contribution of a proportion of an employee's salary into a superannuation fund is a compulsory legal requirement in Australia. The employer contributes 9.5% of the employee's gross remuneration where the employee is covered by the industrial agreement and 12.5% of the basic remuneration for all other employees, into the employee's fund of choice. All employees have the option to make additional voluntary contributions.

## Zambian Pension Scheme

The KCM Pension Scheme is applicable to full-time permanent employees of KCM (subject to the fulfilment of certain eligibility criteria). The management of the scheme is vested in the trustees consisting of representatives of the employer and the members. The employer makes a monthly contribution of 5% to the KCM Pension Scheme and the member makes monthly contribution of 5%.

All contributions to the KCM Pension Scheme in respect of a member cease to be payable when the member attains normal retirement age of 55 years, or upon leaving the service of the employer, or when the member is permanently medically incapable of performing duties in the service of the employer. Upon such cessation of contribution on the grounds of normal retirement, or being rendered medically incapable of performing duties, or early voluntary retirement, the member is entitled to receive his accrued pension. The member is allowed to commute his/her accrued pension subject to certain rules and regulations.

The Group has no additional liability beyond the contributions that it makes. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

# Skorpion Zinc Provident Fund, Namibia

The Skorpion Zinc Provident Fund is a defined contribution fund and is compulsory to all full time employees under the age of 60. Company contribution to the fund is a fixed percentage of 9% per month of pensionable salary, whilst the employee contributes 7% with the option of making additional contributions, over and above the normal contribution, up to a maximum of 12%

Normal retirement age is 60 years and benefit payable is the member's fund credit which is equal to all employer and employee contributions plus interest. The same applies when an

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employee resigns from Skorpion Zinc. The Fund provides disability cover which is equal to the member's fund credit and a death cover of 2 times annual salary in the event of death before retirement. Current membership total is 908.

The Group has no additional liability beyond the contributions that it makes. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

# Black Mountain (Pty) Limited, South Africa Pension & Provident Funds

Black Mountain Mining (Pty) Ltd has two retirement funds, both administered by Alexander Forbes, a registered financial service provider. Both funds form part of the Alexander Forbes umbrella fund and are defined contribution funds.

Membership of both funds is compulsory for all permanent employees under the age of 60.

#### Lisheen Mine, Ireland Pension Funds

Lisheen Pension Plan is for all employees. Lisheen pays 5% and employees pays 5% with the option to make Additional Voluntary Contributions ('AVC's') if desired. Executive contributions are 15% by Lisheen and a minimum of 5% by the employee with the option to make AVC's if desired. Death benefit is three times salary for employees and four times salary for executives. Pension and Life Cover ceases at 65. On wind up of the pension schemes, the benefits will be paid out to the remaining members in accordance with the scheme rules and Irish Revenue tax regulations.

The Group has no additional liability beyond the contributions that it makes. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

# (b) Defined benefit schemes

#### India

The Gratuity schemes are defined benefit schemes which are open to all Group employees in India who have a minimum of five years of service with their employing company. These schemes are funded in some subsidiaries. Based on actuarial valuation, a provision is recognised in full for the projected obligation over and above the funds held in scheme. In case where there is no funding held by the scheme, full provision is recognised in the balance sheet. Under these schemes, benefits are provided based on final pensionable pay.

The assets of the schemes are held in separate funds and a full actuarial valuation of the schemes is carried out on an annual basis.

# Vedanta Limited

The Iron ore, Aluminium and Copper division of Vedanta Limited contributed to the LIC Fund based on an actuarial valuation every year. Vedanta Limited's Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2017 using the projected unit credit actuarial method.

# **BALCO**

All employees who are scheduled to retire on or before 31 March 2017 are being paid by BALCO. The Gratuity scheme is accounted for as a defined benefit scheme for all employees scheduled to retire after 31 March 2017. A provision is recognised based on the latest actuarial valuation which was performed as at 31 March 2017 using the projected unit actuarial method. At that date the fund was in deficit.

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#### HZI.

HZL contributes to the LIC fund based on an actuarial valuation every year. HZL's Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2017 using the projected unit actuarial method. At that date the fund was in deficit.

#### **MEL**

The MEL contributed to the LIC fund based on an actuarial valuation every year. MEL Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2017 using the projected unit credit actuarial method.

#### **TSPL**

TSPL contributes to the LIC based on an actuarial valuation. Liabilities with regard to the Gratuity scheme are fully provided in the Balance Sheet and are determined by actuarial valuation as at the balance sheet date and as per gratuity regulations for TSPL. The latest actuarial valuation was performed as at 31 March 2017 using the projected unit actuarial method.

#### Cairn

Cairn contributes to the LIC fund based on an actuarial valuation every year. Cairn India Group's Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2017 using the projected unit actuarial method. At that date the fund was in deficit.

#### Zambia

Specified permanent employees of KCM are entitled to receive medical and retirement severance benefits. This comprises two months' basic pay for every completed year of service with an earliest service start date of 1 July 2004. Under this scheme, benefits are provided based on final pensionable pay and a full actuarial valuation of the scheme is carried out on an annual basis. The accruals are not contributed to any fund and are in the form of provisions in KCM's accounts.

On the death of an employee during service, a lump sum amount is paid to his or her dependants. This amount is equal to sixty months' basic pay for employees who joined before 1 April 2000 and thirty months' basic pay for employees who joined on or after 1 April 2000. For fixed term contract employees, the benefit payable on death is thirty months' basic pay.

As at 31 March 2017, membership of pension schemes across Vedanta Limited, BALCO, HZL, TSPL, KCM and Cairn stood at 22,054 employees (31 March 2016: 22,534). The deficits, principal actuarial assumptions and other aspects of these schemes are disclosed in further detail in notes (d) and (e) below.

#### (c) Pension scheme costs

Contributions of US\$67.1 million and US\$nil in respect of defined benefit schemes were outstanding and prepaid respectively as at 31 March 2017 (2016: US\$66.5 million and US\$nil respectively).

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Contributions to all pension schemes in the year ending 31 March 2018 are expected to be around US\$3.8 million. (actual contribution during the Year ended 31 March 2017 : US\$7.1 million)

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Defined contribution pension schemes	22.1	30.1
Defined benefit pension schemes	21.2	18.2
Total expense	43.3	48.3

#### (d) Principal actuarial assumptions.

Principal actuarial assumptions used to calculate the defined benefit schemes' liabilities are:

Particulars	Year ended 31 March 2017	Year ended 31 March 2016
Discount rate	7.6% to 22.95%	8.0% to 24.0 %
Salary increases	5.0% to 15%	5.0% to 10%

In India, the mortality tables used, assume that a person aged 60 at the end of the balance sheet date has a future life expectancy of 19 years.

Assumptions regarding mortality for Indian entities are based on mortality table of 'Indian Assured Lives Mortality (2006-2008)' published by the Institute of Actuaries of India.

Assumptions regarding mortality for KCM are based on World Health Organisation Life Tables for 1999 applicable to Zambia which has been taken as a reference point. Based on this a mortality table which is appropriate for the workers of Konkola Copper Mines plc has been derived.

#### (e) Balance sheet recognition

		(US\$ million)
Particulars	Year ended	Year ended
ratticulats	31 March 2017	31 March 2016
Fair value of pension scheme assets	49.1	43.5
Present value of pension scheme liabilities	(116.2)	(110.0)
Net liability arising from defined benefit obligations	(67.1)	(66.5)

# (f) Amounts recognised in income statement in respect of defined benefit pension schemes:

		(US\$ million)
Particulars	Year ended	Year ended
Particulars	31 March 2017	31 March 2016
Current service cost	8.8	7.8
Net Interest cost	12.4	10.4
Total charge to the income statement	21.2	18.2

#### (g) Amounts recognised in the Statement of Comprehensive Income:

		(US\$ million)
Particulars	Year ended	Year ended
1 atticulars	31 March 2017	31 March 2016
Actuarial gains / (losses) on Defined benefit obligation-	(1.0)	(8.1)
Actuarial (gains) /losses on plan asset (excluding amount included in net		(0.1)
interest cost)	(0.2)	(0.1)
Measurement of the net defined benefit liability / (asset)	0.8	(8.0)

#### (h) Movements in the present value of defined benefit obligations

The movement during the Year ended 31 March 2017 of the present value of the defined benefit obligation was as follows:

		(US\$ million)
Particulars	Year ended	Year ended
rarticulars	31 March 2017	31 March 2016
At 1 April	(110.0)	(119.6)
Current service cost	(8.8)	(7.8)
Gratuity benefits paid	10.2	22.4
Interest cost of scheme liabilities	(16.1)	(13.8)
Remeasurement gains/(losses)	(1.0)	(8.1)
Exchange difference	9.5	16.9
At 31 March	(116.2)	(110.0)

#### (i) Movements in the fair value of plan assets

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
At 1 April	43.5	45.0
Contributions received	7.1	9.7
Benefits paid	(5.8)	(12.2)
Remeasurement gains / (losses)	0.2	0.1
Interest income	3.7	3.4
Foreign exchange differences	0.4	(2.5)
At 31 March	49.1	43.5

#### (j) Defined benefit pension plan

		(US\$ million)
	As at	As at
	31 March 17	31 March 16
Experience losses arising on scheme liabilities	1.0	(8.1)
Difference between expected and actual return on plan assets	(0.2)	0.1
Fair value of pension scheme assets	49.1	43.5
Present value of pension scheme liabilities	(116.2)	(110.0)
Deficits in the schemes	(67.1)	(66.5)

#### Sensitivity analysis

Below is the sensitivity analysis determined for significant actuarial assumptions for the determination of defined benefit obligations and based on reasonably possible changes of the respective assumptions occurring at the end of reporting Year while holding all other assumptions constant.

	(US\$ million)
	Increase/(Decrease) in defined benefit obligation
Discount rate	- Grand
Increase by 0.50 %	(4.1)
Decrease by 0.50%	2.3
Salary increase	
Increase by 0.50 %	1.9
Decrease by 0.50%	(3.8)

The above sensitivity analysis may not be representative of the actual benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

#### (1) Risk analysis

Group is exposed to a number of risks in the defined benefit plans. Most significant risks pertaining to defined benefits plans and management estimation of the impact of these risks are as follows:

#### Investment risk

The most of the Indian defined benefit plans are funded with Life Insurance Corporation of India. Group does not have any liberty to manage the fund provided to Life Insurance Corporation of India.

The present value of the defined benefit plan liability is calculated using a discount rate determined by reference to Government of India bonds for Group's Indian operations. If the return on plan asset is below this rate, it will create a plan deficit.

#### Interest risk

A decrease in the interest rate on plan assets will increase the plan liability.

#### Longevity risk/Life expectancy

The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and at the end of the employment. An increase in the life expectancy of the plan participants will increase the plan liability.

#### Salary growth risk

The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. An increase in the salary of the plan participants will increase the plan liability.

# 34. Capital management

The Group's objectives when managing capital are to safeguard continuity, maintain a strong credit rating and healthy capital ratios in order to support its business and provide adequate return to shareholders through continuing growth.

The Group sets the amount of capital required on the basis of annual business and long-term operating plans which include capital and other strategic investments. The funding requirement is met through a mixture of equity, internal accruals, convertible bonds and other long-term and short-term borrowings.

The Group monitors capital using a gearing ratio, being the ratio of net debt as a percentage of total capital.

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
Total equity	6,014.6	6,852.4
Net debt	8,503.5	7,328.8
Total capital	14,518.1	14,181.2
Gearing	58.6%	51.7%

The increase in the gearing ratio compared to 2017 ratio is primarily due to decrease in total equity pursuant to special dividend paid by subsidiary of company & issue of preference shares on account of merger of Cairn India Limited with Vedanta Limited (refer to note 42).

#### 35. Share capital

	Year ended 3	1 March 2017	Year ended 31 March 2016			
		Paid up amount		Paid up amount		
Shares in issue	Number	(US\$ million)	Number	(US\$ million)		
Ordinary shares of 10 US cents each	301,300,825	30.1	300,522,798	30.1		
Deferred shares of £1 each	50,000	-	50,000	-		
	301,350,825	30.1	300,572,798	30.1		

During the year ended 31 March 2017, the Company issued 778,027 shares at par value of 10 US cents per share to the employees pursuant to the Vedanta LTIP and ESOP schemes (2016: 561,277 shares).

The holders of deferred shares do not have the right to receive notice of any general meeting of the Company nor the right to attend, speak or vote at any such general meeting. The deferred shares have no rights to dividends and, on a winding-up or other return of capital, entitle the holder only to the payment of the amounts paid on such shares after repayment to the holders of Ordinary Shares of the nominal amount paid up on the Ordinary Shares plus the payment of £100,000 per Ordinary Share. Of the 50,000 deferred shares, one deferred share was issued at par and has been fully paid, and 49,999 deferred shares were each paid up as to one-quarter of their nominal value.

As on 31 March 2017, 6,904,995 Ordinary shares which were issued on the conversion of certain convertible bonds issued by one of the Group's subsidiaries are held through a Global Depositary Receipts and carry no voting rights.

At 31 March 2017, the total number of treasury shares held was 24,370,066 (2016: 24,309,230).

# 36. Non-controlling interests ('NCI')

The Group consists of a parent Company, Vedanta Resources Plc, incorporated in UK and a number of subsidiaries held directly and indirectly by the Group which operate and are incorporated around the world. Note 44 to the financial statements lists details of the interests in the subsidiaries.

Non-controlling interests that are material to the Group relate to Hindustan Zinc Limited (HZL), Cairn India Limited and Vedanta Limited.

As at 31 March 2017, NCIs hold an economic interest of 67.46% and 49.87% respectively in HZL and Vedanta Limited. The respective NCI holdings in 2016 were 59.20% and 37.15% in HZL and Vedanta Limited respectively.

Pursuant to merger of Cairn India Limited with Vedanta Limited, the NCI holding in erstwhile Cairn India Limited as at 31 March 2017 is 49.87% (2016: 62.36%)

Principal place of business of HZL, Cairn India Limited and Vedanta Limited is in India (refer note 44).

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The table below shows details of non-wholly owned subsidiaries of the Group that have material non-controlling interests:

(US\$ million)

	Year ended 31 March 2017				Year en	ded 31 Marc	h 2016			
	Vedanta					Vedanta				
Particulars	HZL	Cairn	Limited	Others(1)	Total	HZL	Cairn	Limited <sup>(2)</sup>	Others(1)	Total
Profit/ (loss) Attributable to NCI	771.6	284.3	454.0	(607.6)	902.3	706.8	(1,982.9)	342.6	(731.2)	(1,664.7)
Equity Attributable to NCI	3,254.7	4,018.7	3,189.0	(4,039.3)	6,423.1	3,344.9	4,756.3	2,257.0	(2,793.0)	7,565.2
Dividends paid / payable to NCI	(781.7)	(40.5)	(517.9)	-	(1,340.1)	(825.7)	(55.3)	(98.5)	-	(979.5)

<sup>(1)</sup> Others consist of Investment subsidiaries of Vedanta Limited and other Individual non-material subsidiaries.

Summarised financial information in respect of Group's subsidiaries that have material non-controlling interests is set out below. The summarized financial information below is on a 100% basis and before inter-company eliminations:

(US\$ million)

	Year ended 31 March 2017				Year en	ded 31 Marc	ch 2016			
			Vedanta					Vedanta		
Particulars	HZL	Cairn	Limited	Others	Total	HZL	Cairn	Limited	Others	Total
Non-current assets	2,621.5	4,582.1	14,161.2	(2,345.2)	19,019.6	2,346.8	3,516.9	11,541.6	1,213.6	18,618.9
Current assets	5,337.6	4,516.9	2,988.8	(359.5)	12,483.8	5,591.8	5,128.4	3,586.3	(2,606.1)	11,700.4
liabilities Non-current	(3,102.8)	(634.5)	(7,375.1)	(2,959.2)	(14,071.6)	(2,266.8)	(746.2)	(5,238.0)	(2,160.6)	(10,411.6)
liabilities	(31.5)	(406.7)	(3,380.7)	(7,598.3)	(11,417.2)	(21.6)	(272.0)	(3,814.6)	(8,947.1)	(13,055.3)
Net assets	4,824.8	8,057.8	6,394.2	(13,262.2)	6,014.6	5,650.2	7,627.1	6,075.3	(12,500.2)	6,852.4

			Year e	nded 31 Mar	ch 2017		Year er	ided 31 Marc	h 2016	
			Vedanta					Vedanta		
Particulars	HZL	Cairn	Limited	Others	Total	HZL	Cairn	Limited	Others	Total
Revenue	2,551.3	1,222.7	4,786.2	2,959.9	11,520.1	2,132.4	1,322.3	4,541.0	2,742.2	10,737.9
Profit/ (loss) for the year	1,305.4	456.3	1,226.3	(2,108.4)	879.6	1,193.9	(3,179.8)	922.1	(2,438.3)	(3,502.1)
Other comprehensive income / (loss)	(0.6)	1.0	1.8	(1.7)	0.5	1.9	0.1	(27.5)	8.3	(17.2)

The effect of changes in ownership interests in subsidiaries that did not result in a loss of control is as follows:

				(US\$ million	1)
As at 31 March 2017	HZL	Cairn	Vedanta Limited	Others	Total
Changes in NCI due to merger (note 42)	403.7	(1,001.7)	813.4	(1,032.5)	(817.1)
Other changes in non-controlling interests	-	0.9	(16.9)	-	(16.0)

# 37. Joint Arrangements

#### **Joint Operations**

The Group's principal licence interests in oil and gas business are joint operations. The principal licence interests are as follows:

Oil & Gas blocks/fields	Area	Participating Interest
Operated blocks		
Rayya block	Krishna Godayari	22.50%

<sup>(2)</sup> For principal activities, country of incorporation and immediate holding company of the above subsidiaries refer note 44.

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CB-OS/2 - Exploration	Cambay Offshore	60.00%
CB-OS/2 - Development & production	Cambay Offshore	40.00%
RJ-ON-90/1 - Exploration	Rajasthan Onshore	100.00%
RJ-ON-90/1 - Development & production	Rajasthan Onshore	70.00%
PR-OSN-2004/1	Palar Basin Offshore	35.00%
KG-OSN-2009/3	Krishna Godavari Offshore	100.00%
South Africa Block 1	Orange Basin South Africa Offshore	60.00%

# 38. Commitments, guarantees and contingencies

#### Commitments

The Group has a number of continuing operational and financial commitments in the normal course of business including:

- Exploratory mining commitments;
- Oil and gas commitments;
- Mining commitments arising under production sharing agreements; and
- Completion of the construction of certain assets.

		(US\$ million)
	As at	As at
	31 March 2017	31 March 2016
Capital commitments contracted but not provided	1,351.5	1,231.0

#### Commitments primarily related to the expansion projects:

	As at	As at
	31 March 2017	31 March 2016
Oil & Gas sector		
Cairn India	22.0	41.5
Aluminium sector		
BALCO- Korba II 325 KTPA smelter and 1200 MW power plant (4 x 300		
MW)	50.2	47.8
Lanjigarh Refinery (Phase II) 5.0 MTPA	249.0	243.4
Jharsuguda 1.25 MTPA smelter	332.9	226.8
Power sector		
Jharsuguda 2400 MW Power Plant	32.8	32.3
Talwandi 1,980MW IPP	-	71.8
Zinc sector		
Zinc India (mines expansion)	239.7	296.7
Gamsberg mining & milling project	206.0	58.1
Copper sector		
Tuticorin Smelter 400 KTPA	217.6	207.1
Others	1.3	5.5
Total	1,351.5	1,231.0

#### Guarantees

Companies within the Group provide guarantees within the normal course of business. Guarantees have also been provided in respect of certain short-term and long-term borrowings.

A summary of the most significant guarantees is set out below:

As at 31 March 2017, US\$351.6 million of guarantees were advanced to banks, suppliers etc. in the normal course of business (2016: US\$384.6 million). The Group has also entered into

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guarantees and bonds advanced to the customs authorities in India of US\$326.3 million relating to the export and payment of import duties on purchases of raw material and capital goods including export obligations (2016: US\$154.8 million).

#### Cairn PSC guarantee to Government

The Group has provided Parent company guarantee for the Cairn India Group's obligation under the Production Sharing Contract ('PSC').

Cairn India have provided various other guarantees under the Cairn India Group's bank facilities for the Cairn India Group's share of minimum work programme commitments of US\$19.9 million outstanding as of 31 March 2017 (2016: US\$13.1 million).

#### **Export obligations**

The Indian entities of the Group have export obligations of US\$2,016.7 million (2016: US\$2,200.5 million) on account of concessional rates of import duty paid on capital goods under the Export Promotion Capital Goods Scheme and under the Advance Licence Scheme for import of raw material laid down by the Government of India.

In the event of the Group's inability to meet its obligations, the Group's liability would be US\$261.7 million (2016: US\$349.1 million), reduced in proportion to actual exports, plus applicable interest.

#### Contingencies

The Group discloses the following legal and tax cases as contingent liabilities.

#### HZL: Department of Mines and Geology

The Department of Mines and Geology of the State of Rajasthan issued several show cause notices in August, September and October 2006 to HZL, totalling US\$51.5 million. These notices alleged unlawful occupation and unauthorised mining of associated minerals other than zinc and lead at HZL's Rampura Agucha, Rajpura Dariba and Zawar mines in Rajasthan during the period from July 1968 to March 2006.

HZL believes it is unlikely the claim will lead to a future obligation to the company and therefore no provision has been made in the financial statements. HZL has filed appeals (writ petitions) in the High Court of Rajasthan in Jodhpur and has obtained a stay in respect of these demands.

#### Richter and Westglobe: Income Tax

The Group through its subsidiaries Richter Holdings Limited and Westglobe Limited in 2007 acquired the entire stake in Finsider International Company Limited (FICL) based in the United Kingdom which was holding 51 percent shares of Sesa Goa Ltd, an Indian Company. In October 2013, the Indian Tax Authorities (Tax Authorities) have served an order on Richter and Westglobe for alleged failure to deduct withholding tax on capital gain on the indirect acquisition of shares in April 2007.

The Tax Authorities determined the liability for such non-deduction of tax as US\$135.0 million in the case of Richter and US\$90.0 million in the case of Westglobe, comprising tax and interest. Richter and Westglobe filed appeals before the first appellate authority. Appeals (writ petitions) were filed in the High Court of Karnataka challenging the constitutional validity of retrospective amendments made by the Finance Act 2012 and in particular the imposition of obligations to deduct tax on payments made against an already concluded transaction. The Karnataka High Court passed interim orders and directed that the adjudication of liability (TDS quantum and interest) shall no more remain in force since tax department passed the orders on

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merits travelling beyond the limited issue of jurisdiction. The high court will hear on jurisdiction issue. The next hearing date is awaited.

#### Cairn India: Income Tax

In March 2014, Cairn India received a show cause notice from the Indian Tax Authorities ("Tax Authorities") for not deducting withholding tax on the payments made to Cairn UK Holdings Limited ("CUHL") UK, for acquiring shares of Cairn India Holdings Limited ("CIHL"), as part of their internal reorganisation. Tax Authorities have stated in the notice that a short-term capital gain has accrued to CUHL on transfer of the shares of CIHL to Cairn India, in financial year 2006-2007, on which tax should have been withheld by the Company. Pursuant to this various replies were filed with the tax authorities.

After hearings, the Income Tax Authority, during March 2015, have issued an order by holding Cairn India as 'assessee in default' and asked to pay such demand totalling US\$3,161 million (including interest of US\$1,581 million). Cairn India has filed its appeal before the Appellate Authority CIT (Appeals) and filed a fresh Appeal (Writ petition) before Delhi High Court wherein it raised several points for assailing the aforementioned order. The hearing of the Appeal is due on 17 August 2017.

The Company has issued a Notice of arbitration to Government of India by invoking Bilateral Investment Promotion Treaty between the UK and India.

#### Vedanta Limited: Contractor claim

Shenzhen Shandong Nuclear Power Construction Co. Limited ('SSNP') subsequent to terminating the EPC contract invoked arbitration as per the contract alleging non-payment of their dues towards construction of a 210 MW co-generation power plant for 6 MTPA expansion project, and filed a claim of US\$243.7 million. SSNP also filed a petition under Section 9 of the Arbitration and Conciliation Act, 1996 before the Bombay High Court praying for interim relief. The Bombay High Court initially dismissed their petition, but on a further appeal by SSNP, the Division Bench of the Bombay High Court directed Jharsuguda Aluminium to deposit a bank guarantee for an amount of US\$27.6 million as a security, being a prima facie representation of the claim, until arbitration proceedings are completed. Jharsuguda Aluminium has deposited a bank guarantee of equivalent amount. Management is of the opinion that this claim is not valid under the terms of the contract with SSNP and it is unlikely that SSNP can legally sustain the claim and accordingly, no provision is considered necessary. The arbitration proceedings have concluded and the Tribunal may hold a clarificatory hearing before passing the final award.

#### Ravva Joint Venture arbitration proceedings: ONGC Carry

Cairn is involved in a dispute against GOI relating to the recovery of contractual costs in terms of calculation of payments that contractor party were required to make in connection with the Ravva field.

The Ravva production sharing contract obliges the contractor party to pay proportionate share of ONGC's exploration, development, production and contract costs in consideration for ONGC's payment of costs related to construction and other activities it conducted in Ravva prior to the effective date of the Ravva production sharing contract (the "ONGC Carry"). The question as to how the ONGC Carry is to be recovered and calculated, along with other issues, was submitted to an international arbitration Tribunal in August 2002 which rendered a decision on the ONGC Carry in favor of the contractor party whereas four other issues were decided in favor of GOI in October 2004 ("Partial Award").

The GOI then proceeded to challenge the ONGC Carry decision before the Malaysian courts, as Kuala Lumpur was the seat of the arbitration. The Federal Court of Malaysia which adjudicated the matter on October 11, 2011, upheld the partial award. Per the decision of the Arbitral Tribunal in the partial award, the contractor party and GOI were required to arrive at a

#### Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

quantification of the sums relatable to each of the issues under the Partial Award. Also, the arbitral Tribunal retained the jurisdiction for determination of any remaining issues in the matter.

Pursuant to the decision of the Federal Court, the contractor party approached the Ministry of Petroleum and Natural Gas ("MoPNG") to implement the partial award while reconciling the statement of accounts as outlined in partial award in 2004. GOI failed to implement the partial award by way of reconciling accounts as provided in the partial award ever since the Federal Court of Malaysia adjudicated in Cairn and other joint operator partners' favor.

However, the MoPNG on July 10, 2014 proceeded to issue a show cause notice alleging that since the partial award has not been enforced profit petroleum share of GOI has been short-paid. MoPNG threatened to recover that amount from the sale proceeds payable by the oil marketing companies to the contractor party. The contractor party replied to the show cause notice taking various legal contentions. On March 9, 2015 personal hearing took place between MoPNG and contractor party whereby, the contractor party expressed their concerns against such alleged unilateral recoveries and filed further written submissions on March 12, 2015.

As partial award did not quantify the sums, therefore, contractor party approached the same arbitral Tribunal to pass a final award in the subject matter since it had retained the jurisdiction to do so. The Arbitral Tribunal was reconstituted and the final award has been passed in Cairn's favour. While the Cairn does not believe the GOI will be successful in its challenge, if the arbitral award is reversed and such reversal is binding, Cairn could be liable for approximately US\$116.7 million including interest thereon. Cairn has secured a final award in its favour in October, 2016. Parallely, GOI has challenged the final award in the Malaysian courts.

#### Proceedings related to the Imposition of Entry Tax

Vedanta Limited and other group companies i.e. Balco, HZL and Cairn (now merged with Vedanta Limited) challenged the constitutional validity of the local statutes and related notifications in the states of Chhattisgarh, Odisha and Rajasthan pertaining to the levy of entry tax on the entry of goods brought into the states from outside. Post some contradictory orders of High Courts across India adjudicating on similar challenges, the Supreme Court referred the matters to a nine judge bench. Post a detailed hearing, although the bench rejected the compensatory nature of tax as a ground of challenge, it maintained status quo with respect to all other issues which have been left open for adjudication by regular benches hearing the matters. The total claims from Vedanta Limited and its subsidiaries is US\$165.0 million (2016: US\$151.3 million).

Post the order of the nine judge bench, the regular bench of the Supreme Court proceeded with hearing the maters. The regular bench remanded the entry tax matters relating to the issue of discrimination against domestic goods from other States to the respective High Courts for final determination but retained the issue of jurisdiction on levy on imported goods, for determination by Supreme Court.

The argument pertaining to imported goods are currently pending before a regular bench of the Supreme Court. The issue of discrimination has been remanded back to the High Courts for final adjudication. Vedanta has filed an Appeal (Writ petition) before the Odisha High Court and is also looking to Appeals (Writ petitions) before the Rajasthan and Chhattisgarh High Courts.

Whereas, the issue pertaining to levy of entry tax on movement of goods into a Special Economic Zone (SEZ) remains pending before the Odisha High Court. We have challenged the levy of entry tax on any movement of goods into an SEZ basis the definition of local area under the Odisha Entry Tax Act which is very clear and does not include an SEZ. In addition, the Govt of Odisha further through its SEZ Policy 2015 and the operational guidelines for administration of this policy dated 22.08.2016, exempted entry tax levy on SEZ operations.

#### TSPL: Proceedings related to claim for Liquidated Damages

TSPL has entered into a long term Power Purchase Agreement (PPA) with Punjab State Power Corporation Limited (PSPCL) for supply of power. Due to delay in fulfilment of certain obligations by PSPCL as per the PPA, other related reasons and force majeure events, there has been a delay in implementation/completion of the project as compared to the PPA timelines. TSPL has received notices of claims from PSPCL seeking payment of Liquidated Damages (LD) maximum of US\$50.9 million each for delay in commissioning of Unit I, II and III totalling to US\$147.0 million.

PSPCL invoked the Performance Bank Guarantee of US\$24.1 million to recover the LD on account of delay in COD of 1st Unit. TSPL filed a petition at Punjab State Electricity Regulatory Commission (PSERC) for adjudication of above dispute. TSPL had also filed an Appeal (Civil Writ petition) before the High Court of Punjab and Haryana against the bank guarantee invocation, which was disposed with a direction to refer the matter to PSERC for adjudication while granting stay. Further, the PSERC order dated October 22, 2014 directed the matter to be settled through arbitration and allowed the stay on encashment of the bank guarantee until further orders. PSPCL has preferred an appeal in Appellate Tribunal for Electricity (APTEL) against the PSERC order and APTEL had on May 12, 2015, disposed the matter with a direction that the matter will be heard by way of arbitration. The arbitration proceedings have concluded and the order has been reserved. The Group has been legally advised by its advisors who have opined that such claims for LD from PSPCL are unsustainable. Recently, Appellate Tribunal for Electricity has, in a separate petition, before it by TSPL has adjudicated that coal is an absolute obligation of PSPCL and it needs to enter into a Fuel Supply Agreement and assign to TSPL. In light of the delay by PSPCL in entering into the Fuel Supply Agreement, the claims of PSPCL are further unsustainable.

#### BALCO: Challenge against imposition of Energy Development Cess

Balco challenged the imposition of Energy Development Cess levied on generators and distributors of electrical energy @ 10 paise per unit on the electrical energy sold or supplied before the High Court on the grounds that the Cess is effectively on production and not on consumption or sale since the figures of consumption are not taken into account and the Cess is discriminatory since CPPs are required to pay @ 10 paise while the State Electricity Board is required to pay @ 5 paise. The High Court of Chhattisgarh by order dated December 15, 2006 declared the provisions imposing ED Cess on CPPs as discriminatory and therefore ultra vires the Constitution. The Company has sought refund of ED Cess paid till March 2006 amounting to US\$5.3 mn.

The State of Chhattisgarh moved an SLP in the Supreme Court and whilst issuing notice has stayed the refund of the Cess already deposited. The matter is to be heard by a larger bench of the Supreme Court and will be listed in due course for final hearing. In case the Supreme Court overturns the decision of the High Court, Balco would be liable to pay an amount of US\$88.8 mn.

# Miscellaneous disputes - Vedanta Limited, HZL, MEL, BALCO, Cairn, Lisheen, VRJL and VRIII

The Group is subject to various claims and exposures which arise in the ordinary course of conducting and financing its business from the income tax, excise, indirect tax authorities and others. These claims and exposures mostly relate to the assessable values of sales and purchases or to incomplete documentation supporting the companies' returns or other claims.

The approximate value of claims against the Group companies excluding claims shown above total US\$1,738.4 million (2016: US\$1,182.3 million), of which US\$148.7 million (2016: US\$14.9 million) is included as a provision in the Balance Sheet as at 31 March 2017 (including claims of

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US\$989.6 million in respect of Income tax assessments out of which US\$23.3 million is included as a provision in the Balance sheet as at 31 March 2017).

The Group considers that it can take steps such that the risks can be mitigated and that there are no significant unprovided liabilities arising.

#### **Operating Lease commitments: As lessee**

Operating leases are in relation to the office premises, office equipment and other assets, some of which are cancellable and some are non-cancellable. There is an escalation clause in the lease agreements during the primary lease period. There are no restrictions imposed by lease arrangements and there are no sub leases. There are no contingent rents. The total of the future minimum lease payments under non cancellable leases are as under:

		(US\$ million)
	As at	As at
Particulars	31 March 2017	31 March 2016
Within one year of the balance sheet date	0.4	3.9
Within two to five years from the balance sheet date	0.4	0.4
Total	0.8	4.3

Lease payments recognised as expenses during the year ended 31 March 2017, on non cancellable leases, is US\$1.1 million (31 March 2016: US\$8.1 million).

#### 39. Related party transactions

The information below sets out transactions and balances between the Group and various related parties in the normal course of business for the year ended 31 March 2017.

#### Sterlite Technologies Limited ('STL')

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Sales to STL	127.8	140.4
Recovery of expenses	0.0	0.2
Purchases	2.6	1.1
Net Interest Income	1.3	0.2
Net amounts receivable at year end	4.0	0.2
Net amounts payable at year end	0.2	1.4
Outstanding advance received at year end	2.1	0.0
Dividend Income	0.1	0.0
Investment in Equity Share	9.2	6.5

Sterlite Technologies Limited is related by virtue of having the same controlling party as the Group, namely Volcan. Pursuant to the terms of the Shared Services Agreement dated 5 December 2003 entered into by the Company and STL, the Company provides various commercial services in relation to STL's businesses on an arm's length basis and at normal commercial terms. For the year ended 31 March 2017, the commercial services provided to STL were performed by certain senior employees of the Group on terms set out in the Shared Services Agreement. The services provided to STL in this year amounted to US\$0.03 million (2016: US\$0.02 million).

#### Sterlite Power Transmission limited ('SPTL').

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Sales to SPTL	2.6	-

Purchases	0.4	-
Investment in Equity Share	1.5	-

Sterlite Power Transmission limited ('SPTL') is related by virtue of having the same controlling party as the Group, namely Volcan.

#### **Vedanta Foundation**

During the year US\$10.2 million was paid to the Vedanta Foundation including the value of land and a flat given as donation. (2016: US\$0.5million).

The Vedanta Foundation is a registered not-for-profit entity with a broad focus mainly on education, nutrition and livelihood. The Vedanta Foundation is a related party as it is controlled by members of the Agarwal family who control Volcan. Volcan is also the majority shareholder of Vedanta Resources plc.

#### Sesa Goa Community Foundation Limited

Following the acquisition of erstwhile Sea Goa Limited, the Sesa Goa Community Foundation Limited, a charitable institution, became a related party of the Group on the basis that key management personnel of the Group have significant influence on the Sesa Goa Community Foundation Limited. During the year ended 31 March 2017, US\$0.3 million (2016: US\$0.4 million) was paid to the Sesa Goa Community Foundation Limited.

#### Sterlite Iron and Steel Limited

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Loan balance receivable	0.7	0.7
Net amount receivable at year end (including interest)	1.9	1.8
Net Interest Income	0.1	0.1

Sterlite Iron and Steel Limited is a related party by virtue of having the same controlling party as the Group, namely Volcan.

#### Vedanta Medical Research Foundation

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Donation	5.2	2.7

Vedanta Medical Research Foundation is a related party of the Group on the basis that key management personnel of the Group exercise significant influence.

#### Volcan Investments Limited

(US\$ million)

		(0104 1111111011)
	Year ended	Year ended
	31 March 2017	31 March 2016
Net amount receivable at the year end	0.4	0.2
Recovery of expenses	0.2	0.3
Dividend paid	93.7	75.0

Volcan Investments Limited is a related party of the Group by virtue of being an ultimate controlling party of the Group.

Bank guarantee has been provided by the Group on behalf of Volcan in favour of Income tax department, India as collateral in respect of certain tax disputes of Volcan. The guarantee amount is US\$17.7 million (2016: US\$17.3 million).

#### Ashurst LLP

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Services received during the year	-	0.1

Ashurst LLP, is a related party of the Group on the basis that an independent director of the Group was a partner in the legal firm Ashurst LLP during the year ended 31 March 2016. It ceased to be a related party from May 1st 2015 onwards.

#### **Employees Provident Fund Trust.**

Details of transactions during the year with post retirement trusts. The below mentioned trusts are related parties because these are employee trusts.

		(US\$ million)
	Year ended	Year ended
	31 March 2017	31 March 2016
Balco Employees Provident Fund Trust	0.7	1.7
Hindustan Zinc Ltd. Employee Contributory provident fund trust	4.6	5.0
Sesa Group Employees Provident Fund	3.6	2.4
Sesa Resources Limited Employees Provident Fund	0.2	0.3
Sesa Mining Corporate Limited Employees Provident Fund	0.3	0.3

#### Remuneration of Key Management Personnel

(US\$ million)

	Year ended	Year ended
	31 March 2017	31 March 2016
Short-term employee benefits	20.0	20.0
Post-employment benefits	1.0	0.9
Share-based payments	3.9	3.6
	24.9	24.5

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any director (whether executive or otherwise).

#### Other related party#

(US\$ million)

		(ασφ πιπιοπ)
	Year ended	Year ended
	31 March 2017	31 March 2016
Salary paid	1.2	1.1

<sup>#</sup> close relative of the executive chairman

In addition to above sitting fees & commission of US\$34,726 (previous year US\$34,371) was also paid.

# 40. Share transactions Call options

#### a. HZL

Pursuant to the Government of India's policy of disinvestment, the Company in April 2002 acquired 26% equity interest in Hindustan Zinc Limited (HZL) from the Government of India. Under the terms of the Shareholder's Agreement ('SHA'), the Company had two call options to purchase all of the Government of India's shares in HZL at fair market value. The Company exercised the first call option on August 29, 2003 and acquired an additional 18.9% of HZL's issued share capital. The Company also acquired an additional 20% of the equity capital in HZL

through an open offer, increasing its shareholding to 64.9%. The second call option provided the Company the right to acquire the Government of India's remaining 29.5% share in HZL. This call option was subject to the right of the Government of India to sell 3.5% of HZL shares to HZL employees. The Company exercised the second call option on July 21, 2009. The Government of India disputed the validity of the call option and refused to act upon the second call option. Consequently the Company invoked arbitration which is in the early stages. The next date of hearing is scheduled for July 15, 2017. Meanwhile, the Government of India without prejudice to the position on the Put/Call option issue has received approval from the Cabinet for disinvestment and the Government is looking to divest through the auction route.

#### b. BALCO

Pursuant to the Government of India's policy of divestment, the Company in March 2001 acquired 51% equity interest in BALCO from the Government of India. Under the terms of the SHA, the Company had a call option to purchase the Government of India's remaining ownership interest in BALCO at any point from March 2, 2004. The Company exercised this option on March 19, 2004. However, the Government of India contested the valuation and validity of the option and contended that the clauses of the SHA violate the erstwhile Companies Act, 1956 by restricting the rights of the Government of India to transfer its shares and that as a result such provisions of the SHA were null and void. In the arbitration filed by the Company, the arbitral tribunal by a majority award rejected the claims of the Company on the ground that the clauses relating to the call option, the right of first refusal, the "tag-along" rights and the restriction on the transfer of shares violate the erstwhile Companies Act, 1956 and are not enforceable. The Company has challenged the validity of the majority award in the High Court of Delhi and sought for setting aside the arbitration award to the extent that it holds these clauses ineffective and inoperative. The Government of India also filed an application before the High Court of Delhi to partially set aside the arbitral award in respect of certain matters involving valuation. The matter is currently scheduled for hearing by the Delhi High Court on July 10, 2017. Meanwhile, the Government of India without prejudice to its position on the Put/Call option issue has received approval from the Cabinet for divestment and the Government is looking to divest through the auction route.

On January 9, 2012, the Company offered to acquire the Government of India's interests in HZL and BALCO for the INR equivalent of US\$2,389.3 million and US\$274.8 million respectively. This offer was separate from the contested exercise of the call options, and Company proposed to withdraw the ongoing litigations in relation to the contested exercise of the options should the offer be accepted. To date, the offer has not been accepted by the Government of India and therefore, there is no certainty that the acquisition will proceed.

The Group continues to include the shareholding in the two companies HZL and BALCO, in respect of which the Group has a call option as non-controlling interest.

# 41. Konkola Copper Mines: Value Added Tax

As of March 31, 2017, backlog Value Added Tax (falling under older VAT rule 18 regime) on inputs amounting to US\$71 Million (previous year US\$114 million) for ten month's period between October 2013 to December 2014 was pending to be recovered from the Zambian Government. During FY 17, KCM has received US\$56 million out of the backlog VAT receivables post the favourable decision in the matter of Output VAT demand of US\$600 million.

Following the amendment to VAT (General) (Amendment) No.2, Rules 2015, in February 2015, a notification was issued that exporting organizations will only be required to provide either copies of import documents for the goods, bearing a certificate of importation into the country of destination provided by the country of destination or copies of transit documents for the

Financial Statements For The Year Ended 31 March 2017

goods bearing a certificate of transit provided by the customs authority of the country of transit. KCM is in full compliance with the old VAT rule 18 & the amended rule and all the earlier audits were concluded to the satisfaction of ZRA.

The company believes that it will receive a refund of the entire amount and there is no objective evidence of uncertainty around collectability post set aside of assessment demand by ZRA and satisfactory VAT audits under old VAT regime. Accordingly, the company has not recognized any provision against the carrying amount of this receivable.

### 42. Group Restructuring

Consequent to the receipt of all substantive approvals for merger of Cairn India Limited with Vedanta Limited on 27 March 2017, the merger has been accounted for in the current financial year ending 31 March 2017. As per the terms of the scheme, upon the merger becoming effective, non-controlling i.e. public shareholders of Cairn India Limited received, one equity share in Vedanta Limited of face value Re 1 each (US\$0.0) and four 7.5% Redeemable Preference Shares in Vedanta Limited with a face value of INR10 each (US\$0.2) for each equity share held in Cairn India Limited. No shares were issued to Vedanta Limited or any of its subsidiaries for their shareholding in Cairn India Limited. Cairn India Limited ceased to be a separate legal entity with effect from 11 April 2017.

The above has resulted in a decrease in the shareholding of the Company in Vedanta Limited (merged entity) from 62.85% to 50.13% and an increase in the shareholdings of erstwhile Cairn India Limited's subsidiaries from 37.64% to 50.13%. Given the Company continues to control Vedanta Limited, this has been accounted for as an equity transaction with no gain or loss recognised in the income statement.

# 43. Subsequent events

Subsequent to the Balance Sheet date,

- a) 525,000 tonnes Jharsuguda-I smelter suffered an pot outage incident wherein 228 pots out of the total 608 pots were damaged and taken out of production.
- b) a fire took place in the coal handling facility at the 1,980 MW TSPL power plant in Punjab state. This has resulted in a shut-down of all three units of the power plant estimated for around 65 to 75 days.
- c) the Company early redeemed all the outstanding 9.5% bonds due July, 2018 of face value US\$361.1 million at a premium of US\$34.0 million.

Vedanta Resources plc

# 44. List of Subsidiaries

The financial statements comprise the financial statements of the following subsidiaries:

			The Compan percentag	The Company's economic percentage holding	Jo mpano	Immediate	Immediate percentage holding	diate holding
Subsidiaries	Principal activities	Registered Address	31-Mar-2017	31-Mar-2016	incorporation	company	31-Mar-2017	31-Mar-2016
Direct Subsidiaries of the Parent Company	;		6	6	:		6	6
Vedanta Resources Holding Limited ('VRHL')	Holding company	5th Floor, 6 St Andrew Street, London EC4A 3AE	100.00%	100.00%	United Kingdom	VR plc	100.00%	100.00%
Vedanta Resources Jersey Limited("VRJL")	Investment company	47 Esplanade, St Helier JE1 0BD	100.00%	100.00%	Jersey(CI)	VR plc	100.00%	100.00%
Vedanta Resources Jersey II Limited ("VRJL-II")	Investment company	47 Esplanade, St Helier JE1 0BD	100.00%	100.00%	Jersey(CI)	VR plc	100.00%	100.00%
Vedanta Finance (Jersey) Limited ('VFJL')	Investment company	47 Esplanade, St Helier JE1 0BD	100.00%	100.00%	Jersey(CI)	VR plc	100.00%	100.00%
Vedanta Jersey Investments Limited('VJIL")	Investment company	13 Castle Street, St. Helier, jersey JE4 5UT, Channel Islands	100.00%	100.00%	Jersey(CI)	VR plc	100.00%	100.00%
Indirect Subsidiaries of the Parent Company								
Vedanta Limited <sup>(1)</sup>	Copper smelting, Iron ore mining, Aluminium mining, refining and smelting, Power generation, Oil and Gas exploration, and production	Vedanta Limited 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai–400093, Maharashtra, India	50.13%	62.85%	India	Twin Star	37.11%	46.53 %
Bharat Aluminium Company Limited ('BALCO')	Aluminium mining and smelting	Aluminium Sadan, 2nd Floor, Core-6-Scope Complex, 7 Lodi Road, New Delhi-110 003	25.56%	32.05%	India	Vedanta Limited	51.00%	51.00%
Copper Mines Of Tasmania Pty Limited (CMT') Copper mining	Copper mining	C/O Henry Davis York, 44 Martin Place, Sydney, New South Wales	50.13%	62.85%	Australia	MCBV	100.00%	100.00%
Fujairah Gold FZC®	Gold & Silver processing	P.O. Box 3992, Fujairah, United Arab Emirates	50.13%	62.85%	UAE	MEL	100.00%	%96.76
Hindustan Zinc Limited ('HZL')	Zinc and mining and smelting	Yashad Bhawan, Udaipur (Rajasthan) – 313004	32.54%	40.80%	India	Vedanta Limited	64.92%	64.92%
Monte Cello BV ('MCBV')	Holding company	WTC Schipol Airport, Tower B, 5 <sup>th</sup> Floor, Schipol Boulevard 231, 1118 BH Schipol, The Netherlands	50.13%	62.85%	Netherlands	Vedanta Limited	100.00%	100.00%
Monte Cello Corporation NV (MCNV')	Holding company	Kaya Flamboyan 3c, Curacao, Netherlands Antilles	100.00%	100.00%	Curacao	Twin Star	100.00%	100.00%
Konkola Copper Mines PLC ('KCM')	Copper mining and smelting	Private Bag KCM (C) 2000, Stand M 1408, Fern Avenue, Chingola	79.42%	79.42%	Zambia	VRHL	79.42%	79.42%
Sesa Resources Limited ('SRL')	Iron Ore	Sesa Ghor, 20 EDC Complex, Patto, Panaji (Goa)- 403001	50.13%	62.85%	India	Vedanta Limited	100.00%	100.00%
Sesa Mining Corporation Limited	Iron Ore	Sesa Ghor, 20 EDC Complex, Patto, Panaji (Goa)- 403001	50.13%	62.85%	India	SRL	100.00%	100.00%

Vedanta Resources plc

			The Compan	The Company's economic		Immediate	Immediate	liate
			percentag	percentage holding	- Country of	holding	percentage holding	holding
Subsidiaries	Principal activities	Registered Address	31-Mar-2017	31-Mar-2016	incorporation	company	31-Mar-2017	31-Mar-2016
Thalanga Copper Mines Pty Limited ('TCM')	Copper mining	C/O Henry Davis York, 44 Martin Place, Sydney, New South Wales	50.13%	62.85%	Australia	MCBV	100.00%	100.00%
Twin Star Holdings Limited (Twin Star)	Holding company	C/o CIM Corporate Services LTD Les Cascades Building, Edith Cavell Street. Port Louis, Mauritius	100.00%	100.00%	Mauritius	VRHL	100.00%	100.00%
MALCO Energy Limited ('MEL')	Power generation	SIPCOT Industrial Complex, Madurai Bypass Road, Thoothukudi (Tamil Nadu) - 628 002	50.13%	62.85%	India	Vedanta Limited	100.00%	100.00%
Richter Holding Limited('Richter')	Investment company	66, Ippocratous Street. 1015 Nicosia, Cyprus	100.00%	100.00%	Cyprus	VRCL	100.00%	100.00%
Westglobe Limited	Investment company	C/o CIM Corporate Services LTD Les Cascades Building, Edith Cavell Street, Port Louis, Mauritius	100.00%	100.00%	Mauritius	Richter	100.00%	100.00%
Finsider International Company Limited	Investment company	5th Floor, 6 St Andrew Street, London, EC4A 3AE	100.00%	100.00%	United Kingdom	Richter	%00:09	%00.09
Vedanta Resources Finance Limited (VRFL)	Investment company	5th Floor, 6 St Andrew Street, London, EC4A 3AE	100.00%	100.00%	United Kingdom	VRHL	100.00%	100.00%
Vedanta Resources Cyprus Limited (VRCL)	Investment company	66, Ippocratous Street. 1015 Nicosia, Cyprus	100.00%	100.00%	Cyprus	VRFL	100.00%	100.00%
Welter Trading Limited ('Welter')	Investment company	28th Oktovriou Street, 205 Louloupis Court, 1st Floor P.C. 3035, Limassol, Cyprus	100.00%	100.00%	Cyprus	VRCL	100.00%	100.00%
Lakomasko B.V.	Investment company	Herengracht 458, 1017 CA Amsterdam, the Netherlands	50.13%	62.85%	Netherlands	THL Zinc Holding B.V.	100.00%	100.00%
THL Zinc Ventures Limited	Investment company	C/o CIM Corporate Services LTD Les Cascades Building, Edith Cavell Street, Port Louis, Mauritius	50.13%	62.85%	Mauritius	Vedanta Limited	100.00%	100.00%
Twin Star Energy Holdings Limited ("TEHL')	Holding company	C/o CIM Corporate Services LTD Les Cascades Building, Edith Cavell Street, Port Louis, Mauritius	50.13%	62.85%	Mauritius	BFL	100.00%	100.00%
THL Zinc Limited	Investment company	C/o CIM Corporate Services LTD Les Cascades Building, Edith Cavell Street, Port Louis, Mauritius	50.13%	62.85%	Mauritius	THL Zinc Ventures Ltd	100.00%	100.00%
Sterlite (USA) Inc.	Investment company	Corporation Service Company, 2711 Centerville Road, Suite 400, City of Wilmington, Country of New Castle, Delaware, 19808	50.13%	62.85%	USA	Vedanta Limited	100.00%	100.00%
Talwandi Sabo Power Limited	Power generation	Vill. Banawala, Mansa - Talwandi Sabo Road, Distt. Mansa, Punjab - 151302	50.13%	62.85%	India	Vedanta Limited	100.00%	100.00%

Vedanta Resources plc

			The Company's econor	The Company's economic		Immediate	Immediate	diate
Subcidioniae	Dringing 1 activities	Bornictored Address	31-Mar-2017	31-M3r-2016	Country of	holding	31-Mar-2017	31-Mar-2016
Twin Star Mauritius Holdings Limited	Holding company	Services LTD	50.13%	62.85%	Mauritius	TEHL	100.00%	100.00%
('TMHL')		Les Cascades Building, Edith Cavell Street, Port Louis, Mauritius						
THL Zinc Namibia Holdings (Pty) Limited ('VNHL)	Mining and Exploration	24 Orban Street, Klein Windhoek, Windhoek	50.13%	62.85%	Namibia	THL Zinc Ltd	100.00%	100.00%
Skorpion Zinc (Pty) Limited ('SZPL')	Acquisition of immovable and movable properties	24 Orban Street, Klein Windhoek, Windhoek	50.13%	62.85%	Namibia	VNHL	100.00%	100.00%
Namzinc (Pty) Limited ('SZ')	Mining	24 Orban Street, Klein Windhoek, Windhoek	50.13%	62.85%	Namibia	SZPL	100.00%	100.00%
Skorpion Mining Company (Pty) Limited ('NZ')	Mining	24 Orban Street, Klein Windhoek, Windhoek	50.13%	62.85%	Namibia	SZPL	100.00%	100.00%
Amica Guesthouse (Pty) Ltd	Accomodation and catering services	24 Orban Street, Klein Windhoek, Windhoek	50.13%	62.85%	Namibia	SZPL	100.00%	100.00%
Rosh Pinah Healthcare (Pty) Ltd	Leasing out of medical equipment and building and conducting services related thereto	24 Ondye Drive, Rosh Pinah	34.59%	43.37%	Namibia	SZPL	%00.69	%00.69
Black Mountain Mining (Pty) Ltd	Mining	24 Orban Street, Klein Windhoek, Windhoek	37.10%	46.51%	South Africa	THL Zinc Ltd	74.00%	74.00%
THL Zinc Holding BV	Investment company	Penge Road, Aggeneys	50.13%	62.85%	Netherlands	Vedanta Limited	100.00%	100.00%
Lisheen Mine Partnership	Mining Partnership Firm	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	VLML	50.00%	50.00%
Pecvest 17 Proprietary Ltd.	Investment Company	Penge Road, Aggeneys	50.13%	62.85%	South Africa	THL Zinc Ltd	100.00%	100.00%
Vedanta Lisheen Holdings Limited("VLHL")	Investment Company	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	THL Zinc Holding BV	100.00%	100.00%
Vedanta Exploration Ireland Limited	Exploration Company	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	VLHL	100.00%	100.00%
Vedanta Lisheen Mining Limited ('VLML')	Mining	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	VLHIL	100.00%	100.00%
Killoran Lisheen Mining Limited	Mining	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	VLHIL	100.00%	100.00%
Killoran Lisheen Finance Limited	Investment Company	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	VLHIL	100.00%	100.00%
Lisheen Milling Limited	Manufacturing	Killoran, Moyne, Thurles, Co. Tipperay	50.13%	62.85%	Ireland	VLHIL	100.00%	100.00%
Vizag General Cargo Berth Private Limited	Infrastructure	Sterlite Industries(I) Limited, SIPCOT Industrial Complex, Madurai Bypass Road, T.V. Puram P.O Tuticorin – 628002, Tamil Nadu, India	50.13%	62.85%	India	Vedanta Limited	100.00%	%66.66

Vedanta Resources plc

			The Company's economic	y's economic		Immediate	Immediate	diate
		ı	percentage holding	e holding	- Country of	holding	percentage holding	holding
Subsidiaries	Principal activities	Registered Address	31-Mar-2017	31-Mar-2016	incorporation	company	31-Mar-2017	31-Mar-2016
Paradip Multi Cargo Berth Private Limited <sup>(3)</sup>	Infrastructure	Sterlite Industries(f) Limited, SIPCOT Industrial Complex, Madurai Bypass Road, T.V. Puram P.O Tuticorin –	50.13%	46.51%	India	Vedanta Limited	100.00%	74.00%
		628002, Tamil Nadu, India						
Sterlite Ports Limited ('SPL')	Infrastructure	Sterlite Industries(I) Limited, SIPCOT	50.13%	62.85%	India	Vedanta	100.00%	100.00%
		Industrial Complex, Madurai Bypass Road, T.V. Puram P.O Tuticorin –				Limited		
		628002, Tamil Nadu, India						
Maritime Ventures Private Limited	Infrastructure	Sterlite Industries(I) Limited, SIPCOT	50.13%	62.85%	India	SPL	100.00%	100.00%
		Industrial Complex, Madurai Bypass Road, T.V. Puram P.O Tuticorin –						
Sterlite Infraventures Limited(4)	Infrastructure	Sterlite Industries (N Limited SIPCOT	1	62.85%	India	Vedanta	1	100 00%
		Industrial Complex, Madurai Bypass				Limited		
		Road, T.V. Puram P.O Tuticorin –						
		628002, Tamil Nadu, India						
Goa Sea Ports Private Limited <sup>(5)</sup>	Infrastructure	Sterlite Industries(I) Limited, SIPCOT	50.13%	ı	India	SPL	100.00%	1
		Industrial Complex, Madurai Bypass Road, T.V. Puram P.O Tuticorin –						
		628002, Tamil Nadu, India						
Bloom Fountain Limited ('BFL')	Operating (Iron ore) and	C/O Cim Corporate Services	50.13%	62.85%	Mauritius	Vedanta	100.00%	100.00%
	Investment Company	Limited, Les Cascades Building,				Limited		
		Edith Cavell Street, Port Louis, Mauritius						
Western Cluster Limited	Mining Company	Amir Building, 18th Street, Sinkor,	50.13%	62.85%	Liberia	BFL	100.00%	100.00%
		Tubman Boulevard, Sinkor, Monrovia, Liberia, West Africa						
Sesa Sterlite Mauritius Holdings Limited	Investment company	C/o CIM Corporate Services LTD	100.00%	100.00%	Mauritius	BFL	100.00%	100.00%
		Les Cascades Building, Edith Cavell Street, Port Louis, Mauritius						
Vedanta Finance UK Limited	Investment company	5th Floor, 6 St Andrew Street, London, EC4A 3AE	100.00%	100.00%	United Kingdom	Welter	100.00%	100.00%
Valliant (Jersey) Limited	Investment Company	47 Esplanade, St Helier JE1 0BD	100.00%	100.00%	Jersey(CI)	VRJL-II	100.00%	100.00%
Cairn India Limited <sup>(1)</sup>	Oil and gas exploration, and production	101, First Floor, C Wing, Business Square, Andheri Kurla Road, Andheri (F.), Mumbai - 400 059	•	37.64%	India	TMHL	1	34.43%
Cairn India Holdings Limited	Investment company	4th Floor, 22-24 New Street, St. Paul's Gate, St. Helier, Jersey, JE1	50.13%	37.64%	Jersey	Vedanta Limited♡	100.00%	100.00%
		4TR						
Cairn Energy Holdings Limited®	Investment company	Summit House, 4-5 Mitchell Street, Edinburgh, EH6 7BD, Scotland	1	37.64%	Scotland	Cairn India Holdings Limited	1	100.00%

Vedanta Resources plc

			The Company's economic	's economic		Immediate	Immediate	iate
			percentage holding	holding	Country of	holding –	percentage holding	holding
Subsidiaries	Principal activities	Registered Address	31-Mar-2017	31-Mar-2016	incorporation		31-Mar-2017	31-Mar-2016
Cairn Energy Hydrocarbons Ltd	Exploration & production	Summit House, 4-5 Mitchell Street, Edinburgh, EH6	50.13%	37.64%	Scotland	Cairn India Holdings	100.00%	100.00%
Cairn Exploration (No. 7) Limited®	Exploration & production	7BD, Scotland Summit House, 4-5 Mitchell Street, Edinburgh, EH6 7BD, Scotland	1	37.64%	Scotland	Cairn India Holdings Limited	ı	100.00%
Cairn Exploration (No. 2) Limited	Exploration & production	Summit House, 4-5 Mitchell Street, Edinburgh, EH6 7BD. Scotland	50.13%	37.64%	Scotland	Cairn India Holdings	100.00%	100.00%
Cairn Energy Gujarat Block 1 Limited	Exploration & production	Summit House, 4-5 Mitchell Street, Edinburgh, EH6 7BD, Scotland	50.13%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%
Cairn Energy Discovery Limited	Exploration & production	Summit House, 4-5 Mitchell Street, Edinburgh, EH6 7BD, Scotland	50.13%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%
Cairn Energy Australia Pty Limited <sup>(6)</sup>	Investment company	Level 12, 680 George Street, Sydney NSW 2000, Australia		37.64%	Australia	Cairn India Holdings Limited	ı	100.00%
Cairn Energy India Pty Limited	Exploration & production	Level 12, 680 George Street, Sydney NSW 2000, Australia	50.13%	37.64%	Australia	Cairn India Holdings Limited	100.00%	100.00%
CIG Mauritius Holdings Private Limited	Investment company	Abax Corporate Services Ltd. 6th Floor, Tower A, 1 CyberCity, Ebene, Mauritius	50.13%	37.64%	Mauritius	Vedanta Limited (7)	100.00%	100.00%
CIG Mauritius Private Limited	Investment company	Abax Corporate Services Ltd. 6th Floor, Tower A, 1 CyberCity, Ebene, Mauritius	50.13%	37.64%	Mauritius	CIG Mauritius Holding Private Limited	100.00%	100.00%
Cairn Lanka Private Limited	Exploration & production	Level 27, West Tower, World Trade Centre, Echelon Square, Colombo 1, Sri Lanka	50.13%	37.64%	Sri Lanka	CIG Mauritius Pvt Ltd	100.00%	100.00%
Cairn South Africa Pty Limited	Exploration & production	22 Bree Street, Cape Town, 8001, South Africa	50.13%	37.64%	South Africa	Cairn India Holdings Limited	100.00%	100.00%

Cairn India Limited merged with Vedanta Limited w.e.f. 27th March 2017. (Refer note 42)
 Pursuant to transfer of holding in Eujairah Gold from TCM & CMT to MEL in July 2016
 Pursuant to change in holding in PMCB from 74% to 100% in May 2016
 Sold to Sterlite Power Transmission Limited (SPTL) in September 2016
 M/s Goa Sea Port Private Limited incorporated on 5th July, 2016 as a 100% subsidiary of Sterlite Ports Limited (SPL)
 Dissolved during the year
 Vedanta Limited subsequent to merger of Cairn India Limited with Vedanta Limited

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The Group owns directly or indirectly through subsidiaries, more than half of the voting power of all of its subsidiaries as mentioned in the list above, and has power over the subsidiaries, is exposed or has rights, to variable returns from its involvement with the subsidiaries and has the ability to affect those returns through its power over the subsidiaries.

# 45. Ultimate controlling party

At 31 March 2017, the ultimate controlling party of the Group was Volcan, which is controlled by persons related to the Executive Chairman, Mr Anil Agarwal. Volcan is incorporated in the Bahamas, and does not produce Group accounts.

# 46. Company Balance Sheet

(US\$ million)

			(US\$ million
	Note	31 March 2017	31 March 2016
Fixed assets			
Tangible assets	48	0.1	0.2
Investments in subsidiaries	49	1,226.3	1,226.3
Investment in preference shares of subsidiaries	50	4.7	4.7
Financial asset investment	51	0.3	0.1
		1,231.4	1,231.3
Current assets			
Debtors due within one year	52	2,151.4	505.5
Debtors due after one year	52	2,358.8	4,683.9
Investments	53	14.6	28.1
Cash at bank and in hand		0.9	0.6
		4,525.7	5,218.1
Creditors: amounts falling due within one year			
Trade and other creditors	54	(88.4)	(104.3)
External borrowings	54	(173.8)	(742.7)
Loan from subsidiary	54	(176.5)	(600.3)
		(438.7)	(1,447.3)
Net current assets		4,087.0	3,770.8
Total assets less current liabilities		5,318.4	5,002.1
Creditors: amounts falling due after one year			
Loan from subsidiary	55	-	(278.0)
External borrowings	55	(4,250.8)	(4,220.0)
		(4,250.8)	(4,498.0)
Net assets		1,067.6	504.1
Capital and reserves			
Called up share capital	56	30.1	30.1
Share premium account	56	201.5	201.5
Share-based payment reserve	56	28.2	29.9
Convertible bond reserve	56	-	10.8
Other reserves	56	(2.0)	(2.2)
Treasury shares	56	(490.6)	(490.6)
Profit and loss account	56	1,300.4	724.6
Equity shareholders' funds	56	1,067.6	504.1

The separate Financial Statements of Vedanta Resources plc, registration number 4740415 were approved by the Board of Directors on 23 May 2017 and signed on its behalf by

Tom Albanese - Chief Executive Officer

# 47. Company accounting policies

#### **Basis of Accounting**

Vedanta Resources plc ('the Company') has transitioned from UK Generally Accepted Accounting Practice (UK GAAP) to Financial Reporting Standard 101 "Reduced disclosure framework", for all periods presented. The Company meets the definition of a qualifying entity under Financial Reporting Standard (FRS 101) 'Reduced Disclosure Framework' issued by the Financial Reporting Council. Accordingly, in the year ended 31 March 2016 the Company has changed its accounting framework from pre-2015 UK GAAP to FRS 101 and has, in doing so, applied the requirements of IFRS 1.6-33 and related appendices.

These financial statements have been prepared in accordance with FRS 101 Reduced Disclosure Framework.

The Company balance sheet and related notes have been prepared under the historical cost convention and in accordance with Financial Reporting Standards 100 Application of Financial Reporting Requirements (FRS 100) and 101 Reduced Disclosure Framework (FRS 101).

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Company is not presented as part of these financial statements. The profit after tax for the year of the Company amounted to US\$690.2 million (2016: Loss US\$8.0 million).

These financial statements are presented in US dollars being the functional currency of the Company.

#### Significant accounting policies

#### Investments in subsidiaries

Investments in subsidiaries represent equity holdings in subsidiaries except preference shares, valued at cost less any provision for impairment. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable.

#### Investment in preference shares of subsidiaries

Investments in preference shares of subsidiaries are stated at fair value. The fair value is represented by the face value of the preference shares as the investments are redeemable at any time for their face value at the option of the Company.

#### Cash and cash equivalents

Cash in the balance sheet comprise of cash at bank and cash in hand.

#### Financial asset investments

Financial asset investments are classified as available for sale under IAS 39 and are initially recorded at cost and then remeasured at subsequent reporting dates to fair value. Unrealized gains and losses on financial asset investments are recognized directly in equity. On disposal or impairment of the investments, the gains and losses in equity are recycled to the income statement.

#### Currency translation

Transactions in currencies other than the functional currency of the Company, being US dollars, are translated into US Dollars at the spot exchange rates ruling at the date of transaction. Monetary assets and liabilities denominated in other currencies at the balance sheet date are translated into US dollars at year end exchange rates, or at a contractual rate if applicable.

Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

#### Tangible fixed assets

Tangible fixed assets are stated at cost less accumulated depreciation and provision for impairment.

#### Deferred taxation

Deferred taxation is provided in full on all timing differences that result in an obligation at the balance sheet date to pay more tax, or a right to pay less tax, at a future date, subject to the recoverability of deferred tax assets. Deferred tax assets and liabilities are not discounted.

#### Share-based payments

The cost of equity-settled transactions with employees is measured at fair value at the date at which they are granted. The fair value of share awards with market-related vesting conditions are determined by an external valuer and the fair value at the grant date is expensed on a straight-line basis over the vesting period based on the Company's estimate of shares that will eventually vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet date up to the vesting date at which point the estimate is adjusted to reflect the current expectations. No adjustment is made to the fair value after the vesting date even if the awards are forfeited or not exercised. Amounts recharged to subsidiaries in respect of awards granted to employees of subsidiaries are recognised as intercompany debtors until repaid.

In case of cash-settled transactions, a liability is recognised for the fair value of cash-settled transactions. The fair value is measured initially and at each reporting date up to and including the settlement date, with changes in fair value recognised in employee benefits expense. The fair value is expensed over the period until the vesting date with recognition of a corresponding liability. The fair value is determined with the assistance of an external valuer.

#### **Borrowings**

Interest bearing loans are recorded at the net proceeds received i.e. net of direct transaction costs. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on accruals basis and charged to the profit and loss account using the effective interest method and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

#### Convertible Bonds

The Convertible bond issued by VRJL and VRJL-II (note 54) are accounted for as a compound instrument. The gross proceeds (net of issue costs) were lent to the Company by VRJL and VRJL-II. The equity component has been recognised in a separate reserve of the company and is not subsequently re measured. The recognition of the equity component by the company acts to reduce the payable to VRJL and VRJL-II which arises once the gross proceeds are borrowed. The liability component is held at amortised cost. The interest expensed on the liability component is calculated by applying an effective interest rate. The difference between interest expensed and interest paid is added to the carrying amount of the liability component.

The bonds are first convertible into preference shares of the issuer having a principal value of \$100,000 per Preference share, which are exchanged immediately for ordinary shares of the Company.

#### Financial instruments

The Company has elected to take the exemption provided in paragraph 8 of FRS 101 in respect of these parent company financial statements. Full disclosures are provided in note 29 to the financial statements of the Group for the year ended 31 March 2017.

#### Derivative financial instruments

Derivative financial instruments are initially recorded at their fair value on the date of the derivative transaction and are re-measured at their fair value at subsequent balance sheet dates.

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the profit and loss account. The hedged item is recorded at fair value and any gain or loss is recorded in the profit and loss account and is offset by the gain or loss from the change in the fair value of the derivative.

Derivative financial instruments that do not qualify for hedge accounting are marked to market at the balance sheet date and gains or losses are recognised in the profit and loss account immediately.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting.

#### Cash flow statement

The company financial statements are prepared under FRS 101, which does not require application of IAS 7. Accordingly, the Company does not present the individual company cash flow statement.

#### Financial guarantees

Guarantees issued by the Company on behalf of other Group companies are designated as 'Insurance Contracts'. Accordingly these are shown as contingent liabilities. (note 57)

#### Debtors

Debtors are stated at their nominal value as reduced by appropriate allowance for estimated irrecoverable amounts. An allowance for impairment for debtors is made where there is an indication of a reduction in the recoverability of the carrying value of the debtor.

#### **Creditors**

Creditors are stated at their nominal value.

# 48. Company tangible fixed assets

	(US\$ million)
Cost	
At 1 April 2015	2.3
Additions	0.0
At 31 March 2016	2.3
Additions	0.0
At 31 March 2017	2.3
Accumulated depreciation	
At 1 April 2015	2.0
Charge for the period	0.1
At 31 March 2016	2.1
Charge for the period	0.1
At 31 March 2017	2.2
Net book value	
At 1 April 2015	0.3
At 31 March 2016	0.2
At 31 March 2017	0.1

#### 49. Investments in subsidiaries

	(US\$ million)
Cost	
At 1 April 2015	1,226.3
At 1 April 2016	1,226.3
At 31 March 2017	1,226.3

At 31 March 2017, the Company held 157,538,524 shares in Vedanta Resources Holdings Limited ('VRHL') (March 2016: 157,538,524 shares), being 100% of VRHL's issued equity share capital. The Company also held one deferred share in VRHL (March 2016: one). At 31 March 2017, the Company held two shares in Vedanta Finance Jersey Limited ('VFJL') (March 2016: two), two shares in Vedanta Resources Jersey Limited ('VRJL') (March 2016: two), two shares in Vedanta Jersey Investment Limited ('VJIL') (March 2016: two), being 100% of its issued equity share capital.

VRHL is an intermediary holding company incorporated in the United Kingdom (note 44) and registered in England and Wales. VFJL, VRJL, VJIL and VRJL-II are companies, registered and incorporated in Jersey, established to raise funds for the Vedanta Group.

#### 50. Investment in preference shares of subsidiaries

	(US\$ million)
Fair value	
At 1 April 2016	4.7
Additions	-
Disposal	-
At 31 March 2017	4.7
At 1 April 2015	1.7
Additions	3.0
Disposal	-
At 31 March 2016	4.7

As at 31 March 2017, the Company held 47 preference shares in Vedanta Resources Jersey Limited ("VRJL") (31 March 2016: 47 preference shares).

During the previous year, VRJL received notice from the bondholders to exercise the option to convert US\$3,000,000 bonds into equity shares of the Company in accordance with the provisions of the Offer circular and accordingly 30 preference shares with a nominal value of US\$100,000 each were issued by VRJL to the Company.

#### 51. Financial asset investment

	(US\$ million)
Fair value	
At 1 April 2016	0.1
Fair value movement	0.2
At 31 March 2017	0.3
At 1 April 2015	0.1
Fair value movement	-
At 31 March 2016	0.1

The investment relates to an equity investment in the shares of Victoria Gold Corporation. At 31 March 2017, the investment in Victoria Gold Corporation was revalued and gain of US\$0.2 million (2016: no gain/loss) was recognised in equity.

# 52. Company debtors

		(US\$ million)
	31 March 2017	31 March 2016
Amounts due from subsidiary undertakings	4,509.4	5,188.4
Prepayments and accrued income	0.5	0.5
Other taxes	0.3	0.5
Total	4,510.2	5,189.4
Debtors due within one year	2,151.4	505.5
Debtors due after one year	2,358.8	4,683.9
Total	4,510.2	5,189.4

#### Amounts due from subsidiary undertakings

At 31 March 2017, the Company had loans due from VRHL of US\$1,790.3 million (2016: US\$1,737.4 million) which represented the funds being loaned to other group companies for funding the subsidiaries. Out of the total loan, US\$579.3 million bears interest at six month US\$LIBOR plus 350 basis points, US\$500.0 million at 5.8%, US\$31.2 million at 5.9%, US\$47.0 million at 9.7%, and US\$632.8 million at US\$LIBOR plus 367 basis points.

At 31 March 2017, the Company had loan of US\$1,757.1 million (2016: US\$3,069.6 million) due from Vedanta Resources Jersey II Limited. Out of the total loan US\$41.4 million bears interest at US\$LIBOR plus 357 basis points, US\$1,200.0 million at 6.50%, US\$121.4 million at LIBOR plus 300 basis points US\$60.0 million at 3.15%, US\$68.4 million at 6.75% and US\$265.8 million at six month US\$LIBOR plus 430 basis points.

The Company was owed US\$344.9 million (2016: US\$372.1 million) of accrued interest from VRHL and Vedanta Resources Jersey II Limited.

During the year, the company gave a loan to Vedanta Resources Jersey Limited of facility amount US\$400.0 million at an interest rate of 6.75%. The outstanding amount as at 31 March 2017 was US\$125.0 million and accrued interest thereon US\$0.1 million.

As at 31 March 2017, the company was owed dividend receivable from Vedanta Resources Holdings limited of US\$475.0 million.

In addition to the loans, the company was also owed US\$17.0 million (2016: US\$9.3 million) other receivables from Group companies.

# 53. Company current asset investments

	(US\$ million)
31 March 2017	31 March 2016
14.6	28.1
14.6	28.1
	14.6

# 54. Company creditors: amounts falling due within one year

		(US\$ million)
	31 March 2017	31 March 2016
Accruals	(88.4)	(104.3)
External borrowings	(173.8)	(742.7)
Loan from Subsidiary	(176.5)	(600.3)
Total	(438.7)	(1,447.3)

In April 2013, the Company entered into a Standby Letter of Credit agreement arranged by Axis Bank for an amount of US\$150.0 million at a commission of 1% per annum payable quarterly. The facility is funded by Bank of India to the extent of US\$148.5 million and bears interest rate

#### Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

at three month US\$LIBOR plus 290 basis points. The facility is repayable in two equal annual instalments starting April 2017. As at 31 March 2017, the outstanding amount under this facility amounting to US\$74.2 million has been shown under creditors falling due within one year and balance US\$74.3 million in creditors falling due after one year.

In December 2013, the Company entered into a facility agreement with Bank of India for borrowing up to US\$100.0 million at an interest rate of US\$LIBOR plus 357 basis points repayable to the extent of 50% in October 2017 and balance in January 2018. As at 31 March 2017, the outstanding amount under this facility is US\$100.0 million.

As at 31 March 2016, loans from subsidiaries included a loan of US\$1,140.3 million from VRJL relating to its issue of US\$1,250.0 million convertible bonds (bond issued in July 2009). During the previous year, the Company bought from the market the bonds of face value of US\$549.3 million for a consideration of US\$522.4 million. Accordingly, the carrying value of the bond bought along with accrued interest i.e. US\$540.0 million had been reduced from the inter-co loan outstanding amount of US\$1,140.3 million from the subsidiary, VRJL.

During the year, the Company further bought from the market, the bonds of face value US\$67.4 million and repaid the balance amount of US\$514.8 million on its maturity in July 2016 along with accrued interest. Both these amounts were adjusted against the intercompany payable to VRJL. During the year ended 31 March 2017, interest was charged at the effective interest rate of 8.2% (March 2016: 8.2%).

As at 31 March, 2017 loan from subsidiary includes a loan of US\$176.5 million due to Vedanta Finance UK Limited at an interest rate of one year US\$LIBOR plus 382 basis points.

# 55. Company creditors: amounts falling due after one year

		(US\$ million)
	31 March 2017	31 March 2016
Loan from subsidiary	-	(278.0)
External borrowings	(4,250.8)	(4,220.0)
Total	(4,250.8)	(4,498.0)

Loans from Subsidiaries as at 31 March 2016 include a loan of US\$22.2 million due to Richter Holdings Limited and US\$255.8 million due to Vedanta Finance UK Limited. During the year, the outstanding amount of US\$22.2 million due to Richter Holdings Limited was prepaid. Further out of US\$255.8 million due to Vedanta Finance UK Limited , US\$79.3 million was prepaid and the balance US\$176.5 million was shown under creditors falling due within one year.

In December 2013, the Company entered into a facility agreement with Bank of India for borrowing up to US\$100.0 million at an interest rate of US\$LIBOR plus 357 basis points repayable to the extent of 50% in October 2017 and balance in January 2018. As at 31 March 2017, the outstanding amount under this facility is US\$100.0 million. The same has been shown under creditors falling due within one year.

The external borrowings represent US\$1,250.0 million non-convertible bond issued during 2008, out of which US\$500.0 million was repaid in January 2014 and the remaining US\$750.0 million 9.5% bonds are due for repayment in July 2018. During the year, the company had bought back US\$370.9 million. As at 31 March 2017, the outstanding amount under this facility is US\$379.1 million. Post the balance sheet date, the Company early redeemed all the outstanding 9.5% bonds due July, 2018 of face value US\$379.1 million at a premium of US\$35.5 million.

In July 2011, the Company issued US\$750.0 million, 6.75% bonds due June 2016, and US\$900.0 million, 8.25% bonds due June 2021. During the previous year, the Company bought back US\$7.0 million 6.75% bonds due June 2016 from the open market and further during the current

#### Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

year US\$62.6 million was bought back. The balance outstanding amount of US\$680.4 million was duly repaid in June 2016. As at 31 March 2017, the outstanding amount under this facility was US\$900.0 million.

In April 2013, the Company entered into a Standby Letter of Credit agreement arranged by Axis Bank for an amount of US\$150.0 million at a commission of 1% per annum payable quarterly. The facility is funded by Bank of India to the extent of US\$148.5 million and bears interest rate at three month US\$LIBOR plus 290 basis points. The facility is repayable in two equal annual instalments starting April 2017. As at 31 March 2017, the outstanding amount under this facility amounting to US\$74.2 million has been shown under creditors falling due within one year and balance US\$74.3 million in creditors falling due after one year.

In June 2013, the Company issued US\$1,200.0 million, 6.00% bonds due January 2019, and US\$500.0 million, 7.125% bonds due May 2023. During the year, the company bought back US\$425.0 million out of the US\$1,200.0 million bond due in January 2019. As at 31 March 2017, the outstanding amount under this facility is US\$1275.0million.

In March 2015, the Company entered into a facility agreement with State Bank of India for borrowing up to US\$350.0 million. US\$100.0 million is repayable in March 2020 and bears interest at a rate of US\$LIBOR plus 370 basis points. US\$250.0 million bears interest at a rate of US\$LIBOR plus 403 basis points repayable in two instalments being US\$100.0 million due in June 2021 and US\$150.0 million in June 2022. As at 31 March 2017, the outstanding amount under this facility is US\$350.0 million.

In January 2016, the Company entered into a facility agreement with State Bank of India for borrowing up to US\$300.0 million. US\$120.0 million is repayable in February 2022 and bears interest at a rate of US\$LIBOR plus 450 basis points. US\$180.0 million is repayable in February 2023 and bears interest at a rate of US\$LIBOR plus 453 basis points. As at 31 March 2017, the outstanding amount under this facility is US\$300.0 million.

In January 2017, the Company issued US\$1,000.0 million, 6.375% bonds due in July 2022. As at 31 March 2017, the outstanding amount under this facility is US\$1,000.0 million.

# 56. Company reconciliation of movement in equity shareholders' funds

(US\$ million)

	Share capital (note 35)	Share premium	Share- based payment reserve	Convertible bond reserve	Treasury Shares	Retained earnings	Other Reserves	Total
Equity shareholders' funds at 1 April 2016	30.1	201.5	29.9	10.8	(490.6)	724.6	(2.2)	504.1
Profit for the year	-	-	-		-	690.2	-	690.2
Dividends paid (note 14)	-	-	-	-	-	(138.4)*	-	(138.4)*
Exercise of LTIP awards (note 32)	0.0	-	(15.1)	-	-	15.1	-	0.0
Recognition of share based payments (note 32)	-	-	13.4	-	-	-	-	13.4
Gift to Employees Benefit Trust	-	-	-	-	-	(1.9)	-	(1.9)
Convertible bond transfer (note 28)	-	-	-	(10.8)	-	10.8	-	-
Movement in fair value of Financial Investment	-	-	-	-	-	-	0.2	0.2
Equity shareholders' funds at 31 March 2017	30.1	201.5	28.2	-	(490.6)	1,300.4	(2.0)	1,067.6

<sup>\*</sup> Total dividends of US\$138.4 million (2016:US\$111.3 million) million includes dividend of US\$0.9 million (2016: US\$0.7 million) paid to a separate investment trust which is consolidated in the Group's financial statements with that element of dividends paid by the company being eliminated (Refer note 14).

(US\$ million)

	Share capital	Share	Share- based payment	Convertible	Treasury	Retained	Other	
	(note 35)	premium	reserve	bond reserve	Shares	earnings	Reserves	Total
Equity shareholders' funds at 1 April 2015	30.0	198.5	27.4	38.4	(490.6)	804.2	(2.2)	605.7
Loss for the year	-	-	-	-	-	(8.0)	-	(8.0)
Dividends paid (note 14)	-	-	-	-	-	(111.3)*	-	(111.3)*
Exercise of LTIP awards (note 32)	0.1	-	(13.1)	-		13.1	-	0.1
Recognition of share								
based payments (note								
32)	-	-	15.6	-	-	-	-	15.6
Gift to Employees	-	-	-	-	-	(0.9)	-	(0.9)
Benefit Trust	0.0	3.0	-	(0.1)	-	-	-	2.9
Exercise of conversion								
of bonds								
Convertible bond				(27.5)		27.5		
transfer (note 28)				(27.5)		27.5		
Equity shareholders' funds at 31 March 2016	30.1	201.5	29.9	10.8	(490.6)	724.6	(2.2)	504.1

# 57. Company contingent liabilities

The Company has given a corporate guarantee to Konkola Copper Mines for an amount of US\$709.0 million.

The Company has guaranteed US\$170.0 million for a loan facility entered by Valliant Jersey Limited with ICICI bank and US\$180.0 million (out of which, US\$59.2 million has been repaid during the year) for loan facility entered by Vedanta Finance Jersey Limited with ICICI bank.

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The Company has guaranteed US\$500.0 million for a syndicated facility agreement entered by Welter Trading Limited with Standard Chartered Bank as facility agent.

The Company has guaranteed US\$500.0 million for loan facility entered by Monte Cello NV with ICICI bank.

The Company has guaranteed US\$80.0 million for revolving credit facility entered by Twin Star Holdings Limited with Emirates NBD PJSC and Standard Chartered Bank as lead arrangers and National Bank of Abu Dhabi PJSC as facility agent.

The Company has guaranteed US\$500.0 million for a syndicated facility entered by Twin Star Holdings Limited with Axis Bank as lead arranger and facility agent.

The Company has guaranteed US\$1,200.0 million for a syndicated facility entered by Twin Star Mauritius Holdings Limited with Standard Chartered Bank as facility agent. During the previous year , US\$300.0 million has been repaid and during the year another US\$300.0 million has been repaid. Post balance sheet date, the facility has been prepaid.

The Company has guaranteed US\$500.0 million for a loan facility entered by Twin Star Mauritius Holdings Limited with Standard Chartered Bank and First Gulf Bank PJSC of which \$250.0 million is under a commodity murabaha structure (Islamic financing) and balance \$250.0 million is under a conventional loan structure. During the previous year, US\$25.0 million has been repaid and during the year another US\$25.0 million has been repaid. Post balance sheet date, the facility has been prepaid.

The Company has guaranteed US\$1,250.0 million for a loan facility entered by its subsidiaries THL Zinc Limited with Cairn India Holdings Limited (Intercompany loan). Post balance sheet date, this guarantee has been withdrawn.

The Company has guaranteed US\$900.0 million for a loan facility entered by its subsidiaries Twin Star Mauritius Holdings Limited with Fujairah Gold FZC (Intercompany loan). Post balance sheet date, this guarantee has been withdrawn.

The Company has provided a guarantee for the Cairn India Group's (now merged with Vedanta Limited) obligation under the Production Sharing Contract ('PSC').

The Company has provided guarantee for the redeemable preference shares issued by its subsidiary Twinstar Mauritius Holdings Limited to its intermediate parent Bloom Fountain Limited amounting to US\$2,200.0 million. Post balance sheet date, this guarantee has been withdrawn.

During the year, the Company has provided guarantee on behalf of Vedanta Ltd. to SBI for US\$192.8 million (INR 12,500 million) on account of Term Loan Facility and US\$450.0 million on account of EPBG facility availed by Vedanta Limited.

# 58. Related party transactions

During the year the Company entered into transactions, in the ordinary course of business, with other related parties. The Company has taken advantage of the exemption under paragraph 8(k) of FRS101 not to disclose transactions with wholly owned subsidiaries. Transactions entered into and trading balances outstanding at 31 March with other related parties, are as follows:

			(US\$ 1	millions)
Name of Company	Relationship	Nature of transaction	2017	2016
Vedanta Limited	Subsidiary	Management Fees charged	5.0	5.0
Konkola Copper Mines Plc	Subsidiary	Management & Guarantee Fees charged	2.9	2.8
Cairn India Limited	Subsidiary	Management Fees charged	3.8	6.5
Sterlite Technologies Limited	Related Party	Management Fees charged	0.0	0.0
Volcan Investments Limited	Holding Company	Dividend paid	93.7	75.0
Vedanta Limited	Subsidiary	Receipt of Service	(0.5)	(0.4)
Vedanta Limited	Subsidiary	Payment of Expenses	0.1	0.1
Vedanta Limited	Subsidiary	Recovery against share option expense	9.4	11.3
Konkola Copper Mines Plc	Subsidiary	Recovery against share option expense	1.7	1.5
Copper Mines of Tasmania Pty Limited	Subsidiary	Recovery against share option expense	0.0	0.1
Fujariah Gold FZC	Subsidiary	Recovery against share option expense	0.1	0.4
Vedanta Lisheen Holdings Limited	Subsidiary	Recovery against share option expense	(0.0)	0.0
Namzinc Pty Limited	Subsidiary	Recovery against share option expense	(0.2)	0.0
Black Mountain Mining (Pty) Limited	Subsidiary	Recovery against share option expense	0.1	0.7
Western Cluster Limited	Subsidiary	Recovery against share option expense	0.0	0.0
Twin Star Mauritius Holdings Limited	Subsidiary	Reimbursement of Expenses	0.1	0.0
Twin Star Energy Holdings Limited	Subsidiary	Reimbursement of Expenses	0.0	0.0
THL Zinc Limited	Subsidiary	Reimbursement of Expenses	0.0	0.0
THL Zinc Ventures Limited	Subsidiary	Reimbursement of Expenses	0.0	0.0
Konkola Copper Mines Plc	Subsidiary	Reimbursement of Expenses	0.7	0.0
Ashurst LLP (was related up to 30 April 2015)	Related Party	Receipt of service	(0.0)	(0.1)

#### **Outstanding balances**

(US\$ millions) Relationship Nature of transaction 2017 2016 Vedanta Limited Subsidiary Receivable/ (Payable) 1.9 (3.9)Konkola Copper Mines Plc Receivable 7.7 2.3 Subsidiary Receivable Cairn India Limited\* Subsidiary 1.3 1.2 Sterlite Technologies Limited Related Party Receivable 0.1 0.0 Copper Mines of Tasmania Pty Limited Subsidiary Receivable 0.0 0.7 Fujariah Gold FZC Subsidiary Receivable 0.1 0.6 Vedanta Lisheen Holdings Limited Subsidiary (Payable) (0.0)(0.0)Namzinc Pty Limited Subsidiary (Payable)/ Receivable (0.1)0.0 Black Mountain Mining (Pty) Limited Subsidiary (Payable)/ Receivable (0.0)1.0 Receivable Western Cluster Limited Subsidiary 0.1 0.2 Receivable Twin Star Mauritius Holdings Limited Subsidiary 0.1 0.0 Twin Star Energy Holdings Limited Receivable 0.0 Subsidiary 0.1 Receivable 0.0 THL Zinc Limited Subsidiary 0.0 THL Zinc Ventures Limited Subsidiary Receivable 0.0 0.0 Monte Cello BV Subsidiary (Payable) (1.0)(1.0)

<sup>\*</sup>Merged with Vedanta Limited w.e.f.27 March 2017 (Refer Note 42)

#### 59. Company Share-Based payment

The Company had certain LTIP awards outstanding as at 31 March 2017. See note 32 to the financial statements for further details on these share-based payments.

#### Summary consolidated income statement

				(US\$ millio	on except as stated)
	Year ended	Year ended	Year ended	Year ended	Year ended
	31 March	31 March 16	31 March 15	31 March 14 <sup>(1)</sup>	31 March 13 (1)
	17				
Revenue	11,520.1	10,737.9	12,878.7	12,945.0	14,640.2
EBITDA	3191.1	2,336.4	3,741.2	4,491.2	4,908.9
Depreciation and amortisation	(1,030.5)	(1,455.2)	(2,005.7)	(2,203.1)	(2,337.2)
Special items	(17.3)	(5,210.1)	(6,744.2)	(138.0)	(41.9)
Operating profit	2,143.3	(4,328.9)	(5,008.7)	2,150.1	2,529.8
Share in consolidated profit of	0	-	-	0.0	0.0
associate					
Profit before interest and taxation	2,143.3	(4,328.9)	(5,008.7)	2,150.1	2,529.8
Net finance (costs)/ investment	(763.4)	(655.1)	(631.5)	(1,032.0)	(806.1)
revenues					
Profit before taxation	1,379.9	(4,984.0)	(5,640.2)	1,118.1	1,723.7
Net tax credit/(expense)	(500.3)	1,481.9	1,852.5	(128.7)	(46.1)
Profit after taxation	879.6	(3,502.1)	(3,787.7)	989.4	1,677.6
Non-controlling interests	(902.3)	1,664.7	1,989.1	(1,185.4)	(1,515.6)
Profit attributable to equity	(22.7)	(1,837.4)	(1,798.6)	(196.0)	162.0
shareholders in parent					
Dividends	(137.5)	(110.6)	(171.3)	(162.5)	(153.5)
Retained (loss)/profit	(160.2)	(1,948.0)	(1,969.9)	(358.5)	8.5
Basic earnings per share (US cents					
per share)					
On profit for the financial year	(8.2)	(665.8)	(654.5)	(71.7)	59.4
On Underlying Profit for the financia	ıl 1.1	(131.9)	(14.2)	14.7	134.8
year		_			_
Dividend per share (US cents per share)	55.0	30.0	63.0	61.0	58.0

(1) Restated refer note 1

(US\$ million except as stated) 31 March 31 March 31 March 31 March 31 March 2017 2016 2015 2014 2013 Goodwill 16.6 16.6 16.6 16.6 16.6 Intangible assets 95.6 92.2 101.9 108.6 Property, plant and equipment 16,806.1 16,647.8 23,352.0 31,043.5 33,132.6 Financial asset investments 10.7 6.5 4.2 1.7 2.4 **Total** 16,929.0 23,474.7 31,170.4 33,151.6 16,763.1 Stocks 1,670.1 1,365.8 1,605.7 1,742.5 1,965.6 Debtors 1,084.8 1,839.2 1,739.9 1,706.0 1,344.3 7,981.7 Cash and Liquid Investments 9,725.2 8,936.5 8,209.8 8,937.9 **Total** 12,480.1 11,646.6 11,654.7 12,420.3 11,653.3 Short-term borrowings (7,658.5)(4,313.8)(3,179.2)(4,358.5)(4,400.1)Other current liabilities (6,413.1)(6,097.8)(5,003.4)(4,931.5)(4,810.2)**Total current liabilities** (14,071.6)(10,411.6)(8,182.6)(9,290.0)(9,210.3)3,541.9 Net current assets (1,587.8)1,288.8 3,528.8 2,639.8 **Total assets less current Liabilities** 36,084.3 36,751.4 17,431.8 19,907.7 28,806.3 Long-term borrowings (10,570.2)(11,949.5)(13,488.6)(12,512.7)(12,192.7)Other long term liabilities (77.1)(224.7)(194.4)(230.7)(260.2)Provisions and deferred tax assets (758.0)(869.2)(2,854.0)(5,354.2)(5,417.6)

# Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

Total long term liabilities	(11,405.3)	(13,043.4)	(16,537.0)	(18,097.6)	(17,870.5)
Equity Non-controlling interests	(6,423.1)	(7,565.2)	(10,654.3)	(13,964.4)	(14,467.7)
Non equity Non-controlling interest	(11.9)	(11.9)	(11.9)	(11.9)	(11.9)
Net assets attributable to the equity	(408.5)	(712.8)	1,603.1	4,010.4	4,401.3
holders of the parent					

# Turnover

					(US\$ million)
	2017	2016	2015	2014	2013
Zinc-	2,857.4	2,502.5	2,943.9	2,856.8	3,060.5
India	2,525.0	2,111.0	2,357.0	2,195.4	2,263.3
International	332.4	391.5	586.9	661.4	797.2
Oil & Gas	1,222.7	1,322.3	2,397.5	3,092.8	3,223.4
Iron ore	615.4	350.0	326.5	267.1	442.5
Copper:-	4,008.0	4,169.7	4,777.8	4,676.2	5,733.9
India/Australia	3,133.7	3,197.2	3,700.7	3,404.8	3,991.1
Zambia	874.3	972.5	1,077.1	1,271.4	1,742.8
Aluminium	2,040.0	1,694.3	2,081.9	1,785.4	1,837.8
Power	835.9	707.5	588.1	621.7	669.0
Other	(59.3)	(8.4)	(237.0)	(355.0)	(326.9)
Group	11,520.1	10,737.9	12,878.7	12,945.0	14,640.2

# **EBITDA**

					(US\$ million)
	2017	2016	2015	2014	2013
Zinc	1,561.5	1,063.1	1,373.3	1,358.4	1,477.0
India	1,423.2	995.0	1,192.5	1,145.0	1,182.5
International	138.3	68.1	180.8	213.4	294.5
Oil & Gas	597.2	570.4	1,476.8	2,347.0	2,440.3
Iron ore	194.2	73.4	31.4	(24.2)	84.9
Copper	258.1	318.7	277.2	354.2	476.4
India/Australia	252.2	336.6	281.0	197.9	219.1
Zambia	5.9	(17.9)	(3.8)	156.3	257.3
Aluminium	344.2	106.7	415.5	287.3	202.6
Power	244.8	196.3	153.8	168.4	228.5
Other	(8.9)	7.8	13.2	0.1	(0.8)
Group	3,191.1	2,336.4	3,741.2	4,491.2	4,908.9

# **EBITDA Margin**

					(%)
	2017	2016	2015	2014	2013
Zinc	54.6	42.5	46.6	47.5	48.3
India	56.4	47.1	50.6	52.2	52.2
International	41.6	17.4	30.8	32.3	36.9
Oil & Gas	48.8	43.1	61.6	75.9	75.7
Iron ore	31.6	21.0	9.6	(9.1)	19.2
Copper	6.4	7.6	5.8	7.6	8.3
India/Australia	8.0	10.5	7.6	5.8	5.5
Zambia	0.7	(1.8)	(0.4)	12.3	14.8
Aluminium	16.9	6.3	20.0	16.1	11.0
Power	29.3	27.7	26.2	27.1	34.2
Group	27.7	21.8	29.1	34.7	33.5

# Production

					(000's MT)
	2017	2016	2015	2014	2013
Aluminium	1,213	923	877	794	774
BALCO <sup>1</sup>	427	332	324	252	247
Jharsuguda Aluminium <sup>2</sup>	786	592	553	542	527
Copper	582	566	531	471	569
Sterlite Copper	402	384	362	294	353

# Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

KCM	180	182	169	177	216
Iron Ore (WMT)	12,300	5,630	667	1,577	4,212
Zinc total	757	841	836	874	822
HZL	672	759	734	749	677
Skorpion	85	82	102	125	145
Zinc and Lead MIC	70	144	209	239	280
BMM	70	63	59	67	87
Lisheen	-	81	150	172	193

Oil & Gas- Gross Production	69.3	74.6	77.3	79.8	74.9
Oil & Gas- Working Interest	44.2	46.9	48.4	50.1	46.7

(1)BALCO- Including trial run production of 47 KT in 2017 & Nil in 2016. (2)Jharsuguda- Including trial run production of 95 KT in 2017 & 51 in 2016.

					(US cents/lb)
	2017	2016	2015	2014	2013
Aluminium - BALCO Plant- I	68.4	73.5	86.4	80.8	86.2
BALCO Plant-I (Other than Alumina)	41.5	46.7	55.1	49.1	52.8
Aluminium - BALCO Plant- II	68.1	81.4	98.4		
BALCO Plant-II (Other than Alumina)	40.6	54.3	66.9		
Aluminium-Jharsuguda Aluminium	65.3	68.9	73.9	72.6	84.8
Copper - Sterlite Copper	6.1	5.7	6.4	9.7	8.7
Copper - KCM	208.6	197.9	257.7	238.4	255.1
Zinc including Royalty- HZL	52.4	47.4	49.6	44.7	44.5
Zinc without Royalty- HZL	37.6	36.5	39.4	37.4	37.1
Zinc COP- Skorpion	75.1	73.8	70.1	56.7	54.5
Zinc COP- BMM	51.1	62.7	74.3	52.2	54.3
Zinc COP- Lisheen	0.0	56.7	52.8	50.1	42.8
Oil & Gas (Opex) (US\$/ boe)	6.2	6.5	6.2	4.1	3.5

# Cash costs of production in INR

					(INR/mt)
	2017	2016	2015	2014	2013
Aluminium - BALCO Plant- I	101,221	106,013	116,448	107,728	103,526
BALCO (Other than Alumina)	61,324	67,413	74,258	65,430	63,433
Aluminium - BALCO Plant- II	100,710	117,497	132,675		
BALCO (Other than Alumina)	60,039	78,378	90,147		
Aluminium-Jharsuguda Aluminium	96,622	99,408	99,676	96,893	101,779
Copper - Sterlite Copper	9,047	8,203	8,639	12,994	10,704
Zinc including Royalty	77,454	68,408	66,805	59,561	53,446
Zinc without Royalty	55,679	52,629	53,071	49,834	44,550

# Capital expenditure

					(US\$ million)
	2017	2016	2015	2014	2013
Sustaining	145.4	184.9	221.4	321.6	390.2
Expansion	668.2	565.8	1,530.8	1,424.7	2,019.1
Total capital expenditure	813.6	750.7	1,752.2	1,746.3	2,409.3

# Net cash/(debt)

(US\$	million
-------	---------

	2017	2016	2015	2014	2013
Zinc	3,880.8	5,414.5	5,073.3	4,513.6	4,243.7
India	3,740.9	5,317.7	4,936.6	4,344.6	4,044.8
International	139.9	96.8	136.7	169.0	198.9
Oil & Gas	4,184.6	3,239.7	2,856.9	3,911.9	3,102.4
Iron Ore	(403.9)	(459.4)	(634.3)	(512.1)	(744.2)
Copper	(495.9)	(494.4)	(705.0)	(882.3)	(1,244.0)
India/Australia	57.3	132.2	32.5	(159.0)	(492.8)
Zambia	(553.2)	(626.6)	(737.5)	(723.3)	(751.2)
Aluminium	(5,097.6)	(4,131.0)	(4,068.2)	(3,204.0)	(4,311.9)
Power	(1,574.1)	(1,801.8)	(1,576.6)	(737.0)	(696.2)
Other	(8,997.4)	(9,096.4)	(9,406.4)	(11,009.5)	(8,965.4)
Group	(8,503.5)	(7,328.8)	(8,460.3)	(7,919.5)	(8,615.6)

# Gearing

					(%)
	2017	2016	2015	2014	2013
Gearing	58.6	51.7	40.8	30.6	31.4

# **Group Free Cash Flow**

# (US\$ million)

	2017	2016	2015	2014	2013
Group Free Cash Flow after Capital Creditors	2,211.8	2,338.7	2,578.0	2,695.0	3,534.7
Group Free Cash Flow after Project Capex	1,543.6	1,772.9	1,047.3	1,269.9	1,515.6

# **Capital Employed**

(US\$ million)

					( Cro & minimon)
	2017	2016	2015	2014	2013
Capital Employed	14,518.0	22019.4	25271.9	25894.3	27476.7

# **ROCE**

		(	%	)
_	_	_	_	

					(70)
	2017	2016*	2015*	2014	2013
ROCE	15.6	6.2	8.7	14.9	17.5

 $<sup>*</sup>Be fore\ impairment$ 

# **Production and Reserves Summary**

# Copper

# Copper Production Summary

		Year ended 31 March 2017	Year ended 31 March 2016
Facility	Product	Mt	Mt
Tuticorin	Copper anode	400,620	387,016
•	Sulphuric acid	1,043,748	1,070,786
•	Phosphoric acid	200,119	198,779
•	Copper cathode	216,119	201,864
•	Copper rods	71,178	68,685
Silvassa	Copper cathode	186,611	182,183
•	Copper rods	136,352	142,115
KCM	Copper cathode	179,837	181,673

# Copper Mining Summary

		Ore	mined	Copper co	oncentrate	Copper in concentrate		
		31 March 31 March 2017 2016		31 March 2017	31 March 2016	31 March 2017	31 March 2016	
Mine	Type of mine	mt	mt	mt	mt	mt	mt	
Mt Lyell (CMT)	Underground	-	-	-	-	-	-	
Konkola & NUG								
(KCM)	Underground	3,182,001	4,737,667	154,576	238,492	47,854	67,501	

# Copper Mine Resource and Reserve Summary

			Resour	Reserves			
	Type of	Measured and indicated	Copper grade	Inferred	Copper grade	Proved and probable reserves	Copper grade
Mine	mine	million mt	U	million mt	%	million mt	%
	Undergroun						
Mt Lyell (CMT)	d	29.6	1.09	30	1.06	-	-
	Undergroun						
Konkola (KCM)	d	157.9	1.95	313.0	3.20	242.3	1.22

 $Resources \ are \ additional \ to \ Reserves$ 

# Aluminium, Alumina and Bauxite

# **Aluminium Production Summary**

Year ended	Year ended
31 March 2017	31 March 2016
Mt	Mt
427,079	331,618
786,323	591,725
	31 March 2017 Mt 427,079

# Alumina Production Summary

	Year ended	Year ended
	31 March 2017	31 March 2016
Company	Mt	Mt
Jharsuguda Aluminium	1,207,957	970,893

# **Bauxite Production Summary**

	Year ended	Year ended
	31 March 2017	31 March 2016
Company	Mt	Mt
BALCO - Mainpat	73,170	455

BALCO - Bodai Daldali 1,065,300 1,033,300

# Bauxite Mine Resource and Reserve Summary

		Resources		Reserves			
	Measured and indicated	Aluminium grade	Inferred	Aluminium grade	Proved and probable reserves	Aluminium grade	
Mine	million mt	0/0	million mt	0/0	million mt	%	
BALCO							
Mainpat	9.0	44.8	1.1	45.1	5.1	43.3	
Bodai-Daldali	4.8	45.2	1.0	45.8	2.4	43.6	
Total BALCO	13.8	44.9	2.1	45.4	7.5	43.4	
MALCO							
Kolli Hills and Yercaud	0.8	44.0			0.2	43.0	

Resources are additional to Reserves

# Zinc and Lead

# Zinc and Lead Production Summary:

	Year ended	Year ended
	31 March 2017	31 March 2016
Company	Mt	Mt
HZL		
Zinc	671,988	758,938
Lead	139,009	144,919

# Zinc and Lead Mining Summary:

# a) Metal mined & metal concentrate

		Ore mir	Ore mined Zinc concentrate			Lead concen	trate B	Bulk concentrate	
Mine	Type of mine	31 March 2017 mt	31 March 2016 mt	31 March 2017 mt	31 March 2016 mt	2017	31 March 2016 mt	31 March 2017 mt	31 March 2016 mt
Rampura Agucha <sup>(1)</sup>	Open cut	4,321,192	5,241,214	1,121,463	1,179,362	92,228	109,631		
Rampura Agucha	Underground	13,79,746	223,521						
RajpuraDariba	Underground	745,534	668,777	65,012	59,054	14,851	15,784	-	8,941
SindesarKhurd	Underground	3,664,768	2,969,587	230,677	176,761	109,007	92,611		
Zawar	Underground	1,770,000	1,349,850		-		-	113,015	102,987
Total		11,881,240	10,452,949	1,417,152	1,415,177	216,086	218,026	113,015	111,928

<sup>(1)</sup> Includes development ore MT from Kayar

# b) Metal in Concentrate (MIC)

		Ziı	nc concentrate	Lea	d concentrate
		31 March 2017	31 March 2016	31 March 2017	31 March 2016
Mine	Type of mine	mt	mt	mt	mt
	Open cut &				
RampuraAgucha	Underground	568,724	588,188	54,705	63,165
RajpuraDariba	Underground	31,799	31,793	6,082	7,327
SindesarKhurd	Underground	116,944	91,016	60,203	49,232
Zawar	Underground	38,497	33,275	30,029	24,929
Total		755,964	744,272	151,019	144,653

# Zinc and Lead Mine Resource and Reserve Summary

# Zinc India

_		F	Resources				Reserv	ves	
Mine	Measured and indicated million mt	Zinc grade %	Lead grade %	Inferred million mt				Zinc grade %	Lead grade %
Rampura Agucha	13.4	15.8	2.1	36.9	10.1	2.5	49.7	13.9	1.9
RajpuraDariba	22.5	6.8	2.4	27.7	6.6	1.8	9.0	6.3	1.5
Zawar	23.9	4.6	1.9	61.8	4.7	2.5	9.5	3.3	1.8
Kayad	1.3	13.8	1.9	0.4	7.3	1.2	5.4	7.8	1.1
SindesarKhurd	17.4	4.5	3.1	69.8	3.7	1.9	35.6	4.2	2.9
BamniaKalan	5.4	4.5	1.6	14.7	3.7	1.8	-	-	-
Total	83.9	7.1	2.3	211.4	5.5	2.2	109.1	8.9	2.1

Resources are additional to Reserves

# Zinc International

	Resources						Reserv	ves	es	
Mine	Measured and indicated million mt	Zinc grade %	Lead grade %	Inferred million mt		grade		Zinc grade %	Lead grade %	
Skorpion	2.08	9.59	-	1.44	9.14	-	4.23	9.91	-	
BMM										
- Deeps	6.99	3.27	3.38	-	-	-	6.05	2.85	2.49	
- Swartberg	45.35	0.53	3.21	4.74	0.82	2.79	2.07	0.62	3.73	
- Gamsberg	97.91	6.20	0.54	64.36	7.81	0.52	53.18	6.63	0.51	

Resources are additional to Reserves

# **Zinc Production Summary:**

	Year ended	Year ended
	31 March 2017	31 March 2016
Company	Mt	Mt
Skorpion	85,427	82,029

# Zinc and Lead Mining Summary:

# a) Metal mined & metal concentrate

		31 March 2017	31 March 2016	31 March 2017	31 March 2016	31 March 2017	31 March 2016
Mine	Type of mine	mt	mt	mt	mt	mt	mt
Skorpion	Underground	1,206,176	1,241,327	-	-	-	_
BMM	Underground	1,590,600	1,579,633	58005	59,006	59518	48,091
Lisheen	Underground	-	752,749	-	135,611	-	14,371
Total	Underground	2,796,776	3,573,709		194,617		62,462

# b) Metal in Concentrate (MIC)

		Zinc in con	centrate	Lead in con	centrate
		31 March 2017	31 March 2016	31 March 2017	31 March 2016
Mine	Type of mine	mt	mt	mt	mt
BMM	Underground	28,708	29,272	41,770	34,114
Lisheen	Underground	-	71,825	-	8,726
Total			101,097		42,840

#### Iron ore

# Iron Ore Production Summary

	Year ended	Year ended
	31 March 2017	31 March 2016
Company	Millionwmt	Millionwmt
Vedanta Limited		
Saleable Iron Ore	12.3	5.2
Goa	8.8	2.0
Karnataka	2.3	3.0
Orissa		-
Dempo	1.2	0.2

# Iron Ore Resource and Reserve Summary

	Reso	ources			Reserves			
Mine	Measured	Iron ore		Iron ore	Proved and	Iron ore		
	and indicated	grade	Inferred	grade	probable reserves	grade		
	million mt	0/0	million mt	0/0	million mt	0/0		
Iron ore Sesa	161.9	50.7	28.2	54.5	193.6	55.4		

During the year ended 31st March 2016, the Group recognized impairment charge in respect of the exploratory asssets in West Africa (Western Cluster, Liberia) on account of low iron ore prices, geo-political factors and no plans for any substantive expenditure resulting in continued uncertainty in the project. Therefore, the company did not get certification of reserves & resources for the current period.

# Oil and gas

The Oil and gas reserves data set out below are estimated on the basis set out in the section headed "Presentation of Information".

# Cairn India

The Company's gross reserve estimates are updated atleast annually based on the forecast of production profiles, determined on an asset-by-asset basis, using appropriate petroleum engineering techniques. The estimates of reserves and resources have been derived in accordance with the Society for Petroleum Engineers "Petroleum Resources Management System (2007)". The changes to the reserves are generally on account of future development projects, application of technologies such as enhanced oil recovery techniques and true up of the estimates. The management's internal estimates of hydrocarbon reserves and resources at the period end, based on the current terms of the PSCs, are as follows:

Particulars	Gross proved hydrocarbon pla	s initially in	Gross proved reserves an		Net working proved and reserves and	probable
	(mm	boe)	(mm	boe)	(mm	boe)
	31 March 2017	31 March 2016	31 March 2017	31 March 2016	31 March 2017	31 March 2016
Rajasthan MBA Fields	2,197	2,208	410	496	287	347
Rajasthan MBA EOR	-	-	272	225	191	158
Rajasthan Block Other	4,034	4,189	478	471	334	330
Fields						
Ravva Fields	696	706	41	39	9	9
CBOS/2 Fields	225	215	23	23	9	9
Other fields	335	481	48	74	24	36
Total	7,486	7,799	1,273	1,328	854	889

The Company's net working interest proved and probable reserves is as follows:

Particulars	Proved and pro	bable reserves	Proved and pro	bable reserves (developed)
	Oil	Gas	Oil	Gas
	(mmstb)	(bscf)	(mmstb)	(bscf)
Reserves as of 1 April 2015*	219.94	86.33	146.21	23.93
Additions / revision during the year	(13.83)	(24.96)	44.42	10.85
Production during the year	45.91	6.32	45.91	6.32
Reserves as of 31 March 2016**	160.20	55.05	144.73	28.47
Additions / revision during the year	(4.81)	(2.48)	(1.60)	(8.83)
Production during the year	43.43	4.84	43.43	4.84
Reserves as of 31 March 2017***	111.96	47.72	99.70	14.80

<sup>\*</sup> Includes probable oil reserves of 67.81 mmstb (of which 23.43 mmstb is developed) and probable gas reserves of 62.71 bscf (of which 7.03 bscf is developed)

# **Source Of information:**

In respect of all businesses, the information has been certified by geologist on behalf of Group management.

# **Basis of Preparation**

Ore reserves and mineral resources reported herein comply with the 'Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves', other than those relating to Konkola Copper Mines plc ('KCM') which complies with the South African Code for Reporting of Mineral Reserves and Mineral Resources (the 'SAMREC Code'). The former code is prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists, and Minerals Council of Australia, and is commonly referred to as the 'JORC Code'. As at the date of this document, the editions of the JORC and SAMREC Codes in force are dated December 2004 and March 2000, respectively. The JORC and SAMREC Codes recognise a fundamental distinction between resources and reserves.

<sup>\*\*</sup> Includes probable oil reserves of 40.05 mmstb (of which 27.31 mmstb is developed) and probable gas reserves of 29.80 bscf (of which 5.81 bscf is developed)

<sup>\*\*\*</sup> Includes probable oil reserves of 32.37 mmstb (of which 20.62 mmstb is developed) and probable gas reserves of 37.84 bscf (of which 4.92 bscf is developed)

#### Vedanta Resources plc Financial Statements For The Year Ended 31 March 2017

The terms and definitions in the SAMREC Code are consistent with those used in the JORC Code with minor differences in terminology – the JORC Code uses the term Ore Reserve whilst the SAMREC Code uses the term Mineral Reserve. For the purposes of ore and mineral resources reported herein, the term ore resources have been used throughout.

Oil and Gas reserves and resources have been prepared according to the Petroleum Resources Management Systems (PRMS) approved in March 2007 by the Society of Petroleum Engineers, the world Petroleum Council, the American Association of Petroleum Geologist, and the Society of Petroleum Evaluation Engineers.

Mineral resources are based on mineral occurrences quantified on the basis of geological data and an assumed cut-off grade, and are divided into Measured, Indicated and Inferred categories reflecting decreasing confidence in geological and / or grade continuity. The reporting of resource estimates carries the implication that there are reasonable prospects for eventual economic exploitation. An Ore or Mineral Reserve is the economically mineable part of a Measured or Indicated Mineral Resource. It includes the effect of dilution and losses which may occur when the material is mined. Appropriate assessments, which may include feasibility studies, need to have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.

These assessments demonstrate at the time of reporting that extraction could be reasonably justified. Ore Reserves are sub-divided in order of decreasing confidence into Proved Ore Reserves and Probable Ore Reserves.

The Measured and Indicated mineral resources have been reported as being inclusive of those mineral resources modified to produce the ore reserves, in addition to the ore reserves. The resource and reserve estimates provided herein comply with the resource and reserve definitions of the JORC Code, other than those relating to KCM which comply with the SAMREC Code.

Financial Statements For The Year Ended 31 March 2017

# GLOSSARY AND DEFINITIONS

#### 58

A Japanese concept laying emphasis on housekeeping and occupational safety in a sequential series of steps as Sort (Seiri); Set in Order (Seiton); Shine (Selso); Standardise (Seiketsu); and Sustain (Shitsuke)

# **Adapted Comparator Group**

The new comparator group of companies used for the purpose of comparing TSR performance in relation to the LTIP, adopted by the Remuneration Committee on 1 February 2006 and replacing the previous comparator group comprising companies constituting the FTSE Worldwide Mining Index (excluding precious metals)

# **AGM or Annual General Meeting**

The annual general meeting of the Company which is scheduled to be held at 3.00 pm, UK time, on 14 August 2017

# ΑE

Anode effects

#### **Aluminium Business**

The aluminium business of the Group, comprising of its fully-integrated bauxite mining, alumina refining and aluminium smelting operations in India, and trading through the Bharat Aluminium Company Limited and Jharsuguda Aluminium (a division of Vedanta Limited), in India

# **Articles of Association**

The articles of association of Vedanta Resources plc

#### **Attributable Profit**

Profit for the financial year before dividends attributable to the equity shareholders of Vedanta Resources plc

## **BALCO**

Bharat Aluminium Company Limited, a company incorporated in India.

## BMM

Black Mountain Mining Pty

## **Board or Vedanta Board**

The board of directors of the Company

# **Board Committees**

The committees reporting to the Board: Audit, Remuneration, Nominations, and Sustainability, each with its own terms of reference

#### **Businesses**

The Aluminium Business, the Copper Business, the Zinc, lead, silver, Iron ore, Power and Oil & Gas Business together

#### Cairn India

Erstwhile Cairn India Limited and its subsidiaries

# Capital Employed

Net assets before Net (Debt)/Cash

#### Capex

Capital expenditure

## Cash Tax Rate

Current taxation as a percentage of profit before taxation

Financial Statements For The Year Ended 31 March 2017

CEO

Chief executive officer

CFO

Chief Financial Officer

CII

Confederation of Indian Industries

**CLZS** 

Chanderiya lead and zinc smelter

CO<sub>2</sub>

Carbon dioxide

**CMT** 

Copper Mines of Tasmania Pty Limited, a company incorporated in Australia

# Company or Vedanta

Vedanta Resources plc

# Company financial statements

The audited financial statements for the Company for the year ended 31 March 2017 as defined in the Independent Auditors' Report on the individual Company Financial Statements to the members of Vedanta Resources plc

# Convertible Bonds

\$1,250million 5.5% guaranteed convertible bonds due 2016, issued by a wholly owned subsidiary of the Company, Vedanta Resource Jersey Limited ("VRJL") and guaranteed by the Company, the proceeds of which are to be applied for to support its organic growth pipeline, to increase its ownership interest in its subsidiaries and for general corporate purposes.

\$883million 4.0% guaranteed convertible bonds due 2017, issued by a wholly owned subsidiary of the Company, Vedanta Resource Jersey II Limited ("VRJL-II") and guaranteed by the Company, the proceeds of which are to be applied for to refinance debt redemptions and for general corporate purposes.

# **Copper Business**

The copper business of the Group, comprising:

- A copper smelter, two refineries and two copper rod plants in India, trading through Vedanta Limited, a company incorporated in India;
- One copper mine in Australia, trading through Copper Mines of Tasmania Pty Limited, a company incorporated in Australia; and
- An integrated operation in Zambia consisting of three mines, a leaching plant and a smelter, trading through Konkola Copper Mines PLC, a company incorporated in Zambia

#### **CREP**

Corporate responsibility for environmental protection

# Cents/lb

US cents per pound

#### **CRRI**

Central Road Research Institute

# **CRISIL**

CRISIL Limited is a rating agency incorporated in India

#### CSR

Corporate social responsibility

Financial Statements For The Year Ended 31 March 2017

#### **CTC**

Cost to company, the basic remuneration of executives in India, which represents an aggregate figure encompassing basic pay, pension contributions and allowances

#### CY

Calendar year

# DDT

Dividend distribution tax

#### **Deferred Shares**

Deferred shares of £1.00 each in the Company

#### DES

Detailed feasibility study

#### DGMS

Director General of Mine Safety in the Government of India

#### **Directors**

The Directors of the Company

#### **DMF**

District Mineral Fund

#### **DMT**

Dry metric tonne

#### Dollar or \$

United States Dollars, the currency of the United States of America

# EAC

Expert advisory committee

# **EBITDA**

EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax.

# EBITDA Margin

EBITDA as a percentage of turnover

# **EBITDA** interest cover

EBITDA divided by gross finance costs excluding accretive interest on convertible bonds, unwinding of discount on provisions, interest on defined benefit arrangements less investment revenue

# **EBITDA Margin excluding custom smelting**

EBITDA Margin excluding EBITDA and turnover from custom smelting of Copper India, Copper Zambia and Zinc India businesses

# **Economic Holdings or Economic Interest**

The economic holdings/interest are derived by combining the Group's direct and indirect shareholdings in the operating companies. The Group's Economic Holdings/Interest is the basis on which the Attributable Profit and net assets are determined in the consolidated accounts

# **E&OHSAS**

Environment and occupational health and safety assessment standards

# E&OHS

Environment and occupational health and safety management system

# EPS

Earnings per ordinary share

Financial Statements For The Year Ended 31 March 2017

#### **ESOP**

Employee share option plan

#### **ESP**

Electrostatic precipitator

#### **Executive Committee**

The Executive Committee to whom the Board has delegated operational management. It comprises of the Executive Vice Chairman, Chief Executive Officer and the senior management of the Group

#### **Executive Directors**

The Executive Directors of the Company

# **Expansion Capital Expenditure**

Capital expenditure that increases the Group's operating capacity

# Financial Statements or Group financial statements

The consolidated financial statements for the Company and the Group for the year ended 31 March 2017 as defined in the Independent Auditor's Report to the members of Vedanta Resources plc

#### FY

Financial year i.e. April to March.

# GAAP, including UK GAAP and Indian GAAP

Generally Accepted Accounting Principles, the common set of accounting principles, standards and procedures that companies use to compile their financial statements in their respective local territories

### **GDP**

Gross domestic product

# Gearing

Net Debt as a percentage of Capital Employed

# GJ

Giga joule

# Government or Indian Government

The Government of the Republic of India

# Gratuity

A defined contribution pension arrangement providing pension benefits consistent with Indian market practices

# Group

The Company and its subsidiary undertakings and, where appropriate, its associate undertaking

# Gross finance costs

Finance costs before capitalisation of borrowing costs

#### HIIP

Hydrocarbons initially-in place

# HSE

Health, safety and environment

#### **HZL**

Hindustan Zinc Limited, a company incorporated in India

#### IAS

International Accounting Standards

### **ICMM**

International Council on Mining and Metals

Financial Statements For The Year Ended 31 March 2017

#### **IFRIC**

IFRS Interpretations Committee

# **IFRS**

International Financial Reporting Standards

#### INR

Indian Rupees

# **Interest Cover**

EBITDA divided by finance costs

#### **IPP**

Independent power plant

#### ISO 9001

An international quality management system standard published by the International Organisation for Standardisation

#### ISO 14001

An international environmental management system standard published by the International Organisation for Standardisation

#### Iron Ore Sesa

Iron ore Division of Vedanta Limited, comprising of a Iron ore mines in Goa and Karnataka in India.

# Jharsuguda Aluminium

Aluminium Division of Vedanta Limited, comprising of an aluminium refining and smelting facilities at Jharsuguda and Lanjigarh in Odisha in India.

# KCM or Konkola Copper Mines

Konkola Copper Mines PLC, a company incorporated in Zambia

# KDMP

Konkola deep mining project

# Key Result Areas or KRAs

For the purpose of the remuneration report, specific personal targets set as an incentive to achieve short-term goals for the purpose of awarding bonuses, thereby linking individual performance to corporate performance

#### **KLD**

Kilo litres per day

# KPI s

Key performance indicators

### KTPA

Thousand tonnes per annum

#### Kwh

Kilo-watt hour

# Kwh/d

Kilo-watt hour per day

# LIBOR

London inter bank offered rate

#### LIC

Life Insurance Corporation

Financial Statements For The Year Ended 31 March 2017

# Listing or IPO (Initial Public Offering)

The listing of the Company's ordinary shares on the London Stock Exchange on 10 December 2003

# **Listing Particulars**

The listing particulars dated 5 December 2003 issued by the Company in connection with its Listing or revised listing filled in 2011.

# **Listing Rules**

The listing rules of the Financial Services Authority, with which companies with securities that are listed in the UK must comply

# **LME**

London Metals Exchange

# **London Stock Exchange**

London Stock Exchange plc

# Lost time injury

An accident/injury forcing the employee/contractor to remain away from his/her work beyond the day of the accident

### **LTIFR**

Lost time injury frequency rate: the number of lost time injuries per million man hours worked

#### LTIP

The Vedanta Resources Long-Term Incentive Plan or Long-Term Incentive Plan

#### **MALCO**

The Madras Aluminium Company Limited, a company incorporated in India

# Management Assurance Services (MAS)

The function through which the Group's internal audit activities are managed

# **MAT**

Minimum alternative tax

#### MBA

Mangala, Bhagyam, Aishwarya

# **MIC**

Metal in concentrate

#### MIS

Management information system

# **MOEF**

The Ministry of Environment & Forests of the Government of the Republic of India

# mt or tonnes

Metric tonnes

# MU

million Units

#### MW

Megawatts of electrical power

#### **NCCBM**

National Council of Cement and Building Materials

# Net (Debt)/Cash

Total debt after fair value adjustments under IAS 32 and 39, cash and cash equivalents, liquid investments and debt related derivative

Financial Statements For The Year Ended 31 March 2017

#### NGO

Non-governmental organisation

#### NIHL

Noise induced hearing loss

#### **Non-executive Directors**

The Non-Executive Directors of the Company

#### **NMET**

National Mineral Exploration Trust

#### **OECD**

Organisation for Economic Co-operation and Development

#### **OHSAS 18001**

Occupational Health and Safety Assessment Series (standards for occupational health and safety management systems)

#### Oil & Gas business

Oil & Gas division of Vedanta Limited, is involved in the business of exploration, development and production of Oil & Gas.

# **Ordinary Shares**

Ordinary shares of 10 US cents each in the Company

#### **ONGC**

Oil and Natural Gas Corporation Limited, a company incorporated in India

#### **OPEC**

Organisation of the Petroleum Exporting Countries

#### **PBT**

Profit before tax

# PFC

Per fluorocarbons

### PHC

Primary health centre

#### PPE

Personal protective equipment

# **Provident Fund**

A defined contribution pension arrangement providing pension benefits consistent with Indian market practices

#### **PSC**

A "production sharing contract" by which the Government of India grants a license to a company or consortium of companies (the 'Contractor") to explore for and produce any hydrocarbons found within a specified area and for a specified period, incorporating specified obligations in respect of such activities and a mechanism to ensure an appropriate sharing of the profits arising there from (if any) between the Government and the Contractor.

#### Recycled water

Water released during mining or processing and then used in operational activities

# **Relationship Agreement**

The agreement between the Company, Volcan Investments Limited and members of the Agarwal family which had originally been entered into at the time of the Company's listing in 2003 and was subsequently amended in 2011 and 2014 to regulate the ongoing relationship between them, the principal purpose of

#### Financial Statements For The Year Ended 31 March 2017

which is to ensure that the Group is capable of carrying on business independently of Volcan, the Agarwal family and their associates.

# Return on Capital Employed or ROCE

Operating profit after tax as a ratio of capital invested in operations as at the balance sheet date and excludes investments in project capital work-in-progress and exploration assets

#### RO

Reverse osmosis

#### **SA 8000**

Standard for Social Accountability based on international workplace norms in the International Labour Organisation ('ILO') conventions and the UN's Universal Declaration of Human Rights and the Convention on Rights of the Child

# Senior Management Group

For the purpose of the remuneration report, the key operational and functional heads within the Group

#### **SEWT**

Sterlite Employee Welfare Trust, a long-term investment plan for Sterlite senior management

# **Sterlite Copper**

Copper Division of Vedanta Limited comprising of a copper smelter, two refineries and two copper rod plants in India.

#### **SHGs**

Self help groups

#### **SID**

Senior Independent Director

# SO<sub>2</sub>

Sulphur dioxide

# **SBU**

Strategic Business Unit

#### STL

Sterlite Technologies Limited, a company incorporated in India

# Special items

Items which derive from events and transactions that need to be disclosed separately by virtue of their size or nature (refer Note 2(A) (III) special items of accounting policies)

#### **SPM**

Suspended particulate matter. Fine dust particles suspended in air

# Sterling, GBP or £

The currency of the United Kingdom

# Superannuation Fund

A defined contribution pension arrangement providing pension benefits consistent with Indian market practices

# Sustaining Capital Expenditure

Capital expenditure to maintain the Group's operating capacity

#### TCM

Thalanga Copper Mines Pty Limited, a company incorporated in Australia

# TC/RC

Treatment charge/refining charge being the terms used to set the smelting and refining costs

Financial Statements For The Year Ended 31 March 2017

#### **TGS**

Tail gas scrubber

# **TGT**

Tail gas treatment

#### TLP

Tail Leaching Plan

## tpa

Metric tonnes per annum

#### **TPM**

Tonne per month

#### **TSPL**

Talwandi Sabo Power Limited, a company incorporated in India

#### **TSR**

Total shareholder return, being the movement in the Company's share price plus reinvested dividends

#### **Twin Star**

Twin Star Holdings Limited, a company incorporated in Mauritius

# Twin Star Holdings Group

Twin Star and its subsidiaries and associated undertaking

# **Underlying EPS**

Underlying earnings per ordinary share

# **Underlying Profit**

Profit for the year after adding back special items and other gains and losses and their resultant tax and Non-controlling interest effects

# US cents

United States cents

# UK CORPORATE GOVERNANCE CODE OR THE CODE

The UK Corporate Governance Code 2014 issued by the Financial Reporting Council

# Vedanta Limited (formerly known as Sesa Sterlite Limited/ Sesa Goa Limited)

Vedanta Limited, a company incorporated in India engaged in the business of Copper smelting, Iron Ore mining, Aluminium mining, refining and smelting and Energy generation.

# VFD

Variable frequency drive

# VFJL

Vedanta Finance (Jersey) Limited, a company incorporated in Jersey

#### **VGCB**

Vizag General Cargo Berth Private Limited, a company incorporated in India

# Volcan

Volcan Investments Limited, a company incorporated in the Bahamas

# VRCL

Vedanta Resources Cyprus Limited, a company incorporated in Cyprus

#### **VRFL**

Vedanta Resources Finance Limited, a company incorporated in the United Kingdom

Financial Statements For The Year Ended 31 March 2017

# **VRHL**

Vedanta Resources Holdings Limited, a company incorporated in the United Kingdom

# VSS

Vertical Stud Söderberg

# Water Used for Primary Activities

Total new or make-up water entering the operation and used for the operation's primary activities; primary activities are those in which the operation engages to produce its product

#### WRCSD

World Business Council for Sustainable Development

# **ZCI**

Zambia Copper Investment Limited, a company incorporated in Bermuda

# **ZCCM**

ZCCM Investments Holdings plc, a company incorporated in Zambia

# **ZRA**

Zambia Revenue Authority

# **Independent Auditor's Report**To the Members of Vedanta Resources plc

## Opinion on financial statements of Vedanta Resources plc

In our opinion:

- the financial statements give a true and fair view of the state of the group's and of the parent company's affairs as at 31 March 2016 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice including FRS 101 "Reduced Disclosure Framework"; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

The financial statements comprise the Consolidated Income Statement, the Consolidated Statement of Comprehensive Income, the Consolidated and Parent Company Balance Sheets, the Consolidated Cash Flow Statement, the Consolidated Statement of Changes in Equity, and the related notes 1 to 59. The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law and IFRSs as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) including FRS 101 "Reduced Disclosure Framework".

Going concern and the directors' assessment of the principal risks that would threaten the solvency or liquidity of the group As required by the Listing Rules we have reviewed the directors' statement regarding the appropriateness of the going concern basis of accounting contained within note 1 to the financial statements and the directors' statement on the longer-term viability of the group contained within the strategic report on page 53.

We have nothing material to add or draw attention to in relation to:

- the directors confirmation on pages 133 to 134 that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity:
- the disclosures on pages 28 to 35 that describe those risks and explain how they are being managed or mitigated;
- the directors' statement in note 1 to the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them and their identification of any material uncertainties to the group's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- the directors' explanation on page 133 as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We agreed with the directors' adoption of the going concern basis of accounting and we did not identify any such material uncertainties. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's ability to continue as a going concern.

#### Independence

We are required to comply with the Financial Reporting Council's Ethical Standards for Auditors and we confirm that we are independent of the group and we have fulfilled our other ethical responsibilities in accordance with those standards. We also confirm we have not provided any of the prohibited non-audit services referred to in those standards.

## Our assessment of risks of material misstatement

The assessed risks of material misstatement described below are those that had the greatest effect on our audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team.

The risks identified below are the same risks as in the prior year.

Risk

How the scope of our audit responded to the risk

Impairment of property, plant and equipment (PP&E) assets. The group has recognised PP&E assets with a net book value of US\$16,647.8 million at 31 March 2016 after recording impairments of US\$5,187.0 million in 2016, principally in relation to Cairn of which US\$4,018.3 million relates to E&E assets (discussed further below) and US\$1,168.7 million to other PP&E.

The assessment of the recoverable amount of PP&E requires management to exercise judgement around complex areas, as described in the group's critical accounting judgements in note 1 to the financial statements, specifically:

- the Rajasthan producing assets within the Oil & Gas business following a significant decrease in oil prices;
- the partially complete Lanjigarh expansionary programme within the Aluminium business unit received certain clearances in the year, however remained on hold during the year due to the challenges in obtaining locally-sourced bauxite;
- the operations in Goa and Karnataka within the Iron Ore business unit as a result of lower iron ore prices and statewide production caps in place; and
- the KCM operations in Zambia following lower copper prices and continuing operational challenges, including significantly higher electricity prices.

For more information see notes 2b, 5 and 17 in the financial statements that provide further details and disclosures to this matter

#### We have:

- Obtained and assessed the inputs into management's assessment as to whether indicators of impairment exist specifically, in relation to the Rajasthan producing assets, the Lanjigarh expansionary project, the Iron Ore operations in Goa and Karnataka and the KCM copper operations in Zambia;
- obtained and assessed the valuation models used to determine the higher of value in use or fair value less cost of disposal of the relevant asset by challenging the key assumptions made by management in relation to these models, including:
  - the expected timings of approvals and renewal of licenses, holding discussions with management, reviewing regulatory approvals and reviewing any correspondence relating to potential changes in the economic terms;
  - · source of reserve and production estimates;
  - resources to reserves conversion ratios where applicable;
  - exchange rates; and
- operating and capital expenditure estimates by reference to independent third party evidence and consultation with operational management;
- benchmarking and analysis of commodity, oil & gas price assumptions against forward curves and analyst data;
- recalculated and benchmarked discount rates applied to third party evidence and involvement of Deloitte valuation specialists;
- testing the mechanical accuracy of the models used; and
- assessed whether assumptions had been determined and applied on a consistent basis across the Group.

# Impairment of evaluation and exploration (E&E) assets

Following significant downward pressure on oil, gas and other commodity prices, which are a key assumption in the valuation of the recoverable value of E&E assets, impairment of E&E assets has been a specific area of focus for the FY16 audit.

The net book value of E&E assets at 31 March 2016 is US\$1,471.4 million after the group has written off E&E assets totalling US\$4,018.3 million in the year, following the low commodity pricing environment and reassessment of capital allocation priorities. US\$1,180.0 million of net book value relates to the Rajasthan oil field which is accounted for as one Cash Generating Unit.

The assessment of the carrying value of E&E assets requires management to exercise judgement around complex areas, as described in the group's critical accounting judgements in note 1 to the financial statements. Economic value can often be difficult to determine given the relatively early stages of development. The areas of judgement include the group's intention to proceed with a future work programme for a prospect or license, the likelihood of license renewal or extension and the success of drilling and geological analysis.

For more information see notes 2b, 5 and 17 in the financial statements that provide further details and disclosures to this matter.

We evaluated management's assessment of the impairment indicators on its E&E assets with reference to the criteria of IFRS 6 Exploration for and Evaluation of Mineral Resources and the group's successful efforts accounting policy (see page 158). In 2016, the group has reconsidered its exploration strategy and locations for future exploration focus in the context of a lower oil and commodity price environment and the availability of capital in these circumstances.

Our procedures included understanding the Group's ongoing E&E activity, by participating in meetings with operational and finance management at all key locations and obtaining evidence including reviewing minutes of board and executive committee meetings, confirmations of budget allocation, the results of on-going appraisal activity and the licensing status to assess E&E assets.

Where indicators of impairment were identified, we determined whether management provided in full for the projects that are not expected to proceed or valuations were performed where the projects are progressing but the carrying value may not be fully recoverable.

Where valuations were prepared, we challenged the key assumptions using the same approach as described under the impairment of PPE assets above.

# Revenue recognition

IAS 18 Revenue and the Group's revenue recognition policy permits revenue to be recognised only when the significant risks and rewards of ownership have transferred from the seller to the buyer.

The risk is related to:

- the determination of the point of risk and reward transfer, particularly where this is different to the point of invoicing;
- incorrect valuation of provisionally priced sales (where the pricing is only finalised based on market prices subsequent to the balance sheet date);
- the value of regulated sales, and the resulting year-end

We have reviewed the application of the Group's revenue recognition policy and:

- on a sample basis, reviewed the terms of sales agreements to conclude on the point at which risk and reward transfer takes place;
- selected sales made pre and post year end, agreeing the date
  of revenue recognition to third party support, such as bills of
  lading, to confirm they have been recognised in the correct
  period:
- recalculated the value of provisional pricing adjustments and validating the assumptions used to third party data where possible:

- receivable of US\$98 million, made to the Grid Corporation of Odisha Limited ("Gridco") where a dispute regarding the interpretation of the tariff agreement is pending appellate tribunal resolution; and
- the calculation of Cairn's oil & gas sales on an entitlement basis.

For more information see notes 2a and 4 in the financial statements that provide further details and disclosures to this matter.

- challenged management in respect of whether the Gridco trade receivables are recoverable through the review of state regulatory commission and the appellate tribunal rulings, and review of the underlying power purchase agreements, receipts in the year and the external legal opinions received; and
- reviewed the terms of Cairn's profit sharing agreements and tested
  the underlying cost recovery and profit petroleum calculations.
  This included reviewing the ageing of current unapproved costs
  and through sample testing ensuring that costs were in
  accordance with pre-approved Operational Committee work
  orders and prepared in accordance with requisite approval
  requirements.

# Litigation, environmental and regulatory risk

As is the norm in extractive industries, there are a significant number of legal claims in the Group and a risk exists that the Group may not have adequately provided for liabilities or disclosed contingent liabilities. The Group has recognised provisions of US\$97 million and disclosed contingent liabilities of US\$889 million in respect of ongoing legal matters. There is also a risk of the Group's reputation being brought into disrepute resulting in financial and reputational damage.

The Group continues to be involved in a high number of legal claims. It is not unusual for claims to remain outstanding for a number of years, with the regulatory environment becoming increasingly complex and regulators focusing on the environmental and social impacts. These ongoing claims, environmental and regulatory enquiries require management to exercise judgement in determining the need for a provision or disclosure. These can give rise to a threat to the future operations as well as the Group's current financial performance and reputation.

For more information see notes 30, 38 and 42 in the financial statements that provide further details and disclosures to these matters.

#### We have:

- reviewed management's legal paper and challenged their assessment of the probability of success in these cases, the magnitude of any potential loss and their conclusions reached through discussions with the head of legal and operational management;
- inspected external legal opinions (where considered necessary) and other evidence that supports factual information in management's responses;
- focused our procedures on the terms and conditions of mining licenses and performed procedures to gain assurance over the compliance and validity of significant mining licenses and environmental clearances;
- we have assessed the appropriateness of provisions and considered the impact of the procedures performed above on the financial statements and whether the disclosures therein are in accordance with IAS 37 Provisions, contingent liabilities and contingent assets.

#### **Taxation**

There is a risk that the Group's aggregated taxation exposure in all jurisdictions, including the exposure to withholding taxes following past acquisitions, financing and transfer pricing arrangements, sales taxes and recognition of deferred taxation assets and liabilities, may not have been adequately valued and disclosed in the financial statements due to the complexities, timescales for resolution and the need to negotiate with various tax authorities.

In the prior year, Cairn India received an order from the Indian Tax Authority for an amount of US\$3,277.4 million relating to withholding taxes not paid on the acquisition of Cairn India by the previous owner, Cairn Energy plc.

At 31 March 2016, US\$620.2 million has been recognised as a deferred taxation liability, US\$1,255.4 million has been recognised as a deferred taxation asset and US\$18.5 million has been recognised as a net current tax receivable and a US\$361.7 million non-current tax receivable, with a total tax credit of US\$1,481.9 million recorded in the consolidated income statement.

For more information see notes 12, 31 and 38 in the financial statements that provide further details and disclosures to these matters.

We reviewed the potential taxation exposures within the Group and, through discussions with the Group's taxation department, the tax specialists within the audit team and review of relevant documentation, including external legal advice and correspondence with tax authorities, we evaluated the appropriateness of the provisions raised and contingent liability disclosures. We have obtained the forecast utilisation of deferred tax assets, which have been recognised as part of deferred tax, on a legal entity basis and independently assessed whether the forecasts support the recognition of these assets.

We considered, in the context of our tax specialists' prior experience of similar issues, the Group's exposure to withholding taxes following past acquisitions, the current tax exposure following the Group's internal restructuring, transfer pricing arrangements and deferred taxation assets and liabilities recognised to assess whether these matters were appropriately reflected and disclosed in the financial statements. We have reviewed the tax disclosures with reference to IAS 12 *Income Taxes* 

The description of risks above should be read in conjunction with the significant issues considered by the Audit Committee discussed on pages 108 to 109.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

We determined materiality for the group to be US\$40 million (2015: US\$50 million), which is approximately 5% of normalised three year profit before tax (2015: 5% of normalised profit before tax), and below 1% (2015: 1%) of equity. The use of a normalised three year profit before tax is a change to our approach last year, when materiality was based on the normalised 2015 profit before tax only. This change of approach was determined to be appropriate given the current volatility in commodity prices and their impact on the current year performance and the cyclical nature of the mining industry. Profit before tax has been normalised by adjusting for specific one-off items: the impairment charges recognised on the PP&E and E&E assets during the year following a significant decrease in commodity and oil & gas prices. Normalised profit before tax is considered a more appropriate and less volatile measure reflecting the underlying scale of the Group.

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of US\$800,000 (2015: US\$1.0 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

#### An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the group and its environment, including group-wide controls, and assessing the risks of material misstatement at the group level. Based on that assessment, we focused our group audit scope primarily on the audit work at 17 locations (2015: 16 locations). 13 of these were subject to a full audit, whilst the remaining 4 were subject to an audit of specified account balances where the extent of our testing was based on our assessment of the risks of material misstatement and of the materiality of the group's operations at those locations (2015: 12 and 4 respectively). An additional location was scoped in in the current year as a result of the lower materiality.

These 17 locations represent the principal business units and account for 98% (2015: 94%) of the Group's net assets, 96% (2015: 100%) of the Group's revenue and 98% (2015: 91%) of the Group's normalised profit before tax. They were also selected to provide an appropriate basis for undertaking audit work to address the risks of material misstatement identified above. Our audit work at the 17 locations was executed at levels of materiality between US\$18 million and US\$22 million (2015: US\$22.5 million and US\$27.5 million), as applicable to each individual entity.

At the parent entity level we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specified account balances.

The group audit team continued to follow a programme of planned visits that has been designed so that the Senior Statutory Auditor or a senior member of the group audit team visits significant locations where the group audit scope was focused at least once every five years. At each six month reporting date we include the component audit partners and teams in our team briefing, discuss their risk assessment, and review documentation of the findings from their work.

# Opinion on other matters prescribed by the Companies Act 2006

In our opinion:

• the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006; and the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

# Matters on which we are required to report by exception

# Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

#### Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of directors' remuneration have not been made or the part of the Directors' Remuneration Report to be audited is not in agreement with the accounting records and returns. We have nothing to report arising from these matters.

#### **Corporate Governance Statement**

Under the Listing Rules we are also required to review the part of the Corporate Governance Statement relating to the company's compliance with certain provisions of the UK Corporate Governance Code. We have nothing to report arising from our review.

# Our duty to read other information in the Annual Report

Under International Standards on Auditing (UK and Ireland), we are required to report to you if, in our opinion, information in the annual report is:

- · materially inconsistent with the information in the audited financial statements; or
- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the group acquired in the course of performing our audit; or
- otherwise misleading.

In particular, we are required to consider whether we have identified any inconsistencies between our knowledge acquired during the audit and the directors' statement that they consider the annual report is fair, balanced and understandable and whether the annual report appropriately discloses those matters that we communicated to the audit committee which we consider should have been disclosed. We confirm that we have not identified any such inconsistencies or misleading statements.

#### Respective responsibilities of directors and auditor

As explained more fully in the Directors' Responsibilities Statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). We also comply with International Standard on Quality Control 1 (UK and Ireland). Our audit methodology and tools aim to ensure that our quality control procedures are effective, understood and applied. Our quality controls and systems include our dedicated professional standards review team and independent partner reviews.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

## Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the group's and the parent company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements. In addition, we read all the financial and non-financial information in the annual report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

Christopher Thomas (Senior statutory auditor) for and on behalf of Deloitte LLP Chartered Accountants and Statutory Auditor London, United Kingdom 11 May 2016

# **Consolidated Income Statement**

		Year ended 31 March 2016			Year ended 31 March 2015		
(US\$ million except as stated)	Note	Before special items	Special items	Total	Before special items	Special items	Total
Revenue	4	10,737.9	_	10,737.9	12,878.7	_	12,878.7
Cost of sales		(9,241.1)	_	(9,241.1)	(10,463.9)	_	(10,463.9)
Gross profit		1,496.8	_	1,496.8	2,414.8	_	2,414.8
Other operating income		101.7	_	101.7	104.0	_	104.0
Distribution costs		(223.8)	_	(223.8)	(245.2)	_	(245.2)
Administrative expenses		(493.5)	_	(493.5)	(538.1)	_	(538.1)
Special items	5	-	(5,210.1)	(5,210.1)	_	(6,744.2)	(6,744.2)
Operating profit/(loss)		881.2	(5,210.1)	(4,328.9)	1,735.5	(6,744.2)	(5,008.7)
Investment revenue	6	697.8	_	697.8	832.6	_	832.6
Finance costs	7	(1,280.4)	_	(1,280.4)	(1,387.2)	_	(1,387.2)
Other gains and (losses) [net]	8	(72.5)	_	(72.5)	(76.9)	_	(76.9)
Profit/(loss) before taxation (a)		226.1	(5,210.1)	(4,984.0)	1,104.0	(6,744.2)	(5,640.2)
Tax credit – special items	12	_	1,737.4	1,737.4	_	2,205.1	2,205.1
Net tax expense – others	12	(255.5)	_	(255.5)	(352.6)	_	(352.6)
Net tax credit/(expense) (b)	12	(255.5)	1,737.4	1,481.9	(352.6)	2,205.1	1,852.5
(Loss)/profit for the year from continuing operations (a+b)	9	(29.4)	(3,472.7)	(3,502.1)	751.4	(4,539.1)	(3,787.7)
Attributable to:							
Equity holders of the parent		(392.9)	(1,444.5)	(1,837.4)	(74.7)	(1,723.9)	(1,798.6)
Non-controlling interests		363.5	(2,028.2)	(1,664.7)	826.1	(2,815.2)	(1,989.1)
Profit/(loss) for the year from continuing operations		(29.4)	(3,472.7)	(3,502.1)	751.4	(4,539.1)	(3,787.7)
Loss per share (US cents)							
Basic loss per ordinary share	13	(142.4)	(523.4)	(665.8)	(27.2)	(627.3)	(654.5)
Diluted loss per ordinary share	13	(142.4)	(523.4)	(665.8)	(27.2)	(627.3)	(654.5)

# **Consolidated Statement of Comprehensive Income**

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Loss for the year from continuing operations	(3,502.1)	(3,787.7)
Income and expenses recognised directly in equity:		
Items that will not be reclassified subsequently to income statement:		
Remeasurement of net defined benefit plans	8.0	(14.0)
Tax effects on items recognised directly in equity	(2.5)	4.6
Total (a)	5.5	(9.4)
Items that may be reclassified subsequently to income statement:		
Exchange differences arising on translation of foreign operations	(810.2)	(582.0)
Gain in fair value of available-for-sale financial assets (Note 18)	2.3	2.1
Loss in fair value of cash flow hedges deferred in reserves	(24.5)	(27.4)
Tax effects arising on cash flow hedges deferred in reserves	(2.8)	0.8
Gain in fair value of cash flow hedges transferred to income statement	(3.0)	(17.8)
Tax effects arising on cash flow hedges transferred to income statement	1.6	6.0
Total (b)	(836.6)	(618.3)
Other comprehensive loss for the year (a+b)	(831.1)	(627.7)
Total comprehensive loss for the year	(4,333.2)	(4,415.4)
Attributable to:		
Equity holders of the parent	(2,223.6)	(2,089.8)
Non-controlling interests	(2,109.6)	(2,325.6)
Total comprehensive loss for the year	(4,333.2)	(4,415.4)

# **Consolidated Balance Sheet**

(US\$ million)	Note	As at year ended 31 March 2016	As at year ended 31 March 2015
Assets			
Non-current assets			
Goodwill	15	16.6	16.6
Intangible assets	16	92.2	101.9
Property, plant and equipment	17	16,647.8	23,352.0
Financial asset investments	18	6.5	4.2
Non-current tax assets		361.7	394.0
Other non-current assets	19	237.9	156.0
Financial instruments (derivatives)	29	0.8	0.2
Deferred tax assets	31	1,255.4	1,252.6
		18,618.9	25,277.5
Current assets			
Inventories	20	1,365.8	1,605.7
Trade and other receivables	21	1,344.3	1,839.2
Financial instruments (derivatives)	29	18.3	16.6
Current tax assets		35.5	40.1
Liquid investments	22	8,508.2	7,856.1
Cash and cash equivalents	23	428.3	353.7
		11,700.4	11,711.4
Total assets		30,319.3	36,988.9
Liabilities			
Current liabilities			
Short-term borrowings	24	(3,726.6)	(3,179.2)
Convertible bonds	28	(587.2)	_
Trade and other payables	27a	(5,876.1)	(4,730.0)
Financial instruments (derivatives)	29	(67.7)	(45.7)
Retirement benefits	33	(4.9)	(12.7)
Provisions	30	(132.1)	(140.8)
Current tax liabilities		(17.0)	(74.2)
		(10,411.6)	(8,182.6)
Net current assets		1,288.8	3,528.8
Non-current liabilities			
Medium and long-term borrowings	24	(11,949.5)	(12,385.6)
Convertible bonds	28	_	(1,103.0)
Trade and other payables	27b	(223.5)	(194.3)
Financial instruments (derivatives)	29	(1.2)	(0.1)
Deferred tax liabilities	31	(620.2)	(2,588.7)
Retirement benefits	33	(61.6)	(61.9)
Provisions	30	(187.4)	(203.4)
Non-equity non-controlling interests	25	(11.9)	(11.9)
		(13,055.3)	(16,548.9)
		, ,	

(US\$ million)	Note	As at year ended 31 March 2016	As at year ended 31 March 2015
Net assets		6,852.4	12,257.4
Equity			
Share capital	35	30.1	30.0
Share premium		201.5	198.5
Treasury shares		(557.2)	(556.9)
Share-based payment reserve	32	29.9	27.4
Convertible bond reserve		6.0	38.4
Hedging reserve		(87.7)	(74.7)
Other reserves		(1.4)	339.9
Retained earnings		(334.0)	1,600.5
Equity attributable to equity holders of the parent		(712.8)	1,603.1
Non-controlling interests	36	7,565.2	10,654.3
Total equity		6,852.4	12,257.4

Financial statements of Vedanta Resources plc, registration number 4740415, were approved by the Board of Directors on 11 May 2016 and signed on their behalf by:

# Tom Albanese

Chief Executive Officer

# **Consolidated Cash Flow Statement**

(US\$ million)	Note	Year ended 31 March 2016	Year ended 31 March 2015
Operating activities			
Loss before taxation		(4,984.0)	(5,640.2)
Adjustments for:			
Depreciation and amortisation		1,455.2	2,005.7
Investment revenue		(697.8)	(832.6)
Finance costs		1,280.4	1,387.2
Other gains and (losses)		72.5	76.9
Loss on disposal of property, plant and equipment		1.5	4.6
Write-off of unsuccessful exploration costs		4.5	128.7
Share-based payment charge		15.6	28.6
Impairment of mining reserves and assets		5,187.0	6,694.4
Other non-cash items		2.7	40.8
Operating cash flows before movements in working capital		2,337.6	3,894.1
Decrease in inventories		163.7	40.0
(Increase)/decrease in receivables		343.3	(134.5)
Increase in payables		657.4	225.2
Cash generated from operations		3,502.0	4,024.8
Dividends received		0.3	0.3
Interest income received		633.1	587.7
Interest paid		(1,268.4)	(1,334.0)
Income taxes paid		(354.7)	(601.7)
Dividends paid		(110.6)	(171.3)
Net cash inflow from operating activities		2,401.7	2,505.8
Cash flows from investing activities			
Purchases of property, plant and equipment and intangibles		(872.4)	(2,289.1)
Proceeds on disposal of property, plant and equipment		10.0	25.7
Sale/(purchase) of liquid investments	26	(999.9)	671.7
Net cash used in investing activities		(1,862.3)	(1,591.7)
Cash flows from financing activities			
Issue of ordinary shares		0.1	0.2
Purchase of shares under DSBP scheme		(0.9)	
Dividends paid to non-controlling interests of subsidiaries		(325.5)	(340.4)
Acquisition of additional interests in subsidiaries/share buyback by subsidiary		_	(819.1)
Decrease in short-term borrowings	26	(1,022.1)	(818.8)
Proceeds from long-term borrowings	26	2,383.2	3,748.1
Repayment of long-term borrowings	26	(958.0)	(2,698.0)
Buyback of convertible bond		(523.6)	_
Net cash used in financing activities		(446.8)	(928.0)
Net increase/(decrease) in cash and cash equivalents	26	92.6	(13.9)
Effect of foreign exchange rate changes	26	(18.0)	(1.8)
Cash and cash equivalents at beginning of year		353.7	369.4
Cash and cash equivalents at end of year	23 & 26	428.3	353.7

# **Consolidated Statement of Changes in Equity**

	Attributable to equity holders of the Company										
(US\$ million)	Share capital (Note 35)	Share premium	Treasury shares	Share- based payment reserves	Convertible bond reserve	Hedging reserve	Other reserves <sup>1</sup>	Retained earnings	Total	Non-controlli ng interests	Total equity
At 1 April 2015	30.0	198.5	(556.9)	27.4	38.4	(74.7)	339.9	1,600.5	1,603.1	10,654.3	12,257.4
Loss for the year	_	-	_	_	_	_	_	(1,837.4)	(1,837.4)	(1,664.7)	(3,502.1)
Other comprehensive loss for the year	_	_	_	_	-	(13.0)	(373.2)	_	(386.2)	(444.9)	(831.1)
Total comprehensive loss for the year	_	_	_	_	_	(13.0)	(373.2)	(1,837.4)	(2,223.6)	(2,109.6)	(4,333.2)
Acquisition of shares under DSBP scheme	_	_	(0.3)	_	_	_	_	(0.6)	(0.9)	_	(0.9)
Convertible bond transfer (Note 28)	_	_	_	_	(24.6)	_	_	24.6	_	_	_
Conversion of bond into equity	0.0	3.0	_	_	(0.1)	_	_	_	2.9	_	2.9
Convertible bond buyback	_	_	_	_	(7.7)	_	_	5.1	(2.6)	_	(2.6)
Transfers <sup>1</sup>	_	_	_	_	_	_	31.9	(31.9)	_	_	_
Dividends paid/payable (Note 14)	_	_	_	_	_	_	_	(110.6)	(110.6)	(979.5)	(1,090.1)
Exercise of LTIP awards	0.1	_	_	(13.1)	_	_	_	13.1	0.1	_	0.1
Recognition of share-based payment (Note 32)	_	_	_	15.6	-	_	_	_	15.6	_	15.6
Others <sup>3</sup>	_	_	_	_	_	_	_	3.2	3.2	_	3.2
At 31 March 2016	30.1	201.5	(557.2)	29.9	6.0	(87.7)	(1.4)	(334.0)	(712.8)	7,565.2	6,852.4

At 31 March 2015	30.0	198.5	(556.9)	27.4	38.4	(74.7)	339.9	1,600.5	1,603.1	10,654.3	12,257.4
Recognition of share-based payment (Note 32)	-	_	-	28.6	-	_	_	_	28.6	_	28.6
Exercise of LTIP awards	0.2	-	_	(48.1)	_	_	_	48.1	0.2	-	0.2
Additional investment in subsidiary/share buyback by subsidiary	_	-	_	_	-	_	_	(175.0)	(175.0)	(644.1)	(819.1)
Dividends paid (Note 14)	_	_	_	_	_	_	_	(171.3)	(171.3)	(340.4)	(511.7)
Transfers <sup>1</sup>	_	-	_	-	-	-	135.2	(135.2)	-	-	-
Convertible bond transfer (Note 28)	_	_	_	_	(41.7)	_	_	41.7	_	_	_
Total comprehensive loss for the year	_	_	_	_	-	(24.3)	(266.9)	(1,798.6)	(2,089.8)	(2,325.6)	(4,415.4)
Other comprehensive loss for the year	-	-	-	-	_	(24.3)	(266.9)	_	(291.2)	(336.5)	(627.7)
Loss for the year	_	_	_	-	-	_	-	(1,798.6)	(1,798.6)	(1,989.1)	(3,787.7)
At 1 April 2014	29.8	198.5	(556.9)	46.9	80.1	(50.4)	471.6	3,790.8	4,010.4	13,964.4	17,974.8
(US\$ million)	Share capital (Note 35)	Share premium	Treasury shares	Share- based payment reserves	Convertible bond reserve	Hedging reserve	Other reserves <sup>1</sup>	Retained earnings	Total	Non-controlli ng interests	Total equity
										_	

# Other reserves comprise<sup>1</sup>

(US\$ million)	Currency translation reserve	Merger reserve <sup>2</sup>	Investment revaluation reserve	General reserves	Total
At 1 April 2014	(1,612.7)	4.4	1.2	2,078.7	471.6
Exchange differences on translation of foreign operations	(263.8)	_	_	_	(263.8)
Gain in fair value of available-for-sale financial assets	_	_	1.4	_	1.4
Remeasurements	_	_	_	(4.5)	(4.5)
Transfer from retained earnings <sup>1</sup>	_	-	_	135.2	135.2
At 1 April 2015	(1,876.5)	4.4	2.6	2,209.4	339.9
Exchange differences on translation of foreign operations	(378.7)	_	_	_	(378.7)
Gain in fair value of available-for-sale financial assets	_	_	1.5	_	1.5
Remeasurements	_	_	_	4.0	4.0
Transfer from retained earnings <sup>1</sup>	_	_	_	31.9	31.9
At 31 March 2016	(2,255.2)	4.4	4.1	2,245.3	(1.4)

Transfer to general reserve during the year ended 31 March 2016 and 31 March 2015 includes US\$31.9 million and US\$30.0 million of debenture redemption reserve

The merger reserve arose on incorporation of the Company during the year ended 31 March 2004. The investment in Twin Star had a carrying amount value of US\$20.0 million in the accounts of Volcan. As required by the Companies Act 1985, Section 132, upon issue of 156,000,000 ordinary shares to Volcan, Twin Star's issued share capital and share premium account have been eliminated and a merger reserve of US\$4.4 million arose, being the difference between the carrying value of the investment in Twin Star in Volcan's accounts and the nominal value of the shares issued to Volcan.

<sup>3</sup> Others: US\$3.2 million of tax refund received on appropriatoin of reserves in BALCO.

# **Notes to the Financial Statements**

#### 1. Presentation of financial statements

#### General information

Vedanta Resources plc (the Company) is a company incorporated and domiciled in the United Kingdom and is a London listed diversified global natural resources major. The Group produces aluminium, copper, zinc, lead, silver, iron ore, oil & gas and commercial energy. Vedanta has operations in India, Zambia, Namibia, South Africa, Ireland, Liberia and Australia. These financial statements are presented in US dollars being the functional currency of the Company and all values are rounded to one decimal of the nearest million except where other otherwise indicated.

# Compliance with applicable law and IFRS

The financial statements have been prepared in accordance with those parts of the Companies Act 2006 applicable to companies reporting under International Financial Reporting Standards (IFRS), Article 4 of the IAS Regulation and IFRS as adopted by the European Union and related interpretations.

#### Basis of preparation

The financial statements have been prepared on a historical cost basis, except for derivative financial instruments, available-for-sale financial assets, liquid investments and defined benefit pension obligations that have been measured at fair value as per the principles of Fair value measurement under IFRS 13.

The following standards have been issued but not yet effective up to the date of authorisation of these financial statements (and in some cases had not yet been adopted by EU):

#### IFRS 9 - Financial Instruments

In July 2014, the International Accounting Standards Board issued the final version of IFRS 9 – Financial Instruments. The standard reduces the complexity of the current rules on financial instruments as mandated in IAS 39. IFRS 9 has fewer classification and measurement categories as compared to IAS 39 and has eliminated the categories of held to maturity, available for sale and loans and receivables. Further it eliminates the rule based requirement of segregating embedded derivatives and tainting rules pertaining to held to maturity investments. For an investment in an equity instrument which is not held for trading, IFRS 9 permits an irrevocable election, on initial recognition, on an individual share-by-share basis, to present all fair value changes from the investment in other comprehensive income. No amount recognised in other comprehensive income would ever be reclassified to profit or loss. It requires the entity, which chooses to measure a liability at fair value, to present the portion of the fair value change attributable to the entity's own credit risk in the other comprehensive income. IFRS 9 replaces the 'incurred loss model' in IAS 39 with an 'expected credit loss' model. The measurement uses a dual measurement approach, under which the loss allowance is measured as either 12 month expected credit losses or lifetime expected credit losses. The standard also introduces new presentation and disclosure requirements. The effective date for adoption of IFRS 9 is annual periods beginning on or after 1 January 2018, though early adoption is permitted.

# IFRS 15 - Revenue from Contracts with Customers

IFRS 15 – Revenue from Contracts with Customers outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. The standard replaces most current revenue recognition guidance, including industry-specific guidance. The core principle of the new standard is for companies to recognise revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods or services. The new standard also will result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively including service revenues and contract modifications and improve guidance for multiple-element arrangements. The new standard will come into effect for the annual reporting periods beginning on or after 1 January 2018 with early application permitted.

# IFRS 16 – Leases

IFRS 16 – Leases specifies recognition, measurement and disclosure criteria for leases. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17. The new standard will come into effect for the annual reporting periods beginning on or after 1 January 2019. Earlier application is permitted if IFRS 15 – Revenue from Contracts with Customers has also been applied.

The following other standards, improvements and amendments to the standards have been issued up to the date of authorisation of these financial statements.

- IFRS 14 Regulatory Deferral Accounts
- Amendments to IAS 1: Disclosure Initiative
- Annual Improvements to IFRSs: 2012-2014 Cycle
- Amendments to IAS 27: Equity method in separate financial statements
- Amendments to IAS 16 and IAS 41: Bearer plants
- Amendments to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortisation
- Amendments to IFRS 11: Accounting for Acquisitions of Interests in Joint Operations
- Amendments to IAS 7: Statement of cash flows on disclosure initiative
- Amendments to IAS 12: 'Income taxes' on Recognition of deferred tax assets for unrealised losses
- Amendments to IFRS 10, IFRS 12 and IAS 28: Investment entities: Applying the Consolidation Exemption

The Group is evaluating the requirements of these standards, improvements and amendments and has not yet determined the impact on the consolidated financial statements.

#### Adoption of new and revised standards and pronouncements

The Group has adopted, with effect from 1 April 2015, the following new amendment and pronouncements. Their adoption has not had any significant impact on the amounts reported in the financial statements.

Amendments to IAS 19: Defined benefit plans: Employee Contributions

Annual improvements to IFRSs: 2010-2012 Cycle

Annual improvements to IFRSs: 2011-2013 Cycle

The Group has not early adopted any other amendments, standards or interpretations that have been issued but are not yet effective.

#### Going concern

The financial statements have been prepared in accordance with the going concern basis of accounting. The use of this basis of accounting takes into consideration the Group's current and forecast financing position, additional details of which are provided in the Going Concern section of the Strategic Report.

#### Parent Company financial statements

The financial statements of the parent Company, Vedanta Resources plc, incorporated in United Kingdom, have been prepared in accordance with FRS 101 and UK company law. The Company Balance Sheet is presented in Note 46.

#### 2(a) Accounting policies

#### (i) Basis of consolidation

#### Subsidiaries

The consolidated financial information incorporates the results of the Company and all its subsidiaries (the Group), being the companies that it controls. Control is evidenced where the Company has power over the investee, is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Power is demonstrated through existing rights that give the ability to direct relevant activities, which significantly affect the entity returns.

The financial statements of subsidiaries are prepared for the same reporting year as the parent Company. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with accounting policies used by the Group.

For non-wholly owned subsidiaries, a share of the profit for the financial year and net assets is attributed to the non-controlling interests as shown in the consolidated income statement, consolidated statement of comprehensive income and consolidated balance sheet.

For acquisitions of additional interests in subsidiaries, where there is no change in control, the Group recognises a reduction to the non-controlling interest of the respective subsidiary with the difference between this figure and the cash paid, inclusive of transaction fees, being recognised in equity. In addition, upon dilution of controlling interests the difference between the cash received from sale or listing of the subsidiary shares and the increase to non-controlling interest is also recognised in equity. The results of subsidiaries acquired or disposed of during the year are included in the consolidated income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate.

All inter-company balances and transactions, including unrealised profits arising from intra-Group transactions, have been eliminated in full. Unrealised losses are eliminated unless costs cannot be recovered.

#### Joint arrangements

A joint arrangement is an arrangement of which two or more parties have joint control. Joint control is considered when there is contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The Group has joint operations within its Oil & Gas segment, the Group participates in several unincorporated joint operations which involve the joint control of assets used in oil & gas exploration and producing activities. The Group accounts for its share of assets, liabilities, income and expenditure of joint ventures in which the Group holds an interest, classified in the appropriate balance sheet and income statement headings. In addition, where the Group acts as operator to the joint venture, the gross liabilities and receivables (including amounts due to or from non-operating partners) of the joint operations are included in the Group balance sheet.

#### (ii) Revenue recognition

Revenue is measured at the fair value of consideration received or receivable and represents the net invoice value of goods and services provided to third parties after deducting discounts, volume rebates, outgoing sales taxes and duties, and are recognised when all significant risks and rewards of ownership of the asset sold are transferred to the customer or services have been provided. This is usually when the title passes to the customer as per the contract.

Certain of the Group's sales contracts provide for provisional pricing based on the price on the London Metal Exchange Limited (LME), as specified in the contract, when shipped. Final settlement of the prices is based on the applicable price for a specified future period. The Company's provisionally priced sales are marked to market using the relevant forward prices for the future period specified in the contract with a corresponding adjustment to revenue.

Revenue from oil, gas and condensate sales represents the Group's share of oil, gas and condensate production, recognised on a direct entitlement basis, and tariff income received for third party use of operating facilities and pipelines in accordance with agreements.

Revenue from holding certificate contracts is recognised when goods have been delivered to a distribution warehouse or have been identified and kept separately, have been inspected by a nominee of the buyer and cash has been received. Under these arrangements, revenue is recognised once legal title has passed and all significant risks and rewards of ownership of the asset sold are transferred to the customer.

Revenue from the sale of power is recognised when the electricity is supplied and measured based on contractually agreed tariff rates as approved by the electricity regulatory authorities.

Revenues from sale of material by-products are recognised when the significant risks and rewards of ownership of the goods sold are transferred to the customer.

Dividend income is recognised when the shareholders' right to receive payment is established.

Interest income is recognised on an accrual basis in the income statement.

#### (iii) Special items

Special items are those items that management considers, by virtue of their size or incidence (including but not limited to impairment charges and acquisition and restructuring related costs), should be disclosed separately to ensure that the financial information allows an understanding of the underlying performance of the business in the year, so as to facilitate comparison with prior periods. Also tax charges related to Special items and certain one-time tax effects are considered Special. Such items are material by nature or amount to the year's result and require separate disclosure in accordance with IAS 1 paragraph 97. The determination as to which items should be disclosed separately requires a degree of judgement.

#### (iv) Business combinations

The results of subsidiaries acquired or sold during the year are consolidated for the periods from, or to, the date on which control passed. Acquisitions are accounted for under the acquisition method. The acquirer's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition are recognised at their fair value at the acquisition date, except certain assets and liabilities required to be measured as per the applicable standards.

The identifiable assets, liabilities and contingent liabilities of a subsidiary, a joint arrangement or an associate, which can be measured reliably, are recorded at their provisional fair values at the date of acquisition. The difference between the fair value of the consideration transferred (including contingent consideration and previously held non-controlling interests) and the Group's share of the fair value of the identifiable net assets on acquisition is recognised as goodwill. Goodwill arising on acquisitions is reviewed for impairment at least annually.

Where the fair values of the identifiable assets and liabilities exceed the cost of acquisition, the surplus is credited to the income statement in the period of acquisition.

Where it is not possible to complete the determination of fair values by the date on which the first post-acquisition financial statements are approved, a provisional assessment of fair values is made and any adjustments required to those provisional fair values, and the corresponding adjustments to purchased goodwill, are finalised within 12 months of the acquisition date.

Any non-controlling interest in an acquiree is measured at fair value or as the non-controlling interest's proportionate share of the acquiree's identifiable net assets, excluding goodwill. This accounting choice is made on a transaction-by-transaction basis.

Acquisition expenses are charged to the income statement.

If the Group acquires a group of assets or equity in a company that does not constitute a business combination in accordance with IFRS 3 Business Combinations (2008 revised), the cost of the acquired group of assets or equity is allocated to the individual identifiable assets acquired based on their relative fair value.

#### (v) Intangible assets

Intangible assets are measured at cost less accumulated amortisation and accumulated impairment losses, if any. The Group determines the amortisation period as the period over which the future economic benefits will flow to the Group after taking into account all relevant facts and circumstances. Amortisation method, residual values and estimated useful life of intangible assets are reviewed annually or more frequently if events or changes in circumstances indicate a potential impairment. The Group does not have any indefinite life intangible assets.

Intangible assets arising out of service concession arrangements are accounted for as intangible assets where the Company has a contractual right to charge users of services when the projects are completed and is measured at the cost of such construction services completed. Such assets are amortised on a straight line basis over the balance of license period, usually between 3 to 30 years.

# (vi) Property, plant and equipment

Relating to mineral assets – Mining properties and leases

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment under the heading 'Mining properties and leases' in the year in which they are incurred.

When a decision is taken that a mining property is viable for commercial production (i.e. when the Group determines that the mining property will provide sufficient and sustainable returns relative to the risk and decides to proceed with the development), all further pre-production primary development expenditure other than land, buildings, plant and equipment is capitalised as part of the cost of the mining property until the mining property is capable of commercial production. From that point, capitalised mining properties and lease costs are amortised on a unit-of-production basis over the total estimated remaining commercial reserves of each property or group of properties.

Exploration and evaluation assets acquired are recognised as assets at their cost of acquisition subject to meeting the commercial production criteria mentioned above and are subject to impairment review on an annual basis.

Exploration and evaluation expenditure incurred after obtaining the right to mine or the legal right to explore, is capitalised as property, plant and equipment and stated at cost less any impairment. Exploration and evaluation assets are transferred to the appropriate

category of property, plant and equipment when the technical feasibility and commercial viability has been determined. Exploration and evaluation assets are assessed for impairment and impairment loss, if any, is recognised prior to reclassification. Exploration and evaluation expenditure incurred prior to obtaining the mining right or the legal right to explore is expensed as incurred.

Exploration expenditure includes all direct and allocated indirect expenditure associated with finding specific mineral resources which includes depreciation and applicable operating costs of related support equipment and facilities and other costs of exploration activities:

- · Acquisition costs costs associated with acquisition of licenses and rights to explore, including related professional fees.
- General exploration costs costs of surveys and studies, rights of access to properties to conduct those studies (e.g. costs incurred
  for environment clearance, defence clearance, etc.), and salaries and other expenses of geologists, geophysical crews and other
  personnel conducting those studies.
- Costs of exploratory drilling and equipping exploratory and appraisal wells.

The stripping cost incurred during the production phase of a surface mine is deferred to the extent the current period stripping cost exceeds the average period stripping cost over the life of mine and recognised as an asset if such cost provides a benefit in terms of improved access to ore in future periods and certain criteria are met. Deferred stripping costs are included in mining properties within property, plant and equipment and disclosed as a part of mining properties. After initial recognition, the stripping activity asset is depreciated on a unit of production method over the expected useful life of the identified component of the ore body.

In circumstances where a mining property is abandoned, the cumulative capitalised costs relating to the property are written off in the period in which it occurs i.e. when the Group determines that the mining property will not provide sufficient and sustainable returns relative to the risks and the Group decides not to proceed with the mine development.

Commercial reserves are proved and probable reserves as defined by the 'JORC' Code and 'SAMREC' Code. Changes in the commercial reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

Relating to oil & gas assets – Exploration and evaluation assets and developing/producing assets

For oil & gas assets a successful efforts based accounting policy is followed. Costs incurred prior to obtaining the legal rights to explore an area are expensed immediately to the income statement. Expenditure incurred on the acquisition of a license interest is initially capitalised on a license-by-license basis. Costs are held, are not amortised or depreciated, within exploration and evaluation assets until such time as the exploration phase on the license area is complete or commercial reserves have been discovered.

Exploration expenditure incurred in the process of determining oil & gas exploration targets is capitalised initially within property, plant and equipment – exploration and evaluation assets and subsequently allocated to drilling activities (under oil & gas properties and/or exploration and evaluation assets as appropriate). Exploration drilling costs are initially capitalised on a well-by-well basis until the success or otherwise of the well has been established. The success or failure of each exploration effort is judged on a well-by-well basis. Drilling costs are written off on completion of a well unless the results indicate that hydrocarbon reserves exist and there is a reasonable prospect that these reserves are commercial.

Following appraisal of successful exploration wells, if commercial reserves are established and technical feasibility for extraction demonstrated, then the related capitalised exploration costs are transferred into a single field cost centre within property, plant and equipment – development/producing assets (oil & gas properties) after testing for impairment. Where results of exploration drilling indicate the presence of hydrocarbons which are ultimately not considered commercially viable, all related costs are written off to the income statement.

All costs incurred after the technical feasibility and commercial viability of producing hydrocarbons has been demonstrated are capitalised within property, plant and equipment – development/producing assets (oil & gas properties) on a field-by-field basis. Subsequent expenditure is capitalised only where it either enhances the economic benefits of the development/producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

Net proceeds from any disposal of an exploration asset are initially credited against the previously capitalised costs. Any surplus proceeds are credited to the income statement. Net proceeds from any disposal of development/producing assets are credited against the previously capitalised cost. A gain or loss on disposal of a development/producing asset is recognised in the income statement to the extent that the net proceeds exceed or are less than the appropriate portion of the net capitalised costs of the asset.

#### Other property, plant and equipment

The initial cost of property, plant and equipment comprises its purchase price, including import duties and non-refundable purchase taxes, and any directly attributable costs of bringing an asset to working condition and location for its intended use, including relevant borrowing costs and any expected costs of decommissioning. Expenditure incurred after the property, plant and equipment have been put into operation, such as repairs and maintenance, are charged to the income statement in the period in which the costs are incurred. Major shut-down and overhaul expenditure is capitalised as the activities undertaken improve the economic benefits expected to arise from the asset

# (vii) Assets in the course of construction

Assets in the course of construction are capitalised in the assets under construction account. At the point when an asset is operating at management's intended use, the cost of construction is transferred to the appropriate category of property, plant and equipment and depreciation commences (see below). Costs associated with the commissioning of an asset and any obligatory decommissioning costs are capitalised where the asset is available for use but incapable of operating at normal levels until a period of commissioning has been completed. Revenue generated from production during the trial period is capitalised. Borrowing costs and certain foreign exchange gains or losses are in certain circumstances capitalised in the cost of the asset under construction. This policy is set out under 'Borrowing Costs'.

# (viii) Depreciation and amortisation

Relating to mining properties

Mining properties and other assets in the course of development or construction, freehold land and goodwill are not depreciated or

amortised. Capitalised mining properties and lease costs are amortised once commercial production commences, as described in 'Property, plant and equipment – mining properties and leases'. Leasehold land and buildings are depreciated on a straight-line basis over the period of the lease or, if shorter, their useful economic life.

#### Relating to oil & gas assets

All expenditure carried within each field is amortised from the commencement of production on a unit of production basis, which is the ratio of oil & gas production in the period to the estimated quantities of commercial reserves at the end of the period plus the production in the period, generally on a field-by-field basis or group of fields which are reliant on common infrastructure.

Commercial reserves are proven and probable oil & gas reserves, which are defined as the estimated quantities of crude oil, natural gas and natural gas liquids which geological, geophysical and engineering data demonstrate with a specified degree of certainty to be recoverable in future years from known reservoirs and which are considered commercially producible. There should be a 50% statistical probability that the actual quantity of recoverable reserves will be more than the amount estimated as proven and probable reserves and a 50% statistical probability that it will be less.

Costs used in the unit of production calculation comprise the net book value of capitalised costs plus the estimated future field development costs required to access commercial reserves. Changes in the estimates of commercial reserves or future field development costs are dealt with prospectively.

#### Others

Other buildings, plant and equipment, office equipment and fixtures, and motor vehicles are stated at cost less accumulated depreciation and any provision for impairment. Depreciation commences when the assets are ready for their intended use. Depreciation is provided at rates calculated to write off the cost, less estimated residual value, of each asset on a straight-line basis over its expected useful life, as follows:

Buildings operations and administration
Plant and machinery
Office equipment and fixtures
Motor vehicles
30–60 years
15–40 years
5–10 years
8–10 years

The Group reviews the residual value and useful life of an asset annually and, if expectations differ from previous estimates, the change is accounted for as a change in accounting estimate.

Major overhaul costs are depreciated over the estimated life of the economic benefit to be derived from the overhaul. The carrying amount of the remaining previous overhaul cost is charged to the income statement if the next overhaul is undertaken earlier than the previously estimated life of the economic benefit.

Property, plant and equipment held for sale or which is part of a disposal group held for sale is not depreciated. Property, plant and equipment held for sale is carried at the lower of its carrying value and fair value less disposal cost and is presented separately on the face of the balance sheet.

# (ix) Impairment

#### Financial assets

A financial asset is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount, and the present value of the estimated future cash flows discounted at the original effective interest rate. An impairment loss in respect of an available-for-sale financial asset is calculated by reference to its fair value.

Significant financial assets are tested for impairment on an individual basis. The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics. All impairment losses are recognised in the consolidated statements of income. Any cumulative loss in respect of an available-for-sale financial asset recognised previously in the consolidated statements of comprehensive income is transferred to the consolidated statements of income on recognition of impairment. An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognised. For financial assets measured at amortised cost and available-for-sale financial assets that are debt securities, the reversal is recognised in the consolidated statements of income. For available-for-sale financial assets that are equity securities, the change in fair value is recognised directly in the consolidated statements of comprehensive income.

The allowance accounts in respect of trade and other receivables are used to record impairment losses unless the Company is satisfied that no recovery of the amount owing is possible; at that point the amounts are considered irrecoverable and are written off against the financial asset directly.

#### Non-financial assets

Impairment charges and reversals are assessed at the level of cash-generating units. A cash-generating unit (CGU) is the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or group of assets.

Formal impairment tests are carried out annually for goodwill. In addition, formal impairment tests for all assets are performed when there is an indication of impairment. The Group conducts an internal review of asset values annually, which is used as a source of information to assess for any indications of impairment or reversal of previously recognised impairment losses. External factors, such as changes in expected future prices, costs and other market factors are also monitored to assess for indications of impairment or reversal of previously recognised impairment losses.

If any such indication exists then an impairment review is undertaken, the recoverable amount is calculated, as the higher of fair value

less costs of disposal and the asset's value in use.

Fair value less costs of disposal is the price that would be received to sell the asset in an orderly transaction between market participants and does not reflect the effects of factors that may be specific to the entity and not applicable to entities in general. Fair value for mineral and oil & gas assets is generally determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset, including any expansion prospects, and its eventual disposal, using assumptions that an independent market participant may take into account. These cash flows are discounted at an appropriate post tax discount rate to arrive at the net present

Value in use is determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset in its present form and its eventual disposal. The cash flows are discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which estimates of future cash flows have not been adjusted. Value in use is determined by applying assumptions specific to the Group's continued use and cannot take into account future development. These assumptions are different to those used in calculating fair value and consequently the value in use calculation is likely to give a different result to a fair value calculation.

The carrying amount of the CGU is determined on a basis consistent with the way the recoverable amount of the CGU is determined. The carrying amount includes the deferred tax liability recognised in the fair value of the assets acquired in a business combination.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount. An impairment loss is recognised in the income statement.

Any reversal of the previously recognised impairment loss is limited to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had previously been recognised.

#### Exploration and evaluation assets

In assessing whether there is any indication that an exploration and evaluation asset may be impaired, the Company considers, as a minimum, the following indications

- the period for which the entity has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- substantive expenditure on further exploration for and evaluation of mineral resources in the specific area is neither budgeted nor planned;
- exploration for and evaluation of mineral resources in the specific area have not led to the discovery of commercially viable quantities of mineral resources and the entity has decided to discontinue such activities in the specific area;
- sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale; and
- · reserve information prepared annually by external experts.

When a potential impairment is identified, an assessment is performed for each area of interest in conjunction with the group of operating assets (representing a cash-generating unit) to which the exploration and evaluation assets is attributed. Exploration areas in which reserves have been discovered but require major capital expenditure before production can begin, are continually evaluated to ensure that commercial quantities of reserves exist or to ensure that additional exploration work is under way or planned. To the extent that capitalised expenditure is no longer expected to be recovered, it is charged to the income statement.

# (x) Non-current assets held for sale and discontinued operations

Non-current assets are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when a sale is highly probable from the date of classification, management are committed to the sale and the asset is available for immediate sale in its present condition. Non-current assets are classified as held for sale from the date these conditions are met and are measured at the lower of carrying amount and fair value (less costs to sell). Any resulting impairment loss is recognised in the income statement as a special item. On classification as held for sale the assets are no longer depreciated.

# (xi) Government grants

Government grants relating to property, plant and equipment are treated as deferred income and released to the income statement over the expected useful lives of the assets concerned. Other grants are credited to the income statement as and when the related expenditure is incurred.

#### (xii) Inventories

Inventories and work-in-progress are stated at the lower of cost and net realisable value.

Cost is determined on the following basis:

- Purchased copper concentrate is recorded at cost on a first-in, first-out (FIFO) basis; all other materials including stores and spares are valued on weighted average basis; except at Cairn where stores and spares are valued on a FIFO basis.
- Finished products are valued at raw material cost plus costs of conversion, comprising labour costs and an attributable proportion of manufacturing overheads based on normal levels of activity; and by-products and scrap are valued at net realisable value.
- Net realisable value is determined based on estimated selling price, less further costs expected to be incurred to completion and disposal.

# (xiii) Taxation

Tax expense represents the sum of tax currently payable and deferred tax.

Current tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is provided, using the balance sheet method, on all temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Exceptions to this principle are:

- tax payable on the future remittance of the past earnings of subsidiaries where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future;
- deferred income tax is not recognised on the impairment of goodwill which is not deductible for tax purposes or on the initial recognition of an asset or liability in a transaction that is not a business combination which, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- · deferred tax assets are recognised only to the extent that it is more likely than not that they will be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the balance sheet date. Tax relating to items recognised directly in equity is recognised in equity and not in the income statement.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and is adjusted to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the asset to be recovered.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current income tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Deferred tax is provided on temporary differences arising on acquisitions that are categorised as Business Combinations. Deferred tax is recognised at acquisition as part of the assessment of the fair value of assets and liabilities acquired. Any deferred tax is charged or credited in the income statement as the underlying temporary difference is reversed.

#### (xiv) Retirement benefit schemes

The Group operates or participates in a number of defined benefits and contribution schemes, the assets of which are (where funded) held in separately administered funds.

For defined benefit schemes the cost of providing benefits under the plans is determined each year separately for each plan using the projected unit credit method by independent qualified actuaries.

Actuarial gains and losses arising in the year are recognised in other comprehensive income and are not recycled to the income statement.

Net interest is calculated by applying a discount rate to the net defined benefit liability or asset. Defined benefit costs are split into current service cost, past service cost, net interest expense or income and remeasurement.

Current service cost and past service costs is recognised within cost of sales and administrative expenses. Net interest expense or income is recognised within finance costs.

For defined contribution schemes, the amount charged to the income statement in respect of pension costs and other post-retirement benefits is the contributions payable in the year.

## (xv) Share-based payments

Certain employees (including Executive Directors) of the Group receive part of their remuneration in the form of share-based payment transactions, whereby employees render services in exchange for shares or rights over shares ('equity-settled transactions').

The cost of equity-settled transactions with employees is measured at fair value at the date at which they are granted. The fair value of share awards with market-related vesting conditions are determined with the assistance of an external valuer and the fair value at the grant date is expensed on a straight-line basis over the vesting period based on the Group's estimate of shares that will eventually vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet date up to the vesting date at which point the estimate is adjusted to reflect the current expectations.

## (xvi) Provisions for liabilities and charges

Provisions are recognised when the Group has a present obligation (legal or constructive), as a result of past events, and it is probable that an outflow of resources, that can be reliably estimated, will be required to settle such an obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows to net present value using an appropriate pre-tax discount rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Unwinding of the discount is recognised in the income statement as a finance cost. Provisions are reviewed at each balance sheet date and are adjusted to reflect the current best estimate.

## (xvii) Restoration, rehabilitation and environmental costs

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production of a mine or oil fields. Costs arising from the decommissioning of plant and other site preparation work are provided for based on their discounted net present value, with a corresponding amount being capitalised at the start of each project. The amount provided for is recognised, as soon as the obligation to incur such costs arises. These costs are charged to the income statement over the life of the operation through the depreciation of the asset and the unwinding of the discount on the provision. The cost estimates are reviewed periodically and are adjusted to reflect known developments which may have an impact on the cost estimates or life of operations. The cost of the related asset is adjusted for changes in the provision due to factors such as updated cost estimates, new disturbance and revisions to discount rates. The adjusted cost of the asset is depreciated prospectively over the lives of the assets to which they relate. The unwinding of the discount is shown as a finance cost in the income statement.

Costs for restoration of subsequent site damage which is caused on an ongoing basis during production are provided for at their net present values and charged to the income statement as extraction progresses. Where the costs of site restoration are not anticipated to be significant, they are expensed as incurred.

#### (xviii) Operating leases

Rentals under operating leases are charged on a straight-line basis over the lease term, even if the payments are not made on such a basis

#### (xix) Finance leases

Assets held under finance leases are recognised as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged to the income statement, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the Group's policy on borrowing costs.

The Group has reviewed the terms and conditions of the lease arrangements and determined that all risks and rewards of ownership lie with the Group and has therefore accounted for the leases as finance leases.

#### (xx) Foreign currency translation

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. For all principal operating subsidiaries, the functional currency is the local currency of the country in which it operates with the exception of KCM and Cairn which has a US dollar functional currency as that is the currency of primary economic environment in which it operates. In the financial statements of individual Group companies, transactions in currencies other than the functional currency are translated into the functional currency at the exchange rates ruling at the date of transaction. Monetary assets and liabilities denominated in other currencies are translated into the functional currency at exchange rates prevailing on the balance sheet date.

All exchange differences are included in the income statement, except, where the monetary item is designated as an effective hedging instrument of the currency risk of designated forecast sales, where exchange differences are recognised in equity and exchange differences on foreign currency borrowings relating to asset under construction, and for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings.

For the purposes of consolidation, the income statement items of those entities for which the US dollar is not the functional currency are translated into US dollars at the average rates of exchange during the period. The related balance sheets are translated at the rates ruling at the balance sheet date. Exchange differences arising on translation of the opening net assets and results of such operations, and on foreign currency borrowings to the extent that they hedge the Group's investment in such operations, are reported in other comprehensive income and accumulated in equity.

On disposal of entities with a different functional currency to the Company's functional currency, the deferred cumulative exchange differences recognised in equity relating to that particular operation are reclassified to the income statement.

#### (xxi) Financial asset investments

Financial asset investments are classified as available for sale under IAS 39 and are initially recorded at cost and then remeasured at subsequent reporting dates to fair value. Unrealised gains and losses on financial asset investments are recognised directly in equity. On disposal or impairment of the investments, the gains and losses in equity are recycled to the income statement.

Investments in unquoted equity instruments that do not have a market price and whose fair value cannot be reliably measured are measured at cost.

Investments in equity instruments are recorded in non-current assets unless they are expected to be sold within one year.

#### (xxii) Liquid investments

Liquid investments represent short-term investments that do not meet the definition of cash and cash equivalents for one or more of the following reasons:

- they have a maturity profile greater than 90 days;
- they may be subject to a greater risk of changes in value than cash;
- they are held for investment purposes.

The value of trading investments incorporates any dividend and interest earned on the held for trading investments.

#### (xxiii) Cash and cash equivalents

Cash and cash equivalents in the balance sheet comprise cash at bank and in hand, short-term deposits with banks and short-term highly liquid investments that are readily convertible into cash which are subject to insignificant risk of changes in value and are held for the purpose of meeting short-term cash commitments.

#### (xxiiii) Trade receivables

Trade receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts. An allowance for impairment of trade receivables is made where there is an event, which based on previous experience, is an indication of a reduction in the recoverability of the carrying value of the trade receivables.

#### (xxv) Trade payables

Trade payables are stated at their nominal value.

## (xxvi) Bills of exchange payable

The Group enters into arrangements whereby financial institutions make direct payments to suppliers for raw materials and project materials. The financial institutions are subsequently repaid by the Company at a later date providing working capital timing benefits. These are normally settled up to 12 months (for raw materials) and up to 36 months (for project materials). Where these arrangements are for raw materials with a maturity of up to 12 months, the economic substance of the transaction is determined to be operating in

nature and these are recognised as Bills of exchange (under trade and other payables). Where these arrangements are for project materials with a maturity up to 36 months, the economic substance of the transaction is determined to be financing in nature, and these are classified as projects buyers' credit within borrowings in the statement of financial position.

#### (xxvii) Equity instruments

Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

#### (xxviii) Borrowings

Interest bearing loans and overdrafts are recorded at the proceeds received. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis and charged to the income statement using the effective interest method. They are netted against the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

## (xxix) Convertible bonds

Convertible bonds denominated in the functional currency of the issuing entity are accounted for as compound instruments. The equity components and the liability components are separated out on the date of the issue. The equity component is recognised in a separate reserve and is not subsequently remeasured. The liability component is held at amortised cost. The interest expense on the liability component is calculated by applying the effective interest rate, being the prevailing market interest rate at the date of issuance for similar non-convertible debt. The difference between this amount and interest paid is added to the carrying amount of the liability component.

Convertible bonds not denominated in the functional currency of the issuing entity or where a cash conversion option exists, are split into two components: a debt component and a component representing the embedded derivative in the convertible bond. The debt component represents a liability for future coupon payments and the redemption of the principal amount. The embedded derivative, a financial liability, represents the value of the option that bondholders have to convert into ordinary shares. At inception the embedded derivative is recorded at fair value and the remaining balance, after deducting a share of issue costs, is recorded as the debt component. Subsequently, the debt component is measured at amortised cost and the embedded derivative is measured at fair value at each balance sheet date with the change in the fair value recognised in the income statement. The embedded derivative and the debt component are disclosed together and the current/non-current classification follows the classification of the debt component which is the host contract.

#### (xxx) Borrowing costs

Borrowing costs directly relating to the acquisition, construction or production of a qualifying capital project under construction are capitalised and added to the project cost during construction until such time that the assets are substantially ready for their intended use in accordance with the Group policy which is when they are capable of commercial production. Where funds are borrowed specifically to finance a project, the amount capitalised represents the actual borrowing costs incurred. Where surplus funds are available out of money borrowed specifically to finance a project, the income generated from such short-term investments is also capitalised to reduce the total capitalised borrowing cost.

All other borrowing costs are recognised in the income statement in the period in which they are incurred.

Capitalisation of interest on borrowings related to construction or development projects is ceased when substantially all the activities that are necessary to make the assets ready for their intended use are complete or when delays occur outside of the normal course of business.

#### (xxxi) Available for sale financial assets

Listed equity shares and debt instruments held by the Group that are traded in an active market are classified as being available for sale (AFS) financial assets and are stated at fair value. Unrealised gains and losses on financial asset investments are recognised directly in equity. On disposal or impairment of the investments, the gains and losses in equity are recycled to the income statement. Dividends received from investees accounted for as equity instruments are recognised in the income statement when the right to receive the payment is established.

#### (xxxii) Financial instruments fair valued through profit and loss

#### Held for trading financial assets

Financial assets are classified as held for trading if they have been acquired principally for the purpose of selling in the near term. The change in fair value of trading investments incorporates any dividend and interest earned on the held for trading investments and is accounted for in the income statement.

## Derivative financial instruments

In order to hedge its exposure to foreign exchange, interest rate and commodity price risks, the Group enters into forward contracts, option contracts, swap contracts and other derivative financial instruments. The Group does not hold derivative financial instruments for speculative purposes.

Derivative financial instruments are initially recorded at their fair value on the date of the derivative transaction and are re-measured at their fair value at subsequent balance sheet dates. The resultant gains or losses are recognised in the income statement unless these are designated as effective hedging instruments.

## (xxxiii) Hedge accounting

The Group designates certain hedging instruments, which include derivatives and non-derivatives in respect of foreign currency risk, as either fair value hedges or cash flow hedges. Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement. The hedged item is recorded at fair value and any gain or loss is recorded in the income statement and is offset by the gain or loss from the change in the fair value of the derivative.

Changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recorded in equity. This includes certain non-derivative liabilities that are designated as hedge of the foreign currency risk on future, highly probable, forecast sales. Amounts deferred in equity are recycled to the income statement in the periods when the hedged item is recognised in the income statement.

The gain or loss on hedging instruments relating to the effective portion of a net investment hedge is recognised in equity. The ineffective portion is recognised immediately in the income statement. Gains or losses accumulated in equity are reclassified to the income statement on disposal of the foreign operations to which they relate.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting. Any cumulative gain or loss on the hedging instrument recognised in equity is kept in equity until the forecast transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is transferred to the income statement.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not carried at fair value with unrealised gains or losses recognised in the income statement.

#### (xxxiv) Held-to-maturity financial assets

Financial instruments with fixed or determinable payments and fixed maturity dates that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are measured at amortised cost using the effective interest method.

#### 2(b) Critical accounting judgement and estimation uncertainty

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions, that affect the application of accounting policies and the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities at the date of these consolidated financial statements and the reported amounts of revenues and expenses for the years presented. Actual results may differ from these estimates under different assumptions and conditions.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and future periods affected. The Group considers the following areas as the key sources of estimation uncertainty:

#### (i) Oil & gas reserves

Oil & gas reserves are estimated on a proved and probable entitlement interest basis. Proven and probable reserves are estimated using standard recognised evaluation techniques. The estimate is reviewed regularly. Future development costs are estimated taking into account the level of development required to produce the reserves by reference to operators, where applicable, and internal engineers.

Net entitlement reserves estimates are subsequently calculated using the Group's current oil price and cost recovery assumptions, in line with the relevant agreements.

Changes in reserves as a result of factors such as production cost, recovery rates, grade of reserves or commodity prices could impact the depreciation rates, carrying value of assets and environmental and restoration provisions.

## (ii) Carrying value of exploration and evaluation fixed assets

Where a project is sufficiently advanced the recoverability of IFRS 6 Exploration assets are assessed by comparing the carrying value to higher of fair value less cost of disposal or value in use. Change to the valuation of exploration assets is an area of judgement. Further details on the Group's accounting policies on this are set out in the accounting policy above. The amounts for exploration and evaluation assets represent active exploration projects. These amounts will be written off to the income statement as exploration costs unless commercial reserves are established or the determination process is not completed and there are no indications of impairment. The outcome of ongoing exploration, and therefore whether the carrying value of exploration and evaluation assets will ultimately be recovered, is inherently uncertain.

Details of impairment charge and the assumptions used are disclosed in Note 5.

#### (iii) Carrying value of developing/producing oil & gas assets

Management perform impairment tests on the Group's developing/producing oil & gas assets where indicators of impairment are identified in accordance with IAS 36.

The impairment assessments are based on a range of estimates and assumptions, including:

Estimates/assumptions	Basis
Future production	proved and probable reserves, resource estimates and, in certain cases, expansion projects
Commodity prices	management's best estimate benchmarked with external sources of information, to ensure they are within the range of available analyst forecast
Discount to price	management's best estimate based on historical prevailing discount
Extension of PSC	assumed that PSC for Rajasthan block would be extended until 2030 on the same commercial terms
Discount rates	cost of capital risk-adjusted for the risk specific to the asset/CGU

Other key assumptions in the impairment models based on management expectations are that government approval will be received for new projects and projects will be successfully implemented as planned.

Any subsequent changes to cash flows due to changes in the above mentioned factors could impact the carrying value of the assets.

Details of impairment charge and the assumptions used are disclosed in Note 5.

#### (iv) Mining properties and leases

The carrying value of mining property and leases is arrived at by depreciating the assets over the life of the mine using the unit of production method based on proved and probable reserves. The estimate of reserves is subject to assumptions relating to life of the mine and may change when new information becomes available. Changes in reserves as a result of factors such as production cost, recovery rates, grade of reserves or commodity prices could thus impact the carrying values of mining properties and leases and environmental and restoration provisions.

Management performs impairment tests when there is an indication of impairment. The impairment assessments are based on a range of estimates and assumptions, including:

Estimates/assumptions	Basis
Future production	proved and probable reserves, resource estimates (with an appropriate conversion factor) considering the expected permitted mining volumes and, in certain cases, expansion projects
Commodity prices	management's best estimate benchmarked with external sources of information, to ensure they are within the range of available analyst forecast
Exchange rates	management's best estimate benchmarked with external sources of information
Discount rates	cost of capital risk-adjusted for the risk specific to the asset/CGU

Details of impairment charge are disclosed in Note 5.

#### (v) Useful economic lives and impairment of other assets

Property, plant and equipment other than mining properties, oil & gas properties, and leases are depreciated over their useful economic lives. Management reviews the useful economic lives at least once a year and any changes could affect the depreciation rates prospectively and hence the asset carrying values. The Group also reviews its property, plant and equipment, including mining properties and leases, for possible impairment if there are events or changes in circumstances that indicate that carrying values of the assets may not be recoverable. In assessing the property, plant and equipment for impairment, factors leading to significant reduction in profits such as changes in commodity prices, the Group's business plans and changes in regulatory environment are taken into consideration. The carrying value of the assets of a cash-generating unit (CGU) is compared with the recoverable amount of those assets, that is, the higher of fair value less costs of disposal and value in use. Recoverable value is based on the management estimates of commodity prices, market demand and supply, economic and regulatory climates, long-term plan, discount rates and other factors. Any subsequent changes to cash flow due to changes in the above mentioned factors could impact the carrying value of the assets.

## (vi) Assessment of impairment at Lanjigarh Refinery

During the year, the Group has received the necessary approvals for expansion of the Lanjigarh refinery to 4 million tonnes per annum (mtpa). Approval for expansion from 4mtpa to 6mtpa is dependent upon certain conditions.

Accordingly, second stream operation has commenced in Alumina refinery from April 2016 thus, taking it to the debottlenecked capacity of 1.7–2.0mtpa (contingent on bauxite quality). Further ramp up to 4mtpa will be considered after tying up the local bauxite sources. The Group has considered the delay in tying up local bauxite sources as an indication of impairment. Hence, the Group has reviewed the carrying value of its property, plant and equipment at Lanjigarh as at balance sheet date, estimated the recoverable amounts of these assets and concluded that there was no impairment because the recoverable amount (estimated based on fair value less cost of disposal) exceeded the carrying amounts.

The key assumptions and estimates used in determining the fair value less cost of disposal of these assets were:

- The State of Odisha has abundant bauxite resources and under the terms of the Memorandum of Understanding (MOU) with the Government of Odisha, management is confident that bauxite will be made available in the short to medium term. The Company has entered into agreements with various suppliers internationally and domestically to ensure the availability of bauxite to run its refinery. In the initial years, the Company has assumed that bauxite will be purchased from third party suppliers in India and other countries, until the bauxite is sourced from own mines.
- The State of Odisha has taken certain measures including reservation of areas for mining operations or undertaking prospecting and constitution of Ministerial Committee for formulation of policy for supply of ores to Odisha based industries on long-term basis. GOI has amended the existing MMDR Act. The major change is in the process of grant of concessions i.e. from first come, first served basis to more transparent process of auction and to expedite the grant process.
- Management expects that the conditions for construction of the Alumina refinery beyond 4mtpa will be fulfilled and it is assumed that the final unconditional approval for the expansion of the refinery would be received for commencement of production by fiscal 2020.
- The Government of Odisha has cancelled all the old reservations for mine allotment and has formed a more transparent process of auction of mines under the MMDR Act, which will improve the chances of local bauxite availability.

Management expects that the mining approvals for various local bauxite mines will be received. The Group carries out impairment assessment for carrying value of these assets, every half year and challenges these assumptions.

The Group has carried out a sensitivity analysis on the key variables including delay in obtaining bauxite mining approval, appreciation of rupee against US dollar, discount rate and London Metal Exchange aluminium prices. The most significant variable is the estimated timeframe for obtaining regulatory approval for the mining and/or gaining access to local bauxite. The sensitivity analysis indicates that even if regulatory approvals for mines/access to local bauxite are delayed by a year, the recoverable amount is still expected to exceed the carrying value and costs. As at 31 March 2016 the carrying amount of property, plant and equipment related to Alumina refinery operations at Lanjigarh and related mining assets is US\$1,079.0 million (31 March 2015: US\$1,165 million).

## (vii) Assessment of impairment of Karnataka and Goa iron ore mines Karnataka mining

The mining ban in Karnataka was lifted on 17 April 2013 and the mining operations resumed in December 2013. The mining operations were suspended since August 2014 pending environment clearances. On execution of Mining Lease Deed and final forest clearance, the operations were resumed towards the end of February 2015. Currently the permissible extraction capacity is fixed at 2.29mtpa which is based on lowest of Reserves and Resources (R&R) capacity, dumping capacity and road capacity as assessed by Indian Council of Forestry Research and Education. Subsequently, based on reassessment of R&R and other factors, the modified mining plan has been submitted to Indian Bureau of Mines in March 2016 for enhancement of production to 6mtpa. Management has estimated the recoverable amounts of these assets considering the increase in the extraction capacity in FY2017.

A delay of one year in increase in the allocated capacity would result in reduction in the recoverable amount by approximately 1% and the recoverable amount would continue to be sufficiently in excess of the carrying value.

The carrying value of assets as at 31 March 2016 is US\$145.6 million (31 March 2015: US\$168.1 million).

#### Goa mining

The Ministry of Environment and Forest revoked its earlier order which had kept the environment clearances for iron ore mines in Goa in abeyance. The State Government has issued a mining policy and has lifted the ban on iron ore mining in Goa. The Group has been allocated with an interim annual mining quantity of 6.9 million tonnes per annum (mtpa) (out of the total interim mining cap of 20mtpa for FY2016) of saleable ore.

The Expert Committee, constituted by the Supreme Court of India for conducting the Macro-Environmental Impact Assessment study on the ceiling of annual extraction of iron ore mining in Goa has recommended the enhancement of the mining cap to 30mtpa. This has been recommended to be further enhanced to 37mtpa after the review of the Macro-Environmental Impact Assessment and augmenting the carrying capacity. The report is pending for consideration of the Supreme Court. Post the Supreme Court clearance, the State Government will allocate the limits. It has been assumed that the allocation will be made based on the proportionate share of the current

The mining operations resumed in October 2015. Management has estimated the recoverable amounts of these assets considering the mining cap of 30mtpa in FY2017 and 37mtpa from FY2018 and onwards.

A delay of one year in increase in the mining cap to 30mtpa and 37mtpa would result in a reduction in the recoverable amount by approximately 4% and the recoverable amount would continue to be sufficiently in excess of the carrying value.

The carrying value of assets as at 31 March 2016 is US\$643.9 million (31 March 2015: US\$736.3 million).

Management has reviewed the carrying value of Karnataka and Goa mining assets as at the balance sheet date, estimated the recoverable amounts of these assets and concluded that there was no impairment as the recoverable amount (estimated based on fair value less costs of disposal) exceeded the carrying amounts.

The Group has also carried out a sensitivity analysis on key variables including delay in increase in the mining cap, movement in iron ore prices, discount rate and appreciation of rupee against US dollar. Based on the sensitivity analysis, the recoverable amount is still expected to exceed the carrying value.

## (viii) Assessment of impairment at Western Cluster Limited (WCL)

The project in Liberia is at exploratory stage and considering the low iron ore prices and volatility, geo-political factors and no immediate plans for any substantive expenditure, the Group has impaired these assets fully.

Details of impairment charge are disclosed in Note 5.

#### (ix) Assessment of impairment at Konkola Copper Mines (KCM)

The KCM operations in Zambia have experienced the challenging price environment, rising electricity cost and other operational challenges. Due to these factors, the Group has reviewed the carrying value of its property, plant and equipment at KCM as at balance sheet date, estimated the recoverable amounts of the assets and concluded that there was no impairment because the recoverable amount (estimated based on fair value less costs of disposal) exceeded the carrying amounts.

The Group has also carried out a sensitivity analysis on key variables like movement in copper prices, discount rate and increase in production. Based on the sensitivity analysis, the recoverable amount is still expected to exceed the carrying value.

The carrying value of assets as at 31 March 2016 is US\$1,744.9 million (31 March 2015: US\$2,010.3 million).

#### (x) Restoration, rehabilitation and environmental costs

Provision is made for costs associated with restoration and rehabilitation of mining sites as soon as the obligation to incur such costs arises. Such restoration and closure costs are typical of extractive industries and they are normally incurred at the end of the life of the mine. The costs are estimated on an annual basis on the basis of closure plans and the estimated discounted costs of dismantling and removing these facilities and the costs of restoration are capitalised as soon as the obligation to incur such costs arises. A corresponding provision is created on the liability side. The capitalised asset is charged to the income statement over the life of the operation through the depreciation of the asset and the provision is increased each period via unwinding the discount on the provision. Management estimates are based on local legislation and/or other agreements. The actual costs and cash outflows may differ from estimates because of changes in laws and regulations, changes in prices, analysis of site conditions and changes in restoration technology.

## (xi) Provisions and liabilities

Provisions and liabilities are recognised in the period when it becomes probable that there will be a future outflow of funds resulting from past operations or events that can be reasonably estimated. The timing of recognition requires the application of judgement to existing facts and circumstances which may be subject to change especially when taken in the context of the legal environment in India. The actual cash outflows may take place over many years in the future and hence the carrying amounts of provisions and liabilities are regularly reviewed and adjusted to take into account the changing circumstances and other factors that influence the provisions and liabilities. This is set out in Note 30.

#### (xii) Contingencies and commitments

In the normal course of business, contingent liabilities may arise from litigation, taxation and other claims against the Group. Where it is management's assessment that the outcome cannot be reliably quantified or is uncertain, the claims are disclosed as contingent liabilities unless the likelihood of an adverse outcome is remote. Such liabilities are disclosed in the notes but are not provided for in the financial statements.

While considering the possible, probable and remote analysis of taxation, legal and other claims, there is always a certain degree of judgement involved pertaining to the application of the legislation which in certain cases is supported by views of tax experts and/or earlier precedents in similar matters. Although there can be no assurance regarding the final outcome of the legal proceedings, the Group does not expect them to have a materially adverse impact on the Group's financial position or profitability. These are set out in Note 38 and Note 42.

## (xiii) The HZL and BALCO call options

The Group had exercised its call option to acquire the remaining 49% interest in BALCO and 29.5% interest in HZL. The Government of India has, however, contested the validity of the options and disputed their valuation performed in terms of the relevant agreements, the details of which are set out in Note 39. In view of the lack of resolution on the options, the non-response to the exercise and valuation request from the Government of India, the resultant uncertainty surrounding the potential transaction and the valuation of the consideration payable, the Group considers the strike price of the options to be at fair value, accordingly, the value of the option would be nil, and hence, the call options have not been recognised in the financial statements.

#### 3. Segment information

The Group is a diversified natural resources group engaged in exploring, extracting and processing minerals and oil & gas. We produce zinc, lead, silver, copper, aluminium, iron ore, oil & gas and commercial power and have presence across India, South Africa, Namibia, Ireland, Australia and Liberia. The Group is also in the business of port operations in India.

The Group's reportable segments defined in accordance with IFRS 8 are as follows:

- Zinc-India
- Zinc-International
- Oil & Gas
- Iron Ore
- Copper-India/Australia
- · Copper-Zambia
- Aluminium
- Power

The components not meeting the quantitative threshold for reporting are being reported as 'Others'.

Management monitors the operating results of reportable segments for the purpose of making decisions about resources to be allocated and for assessing performance. Segment performance is evaluated based on the EBITDA of each segment. Business segment financial data includes certain corporate costs, which have been allocated on an appropriate basis. Inter-segment sales are charged based on prevailing market prices.

The following tables present revenue and profit information and certain asset and liability information regarding the Group's reportable segments for the years ended 31 March 2016 and 31 March 2015. Items after operating profit are not allocated by segment.

# (a) Reportable segments Year ended 31 March 2016

(US\$ million)	Zinc- India	Zinc-Internati onal	Oil & Gas	Iron Ore	Copper-In dia/ Australia	Copper-Za mbia	Aluminium	Power	Total reportable segment	Elimination/ Others	Total operations
REVENUE											
Sales to external customers	2,111.0	391.5	1,322.3	341.8	3,196.8	966.7	1,692.3	691.7	10,714.1	23.8	10,737.9
Inter-segment sales <sup>3</sup>	-	-	-	8.2	0.4	5.8	2.0	15.8	32.2	(32.2)	_
Segment revenue	2,111.0	391.5	1,322.3	350.0	3,197.2	972.5	1,694.3	707.5	10,746.3	(8.4)	10,737.9
Segment result EBITDA <sup>1</sup>	995.0	68.1	570.4	73.4	336.6	(17.9)	106.7	196.3	2,328.6	7.8	2,336.4
Depreciation and amortisation <sup>2</sup>											(1,455.2)
Special items (Note 5)											(5,210.1)
Operating loss											(4,328.9)
Investment revenue											697.8
Finance costs											(1,280.4)
Other gains and (losses) (net)											(72.5)
LOSS BEFORE TAXATION											(4,984.0)
Segments assets	8,034.7	544.3	7,391.5	1,432.2	1,351.8	2,208.7	5,915.1	3,205.9	30,084.2	88.1	30,172.3
Unallocated assets											147.1
TOTAL ASSETS											30,319.4
Segment liabilities	(1,290.4)	(191.7)	(1,018.2)	(1,213.7)	(766.5)	(1,461.0)	(6,912.8)	(3,324.2)	(16,178.5)	(56.0)	(16,234.5)
Unallocated liabilities											(7,232.4)
TOTAL LIABILITIES											(23,466.9)
Other segment information											
Additions to property, plant and equipment and intangible assets	239.9	58.5	214.3	14.8	18.4	27.6	119.6	50.3	743.4	7.3	750.7
Depreciation and amortisation	(119.9)	(56.4)	(826.3)	(62.5)	(32.3)	(179.5)	(101.8)	(74.1)	(1,452.8)	(2.4)	(1,455.2)
Impairment losses (Note 5)			(4,934.2)	(245.2)	(7.6)			•	·	·	(5,187.0)

EBITDA is a non-IFRS measure and represents operating profit/(loss) before special items, depreciation, amortisation, interest and tax.

Depreciation and amortisation is also provided to the chief operating decision maker on a regular basis.

Transfer prices for inter-segment sales are on an arm's length basis in a manner similar to transactions with third parties. However, inter-segment sales at BALCO amounting to US\$6.6 million for the year ended 31 March 2016 (31 March 2015; Nil), is at cost.

(US\$ million)	Zinc- India	Zinc-Internati onal	Oil & Gas	Iron Ore	Copper-In dia/ Australia	Copper-Za mbia	Aluminium	Power	Total reportable segment	Elimination/ Others	Total operations
REVENUE											
Sales to external customers	2,357.0	586.9	2,397.5	311.4	3,682.7	883.5	2,078.1	552.8	12,849.9	28.8	12,878.7
Inter-segment sales <sup>3,4</sup>	_	-	_	15.1	18.0	193.6	3.8	35.3	265.8	(265.8)	-
Segment revenue	2,357.0	586.9	2,397.5	326.5	3,700.7	1,077.1	2,081.9	588.1	13,115.7	(237.0)	12,878.7
Segment result											
EBITDA <sup>1</sup>	1,192.5	180.8	1,476.8	31.4	281.0	(3.8)	415.5	153.8	3,728.0	13.2	3,741.2
Depreciation and amortisation <sup>2</sup>											(2,005.7)
Special items (Note 5)											(6,744.2)
Operating loss											(5,008.7)
Investment revenue											832.6
Finance costs											(1,387.2)
Other gains and (losses) (net)											(76.9)
LOSS BEFORE TAXATION											(5,640.2)
Segments assets <sup>5</sup>	7,356.8	694.1	12,948.8	1,924.3	1,357.8	2,387.1	6,304.6	3,584.7	36,558.2	58.4	36,616.6
Unallocated assets											372.3
TOTAL ASSETS											36,988.9
Segment liabilities <sup>5</sup>	(277.9)	(253.0)	(3,105.7)	(1,329.8)	(1,286.6)	(1,474.2)	(5,171.6)	(2,388.5)	(15,287.3)	(113.9)	(15,401.2)
Unallocated liabilities											(9,330.3)
TOTAL LIABILITIES											(24,731.5)
Other segment information											
Additions to property, plant and equipment and intangible assets	217.7	34.4	1,079.6	42.1	29.7	58.2	148.9	140.3	1,750.9	1.1	1,752.0
Depreciation and amortisation	(133.2)	(111.1)	(1,270.3)	(42.3)	(51.6)	(187.2)	(140.2)	(65.8)	(2,001.7)	(4.0)	(2,005.7)
Impairment losses (Note 5)	_	_	(6,642.1)	_	_	(52.3)	_	_	(6,694.4)	_	(6,694.4)

EBITDA is a non-IFRS measure and represents operating profit/(loss) before special items, depreciation, amortisation, interest and tax.

Depreciation and amortisation is also provided to the chief operating decision maker on a regular basis.

Transfer prices for inter-segment sales are on an arm's length basis in a manner similar to transactions with third parties. However, inter-segment sales at BALCO amounting to US\$6.6 million for the year ended 31 March 2016 (31 March 2015: Nil), is at cost.

Trevious year amounts have been reclassified to ensure consistency.

During the year ended 31 March 2016, consequent to certain power facilities at a subsidiary being commissioned for the generation and sale of commercial power, assets (US\$349.2 million) and liabilities (US\$48.6 million) in respect of capital work-in-progress for the previous year relating to the generation and sale of commercial power has been reclassified from the 'Aluminium' segment to the 'Power' segment as this more accurately reflects the segment breakdown.

#### (b) Geographical segmental analysis

The Group's operations are located in India, Zambia, Namibia, South Africa, Liberia, Ireland, Australia and UAE. The following table provides an analysis of the Group's sales by region in which the customer is located, irrespective of the origin of the goods.

(100 million)	Year ended 31 March	D	Year ended 31 March	Danasatana
(US\$ million)	2016	Percentage	2015	Percentage
India	6,773.9	63.1%	7,872.0	61.1%
China	527.9	4.9%	1,314.2	10.2%
Far East Asia	902.5	8.4%	1,168.4	9.1%
Middle East	1,075.1	10.0%	1,143.7	8.9%
Europe	345.3	3.2%	643.3	5.0%
Africa	91.1	0.8%	192.3	1.5%
Asia Others	725.3	6.8%	118.9	0.9%
UK	103.9	1.0%	2.2	0.0%
Others	192.9	1.8%	423.7	3.3%
Total	10,737.9	100.0%	12,878.7	100.0%

The following is an analysis of the carrying amount of non-current assets, and additions to property, plant and equipment, analysed by the country in which the assets are located. No material non-current assets are located in the United Kingdom and no significant additions to property, plant and equipment have been made there.

		Carrying amount of non-current assets <sup>1</sup>		o property, equipment
(US\$ million)	As at 31 March 2016	As at 31 March 2015	Year ended 31 March 2016	Year ended 31 March 2015
Australia	4.4	13.4	2.6	3.8
India	14,752.9	20,996.2	651.7	1,635.7
Zambia	1,863.3	1,905.4	27.6	58.2
Namibia	119.7	128.5	35.4	21.5
Ireland	6.7	37.7	_	12.7
South Africa	254.0	335.9	23.1	5.9
Sri Lanka	_	_	7.3	2.7
Other	-	213.6	3.0	11.5
Total	17,001.0	23,630.7	750.7	1,752.0

<sup>1</sup> Non-current assets do not include deferred tax assets, non-current tax assets and derivative assets.

## Information about major customer

Included in revenue from the Oil & Gas segment are revenues of US\$663.1 million (year ended 31 March 2015: US\$1,393.2 million), which arose from sales to the Group's largest customer; sales to this customer were more than 10% in the previous year. No customer contributed 10% or more to the Group's revenue during the year ended 31 March 2016.

## 4. Total revenue

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Revenue from sales of goods	10,737.9	12,878.7
Other operating income	101.7	104.0
Investment revenue	697.8	832.6
Total	11,537.4	13,815.3

#### 5. Special items

	Year ended 31 March 2016			Year	Year ended 31 March 2015			
(US\$ million)	Special items	Tax effect of special items/ special tax items	Special items after tax	Special items	Tax effect of special items/ special tax items	Special items after tax		
Impairment of oil & gas assets <sup>1a</sup>	(4,934.2)	1,903.3	(3,030.9)	(6,642.1)	2,138.0	(4,504.1)		
Impairment of mining reserves and assets					_			
Iron ore <sup>1b</sup>	(245.2)	_	(245.2)	_	_	_		
Copper <sup>1c,d</sup>	(7.6)	_	(7.6)	(52.3)	_	(52.3)		
Total impairment charge	(5,187.0)	1,903.3	(3,283.7)	(6,694.4)	2,138.0	(4,556.4)		
Voluntary retirement schemes (redundancy costs) <sup>2</sup>	(23.1)	7.9	(15.2)	_	_	_		
Provision for receivables <sup>7</sup>	_	_	_	(36.6)	12.5	(24.1)		
Provision for investment in coal blocks <sup>3</sup>	_	_	_	(5.4)	1.8	(3.6)		
Acquisition and restructuring related costs <sup>4</sup>	_	_	_	0.4	_	0.4		
Provision for contractor dispute <sup>5</sup>	_	_	_	(8.2)	_	(8.2)		
Special tax item <sup>6</sup>	_	(173.8)	(173.8)	_	52.8	52.8		
Special items	(5,210.1)	1,737.4	(3,472.7)	(6,744.2)	2,205.1	(4,539.1)		

1a During the year ended 31 March 2016, the Group has recognised impairment charge on its oil & gas assets of US\$4,934.2 million mainly relating to Rajasthan block, triggered by the significant fall in the crude oil prices, prevailing discount of Rajasthan crude and adverse long-term impact of revised cess. Of this charge, US\$1,143.5 million has been recorded against oil & gas properties and US\$3,790.7 million against exploratory and evaluation assets. The valuation remains dependent on price and further deterioration in long-term prices may result in additional impairment.

For oil & gas properties, CGUs identified are on the basis of a production sharing contract (PSC) level as it is the smallest group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets.

The recoverable amount of the CGU, US\$2,204.0 million (March 2015: US\$5,825.5 million), was determined based on the fair value less costs of disposal approach, a level-3 valuation technique in the fair value hierarchy, as it more accurately reflects the recoverable amount based on our view of the assumptions that would be used by a market participant. This is based on the cash flows expected to be generated by the projected oil or natural gas production profiles up to the expected dates of cessation of production sharing contract (PSC)/cessation of production from each producing field based on current estimates of reserves and risked resources. Reserves assumptions for fair value less costs of disposal discounted cash flow tests consider all reserves that a market participant would consider when valuing the asset, which are usually broader in scope than the reserves used in a value-in-use test. Discounted cash flow analysis used to calculate fair value less costs of disposal uses assumption for oil price of US\$41 per barrel for FY2017 (March 2015: US\$70 per barrel) and the long-term nominal price of US\$70 per barrel) derived from a consensus of various analyst recommendations. Thereafter, these have been escalated at a rate of 2.5% per annum. The cash flows are discounted using the post-tax nominal discount rate of 11.00% (March 2015: 10.32%) derived from the post-tax weighted average cost of capital.

The impairment loss relates to the Oil & Gas business reportable segments, however this has been shown as special items and does not form part of the segment result for the purpose of segment reporting.

During the year ended 31 March 2015, the Group has recognised impairment charge on oil & gas assets of US\$6,642.1 million mainly relating to Rajasthan block and Sri Lanka block, triggered by the significant fall in the crude oil prices. Of this charge, US\$2,162.1 million has been recorded against oil & gas properties and US\$4,480.0 million against exploratory and evaluation assets. The impairment charge of US\$4,480.0 million also includes US\$778.1 million impairment charge relating to exploratory wells in Sri Lanka, as the development of hydrocarbons in the said block is not commercially viable at the current prices.

- 1b During the year ended 31 March 2016, the Group has recognised US\$227.5 million impairment charge in respect of the exploratory assets in West Africa (Western Cluster, Liberia) on account of low iron ore prices, geo-political factors and no plans for any substantive expenditure resulting in continued uncertainty in the project and relates to US\$17.7 million impairment charge in the carrying amount of idle assets grouped under assets under construction at Bellary, Karnataka in India.
- 1c During the year ended 31 March 2016, the Group has recognised US\$7.6 million impairment charge relating to its operation in the Copper Mines of Tasmania Pty Ltd, Australia on account of extended care and maintenance, lower copper prices and continued uncertainty in start-up of operations.
- 1d During the year ended 31 March 2015, the Group has recognised US\$52.3 million impairment charge relating to underground assets in Nchanga in Konkola Copper Mines Plc on account of suspension of operations and the fall in the copper prices. Of this charge, US\$47.2 million has been recorded against mining property and leases and US\$5.1 million against plant and equipment.
- 2 US\$23.1 million incurred under a Group-wide voluntary retirement initiative across various Group entities.
- Relates to provision recognised in respect of expenditure incurred on cancelled coal blocks allotted to Company's subsidiaries, pursuant to the order of the Supreme Court of India
- 4 Acquisition related costs include reversal of excess provision for costs of Group simplification and restructuring and other acquisition related costs classified as special items in previous year.
- Relates to a provision recognised following a dispute with a mining contractor at KCM Zambia.
- As a result of amendments to the Zambian Mining Tax regime, effective from 1 January 2015, the tax rate on integrated mining operations (excluding custom smelting mineral processing activities) was reduced from 30% to 0%. The deferred tax liability in relation to mining operations was therefore reversed during the year ended 31 March 2015, resulting in a net credit to the income statement of US\$52.8 million. Consequent to the subsequent amendments to the Zambian Mining Tax regime, effective from 1 July 2015 the tax rate on mining operations has been restored from 0% to 30%. Further, the set off of carried forward losses relating to mining operations has been restricted to a maximum of 50% of the income for the year. Accordingly, a total deferred tax charge of US\$173.8 million resulting from the amendments has been recognised under 'Special tax items' during the year ended 31 March 2016, increase as compared to reversal in previous year is mainly on account of restriction placed on maximum loss which can be set off in a particular year.
- 7 In respect of iron ore mining at Goa, the Supreme Court has ruled that, out of the sale proceeds of inventory of excavated ore lying unsold, the leaseholder would be paid only the average cost of excavation. However, the carrying value includes the amortisation based on the fair value of mining reserves determined at the time of acquisition.

  Consequently, the excess of the carrying value of receivables over the net realisable value has been written off.

## 6. Investment revenue

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Interest income on loans and receivables	26.4	29.3
Interest income on cash and bank balances	124.6	139.9
Change in fair value of financial assets held for trading realised and unrealised	541.3	656.9
Dividend income on financial assets held for trading	0.3	0.3
Dividend income on available for sale investment	0.1	_
Foreign exchange gain on cash and liquid investments	5.1	6.2
	697.8	832.6

## 7. Finance costs

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Interest on loans, overdrafts and bonds (a)	1,101.3	1,116.8
Coupon interest on convertible bonds (Note 28)	62.4	86.8
Accretive interest on convertible bonds (Note 28)	28.7	76.6
Total interest charge on convertible bonds (b)	91.1	163.4
Other borrowing and finance costs (c)	160.3	194.1
Total interest cost (a+b+c)	1,352.7	1,474.3
Unwinding of discount on provisions (Note 30)	13.5	36.8
Net interest on defined benefit arrangements (Note 33)	10.4	9.2
Capitalisation of borrowing costs (Note 17) <sup>1</sup>	(75.6)	(133.1)
Gain on buy back of convertible bond	(20.6)	
	1,280.4	1,387.2

<sup>1</sup> All borrowing costs are capitalised using rates based on specific borrowings with the interests ranging between 1.9% to 12.2% per annum.

## 8. Other gains and (losses) (net)

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Gross foreign exchange losses	(103.7)	(80.8)
Qualifying exchange losses capitalised (Note 17)	10.1	14.4
Net foreign exchange gains and losses	(93.6)	(66.4)
Change in fair value of financial liabilities measured at fair value	(0.9)	(1.1)
Net (loss)/gain arising on qualifying hedges and non-qualifying hedges	22.0	(9.4)
	(72.5)	(76.9)

#### 9. Loss for the year has been stated after charging/(crediting):

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Depreciation and amortisation	1,455.2	2,005.7
Costs of inventories recognised as an expense	3,708.0	3,905.0
Auditor's remuneration for audit services	2.4	2.5
Research and development	0.8	0.8
Net loss/(profit) on disposal of property, plant and equipment	1.5	4.6
Provision for receivables	_	80.4
Impairment of mining reserves and assets	252.8	52.3
Impairment of oil & gas assets	4,934.2	6,642.1
Staff costs	639.7	812.8
Foreign exchange gains and losses <sup>1</sup>	106.1	82.8

<sup>1</sup> Includes foreign exchange losses on non-operational monetary items of US\$93.6 million (31 March 2015: US\$66.4 million), and on operational monetary items of US\$17.6 million (31 March 2015: US\$62.6 million). It also includes foreign exchange gain on cash and liquid investments of US\$5.1 million (31 March 2015: US\$6.2 million).

#### 10. Auditor's remuneration

The table below shows the fees payable globally to the Company's auditor, Deloitte LLP, for statutory external audit and audit related services, as well as fees paid to other accountancy firms for statutory external audit and audit related services in each of the two years ended 31 March:

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Fees payable to the Company's auditor for the audit of Vedanta Resources plc annual accounts	0.6	0.6
The audit of the Company's subsidiaries pursuant to legislation	1.8	1.9
Total audit fees	2.4	2.5
Fees payable to the Company's auditor and their associates for other services to the Group		
Other services pursuant to legislation <sup>1</sup>	1.4	1.4
Tax services <sup>2</sup>	0.4	0.4
Corporate finance services <sup>3</sup>	0.7	0.5
Other services <sup>4</sup>	0.2	0.2
Total non-audit fees	2.7	2.5
Total fees paid to the Company's auditor	5.1	5.0
Audit fees payable to other auditors of the Group's subsidiaries	0.3	0.4
Non-audit fees payable to other auditors of the Group's subsidiaries	0.2	0.1
Total fees paid to other auditors	0.5	0.5

<sup>1</sup> Other services pursuant to legislation principally comprise assurance services, being quarterly reviews of the Group's subsidiaries' results and the half year review of the Group's results

<sup>2</sup> Tax services principally comprise certification and assurance services as required by Indian and overseas tax regulations.

<sup>3</sup> Corporate finance services principally comprise Group simplification and other acquisition related certifications. These assurance-related services are ordinarily provided by the auditor.

<sup>4</sup> Includes certification related services.

## 11. Employee numbers and costs

Average number of persons employed by the Group in the year

India	Class of business	Year ended 31 March 2016	Year ended 31 March 2015
International   1,845   1,986   1,98	Zinc	6,780	7,428
— International   1,845   1,981     Iron Ore   3,034   3,46     Copper   3,034   3,46     Copper   3,105   1,105     — IndialAustralia   1,058   1,105     — IndialAustralia   7,215   7,52     Aluminium   5,266   5,33     Power   3,34   3,56     Other   3,105   3,21	– India	4,935	5,439
Copper         8.273         8,711           - India/Australia         1,058         1,188           - Zambia         7,215         7,525           Aluminium         5,666         5,93           Power         334         15,27         1,68           Other         321         14           Costs incurred during the year in respect of employees and Executive Directors         Vear ended 31 Masch	- International	1,845	1,989
India Australia	Iron Ore	3,034	3,465
Tambia   T	Copper	8,273	8,710
Power   Space   Spac	- India/Australia	1,058	1,185
Power   334   355   35	– Zambia	7,215	7,525
1,627   1,628   1,629   1,62	Aluminium	5,266	5,932
	Power	334	358
Costs Incurred during the year in respect of employees and Executive Directors	Oil & Gas	1,527	1,684
Costs incurred during the year in respect of employees and Executive Directors         Year ended 31 March 201         Year ended 31 March 201           Salaries and wages         575.8         733.           Defined contribution pension scheme costs (Note 33)         18.2         19.2           Share-based payments charge         15.6         28.1           12. Tax         Year ended 31 March 201         28.1           UKS million)         Year ended 31 March 201         28.1           UKS corporation tax         1.5         (19.3           Foreign tax         1.5         (19.3           Foreign tax         9.0         1.1           Australia         9.0         1.1           Australia         9.0         1.2           - Other         (7.8)         4.2           - Other         (7.8)         4.5           Deferred tax: (Note 31)         (1,903.3)         (2,138.0)           Deferred tax impact on impairment of oil & gas assets (Note 5)         (1,903.3)         (2,138.0)           Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)         173.8         (52.8)           Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)         (28.9)         (28.2)           Deferred tax charge/(reversal) due to chang	Other	321	140
Vear ended   Vea		25,535	27,717
Marie   Mari	Costs incurred during the year in respect of employees and Executive Directors		
Salaries and wages         575.8         733.1           Defined contribution pension scheme costs (Note 33)         30.1         30.1           Defined benefit pension scheme costs (Note 33)         18.2         19.2           Share-based payments charge         15.6         28.1           12. Tax           Year ended 31 March 2016         Year ended 31 March 2016         31 March 2016           Current tax:           UK Corporation tax         1.5         (19.3           Foreign tax         1.5         692.           Lambia         536.5         562.           Zambia         0.0         1.1           Australia         0.0         (0.1           Africa and Europe         4.5         22.           Cother         (7.8)         4.           Deferred tax: (Note 31)           Deferred tax impact on impairment of oil & gas assets (Note 5)         (1,903.8)         (2,138.0)           Deferred tax others         (289.1)         (282.5)           Net tax credit <sup>1</sup> (1,481.9)         (1,842.3)	(US\$ million)	31 March	Year ended 31 March 2015
Defined contribution pension scheme costs (Note 33)         30.1         30.0         20.0			
18.2   19.2   19.2   19.3			
Share-based payments charge         15.6         28.1           12. Tax         Year ended sharp and			
12. Tax			
Vear ended   Standard   Vear ended   Standard   Stand			812.8
CUSS million)         31 Marc 2016         31 Marc 2016         31 Marc 2016         31 Marc 2016         201           CUrrent tax:         UK Corporation tax         1.5         (19.3           Foreign tax         - India         538.5         562.7           - Zambia         0.0         1.1           - Australia         0.0         (0.1           - Africa and Europe         4.5         22.           - Other         (7.8)         4.4           Deferred tax: (Note 31)         Deferred tax: (Note 31)         173.8         (52.8           Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)         173.8         (52.8           Deferred tax others         (289.1)         (232.5           Net tax credit <sup>1</sup> (1,481.9)         (1,852.5	12. Tax		
UK Corporation tax 1.5 (19.3 Foreign tax Foreign tax - India 538.5 562.1   - Zambia 0.0 1.0   - Australia 0.0 (0.1   - Africa and Europe 4.5 22.1   - Other (7.8) 4.0    Deferred tax: (Note 31) Deferred tax impact on impairment of oil & gas assets (Note 5) (1,903.3) (2,138.0   Deferred tax others (289.1) (232.5   Deferred tax others (289.1) (2,423.3   Net tax credit (1,481.9) (1,852.5   Deferred (1,48	(US\$ million)	31 March	Year ended 31 March 2015
Foreign tax - India 538.5 562.7 - Zambia 0.0 1.0 - Australia 0.0 (0.1 - Africa and Europe 4.5 22.7 - Other (7.8) 4.0 - Other (7.8) 4.0 - Deferred tax: (Note 31) Deferred tax impact on impairment of oil & gas assets (Note 5) (1,903.3) (2,138.0) Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5) 173.8 (52.8) Deferred tax others (289.1) (232.5)  Net tax credit (1,481.9) (1,852.5)	Current tax:		
Foreign tax - India 538.5 562.7 - Zambia 0.0 1.0 - Australia 0.0 (0.1 - Africa and Europe 4.5 22.7 - Other (7.8) 4.0 - Other (7.8) 4.0 - Deferred tax: (Note 31) Deferred tax: impact on impairment of oil & gas assets (Note 5) (1,903.3) (2,138.0) Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5) 173.8 (52.8) Deferred tax others (2,918.6) (2,423.3) Net tax credit (1,481.9) (1,852.5)	UK Corporation tax	1.5	(19.3)
- Zambia 0.0 1.0 - Australia 0.0 (0.1 - Africa and Europe 4.5 22.0 - Other (7.8) 4.0 - Other (7.8) 536.7 570.0 - Deferred tax: (Note 31) - Deferred tax impact on impairment of oil & gas assets (Note 5) (1,903.3) (2,138.0 - Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5) 173.8 (52.8 - Deferred tax others (289.1) (232.5 - Deferred tax credit (1,481.9) (1,852.5	Foreign tax		
Australia 0.0 (0.1 - Africa and Europe 4.5 22.6 - Other (7.8) 4.6	– India	538.5	562.7
Africa and Europe Other  (7.8) 4.0  536.7 570.8  Deferred tax: (Note 31)  Deferred tax impact on impairment of oil & gas assets (Note 5)  Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)  Deferred tax others  (289.1) (232.5  Net tax credit <sup>1</sup> (1,481.9) (1,852.5	– Zambia	0.0	1.0
- Other (7.8) 4.4  536.7 570.8  Deferred tax: (Note 31)  Deferred tax impact on impairment of oil & gas assets (Note 5) (1,903.3) (2,138.0) Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5) 173.8 (52.8) Deferred tax others (289.1) (232.5)  Net tax credit <sup>1</sup> (1,481.9) (1,852.5)	– Australia	0.0	(0.1)
The state of the	– Africa and Europe	4.5	22.1
Deferred tax: (Note 31)         Deferred tax impact on impairment of oil & gas assets (Note 5)       (1,903.3)       (2,138.0)         Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)       173.8       (52.8)         Deferred tax others       (289.1)       (232.5)         Net tax credit <sup>1</sup> (1,481.9)       (1,852.5)	- Other	(7.8)	4.4
Deferred tax impact on impairment of oil & gas assets (Note 5) (1,903.3) (2,138.0) Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5) 173.8 (52.8) Deferred tax others (289.1) (232.5)  (2,018.6) (2,423.3) Net tax credit <sup>1</sup> (1,481.9) (1,852.5)		536.7	570.8
Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)  173.8 (52.8  (289.1) (232.5  (2,018.6) (2,423.3  Net tax credit <sup>1</sup> (1,481.9) (1,852.5	Deferred tax: (Note 31)		
Deferred tax others (289.1) (232.5 (2,018.6) (2,423.3 Net tax credit <sup>1</sup> (1,481.9) (1,852.5 (2,423.3 (4	Deferred tax impact on impairment of oil & gas assets (Note 5)	(1,903.3)	(2,138.0)
(2,018.6) (2,423.3 Net tax credit <sup>1</sup> (1,481.9) (1,852.5	Deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)	173.8	(52.8)
Net tax credit <sup>1</sup> (1,481.9) (1,852.5	Deferred tax others	(289.1)	(232.5)
		(2,018.6)	(2,423.3)
Effective tax rate <sup>2</sup> 29.7% 32.8%	Net tax credit <sup>1</sup>	(1,481.9)	(1,852.5)
	Effective tax rate <sup>2</sup>	29.7%	32.8%

<sup>1</sup> Includes tax credit on special items and tax credit – special items of US\$1,737.4 million during the year ended 31 March 2016 (31 March 2015: US\$2,205.1 million).
2 Effective tax rate excluding special items, tax credit on special items, and dividend distribution tax of 3.1% during the year ended 31 March 2016 (31 March 2015: 25.7%).

The deferred tax expense recycled from equity to the income statement is US\$1.6 million (2015: US\$6.0 million).

#### Tax expense

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Tax effect of special items (Note 5)	(1,911.2)	(2,152.3)
Special tax item – deferred tax charge/(reversal) due to change in tax regime in Zambia (Note 5)	173.8	(52.8)
Net tax credit – special items	(1,737.4)	(2,205.1)
Tax expense – others	255.5	352.6
Net tax (credit)/expense	(1,481.9)	(1,852.5)
Deferred tax recognised in the income statement:  (US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Accelerated capital allowances (including fair value adjustments)	(1,281.6)	(2,634.1)
Unutilised tax losses <sup>1</sup>	(479.7)	440.2
Other temporary differences <sup>2</sup>	(257.3)	(229.4)
	(2,018.6)	(2,423.3)

- 1 US\$236.8 million has been reclassified from unutilised tax losses to other temporary differences for the year ended 31 March 2015.
- 2 Includes MAT credit (net) US\$175.7 million for the period ended 31 March 2016 (31 March 2015: US\$321.2 million).

No deferred tax has been recognised in respect of temporary differences associated with investments in subsidiaries where the Group is in a position to control the timing of the reversal of the temporary differences and it is probable that such differences will not reverse in the foreseeable future. The aggregate amount of temporary differences associated with such investments in subsidiaries is represented by the contribution of those investments to the Group's retained earnings and amounted to US\$7,098.1 million (2015: US\$5,768.3 million).

A reconciliation of income tax expense applicable to accounting profit/(loss) before tax at the Indian statutory income tax rate to income tax expense/(credit) at the Group's effective income tax rate for the year ended 31 March 2016 is as follows:

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Accounting loss before tax	(4,984.0)	(5,640.2)
At Indian statutory income tax rate of 34.61% (2015: 33.99%)	(1,724.9)	(1,917.1)
Unrecognised tax losses	224.2	107.6
Disallowable expenses/other permanent differences	(72.0)	86.5
Dividend distribution tax	248.5	68.1
Non-taxable income	(111.4)	(73.0)
Impact of tax rate difference	67.5	118.8
Impact of change in tax regime <sup>1</sup>	201.9	(52.8)
Tax holiday and similar exemptions	(311.0)	(238.8)
Adjustments in respect of previous years	(4.7)	48.2
At effective income tax rate of 29.7% (2015: 32.8%)	(1,481.9)	(1,852.5)

<sup>1</sup> Includes US\$173.8 million (31 March 2015: US\$(52.8) million) due to change in tax regime in Zambia (Note 5) and US\$28.1 million due to change in Indian statutory rate from 33.99% to 34.61%.

Certain businesses of the Group within India are eligible for specified tax incentives in the form of tax exemptions. Most of such tax exemptions are relevant for the companies operating in India. These are briefly described as under:

#### The location-based exemption

In order to boost industrial and economic development in undeveloped regions, provided certain conditions are met, profits of newly established undertakings located in certain areas in India may benefit from a tax holiday. Such a tax holiday works to exempt 100% of the profits for the first five years from the commencement of the tax holiday, and 30% of profits for the subsequent five years. This deduction is available only for units established up to 31 March 2012. However, such undertaking would continue to be subject to the Minimum Alternative tax (MAT).

The Group has such types of undertakings at Haridwar and Pantnagar, which are part of Hindustan Zinc Limited (Zinc India). In the

current year, Haridwar and Pantnagar units are eligible for deduction at 30% and 100% of taxable profits respectively. For the next financial year, both would be eligible for deduction at 30% of taxable profits.

#### Sectoral benefit – power plants

To encourage the establishment of certain power plants, provided certain conditions are met, tax incentives exist to exempt 100% of profits and gains for any 10 consecutive years within the 15-year period following commencement of the power plant's operation. The Group currently has total operational capacity of 8.4GW of thermal based power generation facilities and wind power capacity of 274MW. However, such undertakings generating power would continue to be subject to the MAT provisions.

The Group has power plants which benefit from such deductions, at various locations of Hindustan Zinc Limited (where such benefits have been drawn), Talwandi Sabo Power Limited, Vedanta Limited and Bharat Aluminium Company Limited (where no benefit has been drawn).

#### Sectoral benefit - oil & gas

Provided certain conditions are met, profits of newly constructed industrial undertakings engaged in the oil & gas sector may benefit from a deduction of 100% of the profits of the undertaking for a period of seven consecutive years. This deduction is only available to blocks licensed prior to 31 March 2011. However, such businesses would continue to be subject to the MAT provisions.

In the Group, Cairn India Limited benefits from such deductions. Current year is the last year for claiming such benefit.

In addition, the subsidiaries incorporated in Mauritius are eligible for tax credit to the extent of 80% of the applicable tax rate on foreign source income.

The total effect of such tax holidays and exemptions was US\$311.0 million for the year ended 31 March 2016 (31 March 2015: US\$238.8 million).

#### 13. Earnings per share

Basic earnings per share (EPS) amounts are calculated by dividing net profit for the year attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year.

Weighted average number of treasury shares, 24,231,160 (2015: 24,206,816), outstanding during the year are excluded from the total outstanding shares for the calculation of EPS.

Diluted earnings per share amounts are calculated by dividing the net profit attributable to ordinary equity holders by the weighted average number of ordinary shares outstanding during the year (adjusted for the effects of dilutive options and the Group's convertible bonds). The following reflects the income and share data used in the basic and diluted earnings per share computations:

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Net loss attributable to equity holders of the parent	(1,837.4)	(1,798.6)
Loss per share based on loss for the year Basic/diluted loss per share on loss for the year		
(US\$ million except as stated)	Year ended 31 March 2016	Year ended 31 March 2015
Loss for the year attributable to equity holders of the parent (US\$ million)	(1,837.4)	(1,798.6)
Weighted average number of shares of the Company in issue (million)	276.0	274.8
Loss per share on loss for the year (US cents per share)	(665.8)	(654.5)

The effect of 6.8 million (2015: 4.0 million) potential ordinary shares, which relate to share option awards under the LTIP scheme, on the attributable loss for the year is anti-dilutive and thus these shares are not considered in determining diluted loss per share.

The loss for the year would be decreased if holders of the convertible bonds in Vedanta exercised their right to convert their bond holdings into Vedanta equity. The impact on loss for the year of this conversion would be the reduction in interest payable on the convertible bond.

The adjustment in respect of convertible bonds has an anti-dilutive impact on earnings and is thus not considered in determining diluted EPS.

#### Loss per share based on underlying loss for the year (non-GAAP)

Underlying earnings is an alternative earnings measure, which the management considers to be a useful additional measure of the Group's performance. The Group's underlying loss is the loss for the year after adding back special items, other losses/(gains) [net] (Note 8) and their resultant tax (including taxes classified as special items) and non-controlling interest effects. This is a non-GAAP measure.

(US\$ million)	Note	Year ended 31 March 2016	Year ended 31 March 2015
Loss for the year attributable to equity holders of the parent		(1,837.4)	(1,798.6)
Special items	5	5,210.1	6,744.2
Other (gains)/losses [net]		72.5	76.9
Tax and non-controlling interest effect of special items (including taxes classified as special items) and other losses/(gains)		(3,809.3)	(5,061.4)
Underlying attributable loss for the year		(364.1)	(38.9)
Basic/diluted loss per share on underlying loss for the year (non-GAAP)			
(US\$ million except as stated)		Year ended 31 March 2016	Year ended 31 March 2015

Weighted average number of shares of the Company in issue (million) 276.0 274.8

Loss per share on underlying loss for the year (US cents per share) (131.9) (14.2)

(38.9)

(364.1)

16.6

16.6

The effect of 6.8 million (2015: 4.0 million) potential ordinary shares, which relate to share option awards under the LTIP scheme, on the underlying attributable loss for the year is anti-dilutive and thus these shares are not considered in determining diluted underlying loss per share.

#### 14. Dividends

Underlying loss for the year (US\$ million)

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Amounts recognised as distributions to equity holders:		
Equity dividends on ordinary shares:		
Final dividend for 2014-15: 40.0 US cents per share (2013-14: 39.0 US cents per share)	110.6	107.5
Interim dividend paid during the year: Nil (2014-15: 23.0 US cents per share)	_	63.8
	110.6	171.3
Proposed for approval at AGM		
Equity dividends on ordinary shares:		
Final dividend for 2015-16: 30.0 US cents per share (2014-15: 40 US cents per share)	82.8	110.8
15. Goodwill		
(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Cost (gross carrying amount)	16.6	16.6
Accumulated impairment losses	_	_

Goodwill is allocated for impairment testing purposes to the following cash-generating units (CGUs). The allocation of goodwill to CGUs is as follows:

US\$12.2 million Copper India.

Net carrying amount at 31 March

• US\$4.4 million arising on acquisition of Goa Energy Limited.

The Group tests goodwill annually for impairment or more frequently if there are indications that goodwill might be impaired.

The Company has undertaken an impairment review of goodwill of US\$16.6 million as at 31 March 2016. The carrying amount of goodwill allocated to the relevant cash-generating unit is considered to be insignificant in comparison with the total carrying value of the cash-generating unit. The carrying amount of goodwill was evaluated using the higher of fair value less cost of disposal (FVLCD) or value in use based on discounted future cash flows of the entities to which the goodwill pertains and comparing this to the total carrying

value of the relevant cash-generating units. It was determined that the carrying amount of goodwill is not impaired and nor was impairment indicated following a reasonably possible change in a key assumption.

#### 16. Intangible assets

Intangible assets include Port concession rights to operate a general cargo berth for handling coal at the outer harbour of the Visakhapatnam port on the east coast of India, rights to use treated water from a sewage treatment plant at Zinc India operations and software licenses.

(US\$ million)	Port concession rights <sup>1</sup>	Others <sup>2</sup>	Total
Cost	.ig.i.e		
As at 1 April 2014	99.9	14.8	114.7
Addition	0.8	4.7	5.5
Foreign exchange differences	(4.0)	(0.9)	(4.9)
As at 1 April 2015	96.7	18.6	115.3
Addition	0.0	2.8	2.8
Foreign exchange differences	(5.2)	(1.6)	(6.8)
As at 31 March 2016	91.5	19.8	111.3
Accumulated amortisation			
As at 1 April 2014	3.5	2.6	6.1
Charge for the year	3.6	3.9	7.5
Foreign exchange differences	0.2	(0.4)	(0.2)
As at 1 April 2015	7.3	6.1	13.4
Charge for the year	3.5	3.2	6.7
Foreign exchange differences	(0.4)	(0.6)	(1.0)
As at 31 March 2016	10.4	8.7	19.1
Net book value			
As at 1 April 2014	96.4	12.2	108.6
As at 1 April 2015	89.4	12.5	101.9
As at 31 March 2016	81.1	11.1	92.2

<sup>1</sup> Vizag General Cargo Berth Private Limited (VGCB), a special purpose vehicle, was incorporated for the coal berth mechanisation and upgrades at Visakhapatnam port. VGCB is owned by Vedanta Limited and Leighton Welspun Contractors Private Limited (Leighton) in the ratio of 99.99:0.01 as on 31 March 2016 (99.99:0.01 as on 31 March 2015). Leighton has agreed to sell its shares in VGCB to Vedanta Limited. The project is to be carried out on a design, build, finance, operate, transfer basis and the concession agreement between Visakhapatnam port and VGCB was signed in June 2010. In October 2010, VGCB was awarded with the concession after fulfilling conditions stipulated as a precedent to the concession agreement. Visakhapatnam port has provided, in lieu of license fee an exclusive license to VGCB for designing, engineering, financing, constructing, equipping, operating, maintaining, and replacing the project/project facilities and services. The concession period is 30 years from the date of the award of the concession. The capacity of the upgraded berth would be 10.18mmtpa and that the Vishakhapatnam port would be entitled to receive 38.10% share of the gross revenue as royalty. VGCB is entitled to recover a tariff from the user(s) of the project facilities and services as per its tariff notification. The tariff rates are linked to the Wholesale Price Index (WPI) and would accordingly be adjusted as specified in the concession agreement every year. The ownership of all infrastructure assets, buildings, structures, berths, wharfs, equipment and other immovable and movable assets constructed, installed, located, created or provided by VGCB at the project site and/or in the port's assets pursuant to concession agreement would be with VGCB until expiry of this concession agreement. The cost of any repair, replacement or restoration of the project facilities and services shall be borne by VGCB during the concession period. VGCB has to transfer all its rights, titles and interest in the project facilities and services fr

<sup>2</sup> Others include right to use of sewage treatment plant at Zinc India which is amortised over 25 years. The carrying value was US\$7.7 million as on 31 March 2016 (31 March 2015: US\$7.7 million). It also includes software licenses which are amortised over a period of three years.

#### 17. Property, plant and equipment

(US\$ million)	Mining property and leases	Leasehold land and buildings	Freehold land and buildings	Plant and equipment <sup>1</sup>	Assets under construction	Oil & Gas	Exploratory and evaluation assets	Others	Total
Cost	100000	Dananigo	and bandings	oquipmont	0011011 0011011	properties	400010	Othoro	10tai
At 1 April 2014	3,174.4	160.5	1,174.3	9,934.5	6,257.5	8,237.0	10,273.8	154.6	39,366.6
Additions	25.8	11.1	44.2	212.3	372.8	865.0	204.2	16.6	1,752.0
Transfers	66.0	_	134.7	996.5	(1,291.4)	533.7	(439.7)	0.2	_
Unsuccessful exploration costs	_	_	_	_	_	_	(128.7)	_	(128.7)
Disposals	(7.2)	(0.7)	(0.3)	(37.4)	(0.6)	_	_	(0.3)	(46.5)
Foreign exchange differences	(133.3)	(2.4)	(62.5)	(390.8)	(226.3)	_	(1.9)	(24.0)	(841.2)
At 1 April 2015	3,125.7	168.5	1,290.4	10,715.1	5,112.0	9,635.7	9,907.7	147.1	40,102.2
Additions	121.1	0.1	20.8	129.0	249.7	134.5	79.9	15.6	750.7
Transfers	11.7	(4.2)	333.7	1,313.0	(1,673.8)	_	_	19.6	_
Unsuccessful exploration costs	_	_	_	_	_	_	(4.5)	_	(4.5)
Disposal <sup>4</sup>	(490.4)	(7.5)	(0.1)	(184.1)	_	_	_	_	(682.1)
Foreign exchange differences	(152.6)	(3.4)	(93.3)	(551.8)	(278.7)	_	_	(32.8)	(1,112.6)
At 31 March 2016	2,615.5	153.5	1,551.5	11,421.2	3,409.2	9,770.2	9,983.1	149.5	39,053.7
amortisation and impairment									
amortisation and impairment At 1 April 2014	1,629.6	58.2	198.9	3,203.9	28.8	3,157.4	14.3	32.0	8,323.1
impairment	<b>1,629.6</b> 103.6	<b>58.2</b> 1.8	<b>198.9</b> 45.9	<b>3,203.9</b> 544.4	28.8	<b>3,157.4</b> 1,258.1	14.3 _	<b>32.0</b> 44.4	<b>8,323.1</b> 1,998.2
impairment At 1 April 2014				•		•	<b>14.3</b> - 4,480.0		•
impairment At 1 April 2014 Charge for the year Impairment of assets	103.6	1.8	45.9	544.4	-	1,258.1	-	44.4	1,998.2
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5)	103.6 47.2	1.8	45.9 _	544.4 5.1	-	1,258.1	-	44.4	1,998.2 6,694.4
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences	103.6 47.2 (2.0)	1.8 - -	45.9 - (0.2)	544.4 5.1 (23.2)	-	1,258.1 2,162.1	- 4,480.0 -	44.4 - (0.1)	1,998.2 6,694.4 (25.5)
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange	103.6 47.2 (2.0) (82.9)	1.8	45.9 - (0.2) (15.5)	544.4 5.1 (23.2) (123.2)	- - -	1,258.1 2,162.1 —	4,480.0 - (0.7)	44.4 - (0.1) (17.4)	1,998.2 6,694.4 (25.5) (240.0)
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 1 April 2015	103.6 47.2 (2.0) (82.9) <b>1,695.5</b>	1.8 - - (0.3) <b>59.7</b>	45.9 - (0.2) (15.5) <b>229.1</b>	544.4 5.1 (23.2) (123.2) 3,607.0	- - -	1,258.1 2,162.1 - - 6,577.6	4,480.0 - (0.7)	44.4 - (0.1) (17.4) 58.9	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b>
impairment  At 1 April 2014  Charge for the year  Impairment of assets (Note 5)  Disposal <sup>4</sup> Foreign exchange differences  At 1 April 2015  Charge for the year  Impairment of assets	103.6 47.2 (2.0) (82.9) <b>1,695.5</b>	1.8 - (0.3) <b>59.7</b> 1.7	45.9 - (0.2) (15.5) 229.1 35.4	544.4 5.1 (23.2) (123.2) <b>3,607.0</b> 433.6	- - - - 28.8	1,258.1 2,162.1 - - <b>6,577.6</b> 817.9	4,480.0 - (0.7) 4,493.6	44.4 - (0.1) (17.4) 58.9 4.0	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b> 1,448.5
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 1 April 2015 Charge for the year Impairment of assets (Note 5)	103.6 47.2 (2.0) (82.9) 1,695.5 155.9	1.8 - (0.3) 59.7 1.7	45.9  (0.2)  (15.5)  229.1  35.4	544.4 5.1 (23.2) (123.2) 3,607.0 433.6 7.6	- - - - 28.8	1,258.1 2,162.1 - - <b>6,577.6</b> 817.9	4,480.0 - (0.7) 4,493.6	44.4 - (0.1) (17.4) 58.9 4.0	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b> 1,448.5 5,187.0
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences  At 1 April 2015 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange	103.6 47.2 (2.0) (82.9) 1,695.5 155.9 - (490.4)	1.8 - (0.3) 59.7 1.7 - (6.6)	45.9  (0.2)  (15.5)  229.1  35.4  -	544.4 5.1 (23.2) (123.2) 3,607.0 433.6 7.6 (173.6)	28.8 - 17.6	1,258.1  2,162.1  -  6,577.6  817.9  1,143.5	4,480.0 - (0.7) 4,493.6 - 4,018.3	44.4 - (0.1) (17.4) 58.9 4.0	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b> 1,448.5 5,187.0 (670.6)
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 1 April 2015 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences	103.6 47.2 (2.0) (82.9) 1,695.5 155.9 - (490.4) (60.1)	1.8 - (0.3) 59.7 1.7 - (6.6) (0.5)	45.9  - (0.2) (15.5)  229.1 35.4  - (26.2)	544.4 5.1 (23.2) (123.2) 3,607.0 433.6 7.6 (173.6) (198.5)	28.8 - 17.6	1,258.1  2,162.1  -  6,577.6  817.9  1,143.5  -  -	4,480.0 - (0.7) 4,493.6 - 4,018.3 -	44.4 - (0.1) (17.4) 58.9 4.0 - (23.9)	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b> 1,448.5 5,187.0 (670.6)
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 1 April 2015 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 31 March 2016	103.6 47.2 (2.0) (82.9) 1,695.5 155.9 - (490.4) (60.1)	1.8 - (0.3) 59.7 1.7 - (6.6) (0.5)	45.9  - (0.2) (15.5)  229.1 35.4  - (26.2)	544.4 5.1 (23.2) (123.2) 3,607.0 433.6 7.6 (173.6) (198.5)	28.8 - 17.6	1,258.1  2,162.1  -  6,577.6  817.9  1,143.5  -  -	4,480.0 - (0.7) 4,493.6 - 4,018.3 -	44.4 - (0.1) (17.4) 58.9 4.0 - (23.9)	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b> 1,448.5 5,187.0 (670.6)
impairment At 1 April 2014 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 1 April 2015 Charge for the year Impairment of assets (Note 5) Disposal <sup>4</sup> Foreign exchange differences At 31 March 2016  Net book value	103.6 47.2 (2.0) (82.9) 1,695.5 155.9 - (490.4) (60.1) 1,300.9	1.8 - (0.3) 59.7 1.7 - (6.6) (0.5)	45.9  (0.2) (15.5)  229.1  35.4  - (26.2)  238.3	544.4 5.1 (23.2) (123.2) 3,607.0 433.6 7.6 (173.6) (198.5) 3,676.1	28.8 - 17.6 - 46.4	1,258.1 2,162.1 - 6,577.6 817.9 1,143.5 - 8,539.0	4,480.0 - (0.7) 4,493.6 - 4,018.3 - - 8,511.9	44.4 - (0.1) (17.4) 58.9 4.0 - (23.9) 39.0	1,998.2 6,694.4 (25.5) (240.0) <b>16,750.2</b> 1,448.5 5,187.0 (670.6) (309.2) <b>22,405.9</b>

## 18. Financial asset investments

Financial asset investments are required to be classified and accounted for as either available-for-sale or fair value through profit or loss. The Group only has financial asset investments classified as available-for-sale.

Plant and equipment include refineries, smelters, power plants and related facilities. Other tangible fixed assets include office equipment and fixtures, and light vehicles. At 31 March 2016, land with a carrying value of US\$132.5 million (31 March 2015: US\$125.9 million) was not depreciated. During the year ended 31 March 2016, interest and foreign exchange losses capitalised was US\$85.7 million (31 March 2015: US\$147.5 million). Certain property, plant and equipment are pledged as collateral against borrowings, the details related to which have been described in Note 24 on Borrowings.

Subsequent to end of life of mines in Lisheen, US\$585.0 million has been removed from gross block and US\$580.7 million from accumulated depreciation.

#### Available-for-sale investments

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
At 1 April	4.2	1.7
Movements in fair value	2.3	2.1
Exchange difference	-	0.4
At 31 March	6.5	4.2

Financial assets investment represents quoted investments in equity shares that present the Group with an opportunity for returns through dividend income and gains in value. These securities are held at fair value based on market prices. These are classified as non-current as on 31 March 2016.

#### 19. Other non-current assets

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Deposits, advances and other receivables due after one year	237.9	156.0
20. Inventories		
(US\$ million)	As at 31 March 2016	As at 31 March 2015
Raw materials and consumables	852.4	975.8
Work-in-progress	385.3	486.0
Finished goods	128.1	143.9
	1,365.8	1,605.7

Inventories with a carrying amount of US\$758.1 million (2015: US\$801.8 million) have been pledged as security against certain bank borrowings of the Group.

Inventory held at net realisable value amounted to US\$142.8 million (2015: US\$154.3 million). The write down of inventories amounted to US\$53.7 million (2015: US\$50.6 million).

#### 21. Trade and other receivables

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Trade receivables	406.6	555.0
Amounts due from related parties (Note 39)	2.7	4.9
Prepayments	34.4	31.0
Deposits with Governments	277.8	281.3
Other receivables	622.8	967.0
	1,344.3	1,839.2

The credit period given to customers ranges from zero to 90 days. Other receivables primarily include excise balances, customs balances, advances to suppliers and claims receivables.

## 22. Liquid investments

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Bank deposits <sup>1</sup>	530.3	1,850.1
Other investments	7,977.9	6,006.0
	8,508.2	7,856.1

<sup>1</sup> Includes US\$28.2 million (2015: US\$29.8 million) of bank deposits at Jharsuguda Aluminium that is restricted in use as it relates to security deposits as directed by courts in relation to a relief claim filed by a vendor (Note 38).

Bank deposits are made for periods of between three months and one year depending on the cash requirements of the companies within the Group and earn interest at the respective deposit rates.

Other investments include mutual fund investments which are recorded at fair value with changes in fair value reported through the income statement. Liquid investments do not qualify for recognition as cash and cash equivalents due to their maturity period and risk of change in value of the investments.

#### 23. Cash and cash equivalents

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Cash at bank and in hand	217.2	211.6
Short-term deposits <sup>1</sup>	211.1	142.1
	428.3	353.7

<sup>1</sup> Includes US\$44.8 million (2015: US\$66.5 million) of cash held in short-term deposit accounts that is restricted in use as it relates to unclaimed dividends, closure costs and future redundancy payments.

Short-term deposits are made for periods of between one day and three months, depending on the immediate cash requirements of the Group, and earn interest at the respective short-term deposit rates.

#### 24. Borrowings

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Bank loans	11,587.9	11,474.9
Bonds	4,074.6	4,075.4
Other loans	13.6	14.5
Total	15,676.1	15,564.8
Borrowings are repayable as:		
Within one year (shown as current liabilities)	3,726.6	3,179.2
More than one year	11,949.5	12,385.6
Total	15,676.1	15,564.8

At 31 March 2016, the Group had available US\$1,087.3 million (2015: US\$1,208.2 million) of undrawn committed borrowing facilities in respect of which all conditions precedent had been met. The Group facilities are subject to certain financial and non-financial covenants. During the current year ended 31 March 2016, the Group has agreed with the lenders for a moratorium period for testing of certain financial covenants and relaxed level for others. Certain of these financial covenants will be reset to their original levels beginning March 2019. The primary covenants which must be complied with include fixed charge cover ratio, net borrowing to EBITDA ratio, total net assets to borrowings ratio and net interest expense to EBITDA ratio. The principal loans held by Group companies at 31 March 2016 were as follows:

#### Vedanta Resources plc

Long-term bonds

In July 2008, the Company issued US\$500.0 million bonds bearing a coupon rate of 8.75% and US\$750.0 million bonds bearing a coupon rate of 9.50%. US\$500.0 million bonds due in January 2014 were duly paid. US\$750.0 million bonds are due for repayment in July 2018. As at 31 March 2016, the amount outstanding is US\$750.0 million (2015: US\$750.0 million).

In July 2011, the Company issued US\$750.0 million bonds bearing a coupon rate of 6.75% and US\$900.0 million bonds bearing a coupon rate of 8.25%. The same is due for repayment in June 2016 and June 2021 respectively. Out of US\$750.0 million bond due in June 2016, US\$7 million has been bought back in December 2015. As at 31 March 2016, the amount outstanding is US\$1,643.0 million (2015: US\$1,650.0 million).

In June 2013, the Company issued US\$1,200 million bonds bearing a coupon rate of 6% and US\$500.0 million at a coupon rate of 7.125%. The same is due for repayment in January 2019 and May 2023. As at 31 March 2016, the amount outstanding is US\$1,700.0 million (2015: US\$1,700.0 million).

All the above bonds are issued in the United States of America (USA) pursuant to Rule 144A of US Securities Act of 1933 (Securities Act) and outside of the USA in compliance with Regulations pursuant to the Securities Act. The bonds are unsecured and are currently rated BB (-) by Standard & Poor's and Ba3 by Moody's.

## Term loar

In December 2010, the Company availed a facility from the ICICI Bank for US\$180.0 million bearing an interest rate of three month GBP LIBOR plus 385 basis points. The first instalment of US\$90.0 million due in December 2014 was duly repaid and the balance US\$90.0 million was duly repaid in December 2015.

In January 2011, the Company availed a facility from ICICI Bank for US\$150.0 million bearing an interest rate of three month US\$LIBOR plus 389 basis points. The same is repayable as US\$75.0 million in January 2016 and the balance US\$75.0 million in January 2017. US\$75.0 million facility has been duly repaid in January 2016. As at 31 March 2016, the amount outstanding is US\$75.0 million (2015: US\$150.0 million).

In July 2011, the Company availed a facility from ICICI Bank for US\$500.0 million bearing an interest rate of three month US\$LIBOR plus 390 basis points. The same is repayable as US\$250.0 million in January 2018 and the balance US\$250.0 million in July 2018. As at 31 March 2016, the amount outstanding is US\$500.0 million (2015: US\$500.0 million).

In March 2013, the Company entered into a three-year facility agreement with Deutsche Bank as an agent for an amount of US\$185.0 million bearing an interest rate of US\$LIBOR plus 315 basis points. The same has been duly repaid in March 2016.

In March 2013, the Company entered into two facility agreements with ICICI Bank for an amount of US\$170.0 million and US\$180.0 million. The loans bear interest rates of US\$LIBOR plus 430 basis points and US\$LIBOR plus 427 basis points respectively. Of the said loan US\$170.0 million is repayable in three annual instalments beginning April 2018 (the first instalment being 20% and the balance two instalments being 40% each) and US\$180.0 million facility is repayable in three equal annual instalments beginning February 2017. As at 31 March 2016, the amount outstanding is US\$350.0 million (2015: US\$350.0 million).

In April 2013, the Company entered into a Standby Letter of Credit agreement arranged by Axis Bank for an amount of US\$150 million bearing an interest rate at three month US\$LIBOR plus 290 basis points. The facility is repayable in two equal annual instalments in April 2017 and April 2018. As at 31 March 2016, the amount outstanding is US\$148.5 million (2015: US\$148.5 million).

In October 2013, the Company entered into a syndicated facility agreement with Standard Chartered Bank as facility agent for borrowing up to US\$500 million bearing an interest rate of US\$LIBOR plus 357 basis points. The same is repayable as two equal instalments of US\$250.0 million each in October 2017 and January 2018. As at 31 March 2016, the amount outstanding is US\$500.0 million (2015: US\$500.0 million).

In November 2013, the Company entered into a two-year Revolving Credit Facility arranged by The Royal Bank of Scotland and Standard Chartered Bank for borrowing up to US\$100 million at an interest rate of US\$LIBOR plus 250 basis points. The same was duly repaid in August 2015.

In December 2013, the Company entered into a facility agreement with Bank of India for borrowing up to US\$100 million at an interest rate of US\$LIBOR plus 357 basis points. The same is repayable in two equal instalments of US\$50.0 million each in October 2017 and January 2018. As at 31 March 2016, the amount outstanding is US\$100.0 million (2015: US\$100.0 million).

In March 2014, the Company has entered into a US\$500 million syndicated facility agreement with Axis Bank as the lead arranger. The facility bears an interest rate of US\$LIBOR plus 352 basis points. The facility was fully drawn in September 2014. The same is repayable as US\$100.0 million in December 2018, US\$150.0 million in March 2019 and US\$250.0 million in September 2019. As at 31 March 2016, the amount outstanding is US\$500.0 million (2015: US\$500.0 million).

In March 2015, the Company entered into a facility agreement with State Bank of India for US\$350 million. Out of said facility US\$100 million bears an interest rate of US\$LIBOR plus 370 basis points and is repayable in March 2020. US\$250.0 million bears an interest rate of US\$LIBOR plus 403 basis points repayable in two instalments of US\$100 million and US\$150 million in June 2021 and June 2022 respectively. As at 31 March 2016, the amount outstanding is US\$350.0 million (2015: US\$25.0 million).

In January 2016, the Company entered into a facility agreement with State Bank of India for US\$300.0 million. Out of which US\$120.0 million bears an interest rate of US\$LIBOR plus 450 basis points and is repayable in February 2022. Balance US\$180.0 million bears an interest rate of 454 basis points. As at 31 March 2016, the amount outstanding is US\$300.0 million.

#### Twin Star Mauritius Holdings Limited (TMHL)

Term loan

In May 2013, the Group tied up a term loan facility of US\$1,200 million borrowed by TMHL through a syndicate of banks with Standard Chartered Bank (SCB) as facility agent to partly refinance US\$2,664 million drawn to meet the funding requirements for the acquisition of 28.5% stake in Cairn India Limited in December 2011. The facility bears an interest rate of LIBOR plus 275 basis points and is due for repayment in four equal annual instalments starting June 2015. The facility of US\$2,664 million due for repayment as US\$1,350.0 million in June 2013 and US\$1,314.4 million in December 2014 was fully prepaid in June 2013. The first instalment due in June 2015 has been duly repaid. As at 31 March 2016, the amount outstanding is US\$900.0 million (2015: US\$1,200.0 million).

In August 2014, the Group tied up a U\$\$500 million facility with Standard Chartered Bank and First Gulf Bank PJSC of which \$250 million is under a commodity murabaha structure (Islamic financing) and balance U\$\$250 million is under a conventional loan structure. Out of the said facility U\$\$287.5 million bears an interest rate of LIBOR plus 275 basis points with an average maturity of about five years from the date of first drawdown in August 2014 and balance amount of U\$\$212.5 million bears an interest rate of LIBOR plus 340 basis points with an average maturity of about six years from the date of first drawdown in August 2014. U\$\$25.0 million has been duly repaid during the current year. As at 31 March 2016, the amount outstanding is U\$\$475.0 million (2015: U\$\$500.0 million).

#### Vedanta Limited

Term Ioan

In March 2014, Jharsuguda Aluminium had availed a facility of US\$287.5 million from Axis Bank at an average interest rate of bank base rate plus 25 basis points per annum. In May 2014, the said facility was further enhanced by US\$32.0 million. The same was down sold to the following banks:

- a) Axis Bank US\$39.9 million at an average interest rate of bank base rate plus 25 basis points per annum. The facility is secured by first charge by way of mortgage/pledge of movable/immovable all present and future fixed assets of the Aluminium division for the project. The same was repayable as US\$32.0 million in February 2017 and US\$7.9 million in February 2018. As at 31 March 2015, the amount outstanding was US\$39.9 million and the same has been duly prepaid.
- b) Bank of India US\$79.9 million at an average interest rate of bank base rate plus 25 basis points per annum. The facility is secured

- by first charge by way of mortgage/pledge of movable/immovable all present and future fixed assets of the Aluminium division for the project. The same was repayable as US\$32.0 million in February 2017, US\$32.0 million in February 2018 and US\$15.9 million in February 2019. As at 31 March 2015, the amount outstanding was US\$79.9 million and the same has been duly prepaid.
- c) Corporation Bank US\$79.9 million at an average interest rate of bank base rate plus 25 basis points per annum. The facility is secured by first charge by way of mortgage/pledge of movable/immovable all present and future fixed assets of the Aluminium division for the project. The same was repayable as US\$12.0 million in February 2017, US\$27.9 million in February 2018 and US\$40.0 million in February 2019. As at 31 March 2015, the amount outstanding was US\$79.9 million and the same has been duly prepaid.
- d) Syndicate Bank US\$79.9 million at an average interest rate of bank base rate plus 25 basis points per annum. The facility is secured by first charge by way of mortgage/pledge of movable/immovable all present and future fixed assets of the Aluminium division for the project. The same was repayable as US\$12.0 million in February 2017, US\$27.9 million in February 2018 and US\$40.0 million in February 2019. As at 31 March 2015, the amount outstanding was US\$79.9 million and the same has been duly prepaid.
- e) Vijaya Bank US\$39.9 million at an average interest rate of bank base rate plus 25 basis points per annum. The facility is secured by first charge by way of mortgage/pledge of movable/immovable all present and future fixed assets of the Aluminium division for the project. The same was repayable as US\$7.9 million in February 2017, US\$16.0 million in February 2018 and US\$16.0 million in February 2019. As at 31 March 2015, the amount outstanding was US\$39.9 million and the same has been duly prepaid.

During the year, Jharsuguda Aluminium has acquired a facility for US\$301.5 million from Axis Bank at an average rate of bank base rate plus 30 basis points per annum. The same is down sell to the following banks:

- a) Axis Bank US\$150.8 million at an average interest rate of bank base rate plus 30 basis points per annum. The facility is secured by first pari passu charge by way of i) a first pari passu charge by way of hypothecation on the entire moveable fixed assets (including WIP) of the project, both present and future ii) mortgage by deposit of documents of title of the land pertaining to the fixed assets. The aforesaid mortgages/charges shall in all respects rank pari passu inter se amongst the rupee lenders and amongst all existing lenders and future lenders having first charge on the security without any preference or priority to one over the other or others. The same is repayable in quarterly instalments till December 2030. As at 31 March 2016, the amount outstanding is US\$150.0 million.
- b) State Bank of Hyderabad US\$30.2 million at an average interest rate of bank base rate plus 5 basis points per annum. The facility is secured by a first pari passu charge by way of hypothecation on the entire moveable fixed assets (including WIP) of the project, both present and future; and mortgage by deposit of documents of title of the land pertaining to the fixed assets. The same is repayable in quarterly instalments till December 2030. As at 31 March 2016, the amount outstanding is US\$30.0 million.
- c) Vijaya Bank US\$75.4 million at an average interest rate of bank base rate plus 15 basis points per annum. The facility is secured by a first pari passu charge by way of hypothecation on the entire moveable fixed assets (including WIP) of the project, both present and future; and mortgage by deposit of documents of title of the land pertaining to the fixed assets. The same is repayable in quarterly instalments till December 2030. As at 31 March 2016, the amount outstanding is US\$75.0 million.
- d) State Bank of Patiala US\$45.2 million at an average interest rate of bank base rate plus 15 basis points per annum. The facility is secured by a first pari passu charge by way of hypothecation on the entire moveable fixed assets (including WIP) of the project, both present and future; and mortgage by deposit of documents of title of the land pertaining to the fixed assets. The same is repayable in quarterly instalments till December 2030. As at 31 March 2016, the amount outstanding is US\$45.0 million.

In July 2014, Jharsuguda Aluminium has availed a facility of US\$753.8 million from State Bank of India (SBI) at a floating interest rate of SBI base rate plus 30 basis points. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to December 2022. As at 31 March 2016, the amount outstanding is US\$716.1 million (2015: US\$692.2 million).

In April 2014, Jharsuguda Aluminium has availed a facility of US\$301.5 million from Bank of Baroda at a floating interest rate of bank base rate plus 10 basis points. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to December 2020. As at 31 March 2016, the amount outstanding is US\$268.3 million (2015: US\$316.3 million).

In April 2014, Jharsuguda Aluminium has availed a facility of US\$301.5 million from Bank of India at a floating interest rate of bank base rate plus 15 basis points. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to September 2020. As at 31 March 2016, the amount outstanding is US\$257.0 million (2015: US\$304.4 million).

In April 2014, Jharsuguda Aluminium has availed a facility of US\$75.4 million from State Bank of Bikaner & Jaipur at a floating interest rate of bank base rate plus 5 basis points. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to December 2020. As at 31 March 2016, the amount outstanding is US\$67.1 million (2015: US\$79.1 million).

In April 2014, Jharsuguda Aluminium has availed a facility of US\$154.6 million from Syndicate Bank at a floating interest rate of bank base rate. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to December 2020. As at 31 March 2016, the amount outstanding is US\$137.5 million (2015: US\$162.1 million).

In April 2014, Jharsuguda Aluminium has availed a facility of US\$150.8 million from Union Bank of India at a floating interest rate of bank base rate plus 25 basis points. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to December 2020. As at 31 March 2016, the amount outstanding is US\$133.4 million (2015: US\$157.4 million).

In December 2013, Jharsuguda 2,400MW power plant has availed a facility of US\$59.4 million from Canara Bank at an interest rate of 9.75% per annum. In August 2014, this facility has further been enhanced by US\$90.5 million. The facility is secured by way of mortgage and charge on all the immovable properties, both present and future, of Jharsuguda 2,400MW power plant except IPP Agricultural Land and a second charge by way of pledge on all the movable fixed assets of the Power division. The loan is repayable in 16 quarterly instalments from end of quarter starting after the moratorium period up to December 2018. As at 31 March 2016, the amount outstanding is US\$103.6 million (2015: US\$149.8 million).

In March 2016, Jharsuguda Aluminium has availed a facility of US\$188.4 million from State Bank of India at a floating interest rate of bank base rate plus 20 basis points. The facility is secured by aggregate of the net fixed assets of the Aluminium division and the Lanjigarh Expansion project reduced by the outstanding borrowings having first pari passu charge on the fixed assets of the Aluminium division and the Lanjigarh Expansion Project. The same is repayable in quarterly instalments up to March 2025. As at 31 March 2016, the amount outstanding is US\$188.4 million.

In November 2015, Iron Ore Sesa has availed a facility of US\$72.4 million from Corporation Bank at a floating interest rate of 9.65%. The facility is secured by creating first pari passu charge by way of hypothecation of the movable fixed assets and mortgage on immovable fixed assets of the Aluminium division, both present and future. The same is repayable in quarterly instalments up to December 2020. As at 31 March 2016, the amount outstanding is US\$67.1 million (2015: US\$36.0 million).

#### Short-term loans

In January 2015, Jharsuguda Aluminium availed a short-term borrowing facility in the form of export packing credit from Bank of America at an average rate 9.30% per annum. These loans were obtained to meet the working capital requirements. The same is repayable in June 2016. As at 31 March 2016, the amount outstanding is US\$95.0 million (2015: US\$32.0 million).

In October 2014, Jharsuguda Aluminium availed a short-term borrowing facility in foreign currency in the form of pre shipment/export packing credit from Bank of America at an average rate of LIBOR plus 65-70 basis points. These loans were obtained to meet the working capital requirements. This was repayable as US\$32.6 million in April 2015 and US\$14.6 million in May 2015. The same has been duly repaid.

Iron Ore Sesa obtained a short-term borrowing facility in foreign currency in the form of pre shipment/export packing credit from various banks at an average rate of 9.39%. These loans were obtained to meet the working capital requirements of the Iron Ore. As at 31 March 2016, the amount outstanding is US\$57.4 million (2015: US\$36.0 million).

#### Non-convertible debentures (NCDs)

In October 2008, Jharsuguda Aluminium has issued NCDs of US\$66.6 million to the Life Insurance Corporation of India at a rate of 11.5% per annum. These NCDs are secured and have the first pari passu charge over the identified assets (including land and buildings) of the issuer to the extent of 1.33 times of the issued amount. These NCDs are repayable in three equal annual instalments starting October 2013. The first two instalments due for repayment of US\$22.2 million each were paid in October 2013 and October 2014 respectively. The balance instalment of US\$22.2 million was due for repayment in October 2015 and the same has been duly repaid.

In December 2012, April 2013, July 2013 and August 2016 Vedanta Limited had issued NCDs in three tranches for US\$75.4 million, US\$376.9 million, US\$180.9 million and US\$301.5 million with an interest rate of 9.24%, 9.10%, 9.17% and 9.70% per annum respectively. Out of the total NCDs US\$180.9 million are secured by way of mortgage on the immovable property of Vedanta Limited situated at Sanaswadi in the state of Maharashtra and also by way of pledge on the movable fixed assets of Jharsuguda Aluminium division with a security cover of 1.25 times on the face value of outstanding NCDs at all time during the tenure of the NCDs. The balance NCDs of US\$753.8 million are secured by way of mortgage on the immovable property of Vedanta Limited situated at Sanaswadi in the state of Maharashtra and also by way of pledge on the movable fixed assets of Jharsuguda 2,400MW power plant with a security cover of 1.25 times on the face value of outstanding NCDs at all time during the tenure of the NCDs. Of the total outstanding NCDs, US\$75.4 million is repayable in December 2022, US\$376.9 million in April 2023, US\$180.9 million in July 2023 and US\$301.5 million in August 2020. All NCDs, except for US\$301.5 million issued in August 2016, have put and call option respectively at the end of five years from the respective date of allotment. As at 31 March 2016, the amount outstanding is US\$934.7 million (2015: US\$671.0 million).

In October, November and December 2012, Vedanta Limited had also issued NCDs in three tranches for US\$75.4 million each per tranche with an interest rate of 9.24%, 9.40% and 9.40% per annum respectively. These NCDs are secured by way of mortgage on the immovable property of Vedanta Limited situated at Sanaswadi in the state of Maharashtra and also by way of pledge on the movable fixed assets of Jharsuguda 2,400MW power plant with a security cover of 1.25 times on the face value of outstanding NCDs at all time during the tenure of the NCDs. Of the total outstanding NCDs, US\$75.4 million is repayable in October 2022, US\$75.4 million in November 2022 and US\$75.4 million in December 2022. The NCDs have put and call option respectively at the end of five years from the respective date of allotment of the NCDs. As at 31 March 2016, the amount outstanding is US\$226.1 million (2015: US\$239.6 million).

In October 2014, Iron Ore Sesa has also issued NCDs of US\$226.1 million with an interest rate of 9.36% per annum. These NCDs are secured by way of mortgage on the immovable property of Vedanta Limited situated at Tuticorin in the state of Tamil Nadu and also by way of first ranking pari passu charge over 'movable fixed assets' in relation to Vedanta Limited's Iron Ore Sesa business (pig iron and met coke assets) and power plant assets located in Goa and the Copper plant assets located at Tuticorin with a security cover of 1.25 times on the face value of outstanding NCDs at all times during the tenure of the NCDs. These NCDs are redeemable in two instalments as US\$147.0 million in October 2017 and US\$79.1 million in December 2017. As at 31 March 2016, the amount outstanding is US\$226.1 million (2015: US\$239.7 million).

## External commercial borrowing

During the year ended 31 March 2015, Jharsuguda Aluminium External Commercial Borrowing from Axis Bank of US\$500.0 million was refinanced by ICICI Bank and SCB at an interest rate of US\$LIBOR plus 170 basis points (prior to refinancing at an interest rate of US\$LIBOR plus 400 basis points) having a subservient charge on all present and future movable assets of the Aluminium division. The repayment is to be made in three equal instalments starting from April 2015. The first instalment of US\$200.0 million has been duly repaid. As at 31 March 2016, the amount outstanding is US\$300.0 million (2015: US\$500.0 million).

During the year ended 31 March 2013, a part of intercompany borrowing from Welter Trading Limited was refinanced through Axis Bank. This has been further refinanced from Standard Chartered Bank for US\$44.5 million at an interest rate of US\$LIBOR plus 129 basis points (prior to refinancing at an interest rate of US\$LIBOR plus 360 basis points) having a subservient charge on all present and future movable assets of Jharsuguda Aluminium. The entire loan was repayable in July 2015 and the same has been duly repaid.

#### Project buyers' credit

Jharsuguda Aluminium had extended credit terms relating to purchases of property, plant and equipment bearing an average interest rate of LIBOR plus 24-55 basis points. These are secured by all of the fixed assets of Jharsuguda Aluminium, immovable or movable, present and future, on a pari passu basis with other term lenders and with priority over other creditors. Project buyers' credit have an average maturity of May 2015. As at 31 March 2015, the amount outstanding was US\$2.0 million and the same has been duly repaid.

#### Commercial papers

During the year, Jharsuguda 2,400MW power plant has issued commercial paper to various asset management companies bearing an average coupon rate of 9.6% for funding project payables. As at 31 March 2016, the amount outstanding is US\$395.7 million (2015: US\$180.5 million).

During the year, Iron Ore Sesa has issued commercial papers for periods ranging up to one year bearing an average interest rate of 9.5%. These commercial papers are used to meet working capital requirements of the Iron Ore division and are repayable in the next financial year. As at 31 March 2016, the outstanding balance was US\$112.3 million (2015: US\$380.2 million).

During the year, Vedanta Limited has issued commercial paper to various asset management companies bearing an average coupon rate of 9.19% and are repayable in the next financial year. As at 31 March 2016, the amount outstanding is US\$392.0 million.

#### **KCM**

A term loan facility of US\$820 million (2015: US\$820 million) has been obtained by KCM from Standard Bank. The term loan facility is made up of three tranches: US\$300 million ('Facility A'), US\$120 million ('Facility A1') and US\$400 million ('Facility B') drawn down on various dates with the last amount drawn in June 2014. The facility was restructured in 2014. The facility was repayable in 16 quarterly instalments starting in June 2015. But during this year we restructured the loan again with Standard Bank and got a moratorium period for testing of financial covenants. First testing will be done on 30 September 2017. The loan is secured against the fixed assets of KCM and a corporate guarantee from Vedanta Resources plc for the amount equivalent to the total outstanding loan. Interest is payable quarterly at LIBOR plus 350 basis points for Facility A and A1 and US\$LIBOR plus 300 basis points for Facility B. The facility is repayable in tranches with Facility A and A1 in 11 quarterly instalments commencing from 30 September 2016 and Facility B is repayable in 14 quarterly instalments commencing from 31 March 2017. As at 31 March 2016, the amount outstanding is US\$569.1 million (2015: US\$710.9 million).

A general short-term banking facility incorporating multiple sub-facilities amounting to US\$30 million (31 March 2015: US\$50 million) was provided by Stanbic Bank. The facility was revolved on 1 June 2011. Interest is payable monthly at three month US\$LIBOR plus 350 basis points. The facility is repayable strictly on demand. The tenure for the facility is 12 months. The amount drawn as at 31 March 2016 under this facility is US\$14 million (2015: US\$27.8 million).

A general short-term banking facility incorporating multiple sub-facilities amounting to US\$50 million (2015: US\$50 million) was provided by Standard Chartered Bank. The facility was revolved on 26 May 2011. The facility bears an interest rate of US\$LIBOR plus 300 basis points. The facilities are repayable strictly on demand. The tenure for the facility is 12 months. As at 31 March 2016, the amount outstanding is US\$50.0 million (2015: US\$50.0 million).

A general short-term banking facility incorporating multiple sub-facilities amounting to US\$40 million (2015: US\$40 million) was provided by Barclays Bank Zambia Plc. The facility bears an interest rate of three month US\$LIBOR plus 250 basis points payable monthly. The facilities are repayable strictly on demand. The tenure for the facility is 12 months. As at 31 March 2016, the amount outstanding is US\$32.81 million (2015: US\$13.8 million).

#### BALCO

NCDs

In November 2008, BALCO issued NCDs of US\$75.4 million to the Life Insurance Corporation of India at a rate of 12.25% per annum. These NCDs are secured and have the first pari passu charge on the fixed assets of BALCO including land and buildings. These NCDs were repayable in three equal instalments in November 2013, November 2014 and November 2015. All three instalments have been duly repaid.

In May 2013, BALCO issued NCDs of US\$75.4 million to Kotak Mahindra Bank, Axis Bank Limited and Wipro Limited at an interest rate of 8.58% per annum (Series–I) and 8.60% per annum (Series–II). These NCDs are secured and have the first pari passu charge on the fixed assets of BALCO. These NCDs are repayable in two equal instalments in November 2015 and May 2016. The first instalment has been duly repaid. As at 31 March 2016, the amount outstanding is US\$37.7 million (2015: US\$79.9 million).

In August 2014, BALCO issued NCDs of US\$75.4 million to banks and financial institutions arranged by Deutsche Bank at an interest rate of 10.25% per annum. These NCDs are secured and have the first pari passu charge on the fixed assets of BALCO. These NCDs are repayable in August 2017. As at 31 March 2016, the amount outstanding is US\$75.4 million (2015: US\$79.9 million).

#### Project buyers' credit

BALCO has extended credit terms relating to the purchase of property, plant and equipment at an average interest rate of US\$LIBOR plus 107 basis points. Project buyers' credits have an average maturity of November 2016. As at 31 March 2016, the amount outstanding is US\$58.1 million (2015: US\$59.6 million).

## External commercial borrowings

In August 2011, BALCO has obtained an External Commercial Borrowing loan from State Bank of India, London of US\$200 million at an interest rate of six month US\$LIBOR plus 290 basis points secured by first pari passu charges on all the fixed assets (excluding land) of BALCO projects both present and future along with secured lenders. The above loan is repayable in three equal annual instalments starting August 2016. As at 31 March 2016, the amount outstanding is US\$200.0 million (2015: US\$200.0 million).

In September 2015, BALCO has also obtained an External Commercial Borrowing loan from ICICI Bank Dubai of US\$50.0 million at an interest rate of three month US\$LIBOR plus 240 basis points secured by first pari passu charge on all movable fixed assets including plant and machinery related to 1,200MW Power project and 3.25 LTPA Smelter projects both present and future along with secured

lenders. The facility is repayable as US\$13.0 million in August 2019, US\$14.0 million in August 2020 and US\$23.0 million in August 2021. As at 31 March 2016, the amount outstanding is US\$50.0 million.

#### Rupee term loan

During the year, BALCO has availed rupee term loan of US\$75.4 million from Dena Bank at pricing of bank base rate plus 50 basis points. The facility is secured against movable fixed assets (excluding coal block assets) of BALCO. The facility has a maturity of eight years and is repayable in 28 quarterly instalments post moratorium period of one year. As at 31 March 2016, the amount outstanding is US\$75.4 million.

During the year, BALCO has availed rupee term loan of US\$45.2 million from State Bank of India at pricing of bank base rate plus 50 basis points. The facility is secured against movable fixed assets (excluding coal block assets) of BALCO. The facility has a maturity of eight years and is repayable in 28 quarterly instalments post moratorium period of one year. As at 31 March 2016, the amount outstanding is US\$45.2 million.

During the year, BALCO has availed rupee term loan of US\$22.6 million from State Bank of Mysore at pricing of bank base rate plus 50 basis points. The facility is secured against movable fixed assets (excluding coal block assets) of BALCO. The facility has a maturity of eight years and is repayable in 28 quarterly instalments post moratorium period of one year. As at 31 March 2016, the amount outstanding is US\$22.6 million.

During the year, BALCO has availed rupee term loan of US\$30.2 million from State Bank of Patiala at pricing of bank base rate plus 50 basis points. The facility is secured against movable fixed assets (excluding coal block assets) of BALCO. The facility has a maturity of eight years and is repayable in 28 quarterly instalments post moratorium period of one year. As at 31 March 2016, the amount outstanding is US\$30.2 million.

During the year, BALCO has availed rupee term loan of US\$22.6 million from South Indian Bank at pricing of bank base rate plus 25 basis points. The facility is secured against movable fixed assets (excluding coal block assets) of BALCO. The facility has a maturity of eight years and is repayable in 28 quarterly instalments post moratorium period of one year. As at 31 March 2016, the amount outstanding is US\$22.6 million.

During the year, BALCO has availed rupee term loan of US\$45.0 million from UCO Bank at pricing of bank base rate plus 50 basis points. The facility is secured against movable fixed assets (excluding coal block assets) of BALCO. The facility has a maturity of eight years and is repayable in 28 quarterly instalments post moratorium period of one year. As at 31 March 2016, the amount outstanding is US\$45.0 million.

#### Commercial paper

In March 2016, BALCO has issued commercial paper bearing an average coupon rate of 9.89% per annum to various asset management companies for the funding of project loan repayment and other payables. As at 31 March 2016, the amount outstanding is US\$79.1 million (2015: US\$317.1 million).

## Talwandi Sabo

#### NCDs

In December 2010 and January 2011, Talwandi Sabo has issued NCDs of US\$226.13 million to ICICI Bank at a rate of 9.8% per annum. These NCDs are secured by first pari passu charge on the assets of Talwandi Sabo both present and future, with an unconditional and irrevocable corporate guarantee by Vedanta Limited. These NCDs have tenure of 13 years and are repayable in 12 equal instalments after 10 years after allotment. These NCDs have a call option, five years after allotment. The call option has been exercised and the NCDs have been duly repaid.

In September 2014 (four tranches), November 2014, March 2015 and April 2015, Talwandi Sabo has also issued NCDs of US\$226.1 million in five tranches of US\$18.1 million, US\$27.1 million, US\$30.2 million, US\$49.0 million and US\$101.8 million respectively at an interest rate of 9.60% per annum, 9.70% per annum, 9.27% per annum, 8.91% and 8.91% per annum respectively, to various asset management companies for fresh project funding and repayment of loan. These NCDs are secured by first pari passu charge on the assets of Talwandi Sabo both present and future, with an unconditional and irrevocable corporate guarantee by Vedanta Limited. These NCDs are repayable in tranches as US\$18.1 million, US\$27.1 million, US\$30.2 million in November 2017 and balance US\$150.8 million in April 2018. As at 31 March 2016, the amount outstanding is US\$226.1 million (2015: US\$131.8 million).

#### Term loan

In September 2014, Talwandi Sabo has availed a rupee term loan facility of US\$75.4 million from Kotak Mahindra Bank Limited at an interest rate of 10.10% per annum. The facility is secured by first pari passu charge on the assets of Talwandi Sabo both present and future, with an unconditional and irrevocable corporate guarantee by Vedanta Limited. The facility is repayable as first 50% of the loan amount in 24 equal quarterly instalments starting from December 2015 and balance 50% of the loan amount in March 2021. As at 31 March 2016, the amount outstanding is US\$68.7 million (2015: US\$79.9 million).

In December 2015, Talwandi Saboo has availed a rupee term loan facility of US\$301.5 million from the State Bank of India at an interest rate of SBI base rate plus 50 basis points (which is at present effective 9.80% per annum). The facility is secured by pari passu charge on the assets of Talwandi Sabo both present and future, with an unconditional and irrevocable corporate guarantee by Vedanta Limited. The facility is repayable in 48 quarterly instalments starting in June 2018. As at 31 March 2016, the amount outstanding is US\$283.4 million.

## Project buyers' credit

Talwandi Sabo has accessed buyers' credit in respect of purchase of capital goods at an average rate of six month US\$LIBOR plus 136 basis points. The average maturity of the project buyers' credit is May 2017. As at 31 March 2016, the amount outstanding is US\$165.6 million (2015: US\$177.1 million).

#### Commercial paper

During the year, Talwandi Sabo has issued commercial paper to various asset management companies for the funding of project loan

repayment bearing an average coupon rate of 9.5% per annum. As at 31 March 2016, Talwandi Sabo had an outstanding balance of US\$361.1 million (2015: US\$417.0 million).

#### **VGCB**

NCDs

In May 2013, VGCB has issued NCDs of US\$47.9 million to IDFC Limited at a rate of 9% per annum to refinance the existing term loan from Axis Bank. These NCDs are secured by 1.1 times on the face value of outstanding debentures, by way of charge on the fixed assets of VGCB at all time during the currency of the debentures. Debentures have tenure of three years with put and call option at the end of the second year. During this year, the call and put option has been exercised on US\$33.9 million bonds and has been duly repaid. As at 31 March 2016, the amount outstanding is US\$11.3 million (2015: US\$47.9 million).

#### Project buyers' credit

VGCB has accessed buyers' credit in respect of purchase of capital goods at an average rate of six month US\$LIBOR plus 145 basis points. The average maturity of the project buyers' credit is May 2017. As at 31 March 2016, the amount outstanding is US\$18.3 million (2015: US\$18.3 million).

#### 25. Non-equity non-controlling interests

As at 31 March 2016, non-equity non-controlling interests amounts to US\$11.9 million, being deferred shares in KCM held by ZCCM. The deferred shares have no voting rights or rights to KCM's dividends, but are entitled on a winding up to a return of up to US\$0.99 per share once all of KCM's ordinary shares have received a distribution equal to their par value and any share premium created on their issue and which remains distributable to them.

The deferred shares are held at historic cost, being the fair value attributed to them at the time of initial acquisition of KCM in the year ended 31 March 2005. They are classified as non-current liabilities as they are repayable only on the winding up of KCM, for an amount different than the pro rata share of net assets upon liquidation. The shares have been valued at US\$0.99 per share, which is the maximum amount payable to the deferred shareholders. These deferred shares have not been discounted as the effect would not be material.

#### 26. Movement in net debt1

				Debt due within one year		ter one year	
(US\$ million)	Cash and cash equivalents	Liquid investments	Total cash and liquid investments	Debt carrying value	Debt carrying value	Debt- related derivatives <sup>2</sup>	Total net debt
At 1 April 2014	369.4	8,568.5	8,937.9	(4,358.5)	(12,512.7)	13.8	(7,919.5)
Cash flow	(13.9)	(671.7)	(685.6)	818.8	(1,050.1)	_	(916.9)
Other non-cash changes <sup>3</sup>	_	250.8	250.8	294.8	(46.7)	(16.1)	482.8
Foreign exchange differences	(1.8)	(291.5)	(293.3)	65.7	120.9	_	(106.7)
At 1 April 2015	353.7	7,856.1	8,209.8	(3,179.2)	(13,488.6)	(2.3)	(8,460.3)
Cash flow	92.6	999.9	1,092.5	1,022.1	(901.6)	_	1,213.0
Other non-cash changes <sup>3</sup>	_	59.4	59.4	(2,280.6)	2,195.6	0.3	(25.3)
Foreign exchange differences	(18.0)	(407.2)	(425.2)	123.9	245.1	_	(56.2)
At 31 March 2016	428.3	8,508.2	8,936.5	(4,313.8)	(11,949.5)	(2.0)	(7,328.8)

<sup>1</sup> Net debt being total debt reduced by cash and cash equivalents and liquid investments, as carried at fair value under IAS 32 and 39.

<sup>2</sup> Debt-related derivatives exclude derivative financial assets and liabilities relating to commodity contracts and forward foreign currency contracts.

<sup>3</sup> Other non-cash changes comprises of mark to market of embedded derivatives, interest accretion on convertible bonds and amortisation of borrowing costs for which there is no cash movement and reclassification between debt due within one year and debt due after one year. It also includes US\$59.5 million (2015: US\$250.8 million) of fair value movement in investments.

#### 27. Trade and other payables

#### (a) Current trade and other payables

(US\$ million)	As at 31 March 2016	As at 31 March 2015 <sup>3</sup>
Trade payables	2,155.8	2,258.9
Bills of exchange	1,500.0	1,512.4
Accruals and deferred income	38.3	22.8
Advance from customers <sup>1</sup>	396.8	_
Dividend payable to NCI	536.3	_
Dividend tax payable	311.2	_
Other trade payables <sup>2</sup>	937.7	935.9
	5,876.1	4,730.0

Non-interest bearing trade payables are normally settled on 60 to 90-day terms.

Interest bearing trade and other payables amount to US\$1,500.0 million (2015: US\$1,567.5 million).

Bills of exchange are interest-bearing liabilities and are normally settled within a period of 12 months. These represent arrangements whereby operational suppliers of raw materials are paid by financial institutions, with the Company recognising the liability for settlement with the institutions at a later date.

The fair values of the trade and other payables are not materially different from the carrying values presented.

#### (b) Non-current trade and other payables

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Advance from customers <sup>1</sup>	150.5	_
Other trade payables <sup>2</sup>	73.0	194.3
	223.5	194.3

Advances from customers include amounts received under long-term supply agreements. The advance payment plus a fixed rate of return will be settled by supplying copper over a period up to 24 months under an agreed delivery schedule as per the terms of the respective agreements. As these are contracts that the Group expects, and has the ability, to fulfil through delivery of a non-financial item, these are recognised as advances from customers and will be released to the income statement as copper is delivered under the agreements. The portion of the advance that is expected to be settled within the next 12 months has been classified as a current liability.

## 28. Convertible bonds

(US\$ million)	As at 31 March 2016	As at 31 March 2015
A. VRJL	579.9	1,096.4
B. VRJL II	7.3	6.6
	587.2	1,103.0

A. Vedanta Resource Jersey Limited (VRJL) issued 5.5% US\$1,250 million guaranteed convertible bonds on 13 July 2009. The bonds are first convertible into exchangeable redeemable preference shares to be issued by VRJL, which will then be automatically exchanged for ordinary shares of Vedanta Resources plc. The bondholders have the option to convert at any time from 24 August 2009 to 6 July 2016. Conversion options exercised before 15 August 2012 were convertible at US\$36.48 per share. Conversion options exercised on or after 15 August 2012 were convertible at US\$35.58 per share.

If the notes have not been converted, they will be redeemed at the option of the Company at any time on or after 28 July 2012 subject to certain conditions, or be redeemed at the option of the bondholders on or after 13 July 2014.

If the notes have not been converted, they will be redeemed at the option of the issuer on or at any time after 28 July 2013, subject to the conditions as part of the issue. Bondholders had exercised put option on 14 July 2014, accordingly bonds with a face value US\$113.8 million (9.1% of total face value) were redeemed during the year ending 31 March 2015.

During the year, in October 2015, the Company received notice from bondholders with a face value of US\$3 million to exercise the option to convert the bonds into equity shares of Vedanta Resources plc in accordance with the provisions of the Offer circular dated 9

<sup>2</sup> Other trade payables primarily comprise amounts withheld as retentions, payable to suppliers of capital projects after satisfactory completion of contractual commissioning period, which are payable after the completion of commissioning. The fair value of the non-current trade payables are not materially different from the carrying values presented.

<sup>3</sup> Prior year trade and other payables of US\$331.6 million have been reclassified from accruals to trade and other payables to better reflect the nature of these costs.

July 2009. During the year ended 31 March 2016 US\$3 million of bonds were converted into 93,341 equity shares of Vedanta Resources plc. The carrying value of bond on the date of conversion was US\$2.9 million.

During the year, in January 2016 and February 2016, the Company bought back the convertible bonds of a face value of US\$549.3 million and carrying value of US\$541.6 million from market for a consideration of US\$522.4 million.

The buyback consideration including buyback cost of US\$1.2 million has been split between the liability and equity. Accordingly, US\$2.6 million has been debited to convertible bond reserve and net gain of US\$20.7 million has been recognised in the income statement.

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Opening liability	1,096.4	1,177.1
Effective interest cost	90.1	97.3
Conversion of convertible bonds	(2.9)	_
Repayment of convertible bonds	_	(113.8)
Buy back of convertible bonds	(541.6)	_
Coupon interest paid/accrued	(62.1)	(64.2)
Closing liability	579.9	1,096.4

The interest charged for the year is calculated by applying an effective interest rate of 8.2% (March 2015: 8.7%).

The fair value of the convertible bond as at 31 March 2016 is US\$573.1 million (March 2015: US\$1,056.9 million).

B. Vedanta Resource Jersey II Limited (VRJL-II) issued 4.0% US\$883 million guaranteed convertible bonds on 30 March 2010. The bonds are first convertible into exchangeable redeemable preference shares to be issued by VRJL-II, which will then be automatically exchanged for ordinary shares of Vedanta Resources plc. The bondholders have the option to convert at any time from 10 May 2010 to 23 March 2017. Conversion options exercised before 15 August 2012 were convertible at US\$51.9251 per share. Conversion options exercised on or after 15 August 2012 are convertible at US\$50.646 per share, as per the terms of offering circular.

If the notes have not been converted, they will be redeemed at the option of the Company at any time on or after 14 April 2013 subject to certain conditions, or be redeemed at the option of the bondholders on or after 29 April 2013 to 30 March 2015.

Bondholders exercised the put option in March 2015, resulting in redemption of US\$65.1 million bonds during the year ending 31 March 2015. The maturity of the remaining bonds is March 2017.

At the inception the net proceeds of the convertible issue was split between the liability element and a derivative component, representing the fair value of the embedded option to convert the liability into equity of the Company. The latter was not recorded within equity due to the existence of partial cash settlement terms within the bond which prevent the adoption of compound financial instrument accounting.

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Opening liability	6.6	65.7
Effective interest cost	1.0	8.9
Repayment of convertible bonds	-	(65.1)
Coupon interest paid/accrued	(0.3)	(2.9)
Closing liability	7.3	6.6

The interest charged for the year is calculated by applying an effective interest rate of 15.1% (2015: 15.0%).

The fair value of the convertible bond as at 31 March 2016 was US\$7.3 million (March 2015: US\$7.8 million).

C. Vedanta Limited issued 4% US\$500 million convertible bonds (denominated in US dollars) on 29 October 2009 which were due on 30 October 2014. The bonds are convertible into American Depository Share (ADS) to be issued by Vedanta Limited. The bondholders have the option to convert at any time before 29 October 2014 at a conversion ratio of 42.8688 for every US\$1,000 of principal which is equal to a conversion price of US\$23.33 per ADS. Pursuant to the effectiveness of Group simplification scheme in August 2014 conversion rate has changed to 25.7213 ADSs for every US\$1,000 principal amount of notes which is equal to a conversion price of approximately US\$38.88 per ADS. Vedanta has the option (subject to the terms of the bond) to redeem the convertible bond at any time after 4 November 2012.

Vedanta Limited had also issued 5% US\$500 million convertible bonds (denominated in US dollars) on 30 October 2009 and due on 31 October 2014. The bonds are convertible into ordinary shares of Vedanta Limited. The bondholders have the option to convert at any time after 10 December 2009 and before 24 October 2014 at a conversion ratio of 13837.6384 for every US\$100,000 principal. Vedanta Limited has the option (subject to certain conditions) to redeem the convertible bond at any time after 30 October 2012. As the functional currency of Vedanta Limited is INR, the conversion of the convertible bonds (which are denominated in US dollars) would not result in the settlement and exchange of a fixed amount of cash in INR terms, for a fixed number of its shares respectively. Accordingly, the convertible bond must be

separated into two component elements: a derivative component consisting of the conversion option (carried at fair value) and a liability component consisting of the debt element of the bonds. Further details of the accounting for such instruments are provided in the Group accounting policies (note 2a).

These convertible bonds were repaid during the year ended 31 March 2015.

The following table shows the movements in the Vedanta Limited bonds during the year on an aggregated basis:

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Opening liability	-	678.7
Effective interest cost	-	57.2
Coupon interest paid	-	(19.8)
Repayment of FCCBs	-	(716.1)
Closing liability	-	_

The interest charged for the year is calculated by applying an effective interest rate of nil (March 2015: 12.7%) for 4% US\$500 million convertible notes and nil (March 2015: 19.1%) for 5% US\$500 million convertible notes.

## Summary of convertible bond movements:

	Year ended 31 March 2016	Year ended 31 March 2015
Opening liability	1,103.0	1,921.5
Effective interest cost	91.1	163.4
Coupon interest paid/accrued	(62.4)	(86.8)
Repayment of bonds	-	(895.1)
Conversion of convertible bonds	(2.9)	_
Buy back of convertible bonds	(541.6)	_
Closing liability	587.2	1,103.0

#### 29. Financial instruments

The accounting classification of each category of financial instruments, and their carrying amounts, are set out below:

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Financial assets		
At fair value through profit or loss		
- Held for trading (Note 22)	7,977.9	6,006.0
At fair value through profit or loss/designated for hedging		
Financial instruments (derivatives)	19.1	16.8
Loan and receivables		
Bank deposits (Note 22)	530.3	1,850.1
Cash and cash equivalents	428.3	353.7
- Trade and other receivables	854.7	1,132.6
- Other non-current assets	69.2	129.8
Available-for-sale investments		
- Financial asset investments held at fair value	6.5	4.2
Total	9,886.0	9,493.2
Financial liabilities		
At fair value through profit or loss/designated for hedging		
- Financial instruments (derivatives)	(68.9)	(45.8)
Financial liabilities at amortised cost		
- Trade and other payables	(4,921.6)	(4,808.2)
- Borrowings <sup>1</sup>	(16,263.3)	(16,667.8)
Total	(21,253.8)	(21,521.8)

<sup>1</sup> Includes amortised cost liability portion of convertible bonds US\$587.2 million (2015: US\$1,103.3 million).

IFRS 13 requires additional information regarding the methodologies employed to measure the fair value of financial instruments which are recognised or disclosed in the financial statements. These methodologies are categorised per the standard as:

Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 fair value measurements are those derived from inputs other than quoted prices that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The below table summarises the categories of financial assets and liabilities measured at fair value:

	As at 31 M	ırch 2016	
(US\$ million)	Level 1	Level 2	
Financial assets			
At fair value through profit or loss			
- Held for trading	6,840.7	1,137.2	
- Financial instruments (derivatives)	3.2	15.9	
Available-for-sale investments			
- Financial asset investments held at fair value	6.5	-	
Total	6,850.4	1,153.1	
Financial liabilities			
At fair value through profit or loss/designated for hedging			
- Financial instruments (derivatives)	(2.1)	(66.8)	
Total	(2.1)	(66.8)	

	As at 31 Ma	arch 20151
	Level 1	Level 2
Financial assets		
At fair value through profit or loss		
- Held for trading	6,725.3	1,130.8
- Financial instruments (derivatives)	_	16.8
Available-for-sale investments		
- Financial asset investments held at fair value	4.2	_
Total	6,729.5	1,147.6
Financial liabilities		
At fair value through profit or loss/designated for hedging		
- Financial instruments (derivatives)	-	(45.8)
Total	-	(45.8)

<sup>1</sup> Held for trading disclosure at 31 March 2015 has been restated to appropriately disclose the bonds valued using inputs other than quoted price as Level 2 rather than Level 1.

There were no transfers between Level 1 and Level 2 during the year. No financial assets or liabilities that are measured at fair value were Level 3 fair value measurements.

The fair value of borrowings is US\$15,118.2 million (2015: US\$16,457.7 million), classified under Level 2 of fair value hierarchy. For all other financial instruments, the carrying amount is either the fair value, or approximates to the fair value.

The fair value of financial asset investments represents the market value of the quoted investments and other traded instruments. For other financial assets the carrying value is considered to approximate to fair value.

The fair value of financial liabilities is the market value of the traded instruments, where applicable. Otherwise fair value is calculated using a discounted cash flow model with market assumptions, unless the carrying value is considered to approximate to fair value.

The fair value of the embedded derivative liability of the convertible bond has been calculated using the Black-Scholes model with market assumptions.

#### Derivative instruments and risk management

The Group's businesses are subject to several risks and uncertainties including financial risks.

The Group's documented risk management policies act as an effective tool in mitigating the various financial risks to which the businesses are exposed in the course of their daily operations. The risk management policies cover areas such as liquidity risk, commodity price risk, foreign exchange risk, interest rate risk, credit risk and capital management (the latter covered in Note 34).

Risks are identified through a formal risk management programme with active involvement of senior management personnel and business managers at both the corporate and individual subsidiary level. Each operating subsidiary in the Group has in place risk management processes which are in line with the Group's policy. Each significant risk has a designated 'owner' within the Group at an appropriate senior level. The potential financial impact of the risk and its likelihood of a negative outcome are regularly updated. The risk management process is coordinated by the Management Assurance function and is regularly reviewed by the Group's Audit Committee. The Audit Committee is aided by the CFO Committee and the Risk Management Committee, which meets regularly to review risks as well as the progress against the planned actions. Key business decisions are discussed at the monthly meetings of the CFO Committee and Executive Committee. The overall internal control environment and risk management programme including financial risk management is reviewed by the Audit Committee on behalf of the Board.

## Treasury management

Treasury management focuses on capital protection, liquidity maintenance and yield maximisation. The treasury policies are approved by the Board and adherence to these policies is strictly monitored at the Executive Committee meetings. Day-to-day treasury operations of the subsidiary companies are managed by their respective finance teams within the framework of the overall Group treasury policies. Long-term fund raising including strategic treasury initiatives are handled by a central team while short-term funding for routine working capital requirements is delegated to subsidiary companies. A monthly reporting system exists to inform senior management of investments, debt, currency, commodity and interest rate derivatives. The Group has a strong system of internal control which enables effective monitoring of adherence to Group policies. The internal control measures are supplemented by regular internal audits.

The investment portfolio is independently reviewed by CRISIL Limited and our portfolio has been rated as 'Very Good', meaning highest safety.

The Group uses derivative instruments as part of its management of exposure to fluctuations in foreign currency exchange rates, interest rates and commodity prices. The Group does not acquire or issue derivative financial instruments for trading or speculative purposes. The Group does not enter into complex derivative transactions to manage the treasury and commodity risks. Both treasury and commodities derivative transactions are normally in the form of forward contracts and interest rate and currency swaps and these are subject to the Group guidelines and policies.

#### Commodity risk

The Group is exposed to the movement of base metal commodity prices on the London Metal Exchange. Any decline in the prices of the base metals that the Group produces and sells will have an immediate and direct impact on the profitability of the businesses. As a general policy, the Group aims to sell the products at prevailing market prices. The commodity price risk in the import of copper concentrate and alumina is hedged on back-to-back basis ensuring no price risk for the business. Entities with integrated operations aim to achieve the monthly average of the commodity prices for sales realisation. Hedging is used primarily as a risk management tool to secure future cash flows in cases of high volatility by entering into forward contracts or similar instruments. The hedging activities are subject to strict limits set out by the Board and to a strictly defined internal control and monitoring mechanism. Decisions relating to hedging of commodities are taken at the Executive Committee level and with clearly laid down guidelines for their implementation by the subsidiaries.

Whilst the Group aims to achieve average LME prices for a month or a year, average realised prices may not necessarily reflect the LME price movements because of a variety of reasons such as uneven sales during the year and timing of shipments.

The Group is also exposed to the movement of international crude oil price and the discount in the price of Rajasthan crude oil to Brent price.

#### Copper

The Group's custom smelting copper operations at Tuticorin is benefited by a natural hedge except to the extent of a possible mismatch in quotational periods between the purchase of concentrate and the sale of finished copper. The Group's policy on custom smelting is to generate margins from TC/RCs, improving operational efficiencies, minimising conversion cost, generating a premium over LME on sale of finished copper, sale of by-products and from achieving import parity on domestic sales. Hence, mismatches in quotational periods are managed to ensure that the gains or losses are minimised. The Group hedges this variability of LME prices through forward contracts and tries to make the LME price a pass-through cost between purchases of copper concentrate and sales of finished products, both of which are linked to the LME price.

TC/RCs are a major source of income for the Indian copper smelting operations. Fluctuations in TC/RCs are influenced by factors including demand and supply conditions prevailing in the market for mine output. The Group's Copper business has a strategy of securing a majority of its concentrate feed requirement under long-term contracts with mines.

KCM is largely an integrated copper producer and whenever hedging is done it is with an intention to protect the Group from price fluctuations in copper. KCM also does hedging for its custom smelting operations in line with the Group's policy on custom smelting at Tuticorin, as explained above.

#### **Aluminium**

The requirement of the primary raw material, alumina, is partly met from own sources and the rest is purchased primarily on negotiated price terms. Sales prices are linked to the LME prices. At present the Group on selective basis hedges the aluminium content in imported alumina to protect its margins.

The Group also enters into hedging arrangements for its aluminium sales to realise month of sale LME prices.

#### Zinc and lead

The sales prices are linked to the LME prices. The Group also enters into hedging arrangements for its zinc and lead sales to realise month of sale LME prices.

#### Iron ore

The Group sells its iron ore production from Goa on the prevailing market prices and from Karnataka through e-auction route as mandated by State Government of Karnataka in India.

#### Provisionally priced financial instruments

On 31 March 2016, the value of net financial liabilities linked to commodities (excluding derivatives) accounted for on provisional prices was a liability of US\$416.3 million (2015: liability of US\$689.9 million). These instruments are subject to price movements at the time of final settlement and the final price of these instruments will be determined in the financial year beginning 1 April 2016.

Set out below is the impact of a 10% increase in LME prices on profit/(loss) for the year and total equity as a result of changes in value of the Group's commodity financial instruments as at 31 March 2016:

(US\$ million except as stated) Commodity price sensitivity	Closing LME as at 31 March 2016 US\$	Effect on profit/(loss) of a 10% increase in the LME 31 March 2016 (US\$ million)	Effect on total equity of a 10% increase in the LME 31 March 2016 (US\$ million)
Copper	4,855.5	(44.5)	(44.5)
Zinc	1,785.0	0.2	0.2
Lead	1,704.5	0.6	0.6

(US\$ million except as stated) Commodity price sensitivity	Closing LME as at 31 March 2015 US\$	Effect on profit/(loss) of a 10% increase in the LME 31 March 2015 (US\$ million)	Effect on total equity of a 10% increase in the LME 31 March 2015 (US\$ million)
Copper	6,050	(62.2)	(62.2)
Zinc	2,075	0.2	0.2
Lead	1,808	-	-

The above sensitivities are based on volumes, costs, exchange rates and other variables and provide the estimated impact of a change in LME prices on profit and equity assuming that all other variables remain constant. A 10% decrease in LME prices would have an equal and opposite effect on the Group's financial instruments.

Further, the impact of a 10% increase in closing copper LME for provisionally priced copper concentrate purchased at Vedanta Limited Copper division custom smelting operations is US\$50.0 million (2015: US\$69.2 million), which is pass through in nature and as such will not have any impact on the profitability.

#### Financial risk and sensitivities

The Group's Board approved financial risk policies comprise liquidity, currency, interest rate and counterparty risk. The Group does not engage in speculative treasury activity but seeks to manage risk and optimise interest and commodity pricing through proven financial instruments.

#### (a) Liquidity

The Group requires funds both for short-term operational needs as well as for long-term investment programmes mainly in growth projects. The Group generates sufficient cash flows from the current operations which together with the available cash and cash equivalents and liquid financial asset investments provide liquidity both in the short term as well as in the long term. Anticipated future cash flows, together with undrawn fund based committed facilities of US\$1,087.3 million, and cash and liquid investments of US\$8,936.5 million as at 31 March 2016, are expected to be sufficient to meet the liquidity requirement of the Group in the near future.

The Group's current corporate family ratings from Standard & Poor's and Moody's are B and B2 respectively, with Stable outlook from Standard & Poor's and Negative outlook from Moody's. These ratings reflect the rating agencies' actions during the year on the companies in the resource sector taking into consideration current market conditions. The Group strives to maintain a healthy liquidity, gearing ratio and retains flexibility in the financing structure to alter the ratio when the need arises (see Note 34 for further details).

The maturity profile of the Group's financial liabilities based on the remaining period from the balance sheet date to the contractual maturity date is given in the table below. The figures reflect the contractual undiscounted cash obligation of the Group:

## At 31 March 2016

(US\$ million) Payment due by period	< 1 year	1–2 years	2–5 years	> 5 years	Total
Trade and other payables	4,885.5	_	29.9	6.2	4,921.6
Bank and other borrowings <sup>1</sup>	4,711.2	3,434.4	7,645.5	3,388.3	19,179.4
Convertible bonds <sup>1</sup>	595.5	_	_	_	595.5
Derivative liabilities	67.8	1.1	_	_	68.9
Total	10,260.0	3,435.5	7,675.4	3,394.5	24,765.4

<sup>1</sup> Includes contractual interest payment based on interest rate prevailing at the end of the reporting period.

#### At 31 March 2015

(US\$ million) Payment due by period	< 1 year	1–2 years	2–5 years	> 5 years	Total
Trade and other payables	4,509.0	229.3	63.0	6.9	4,808.2
Bank and other borrowings <sup>1</sup>	4,171.8	2,981.0	8,730.4	3,476.1	19,359.3
Convertible bonds <sup>1</sup>	65.8	1,161.5	_	_	1,227.3
Derivative liabilities	45.8	-	-	-	45.8
Total	8,792.4	4,371.8	8,793.4	3,483.0	25,440.6

<sup>1</sup> Includes contractual interest payment based on interest rate prevailing at the end of the reporting period.

At 31 March 2016, the Group had access to funding facilities (both fund based and non-fund based) of US\$18,140.7 million, of which US\$1,087.3 million is fund based and US\$716.2 million is non-fund based, was not yet drawn, as set out below.

(US\$ million) Funding facilities	Total facility	Drawn	Undrawn
Less than 1 year	6,104.2	4,310.0	1,794.2
1–2 years	2,642.7	2,642.7	_
2–5 years and above	9,393.8	9,384.5	9.3
Total	18,140.7	16,337.2	1,803.5

At 31 March 2015, the Group had access to funding facilities (both fund based and non-fund based) of US\$18,981.5 million of which US\$1,208.2 million was fund based and US\$969.7 million was non-fund based, was not yet drawn, as set out below.

(US\$ million) Funding facilities	Total facility	Drawn	Undrawn
Less than 1 year	5,270.9	3,189.5	2,081.4
1–2 years	3,265.4	3,265.4	-
2–5 years and above	10,445.2	10,348.7	96.5
Total	18,981.5	16,803.6	2,177.9

'Fund based' facilities represent contractual agreements for financial institutions to provide cash, such as cash credit limits and term loans, whereas 'non-fund based' facilities only give rise to an obligation to provide cash in certain circumstances, such as bank guarantees and letters of credit.

## (b) Foreign currency

The Group's presentation currency is the US dollar. The majority of the assets are located in India and the Indian rupee is the functional currency for the Indian operating subsidiaries. Exposures on foreign currency loans are managed through the foreign exchange hedging policy, which is reviewed periodically to ensure that the risk from fluctuating currency exchange rates is appropriately managed. Natural hedges available in the business are identified at each entity level and hedges are placed only for the net exposure. Short-term net exposures are hedged progressively based on their maturity. Longer exposures beyond one year for trade and other current account transactions are reviewed and hedges taken accordingly. However, all new exposures on account of long-term borrowing are being hedged.

The carrying amount of the Group's financial assets and liabilities in different currencies are as follows:

_		rch 2016	At 31 Ma	rch 2015
(US\$ million)	Financial assets	Financial liabilities	Financial assets	Financial liabilities
US\$	1,260.9	12,519.9	1,362.1	14,216.3
INR	8,524.6	8,502.5	8,019.4	7,151.8
Kwacha	0.8	120.9	1.3	38.9
AUD	0.4	9.3	0.7	9.7
CAD	_	0.1	_	0.3
EURO	46.6	47.4	75.6	59.0
ZAR	18.3	18.6	14.8	21.8
NAD	5.0	5.0	9.8	23.2
Others	29.4	30.1	9.5	0.8
Total	9,886.0	21,253.8	9,493.2	21,521.8

The Group's exposure to foreign currency arises where a Group company holds monetary assets and liabilities denominated in a currency different to the functional currency of that entity with USD (US dollar) being the major foreign currency exposure of the Group's main operating subsidiaries. Set out below is the impact of a 10% change in the US dollar on profit/(loss) and equity arising as a result of the revaluation of the Group's foreign currency financial instruments:

		31 March 2016				
(US\$ million)	Closing exchange rate	Effect of 10% strengthening of US dollar on net earnings	Effect of 10% strengthening of US dollar on total equity			
INR	66.3329	(191.1)	(230.2)			
Kwacha	7.5811	(10.1)	(10.1)			

	31 March 2015				
(US\$ million)	Closing exchange rate	Effect of 10% strengthening of US dollar on net earnings	Effect of 10% strengthening of US dollar on total equity		
INR	62.5908	(192.3)	(236.1)		
Euro	0.9271	0.7	0.7		

The sensitivities are based on financial assets and liabilities held at 31 March 2016 where balances are not denominated in the functional currency of the respective subsidiaries. The sensitivities do not take into account the Group's sales and costs and the results of the sensitivities could change due to other factors such as changes in the value of financial assets and liabilities as a result of non-foreign exchange influenced factors. A 10% depreciation of the US dollar would have an equal and opposite effect on the Group's financial instruments.

#### (c) Interest rate risk

At 31 March 2016, the Group's net debt of US\$7,328.8 million (2015: US\$8,460.3 million net debt) comprises cash, cash equivalents and liquid investments of US\$8,936.5 million (2015: US\$8,209.8 million) offset by debt of US\$16,263.3 million (2015: US\$16,667.8 million) and debt derivative liability of US\$2.0 million (2015: liability of US\$2.3 million).

The Group is exposed to interest rate risk on short-term and long-term floating rate instruments and on the refinancing of fixed rate debt. The Group's policy is to maintain a balance of fixed and floating interest rate borrowings and the proportion of fixed and floating rate debt is determined by current market interest rates. As at 31 March 2016, 48.0% (2015: 50.2%) of the total debt was at a fixed rate and the balance was at a floating rate. The USD floating rate debt is linked to US dollar LIBOR and INR floating rate debt to Bank's base rate. The Group also aims to opt for a higher proportion of long-term debt to fund growth projects to extend its maturity profile. The Group invests cash and liquid investments in short-term deposits and debt mutual funds, some of which generate a tax-free return, to achieve the Group's goal of maintaining liquidity, carrying manageable risk and achieving satisfactory returns.

Floating rate financial assets are largely mutual fund investments which have debt securities as underlying assets. The returns from these financial assets are linked to market interest rate movements; however the counterparty invests in the agreed securities with known maturity tenure and return and hence has manageable risk. Additionally, the investments portfolio is independently reviewed by CRISIL Limited, and our investment portfolio has been rated as 'Very Good', meaning highest safety.

The exposure of the Group's financial assets to interest rate risk is as follows:

		At 31 March 2016				At 31 March 2015		
(US\$ million)	Floating rate financial assets	Fixed rate financial assets	Equity investments	Non-interest bearing financial assets	Floating rate financial assets	Fixed rate financial assets	Equity investments	Non- interest bearing financial assets
Financial assets	6,334.0	2,601.8	6.5	924.6	5,419.6	2,820.1	4.2	1,232.5
Derivative assets	_	-	-	19.1	-	-	_	16.8
Total financial assets	6.334.0	2,601.8	6.5	943.7	5,419.6	2,820.1	4.2	1,249.3

The exposure of the Group's financial liabilities to interest rate risk is as follows:

	A	t 31 March 2016	6	A	t 31 March 2015	
(US\$ million)	Floating rate financial liabilities	Fixed rate financial liabilities	Non- interest bearing financial liabilities	Floating rate financial liabilities	Fixed rate financial liabilities	Non- interest bearing financial liabilities
Financial liabilities	8,454.3	9,294.2	3,436.4	8,711.9	9,506.7	3,257.4
Derivative liabilities	_	_	68.9	2.3	_	43.5
Total financial liabilities	8,454.3	9,294.2	3,505.3	8,714.2	9,506.7	3,300.9

The weighted average interest rate on the fixed rate financial liabilities is 8.15% (2015: 8.3%) and the weighted average period for which the rate is fixed is 2.4 years (2015: 3.0 years).

Considering the net debt position as at 31 March 2016 and the investment in bank deposits, corporate bonds and debt mutual funds, any increase in interest rates would result in a net loss and any decrease in interest rates would result in a net gain. The sensitivity analysis below has been determined based on the exposure to interest rates for both derivative and non-derivative instruments at the balance sheet date.

The below table illustrates the impact of a 0.5% to 2.0% change in interest rate of borrowings on profit/(loss) and equity and represents management's assessment of the possible change in interest rates.

#### At 31 March 2016

(US\$ million) Change in interest rates	Effect on loss for the year	Effect on total equity
0.5%	42.3	42.3
1.0%	84.5	84.5
2.0%	169.1	169.1

# At 31 March 2015

(US\$ million) Change in interest rates	Effect on loss for the year	Effect on total equity
0.5%	41.5	41.5
1.0%	82.9	82.9
2.0%	165.9	165.9

#### (d) Credit risk

The Group is exposed to credit risk from trade receivables, cash and cash equivalents, liquid investments and other financial instruments.

The Group has clearly defined policies to mitigate counterparty risks. Cash and liquid investments are held primarily in debt schemes of mutual funds, bonds and bank deposits with good credit ratings. Defined limits are in place for exposure to individual counterparties in case of mutual fund houses and banks.

The large majority of receivables due from third parties are secured. Moreover, given the diverse nature of the Group's businesses, trade receivables are spread over a number of customers with no significant concentration of credit risk. During the year ended 31 March 2016 no single customer accounted for 10% or more of the Group's net sales or for any of the Group's primary businesses. During the year ended 31 March 2015, other than the exception of a single customer in our Oil & Gas business, no single customer accounted for 10% or more of the Group's net sales or for any of the Group's primary businesses. The history of trade receivables shows a negligible provision for bad and doubtful debts. Therefore, the Group does not expect any material risk on account of non-performance by any of our counterparties.

The Group's maximum gross exposure to credit risk at 31 March 2016 is US\$9,886.0 million (2015: US\$9,493.2 million).

Of the year end trade and other receivable balance the following, though overdue, are expected to be realised in the normal course of business and, hence, are not considered impaired as at 31 March 2016:

(US\$ million)	2016	2015
Less than 1 month	49.8	39.1
Between 1–3 months	74.3	49.1
Between 3–12 months	98.1	40.3
Greater than 12 months	86.3	62.5
Total	308.5	191.0

Receivables amounting to Nil (31 March 2015: US\$43.8 million), of the Power division of the Group have been impaired primarily as a result of an ongoing dispute in relation to a tariff agreement with a power supply company.

# Derivative financial instruments

The fair value of all derivatives is separately recorded on the balance sheet within other financial assets (derivatives) and other financial liabilities (derivatives), current and non-current. In addition, the derivative component of certain convertible bonds is shown as part of the overall convertible bond liability (Note 28). Derivatives that are designated as hedges are classified as current or non-current depending on the maturity of the derivative.

#### Embedded derivatives

Derivatives embedded in other financial instruments or other contracts are treated as separate derivative contracts, when their risks and characteristics are not closely related to those of their host contracts.

#### Cash flow hedges

The Group also enters into forward exchange and commodity price contracts for hedging highly probable forecast transactions and accounts for them as cash flow hedges and states them at fair value. Subsequent changes in fair value are recognised in equity until the hedged transactions occur, at which time the respective gains or losses are transferred to the income statement.

The fair value of the Group's open derivative positions at 31 March 2016, recorded within financial instruments (derivative), is as follows:

	As at 31 Mar	ch 2016	As at 31 March 2015	
(US\$ million)	Liability	Asset	Liability	Asset
Current				
Cash flow hedges				
- Commodity contracts	(0.9)	0.2	_	2.5
<ul> <li>Forward foreign currency contracts</li> </ul>	(8.3)	5.5	(0.6)	_
Hedge of net investment in foreign operations	_	_	-	7.9
Fair value hedges				
- Commodity contracts	-	0.1	(1.7)	3.8
- Forward foreign currency contracts	(37.4)	1.3	(20.1)	1.6
- Other (foreign currency swap)	_	_	(2.2)	_
Non-qualifying hedges				
- Commodity contracts	(1.2)	2.9	(1.5)	0.8
<ul> <li>Forward foreign currency contracts</li> </ul>	(19.7)	8.3	(11.2)	0.0
- Interest rate swap	_	_	(8.2)	_
- Other (foreign currency swap)	(0.2)	0.0	(0.2)	-
Total	(67.7)	18.3	(45.7)	16.6
Non-current				
Fair value hedges				
- Forward foreign currency contracts	(1.2)	0.8	(0.1)	0.2
Total	(1.2)	0.8	(0.1)	0.2
Grand total	(68.9)	19.1	(45.8)	16.8

The majority of cash flow hedges taken out by the Group during the year comprises commodity contracts and foreign currency forward contracts for firm future commitments.

The cash flows related to the majority of cash flow hedges above are expected to occur during the year ended 31 March 2017 and consequently may impact the income statements for that year depending upon the change in the commodity prices and foreign exchange rate movements.

### Non-qualifying hedges

The majority of these derivatives comprise interest rate swaps and foreign currency forward contracts which are economic hedges but which do not fulfil the requirements for hedge accounting of IAS 39 Financial Instruments: Recognition and Measurement.

#### Fair value hedges

The fair value hedges relate to foreign currency forward contracts taken to hedge currency exposure on purchase of raw materials and capital imports.

### Hedging reserve reconciliation

(US\$ million)	Hedging reserves	Non-controlli ng interests	Total
At 1 April 2014	(50.4)	(37.2)	(87.6)
Amount recognised directly in equity	(17.1)	(9.5)	(26.6)
Amount transferred to income statement	(7.4)	(4.4)	(11.8)
Changes in non-controlling interests	(3.9)	3.9	_
Exchange difference	4.1	2.5	6.6
At 1 April 2015	(74.7)	(44.7)	(119.4)
Amount recognised directly in equity	(17.2)	(10.1)	(27.3)
Amount transferred to income statement	(0.8)	(0.7)	(1.5)
Exchange difference	5.0	2.9	7.9
At 31 March 2016	(87.7)	(52.6)	(140.3)

#### 30. Provisions

(US\$ million)	Restoration, rehabilitation and environmental	KCM copper price participation	Other	Total
At 1 April 2014	306.5	89.3	28.9	424.7
(Released)/charged to income statement	(26.9)	(1.4)	0.9	(27.4)
Unwinding of discount	31.8	5.0	_	36.8
Cash paid	(7.5)	(1.0)	(1.4)	(9.9)
Change in estimates	(66.1)	_	_	(66.1)
Exchange differences	(12.9)	-	(1.0)	(13.9)
At 1 April 2015	224.9	91.9	27.4	344.2
Charged to income statement	3.4	_	1.7	5.1
Unwinding of discount (note 7)	10.3	2.5	0.7	13.5
Cash paid	(43.9)	_	(0.7)	(44.6)
Exchange differences	(3.0)	7.6	(3.3)	1.3
At 1 April 2016	191.7	102.0	25.8	319.5
Current 2016	17.5	102.0	12.6	132.1
Non-current 2016	174.2	_	13.2	187.4
	191.7	102.0	25.8	319.5
Current 2015	37.3	91.6	11.9	140.8
Non-current 2015	187.6	0.3	15.5	203.4
	224.9	91.9	27.4	344.2

#### Restoration, rehabilitation and environmental

The provisions for restoration, rehabilitation and environmental liabilities represent the management's best estimate of the costs which will be incurred in the future to meet the Group's obligations under existing Indian, Australian, Zambian, Namibian, South African and Irish law and the terms of the Group's mining and other licenses and contractual arrangements. These amounts, calculated by considering discount rates within the range of 2% to 9%, become payable on closure of mines and are expected to be incurred over a period of one to 15 years. Within India, the principal restoration and rehabilitation provisions are recorded within Cairn India where a legal obligation exists relating to the oil & gas fields,

where costs are expected to be incurred in restoring the site of production facilities at the end of the producing life of an oil field. The Group recognises the full cost of site restoration as a liability when the obligation to rectify environmental damage arises.

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production from a producing field.

# KCM copper price participation

During the year ended 31 March 2013, the Group and ZCCM-IH agreed a final settlement for the copper price participation liability. The total amount to be paid is US\$119.7 million to be settled in 16 instalments with the first instalment starting on 31 December 2012 and last instalment on 30 September 2016. The total liability that remains outstanding is US\$102.0 million as at 31 March 2016. The liability recognised has been discounted at 11.00% to take into account the expected timings of the various payments and recognised as a liability of US\$94.4 million (2015: US\$91.9 million).

#### Other

Other includes provision on post retirement medical benefits. The expected period of utilisation is 18 years.

#### 31. Deferred tax

The Group has accrued significant amounts of deferred tax. The majority of the deferred tax liability represents accelerated tax relief for the depreciation of capital expenditure and the depreciation on fair value uplifts created on acquisitions, net of losses carried forward by Vedanta Limited (post the reorganisation) and MAT credits carried forward in Cairn India and Hindustan Zinc.

The amounts of deferred taxation on temporary differences, provided and not provided, in the accounts are as follows:

#### Provided - deferred tax liabilities/(assets)

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Accelerated capital allowances	2,164.2	3,478.3
Unutilised tax losses	(749.8)	(445.1)
Other temporary differences	(2049.6)	(1,697.1)
	(635.2)	1,336.1
Disclosed as:		
Deferred tax liability	620.2	2,588.7
Deferred tax asset	(1,255.4)	(1,252.6)
	(635.2)	1,336.1

#### Unrecognised deferred tax assets

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Unutilised business losses	(585.2)	(342.2)
Unabsorbed depreciation	(203.2)	(116.6)
Capital losses	(42.4)	(12.8)
Total	(830.8)	(471.6)

The above relates to the tax effect on US\$1,239.0 million (2015: US\$1,088.3 million) of unutilised tax losses of the Company, VRP, VRHL and VRJ2 which have no expiry period; US\$986.4 million (2015: US\$827.2 million) unutilised tax losses of Twin Star Mauritius Holdings Limited; US\$110.6 million unutilised tax losses of Westglobe Ltd (WL); which are subject to the Mauritius tax regime and can be carried forward for a period of five years; US\$54.9 million of unutilised tax losses and non-refundable R&D tax credits of Copper Mines of Tasmania, which can be carried forward indefinitely under the Australian tax regime; US\$515.4 million of unutilised tax losses of Konkola Copper Mines which can be carried forward for 10 years under the Zambian tax regime and US\$297.7 million (2015: US\$344.3 million) of unabsorbed depreciation for Malco Energy Limited (MEL); US\$250.8 million of unutilised tax losses and unabsorbed depreciation for Talwandi Sabo Power Ltd (TSPL); US\$143.0 million of unutilised capital losses of Hindustan Zinc Ltd (HZL); US\$40.7 million of unutilised capital losses of Vedanta Ltd (VEDL); US\$41.1 million of unutilised tax losses and unabsorbed depreciation for Vizag General Cargo Berth Pvt Ltd (VGCB) which are subject to the Indian tax regime. Pursuant to the Indian tax regime, unutilised business tax losses expire eight years from the period in which the losses arise and unabsorbed depreciation can be carried forward indefinitely. No deferred tax asset has been recognised on these unutilised tax losses and tax credits as there is no evidence that sufficient taxable profit will be available in the future against which they can be utilised by the respective entities.

#### Deferred tax asset

(US\$ million)	As at 31 March 2016	As at 31 March 2015
At 1 April	1,252.6	1,223.7
Reclassification	(10.1)	_
Credited to income statement	96.8	45.8
Credited/(charged) directly to equity	1.3	(0.3)
Foreign exchange differences	(85.2)	(16.6)
At 31 March	1,255.4	1,252.6

The Group has US\$2,274.6 million of unutilised tax losses in Vedanta Limited, BALCO, KCM and MAT credits of US\$1,966.8 million carried forward in Hindustan Zinc, Vedanta Limited and Cairn India which are subject to the Indian tax regime. Under the Indian tax regime, unutilised tax losses expire eight years from the period in which the losses arise and unabsorbed depreciation can be carried forward indefinitely. MAT credits expire 10 years from the period in which the credits arise.

Deferred tax assets in the Group have been recognised to the extent there are sufficient taxable temporary differences relating to the same taxation authority and the same taxable entity which are expected to reverse.

#### Deferred tax liability

(US\$ million)	As at 31 March 2016	As at 31 March 2015
At 1 April	2,588.7	4,960.1
Reclassification	(10.1)	_
Credited to income statement <sup>1</sup>	(1,921.8)	(2,377.5)
Charged/(credited) directly to equity	2.5	(6.5)
Foreign exchange differences	(39.1)	12.6
At 31 March	620.2	2,588.7

<sup>1</sup> Including deferred tax credit of US\$1,903.3 million (2015: US\$2138.0 million) related to impairment of Oil & Gas assets at Cairn (Note 5).

# 32. Share-based payments

#### Employee share schemes

The Group aims to provide superior rewards for outstanding performance and a high proportion of 'at risk' remuneration for Executive Directors. Three employee share schemes were approved by shareholders on Listing. In 2014, the Board introduced a Performance Share Plan (PSP) which is the primary arrangement under which share-based incentives are provided to the Executive Directors and the wider management group. In 2015, the Board also introduced a Deferred Share Bonus Plan (DSBP).

# The Vedanta Resources Long-Term Incentive Plan (the LTIP) and Employee Share Ownership Plan (the ESOP) and Performance Share Plan (the PSP)

The maximum value of shares that can be conditionally awarded to an Executive Director in a year is 150% of annual salary. In respect of Mr Navin Agarwal and Mr Tom Albanese, salary means the aggregate of their salary payable by Vedanta and their CTC payable by Vedanta Limited. The maximum value of shares that can be awarded to members of the wider management group is calculated by reference to the grade average CTC and individual grade of the employee. The performance conditions attaching to outstanding awards are as follows:

PSP – measured in terms of Total Shareholder Return (TSR) (being the movement in a company's share price plus reinvested dividends) – is compared over the performance period with the performance of the companies as defined in the scheme from the grant date. The extent to which an award vests will depend on the Company's TSR rank against a group or groups of peer companies at the end of the performance period and as moderated by the Remuneration Committee.

The vesting schedule is shown in the table below, with adjusted straight-line vesting in between the points shown and rounding down to the nearest whole share.

# Vedanta's TSR performance against comparator group

	(% of award vesting)
Below median	-
At median	30
At or above upper quartile	100

- The performance condition is measured by taking the Company's TSR over the three months immediately preceding the date of grant and over the three months immediately preceding the end of the performance period, and comparing its performance with that of the comparator group or groups. The information to enable this calculation to be carried out on behalf of the Remuneration Committee (the Committee) is provided by the Company's advisers. The Committee considers that this performance condition, which requires that the Company's total return has outperformed a group of industry peers, provides a reasonable alignment of the interests of the Executive Directors and the wider management group with those of the shareholders.
- Initial awards under the PSP were granted on 17 November 2014, 1 January 2015 and subsequently on 30 December 2015. The exercise price of the awards is 10 US cents per share and the performance period is three years, with no re-testing being allowed.
- ESOP measured in terms of business performance set against business plan for the financial year comprising operational
  deliverables, enabler parameters and sustainability performance specific to each company. The vesting schedule is graded over three
  years and varies from company to company with a minimum vesting of 30% triggering at either 80% or 85% business score. In
  another tranche, the vesting schedule is staggered over a period of three years from the date of grant, with 70% vesting based on the
  achievement of business performance and the remaining 30% based on continued employment with the Group until the end of the
  third year.
- Initial awards under ESOP were granted on 24 September 2012 with further awards being made on 16 May 2013. The exercise price of the awards is 10 US cents per share and the performance period is one year.
- The exercise period is six months from the date of vesting.
- LTIP measured in terms of Total Shareholder Return (TSR) (being the movement in a company's share price plus reinvested dividends) is compared over the performance period with the performance of the companies as defined in the scheme from the grant date. The extent to which an award vests will depend on the Company's TSR rank against a group of peer companies (Adapted Comparator Group) at the end of the performance period and as moderated by the Remuneration Committee. The vesting schedule is shown in the table below, with adjusted straight-line vesting in between the points shown and rounded down to the nearest whole share.

#### Vedanta's TSR performance against adapted comparator group

	(% of award vesting)
Below median	-
At median	40
At or above upper quartile	100

The performance condition is measured by taking the Company's TSR over the four weeks immediately preceding the date of grant and over the four weeks immediately preceding the end of the performance period, and comparing its performance with that of the comparator group described above. The information to enable this calculation to be carried out on behalf of the Remuneration Committee (the Committee) is provided by the Company's advisers. The Committee considers that this performance condition, which requires that the Company's total return has outperformed a group of companies chosen to represent the mining sector, provides a reasonable alignment of the interests of the Executive Directors and the wider management group with those of the shareholders.

Initial awards under the LTIP were granted on 26 February 2004. As on 31 March 2015 the awards outstanding are the awards issued on 1 August 2011, 1 October 2011, 1 January 2012 and 1 April 2012. The exercise price of the awards is 10 US cents per share and the performance period is three years, with no re-testing being allowed.

• The Vedanta Resources Deferred Share Bonus Plan (the DSBP) – In 2015, Vedanta introduced the DSBP, with initial awards being made in May 2015 and August 2015. Under the plan, a portion of the annual bonus is deferred into shares and the awards granted under this scheme are not subject to any performance conditions only on service conditions being met. The vesting schedule is staggered over a period of two or three years. In case of DSBP, the shares are purchased from open market and allotted to employees, officers and Directors. As on 31 March, the options outstanding under the DSBP scheme are 231,437.

In general, the awards will be settled in equity. The awards are accounted for in accordance with the requirements applying to equity-settled share-based payment transactions. The fair value of each award on the day of grant is equal to the average of the middle market quotations of its share price for five dealing days before the grant date.

Further details on these schemes are available in the Remuneration Report of the Annual Report.

The details of share options for the year ended 31 March 2016 and 31 March 2015 are presented below:

Year of grant	Exercise date	Exercise price US cents per share 1 April 2015	Options outstanding	Options granted during the year	Options lapsed during the year	Options lapsed during the year owing to performance conditions	Options exercised during the year	Options outstanding at 31 March 2016
2011	1 July 2014–1 January 2015	10	600	_	-	_	(600)	_
2011	1 August 2014–1 February 2015	10	118,527	_	(15,120)	_	(103,407)	_
2011	1 October 2014–1 April 2015 <sup>1</sup>	10	5,000	_	-	(1,800)	_	3,200
2012	1 January 2015–1 July 2015 <sup>1</sup>	10	7,000	_	_	(4,200)	_	2,800
2012	1 April 2015–1 September 2015 <sup>1</sup>	10	97,800	_	(37,850)	(58,190)	_	1,760
2012	24 September 2013–24 March 2016 <sup>1</sup>	10	368,952	_	(19,515)	-	(274,687)	74,750
2013	16 May 2014–16 November 2016	10	1,302,785	_	(159,288)	-	(361,500)	781,997
2014	17 November 2017–17 May 2018	10	5,335,500	_	(677,171)	_	_	4,658,329
2015	1 January 2018–1 July 2018	10	-	21,500	-	-	-	21,500
2015	30 December 2018–30 June 2019	10	-	5,484,575	(65,733)	_	-	5,418,842
			7,236,164	5,506,075	(974,677)	(64,190)	(740,194)	10,963,178

<sup>1</sup> The exercise period of the schemes expiring before 31 March 2016 has been extended up to June 2016.

# 32. Share-based payments continued

Year of grant	Exercise date	Exercise price US cents per share 1 April 2014	Options outstanding	Options granted during the year	Options lapsed during the year	Options lapsed during the year owing to performance conditions	Options exercised during the year	Options outstanding at 31 March 2015
2011	1 January 2014–1 July 2014	10	2,700	-	_	(1,620)	(1,080)	-
2011	1 April 2014–1 October 2014	10	67,500	_	_	(41,380)	(26,120)	_
2011	1 July 2014–1 January 2015	10	16,500	_	(5,000)	(6,900)	(4,000)	600
2011	1 August 2014–1 February 2015	10	2,185,550	-	(77,550)	(1,365,934)	(623,539)	118,527
2011	1 October 2014–1 April 2015	10	5,000	_	_	_	_	5,000
2012	1 January 2015–1 July 2015	10	7,000	_	_	_	_	7,000
2012	1 April 2015–1 September 2015	10	97,800	_	_	_	_	97,800
2012	24 September 2013–24 March 2016	10	2,380,748	_	(41,238)	(1,586,513)	(384,045)	368,952
2013	16 May 2014–16 October 2016	10	3,754,550	-	(188,047)	(1,899,849)	(363,869)	1,302,785
2014	17 November 2017–17 May 2018	10	-	5,485,000	(149,500)	-	-	5,335,500
			8,517,348	5,485,000	(461,335)	(4,902,196)	(1,402,653)	7,236,164

In the year ended 31 March 2016, 974,677 options lapsed in total and 740,194 options exercised. As at 31 March 2016, 10,963,178 options remained outstanding and 82,510 options were exercisable at the year end. The weighted average share price for the share options exercised during the year ended 31 March 2016 was GBP4.1 (year ended 31 March 2015: GBP8.9). The weighted average maturity period for the options outstanding as on 31 March 2016 is 31 months (31 March 2015: 33 months).

All share-based awards of the Group are equity-settled as defined by IFRS 2 'Share-based Payment'. The fair value of these awards has been determined at the date of grant of the award allowing for the effect of any market-based performance conditions. This fair value, adjusted by the Group's estimate of the number of awards that will eventually vest as a result of non-market conditions, is expensed on a straight-line basis over the vesting period.

The fair values were calculated using the Stochastic valuation model with suitable modifications to allow for the specific performance conditions of the respective schemes. The inputs to the model include the share price at date of grant, exercise price, expected volatility, expected dividends, expected term and the risk free rate of interest. A progressive dividend growth policy is assumed in all fair value calculations. Expected volatility has been calculated using historical return indices over the period to date of grant that is commensurate with the performance period of the award. The volatilities of the industry peers have been modelled based on historical movements in the return indices over the period to date of grant which is also commensurate with the performance period for the option. The history of return indices is used to determine the volatility and correlation of share prices for the comparator companies and is needed for the Stochastic valuation model to estimate their future TSR performance relative to the Company's TSR performance. All options are assumed to be exercised immediately after vesting.

The assumptions used in the calculations of the charge in respect of the PSP/ESOP awards granted during the year ended 31 March 2016 and 31 March 2015 are set out below:

	Year ended 31 March 2016 PSP December 2015	Year ended 31 March 2015 PSP November 2014
Number of instruments	5,484,575	5,485,000
Exercise price	US\$0.10	US\$0.10
Share price at the date of grant	GBP2.72	GBP8.09
Contractual life	3 years	3 years
Expected volatility	55.9%	35.5%
Expected option life	3 years	3 years
Expected dividends	9.93%	4.62%
Risk free interest rate	0.91%	0.90%
Expected annual forfeitures	10% p.a.	10% p.a.
Fair value per option granted	GBP1.95/GBP0.79	GBP6.98/GBP3.00

The Group recognised total expenses of US\$15.6 million and US\$28.6 million related to equity-settled share-based payment transactions in the year ended 31 March 2016 and 31 March 2015 respectively.

#### 33. Retirement benefits

The Group operates pension schemes for the majority of its employees in India, Australia, Africa and Ireland.

#### (a) Defined contribution schemes

Indian pension schemes

#### Central Recognised Provident Fund

The Central Recognised Provident Fund relates to all full-time Indian employees of the Group. The amount contributed by the Group is a designated percentage of 12% of basic salary less contributions made as part of the Pension Fund (see below), together with an additional contribution of 12% (limited to a maximum contribution of 30% in case of the Iron Ore segment) of the salary of the employee.

The benefit is paid to the employee on their retirement or resignation from the Group.

#### Superannuation

Superannuation, another pension scheme applicable in India, is applicable only to executives in grade M4 and above. However, in case of the Cairn India Group and Iron Ore segment, the benefit is applicable to all executives. In Cairn India, it is applicable from the second year of employment. Certain companies hold policies with the Life Insurance Corporation of India (LIC), to which they contribute a fixed amount relating to superannuation, and the pension annuity is met by the LIC as required, taking into consideration the contributions made. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

## Pension Fund

The Pension Fund was established in 1995 and is managed by the Government of India. The employee makes no contribution to this fund but the employer makes a contribution of 8.33% of salary each month subject to a specified ceiling per employee. This must be provided for every permanent employee on the payroll.

At the age of superannuation, contributions cease and the individual receives a monthly payment based on the level of contributions through the years, and on their salary scale at the time they retire, subject to a maximum ceiling of salary level. The Government funds these payments, thus the Group has no additional liability beyond the contributions that it makes, regardless of whether the central fund is in surplus or deficit.

# Australian Pension Scheme

The Group also operates defined contribution pension schemes in Australia. The contribution of a proportion of an employee's salary into a superannuation fund is a compulsory legal requirement in Australia. The employer contributes 9.5% of the employee's gross remuneration where the employee is covered by the industrial agreement and 12.5% of the basic remuneration for all other employees, into the employee's fund of choice. All employees have the option to make additional voluntary contributions.

# Zambian Pension Scheme

The KCM Pension Scheme is applicable to full-time permanent employees of KCM (subject to the fulfilment of certain eligibility criteria). The management of the scheme is vested in the trustees consisting of representatives of the employer and the members. The employer makes a monthly contribution of 5% to the KCM Pension Scheme and the member makes monthly contribution of 5%.

All contributions to the KCM Pension Scheme in respect of a member cease to be payable when the member attains normal retirement age of 55 years, or upon leaving the service of the employer, or when the member is permanently medically incapable of performing duties in the service of the employer. Upon such cessation of contribution on the grounds of normal retirement, or being rendered medically incapable of performing duties, or early voluntary retirement, the member is entitled to receive his accrued pension. The member is allowed to commute his/her accrued pension subject to certain rules and regulations.

The Group has no additional liability beyond the contributions that it makes. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

# Skorpion Zinc Provident Fund, Namibia

The Skorpion Zinc Provident Fund is a defined contribution fund and is compulsory to all full-time employees under the age of 60. Company contribution to the fund is a fixed percentage of 9% per month of pensionable salary, whilst the employee contributes 7% with the option of making additional contributions, over and above the normal contribution, up to a maximum of 12%.

Normal retirement age is 60 years and benefit payable is the member's fund credit which is equal to all employer and employee contributions plus interest. The same applies when an employee resigns from Skorpion Zinc. The Fund provides disability cover which is equal to the member's fund credit and a death cover of two times annual salary in the event of death before retirement. Current membership total is 908.

The Group has no additional liability beyond the contributions that it makes. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

Black Mountain Mining (Pty) Limited, South Africa pension and provident funds

Black Mountain Mining (Pty) Ltd has two retirement funds, both administered by Alexander Forbes, a registered financial service provider. Both funds form part of the Alexander Forbes umbrella fund and are defined contribution funds.

Membership of both funds is compulsory for all permanent employees under the age of 60.

#### Lisheen Mine, Ireland Pension Funds

Lisheen Pension Plan is for all employees. Lisheen pays 5% and employees pay 5% with the option to make Additional Voluntary Contributions (AVCs) if desired. Executive contributions are 15% by Lisheen and a minimum of 5% by the employee with the option to make AVCs if desired. Death benefit is three times salary for employees and four times salary for executives. Pension and life cover ceases at 65. On wind up of the pension schemes, the benefits will be paid out to the remaining members in accordance with the scheme rules and Irish Revenue tax regulations.

The Group has no additional liability beyond the contributions that it makes. Accordingly, this scheme has been accounted for on a defined contribution basis and contributions are charged directly to the income statement.

#### (b) Defined benefit schemes

#### India

The Gratuity schemes are defined benefit schemes which are open to all Group employees in India who have a minimum of five years of service with their employing company. These schemes are funded in some subsidiaries. Based on actuarial valuation, a provision is recognised in full for the projected obligation over and above the funds held in scheme. In case where there is no funding held by the scheme, full provision is recognised in the balance sheet. Under these schemes, benefits are provided based on final pensionable pay.

The assets of the schemes are held in separate funds and a full actuarial valuation of the schemes is carried out on an annual basis.

#### Vedanta Limited

The Iron Ore, Aluminium and Copper divisions of Vedanta Limited contributed to the LIC Fund based on an actuarial valuation every year. Vedanta Limited's Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2016 using the projected unit credit actuarial method.

# BALCO

All employees who are scheduled to retire on or before 31 March 2016 are being paid by BALCO. The Gratuity scheme is accounted for as a defined benefit scheme for all employees scheduled to retire after 31 March 2016. A provision is recognised based on the latest actuarial valuation which was performed as at 31 March 2016 using the projected unit actuarial method. At that date the fund was in deficit.

#### HZL

HZL contributes to the LIC fund based on an actuarial valuation every year. HZL's Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2016 using the projected unit actuarial method. At that date the fund was in deficit.

#### MEL

MEL contributed to the LIC fund based on an actuarial valuation every year. The MEL Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2016 using the projected unit credit actuarial method.

#### TSPL

TSPL contributes to the LIC based on an actuarial valuation. Liabilities with regard to the Gratuity scheme are fully provided in the balance sheet and are determined by actuarial valuation as at the balance sheet date and as per gratuity regulations for TSPL. The latest actuarial valuation was performed as at 31 March 2016 using the projected unit actuarial method.

#### Cairr

Cairn contributes to the LIC fund based on an actuarial valuation every year. Cairn India Group's Gratuity scheme is accounted for on a defined benefit basis. The latest actuarial valuation was performed as at 31 March 2016 using the projected unit actuarial method. At that date the fund was in deficit.

# Zambia

Specified permanent employees of KCM are entitled to receive medical and retirement severance benefits. This comprises two months' basic pay for every completed year of service with an earliest service start date of 1 July 2004. Under this scheme, benefits are provided based on final pensionable pay and a full actuarial valuation of the scheme is carried out on an annual basis. The accruals are not contributed to any fund and are in the form of provisions in KCM's accounts.

On the death of an employee during service, a lump sum amount is paid to his or her dependants. This amount is equal to 60 months' basic pay for employees who joined before 1 April 2000 and 30 months' basic pay for employees who joined on or after 1 April 2000. For fixed term contract employees, the benefit payable on death is 30 months' basic pay.

As at 31 March 2016, membership of pension schemes across Vedanta Limited, BALCO, HZL, TSPL, KCM and Cairn stood at 22,534

employees (31 March 2015: 24,456). The deficits, principal actuarial assumptions and other aspects of these schemes are disclosed in further detail in notes (d) and (e) below.

### (c) Pension scheme costs

Contributions of US\$66.5 million and US\$nil in respect of defined benefit schemes were outstanding and prepaid respectively as at 31 March 2016 (2015: US\$74.6 million and US\$nil respectively).

Contributions to all pension schemes in the year ending 31 March 2017 are expected to be around US\$5.0 million (actual contribution during the year ended 31 March 2016: US\$9.7 million).

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Defined contribution pension schemes	30.1	30.7
Defined benefit pension schemes	18.2	19.7
Total expense	48.3	50.4

### (d) Principal actuarial assumptions

Principal actuarial assumptions used to calculate the defined benefit schemes' liabilities are:

	MA	_CO	BA	LCO	Sterlite	Copper	Н	IZL	K	CM	Jharsugud	a Aluminium	Iron O	re Sesa	C	airn	TS	PL
Particulars	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15	Mar 16	Mar 15
Discount rate	8.0%	7.8%	8.0%	9.0%	8.0%	7.8%	8.0%	7.8%	24.0%	22.5%	8.0%	7.8%	8.0%	7.8%	8.0%	7.8%	8.0%	7.8%
Salary increases	5.5%	5.0%	5.0%	5.0%	5.5%	5.3%	5.5%	5.5%	5.0%	5.0%	6.0%	6.0%	7.0%	7.0%	10.0%	10.0%	5.5%	5.5%
Actual number of employees	71	76	2,498	3,059	1,067	1,078	4,646	5,286	7,230	7,281	2,393	2,738	2,860	3,821	1,482	1,569	238	211

In India, the mortality tables used assume that a person aged 60 at the end of the balance sheet date has a future life expectancy of 19 years.

Assumptions regarding mortality for Indian entities are based on mortality table of 'Indian Assured Lives Mortality (2006-2008)' published by the Institute of Actuaries of India.

Assumptions regarding mortality for KCM are based on World Health Organisation Life Tables for 1999 applicable to Zambia which has been taken as a reference point. Based on this a mortality table which is appropriate for the workers of Konkola Copper Mines plc has been derived.

# (e) Balance sheet recognition

		31 March 2016									31 March 2015							
(US\$ million)	MALCO & TSPL	BALCO	Sterlite Copper	HZL	КСМ	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total	MALCO & TSPL	BALCO	Sterlite Copper	HZL	KCM	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total
Fair value of pension scheme assets	0.1	_	2.9	27.6	_	1.6	5.6	5.7	43.5	0.3	_	2.5	26.8	_	1.5	9.0	4.9	45.0
Present value of pension scheme liabilities	(0.2)	(15.3)	(3.6)	(29.5)	(45.6)	(1.8)	(5.2)	(8.8)	(110.0)	(0.3)	(20.8)	(3.5)	(35.8)	(39.8)	(2.4)	(9.3)	(7.7)	(119.6)
Deficit in pension scheme recognised in balance sheet	(0.1)	(15.3)	(0.7)	(1.9)	(45.6)	(0.2)	0.4	(3.1)	(66.5)	_	(20.8)	(1.0)	(9.0)	(39.8)	(0.9)	(0.3)	(2.8)	(74.6)
Deferred tax	0.0	5.3	0.2	0.6	15.8	0.1	(0.2)	1.0	22.8	_	7.1	0.3	3.1	13.5	0.3	0.1	1.0	25.4
Net pension liability	(0.1)	(10.0)	(0.5)	(1.3)	(29.8)	(0.1)	0.2	(2.1)	(43.7)	-	(13.7)	(0.7)	(5.9)	(26.3)	(0.6)	(0.2)	(1.8)	(49.2)

# (f) Amounts recognised in income statement in respect of defined benefit pension schemes:

		31 March 2016									31 March 2015							
(US\$ million)	MALCO & TSPL	BALCO	Sterlite Copper	HZL	ксм	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total	MALCO & TSPL	BALCO	Sterlite Copper	HZL	KCM	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total
Current service cost	0.0	0.4	0.2	1.4	4.0	0.3	0.5	1.0	7.8	0.1	0.5	0.2	2.0	6.2	0.3	0.6	0.6	10.5
Net interest cost	0.0	1.3	0.1	0.3	8.4	0.1	0.1	0.1	10.4	0.0	1.6	0.2	0.5	6.4	0.0	0.2	0.3	9.2
Total charge to income statement	0.0	1.7	0.3	1.7	12.4	0.4	0.6	1.1	18.2	0.1	2.1	0.4	2.5	12.6	0.3	0.8	0.9	19.7

# (g) Amounts recognised in the Statement of Comprehensive Income:

	31 March 2016									31 March 2015								
(US\$ million)	MALCO & TSPL	BALCO	Sterlite Copper	HZL	ксм	Jhar- suguda Alumin- ium (	Iron Ore Sesa	Cairn	Total	MALCO & TSPL	BALCO	Sterlite Copper	HZL	KCM	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total
Actuarial gains/(losses) on defined benefit obligation	(0.1)	0.5	0.0	(2.0)	(6.7)	0.5	(0.2)	(0.1)	(8.1)	0.1	3.7	0.5	6.2	2.8	0.6	0.4	(0.1)	14.2
Actuarial (gains)/losses on plan asset	_	_	-	0.1	_	0.0	(0.2)	-	(0.1)	(0.1)	-	-	-	-	-	(0.1)	_	(0.2)
Remeasure- ment of the net defined benefit liability (asset)	(0.1)	0.5	0.0	(1.9)	(6.7)	0.5	(0.4)	(0.1)	(8.0)	_	3.7	0.5	6.2	2.8	0.6	0.3	(0.1)	14.0

(h) Movements in the present value of defined benefit obligations

The movement during the year ended 31 March 2016 of the present value of the defined benefit obligation was as follows:

		31 March 2016							31 March 2015									
(US\$ million)	MALCO & TSPL	BALCO	Sterlite Copper	HZL	ксм	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total	MALCO & TSPL	BALCO	Sterlite Copper	HZL	KCM	Jhar- suguda Alumin- ium	Iron Ore Sesa	Cairn	Total
At 1 April	(0.2)	(20.8)	(3.4)	(35.8)	(39.8)	(2.4)	(9.5)	(7.7)	(119.6)	(0.1)	(21.2)	(3.5)	(29.4)	(35.5)	(1.7)	(9.8)	(7.5)	(108.7)
Current service cost	(0.0)	(0.4)	(0.2)	(1.4)	(4.0)	(0.3)	(0.5)	(1.0)	(7.8)	(0.1)	(0.5)	(0.2)	(2.0)	(6.2)	(0.3)	(0.6)	(0.6)	(10.5)
Gratuity benefits paid	0.0	7.1	0.2	7.2	3.2	0.5	3.8	0.4	22.4	_	5.7	0.9	4.4	4.3	0.2	1.0	0.6	17.1
Interest cost of scheme liabilities	(0.0)	(1.3)	(0.3)	(2.6)	(8.4)	(0.2)	(0.6)	(0.4)	(13.8)	(0.1)	(1.6)	(0.3)	(2.6)	(6.6)	(0.1)	(0.9)	(0.3)	(12.5)
Remeasure- ment gains/(losses)	(0.1)	0.5	0.0	(2.0)	(6.7)	0.5	(0.2)	(0.1)	(8.1)	0.1	(3.7)	(0.5)	(6.2)	(2.8)	(0.6)	(0.5)	(0.0)	(14.2)
Exchange difference	0.1	(0.4)	0.1	5.2	10.0	0.1	1.9	(0.1)	16.9		0.5	0.2	-	7.0	0.1	1.3	0.1	9.2
At 31 March	(0.2)	(15.3)	(3.6)	(29.4)	(45.7)	(1.8)	(5.1)	(8.9)	(110.0)	(0.2)	(20.8)	(3.4)	(35.8)	(39.8)	(2.4)	(9.5)	(7.7)	(119.6)

#### (i) Movements in the fair value of plan assets

(US\$ million)	As at 31 March 2016	As at 31 March 2015
At 1 April	45.0	45.8
Contributions received	9.7	4.0
Benefits paid	(12.2)	(6.6)
Remeasurements	0.1	0.2
Interest income	3.4	3.3
Foreign exchange differences	(2.5)	(1.7)
At 31 March	43.5	45.0

### (j) Five year history

Defined benefit pension plan

(US\$ million)	As at 31 March 2016	As at 31 March 2015	As at 31 March 2014	As at 31 March 2013	As at 31 March 2012
Experience losses arising on scheme liabilities	(8.1)	(14.2)	(5.0)	(6.9)	(7.0)
Difference between expected and actual return on plan assets	0.1	0.2	0.8	0.6	_
Fair value of pension scheme assets	43.5	45.0	45.8	46.2	47.8
Present value of pension scheme liabilities	(110.0)	(119.6)	(108.7)	(112.9)	(106.9)
Deficits in the schemes	(66.5)	(74.6)	(62.9)	(66.7)	(59.1)

#### (k) Sensitivity analysis

Below is the sensitivity analysis determined for significant actuarial assumptions for the determination of defined benefit obligations and based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period while holding all other assumptions constant.

	Increase/(dec
	rease) in defined
	benefit
(US\$ million)	obligation
Discount rate	
Increase by 0.50%	(2.0)
Decrease by 0.50%	2.4
Salary increase	
Increase by 0.50%	2.0
Decrease by 0.50%	(1.9)

The above sensitivity analysis may not be representative of the actual benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

#### (I) Risk analysis

The Group is exposed to a number of risks in the defined benefit plans. The most significant risks pertaining to defined benefits plans and management estimation of the impact of these risks are as follows:

# Investment risk

Most of the Indian defined benefit plans are funded with Life Insurance Corporation of India. The Group does not have any liberty to manage the fund provided to Life Insurance Corporation of India.

The present value of the defined benefit plan liability is calculated using a discount rate determined by reference to Government of India bonds for the Group's Indian operations. If the return on plan asset is below this rate, it will create a plan deficit.

#### Interest risk

A decrease in the interest rate on plan assets will increase the plan liability.

#### Longevity risk/life expectancy

The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and at the end of the employment. An increase in the life expectancy of the plan participants will increase the plan liability.

#### Salary growth risk

The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. An increase in the salary of the plan participants will increase the plan liability.

#### 34. Capital management

The Group's objectives when managing capital are to safeguard continuity, maintain a strong credit rating and healthy capital ratios in order to support its business and provide adequate return to shareholders through continuing growth.

The Group sets the amount of capital required on the basis of annual business and long-term operating plans which include capital and other strategic investments. The funding requirement is met through a mixture of equity, internal accruals, convertible bonds and other long-term and short-term borrowings.

The Group monitors capital using a gearing ratio, being the ratio of net debt as a percentage of total capital.

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Total equity	6,852.4	12,257.4
Net debt	7,328.8	8,460.3
Total capital	14,181.2	20,717.7
Gearing	51.7%	40.8%

The increase in the gearing ratio compared to the 2015 ratio is primarily due to a decrease in total equity pursuant to the impairment charge on oil & gas assets of US\$3,030.9 million (net of deferred tax of US\$1,903.3 million) (Note 5).

#### 35. Share capital

	At 31 March	At 31 March 2016		
Authorised	Number	US\$ million	Number	US\$ million
Ordinary shares of 10 US cents each	400,000,000	40.0	400,000,000	40.0
Deferred shares of £1 each	50,000	-	50,000	_
	400,050,000	40.0	400,050,000	40.0
	At 31 March	At 31 March 2016		2015
Ordinary shares issued and fully paid	Number	US\$ million	Number	US\$ million
Ordinary shares of 10 US cents each	300,522,798	30.1	299,868,180	30.0
Deferred shares of £1 each	50,000	_	50,000	_
	300,572,798	30.1	299,918,180	30.0

During the year ended 31 March 2016, the Company issued 561,277 shares at face value of 10 US cents per share to the employees pursuant to the Vedanta LTIP and ESOP schemes (2015: 1,686,045 shares) and 93,341 shares were issued on the conversion of a convertible bond issued by one of the Group's subsidiaries.

The holders of deferred shares do not have the right to receive notice of any general meeting of the Company nor the right to attend, speak or vote at any such general meeting. The deferred shares have no rights to dividends and, on a winding-up or other return of capital, entitle the holder only to the payment of the amounts paid on such shares after repayment to the holders of ordinary shares of the nominal amount paid up on the ordinary shares plus the payment of £100,000 per ordinary share. Of the 50,000 deferred shares, one deferred share was issued at par and has been fully paid, and 49,999 deferred shares were each paid up as to one-quarter of their nominal value.

As on 31 March 2016, 6,904,995 ordinary shares which were issued on the conversion of certain convertible bonds issued by one of the Group's subsidiaries are held through a Global Depositary Receipts and carry no voting rights.

At 31 March 2016, the total number of treasury shares held was 24,309,230 (2015: 24,206,816).

#### 36. Non-controlling interests (NCI)

The Group consists of a parent Company, Vedanta Resources plc, incorporated in UK and a number of subsidiaries held directly and indirectly by the Group which operate and are incorporated around the world. Note 44 to the financial statements lists details of the interests in the subsidiaries.

Non-controlling interests that are material to the Group relate to Hindustan Zinc Limited (HZL), Cairn India Limited (Cairn) and Vedanta Limited.

As at 31 March 2016, NCIs hold an economic interest of 59.20%, 62.36% and 37.15% respectively in HZL, Cairn and Vedanta Limited. The respective NCI holdings in 2015 were 59.20%, 62.36% and 37.15% respectively.

Principal place of business of HZL, Cairn and Vedanta Limited is in India (refer to Note 44).

The table below shows details of non-wholly owned subsidiaries of the Group that have material non-controlling interests:

	Year ended 31 March 2016				Year ended 31 March 2015					
(US\$ million) Particulars	HZL	Cairn	Vedanta Limited	Others <sup>1</sup>	Total	HZL	Cairn	Vedanta Limited <sup>2</sup>	Others <sup>1</sup>	Total
Profit/(loss) attributable to NCI	706.8	(1,982.9)	342.6	(731.2)	(1,664.7)	813.8	(2,608.9)	74.7	(268.7)	(1,989.1)
Equity attributable to NCI	3,344.9	4,756.3	2,257.0	(2,793.0)	7,565.2	4,310.9	6,903.6	2,199.9	(2,760.1)	10,654.3
Dividends paid/payable to NCI	(825.7)	(55.3)	(98.5)	_	(979.5)	(107.8)	(165.4)	(67.2)	_	(340.4)

Others consist of investment subsidiaries of Vedanta Limited and other individual non-material subsidiaries.

Summarised financial information in respect of the Group's subsidiaries that have material non-controlling interests is set out below. The summarised financial information below is on a 100% basis and before inter-company eliminations:

	As	As at 31 March 2016			As at 31 March 2015		
(US\$ million) Particulars	HZL	Cairn	Vedanta Limited	HZL	Cairn	Vedanta Limited	
Non-current assets	2,346.8	3,516.9	11,541.6	2,193.2	10,407.1	11,502.0	
Current assets	5,591.8	5,128.4	3,586.3	5,305.9	3,794.8	1,614.8	
Current liabilities	(2,266.8)	(746.2)	(5,238.0)	(267.9)	(957.4)	(3,576.3)	
Non-current liabilities	(21.6)	(272.0)	(3,814.6)	(22.1)	(2,148.3)	(3,732.2)	
Net assets	5,650.2	7,627.1	6,075.3	7,209.1	11,096.2	5,808.3	

	Year e	ended 31 March	2016	Year e	ended 31 March	2015
Particulars	HZL	Cairn	Vedanta Limited	HZL	Cairn	Vedanta Limited
Revenue	2,132.4	1,322.3	4,541.0	2,385.8	2,397.5	5,290.4
Profit/(loss) for the year	1,193.9	(3,179.8)	922.1	1,360.8	(4,193.4)	199.1
Other comprehensive income/(loss)	1.9	0.1	(27.5)	(5.7)	_	(37.2)

The effect of changes in ownership interests in subsidiaries that did not result in a loss of control is as follows:

	Year ended 31 March 2016					
(US\$ million)	HZL	Cairn	Vedanta Limited	Others	Total	
Changes in NCI due to buyback and investment		-	-	_	_	
		Year e	nded 31 March 2	2015		
	HZL	Cairn	Vedanta Limited	Others	Total	
Changes in NCI due to buyback and investment	(197.2)	(531.5)	(83.3)	167.9	(644.1)	

<sup>2</sup> For principal activities, country of incorporation and the immediate holding company of the above subsidiaries refer to Note 44.

#### 37. Joint arrangements

#### Joint operations

The Group's principal license interests in the Oil & Gas business are joint operations. The principal license interests are as follows:

Oil & Gas blocks/fields	Area	Participating interest
Operated blocks		
Ravva block	Krishna Godavari	22.50%
CB-OS/2 – Exploration	Cambay Offshore	60.00%
CB-OS/2 – Development and production	Cambay Offshore	40.00%
RJ-ON-90/1 – Exploration	Rajasthan Onshore	100.00%
RJ-ON-90/1 – Development and production	Rajasthan Onshore	70.00%
PR-OSN-2004/1	Palar Basin Offshore	35.00%
KG-OSN-2009/3	Krishna Godavari Offshore	100.00%
MB-DWN-2009/1 <sup>1</sup>	Mumbai Deep Water	100.00%
South Africa Block <sup>1</sup>	Orange Basin South Africa Offshore	60.00%
Relinquished block		
SL 2007-01-001 <sup>2</sup>	North West Sri Lanka Offshore	100.00%
Non-operated block		
KG-ONN-2003/1 <sup>3</sup>	Krishna Godavari Onshore	49.00%

<sup>1</sup> Intended to be relinquished in the next year.

# 38. Commitments, guarantees and contingencies Commitments

The Group has a number of continuing operational and financial commitments in the normal course of business including:

- · exploratory mining commitments;
- oil & gas commitments;
- mining commitments arising under production sharing agreements; and
- completion of the construction of certain assets.

(US\$ million)	As at 31 March 2016	As at 31 March 2015
Capital commitments contracted but not provided	1,289.3	1,973.7
Commitments primarily related to the expansion projects:		
	As at 31 March 2016	As at 31 March 2015
HZL	296.7	274.4
Jharsuguda Aluminium	470.2	508.6
Jharsuguda 2,400MW power plant	32.3	33.7
BALCO	47.8	69.5
Talwandi Sabo	71.8	96.1
Sterlite Copper	207.1	220.8

# Guarantees

Cairn

**BMM** 

Others

**Total** 

Companies within the Group provide guarantees within the normal course of business. Guarantees have also been provided in respect of certain short-term and long-term borrowings.

41.5

58.1

5.5

1,231.0

602.0

1,805.1

A summary of the most significant guarantees is set out below:

As at 31 March 2016, US\$384.6 million of guarantees were advanced to banks, suppliers etc. in the normal course of business (2015:

<sup>2</sup> Relinquished on 15 October 2015.

Operatorship has been transferred to Oil and Natural Gas Corporation (ONGC) with effect from 7 July 2014.

US\$365.4 million). The Group has also entered into guarantees and bonds advanced to the customs authorities in India of US\$154.8 million relating to the export and payment of import duties on purchases of raw material and capital goods including export obligations (2015: US\$228.9 million).

# Cairn PSC guarantee to Government

The Group has provided a parent Company guarantee for the Cairn India Group's obligation under the Production Sharing Contract (PSC).

Cairn India have provided various other guarantees under the Cairn India Group's bank facilities for the Cairn India Group's share of minimum work programme commitments of US\$13.1 million outstanding as of 31 March 2016 (2015: US\$15.6 million).

#### Export obligations

The Indian entities of the Group have export obligations of US\$2,200.5 million (2015: US\$2,688.0 million) on account of concessional rates of import duty paid on capital goods under the Export Promotion Capital Goods Scheme and under the Advance License Scheme for import of raw material laid down by the Government of India.

In the event of the Group's inability to meet its obligations, the Group's liability would be US\$349.1 million (2015: US\$429.1 million), reduced in proportion to actual exports, plus applicable interest.

#### Contingencies

# MEL claims with Tamil Nadu Electricity Board (TNEB)

TNEB is claiming US\$16.3 million from MEL for an electricity self-generation levy for the period from May 1999 to June 2003. This claim has arisen since the commissioning of MEL's captive power plant in 1999. The Company has sought an exemption from the application of this levy from the Government of Tamil Nadu. The application is under consideration. Meanwhile, the Madras High Court has in its recent order, remitted back the case to the State of Tamil Nadu, to take a decision afresh on the representation for grant of tax exemption on consumption of electricity and directed to pass a detailed speaking order. MEL has accordingly represented before the Government of Tamil Nadu Energy Secretary, Government of Tamil Nadu vide his letter dated 20 March 2013 denied the exemption citing various reasons and asked MEL to remit US\$15.7 million. MEL moved to the High Court of Madras and a stay was granted on the same.

#### HZL: Department of Mines and Geology

The Department of Mines and Geology of the State of Rajasthan issued several show cause notices in August, September and October 2006 to HZL, totalling US\$53.3 million. These notices alleged unlawful occupation and unauthorised mining of associated minerals other than zinc and lead at HZL's Rampura Agucha, Rajpura Dariba and Zawar mines in Rajasthan during the period from July 1968 to March 2006. HZL believes that the claim becoming an obligation of the Company is unlikely and thus no provision has been made in the financial statements. HZL has filed writ petitions in the High Court of Rajasthan in Jodhpur and has obtained a stay in respect of these demands.

#### Richter and Westglobe: income tax

The Group through its subsidiaries Richter Holdings Limited (Richter) and Westglobe Limited (Westglobe) in 2007 acquired the entire stake in Finsider International Company Limited based in the United Kingdom. In October 2013, the Indian Tax Authorities (Tax Authorities) have served an order on Richter and Westglobe for alleged failure to deduct withholding tax on capital gain on the indirect acquisition of shares in April 2007. The Tax Authorities determined the liability for such non-deduction of tax as US\$132.1 million in the case of Richter and US\$88.0 million in the case of Westglobe, comprising tax and interest. Being aggrieved, Richter and Westglobe filed appeals before the first appellate authority. Writ petitions were filed in the High Court of Karnataka challenging the constitutional validity of retrospective amendments made by the Finance Act 2012 and in particular the imposition of obligations to deduct tax on payments made against an already concluded transaction. These Writs are pending for disposal before Division Bench. The hearing of the said Writ is due on 10 June 2016. Richter and Westglobe believe that they are not liable for such withholding tax and intend to defend the proceedings.

#### Cairn India: income tax

In March 2014, Cairn India received a show cause notice from the Indian Tax Authorities (Tax Authorities) for not deducting withholding tax on the payments made to Cairn UK Holdings Limited (CUHL) UK, for acquiring shares of Cairn India Holdings Limited (CIHL), as part of their internal reorganisation. The Tax Authorities have stated in the said notice that a short-term capital gain has accrued to CUHL on transfer of the shares of CIHL to Cairn India, in financial year 2006-2007, on which tax should have been withheld by the Company. Pursuant to this various replies were filed with the Tax Authorities.

After hearings, the Income Tax Authority, during March 2015, have issued an order by holding Cairn India as 'assessee in default' and asked to pay such demand totalling US\$3,089.7 million (including interest of US\$1,544.8 million). Cairn India has filed its appeal before the Appellate Authority CIT (Appeals) and filed a fresh Writ petition before Delhi High Court wherein it raised several points for assailing the aforementioned order. The hearing of the said Writ is due on 4 August 2016.

The Company has issued a Notice of arbitration to the Government of India by invoking Bilateral Investment Promotion Treaty between the UK and India.

# Vedanta Limited: contractor claim

Shenzhen Shandong Nuclear Power Construction Co. Limited (SSNP) subsequent to terminating the EPC contract invoked arbitration as per the contract alleging non-payment of their dues towards construction of a 210MW co-generation power plant for 6mtpa expansion project, and filed a claim of US\$248.1 million. SSNP also filed a petition under Section 9 of the Arbitration and Conciliation Act, 1996 before the Bombay High Court praying for interim relief. The Bombay High Court initially dismissed their petition, but on a further appeal by SSNP, the Division Bench of the Bombay High Court directed Jharsuguda Aluminium to deposit a bank guarantee for an amount of US\$27.8 million as a security, being a prima facie representation of the claim, until arbitration proceedings are completed. Jharsuguda Aluminium has deposited a bank guarantee of equivalent amount. Management is of the opinion that this claim is not valid under the terms of the contract with SSNP and it is unlikely that SSNP can legally sustain the claim and, accordingly, no provision is considered necessary.

Ravva joint venture arbitration proceedings: Base Development Cost

In case of Cairn, Ravva joint venture had received a claim from the Ministry of Petroleum and Natural Gas, Government of India (GOI) for the period from 2000 to 2005 for US\$129.0 million for an alleged underpayment of profit petroleum to the Indian Government, out of which, the Group's share will be US\$29.0 million plus potential interest at applicable rate (LIBOR plus 2% as per PSC). This claim relates to the Indian Government's allegation that the Ravva JV had recovered costs in excess of the Base Development Costs (BDC) cap imposed in the PSC and that the Ravva JV had also allowed these excess costs in the calculation of the Post Tax Rate of Return (PTRR). Joint venture partners initiated the arbitration proceedings and Arbitration Tribunal published the Award on 18 January 2011 at Kuala Lumpur, allowing claimants (including the Group) to recover the development costs spent to the tune of US\$278.0 million and disallowed over run of US\$22.3 million spent in respect of BDC along with 50% legal costs reimbursable to the joint venture partners. The High Court of Kuala Lumpur dismissed Government of India's application of setting aside the part of the Award on 30 August 2012 with costs. However, GOI appealed before the Court of Appeal against the High Court's order and the Court of Appeal dismissed the GOI's appeal on 27 June 2014. However, GOI still preferred to challenge the same before the Federal Court, Kuala Lumpur and their Leave to Appeal is pending. GOI has also issued Show Cause Notice on this matter which Cairn has replied to and also filed an application for enforcement of Award before Delhi High Court as an abundant caution.

Ravva joint venture arbitration proceedings: ONGC Carry

Cairn is involved in a dispute against GOI relating to the recovery of contractual costs in terms of calculation of payments that contractor party was required to make in connection with the Ravva field.

The Ravva production sharing contract obliges the contractor party to pay proportionate share of ONGC's exploration, development, production and contract costs in consideration for ONGC's payment of costs related to construction and other activities it conducted in Ravva prior to the effective date of the Ravva production sharing contract (the ONGC Carry). The question as to how the ONGC Carry is to be recovered and calculated, along with other issues, was submitted to an international arbitration Tribunal in August 2002 which rendered a decision on the ONGC Carry in favour of the contractor party whereas four other issues were decided in favour of GOI in October 2004 (Partial Award).

The GOI then proceeded to challenge the ONGC Carry decision before the Malaysian courts, as Kuala Lumpur was the seat of the arbitration. The Federal Court of Malaysia, which adjudicated the matter on 11 October 2011, upheld the Partial Award. Per the decision of the Arbitral Tribunal in the Partial Award, the contractor party and GOI were required to arrive at a quantification of the sums relatable to each of the issues under the Partial Award. Also, the arbitral Tribunal retained the jurisdiction for determination of any remaining issues in the matter.

Pursuant to the decision of the Federal Court, the contractor party approached the Ministry of Petroleum and Natural Gas (MoPNG) to implement the Partial Award while reconciling the statement of accounts as outlined in the Partial Award in 2004. GOI failed to implement the Partial Award by way of reconciling accounts as provided in the Partial Award ever since the Federal Court of Malaysia adjudicated in Cairn and other joint operator partners' favour.

However, the MoPNG on 10 July 2014 proceeded to issue a show cause notice alleging that since the Partial Award has not been enforced, profit petroleum share of GOI has been short-paid. MoPNG threatened to recover that amount from the sale proceeds payable by the oil marketing companies to the contractor party. The contractor party replied to the show cause notice taking various legal contentions. On 9 March 2015 a personal hearing took place between MoPNG and the contractor party, whereby the contractor party expressed their concerns against such alleged unilateral recoveries and filed further written submissions on 12 March 2015.

As the Partial Award did not quantify the sums, therefore, the contractor party approached the same arbitral Tribunal to pass a final award in the subject matter since it had retained the jurisdiction to do so. The Arbitral Tribunal has been reconstituted and the determination of final award is sub-judice before it. While Cairn does not believe the GOI will be successful in its challenge, if the arbitral award is reversed and such reversal is binding, Cairn could be liable for approximately US\$63.9 million.

#### Proceedings related to the imposition of entry tax

BALCO and Vedanta Limited have challenged the constitutional validity of the local statute in Chattisgarh and Orissa respectively, levying entry tax on the entry of goods brought into the States from outside and other notifications, as being in violation of certain provisions of the Indian Constitution. The challenges are pending in the Supreme Court to be heard by a Constitution Bench taking into account diverse opinion of various High Courts and the same is listed on 11 May 2016. BALCO paid the entry tax of US\$30.6 million under protest to the state government of Chhattisgarh until 31 March 2015. Vedanta Limited was directed by the Supreme Court on 3 February 2010 to deposit a sum of US\$0.6 million and a further amount on a monthly basis until the matter is actually disposed. These amounts have been paid under protest. In a related matter in respect of challenging the levy of entry tax on imported goods, the Supreme Court on 9 April 2013 directed 50% of the entry tax amount accrued until 30 September 2012. The amount of US\$21.0 million (as on 31 March 2015) has been deposited in accordance with the order of the Supreme Court. Total claims from Vedanta Limited are of US\$112.5 million (2015: US\$103.3 million).

Additionally, for entry tax in SEZ, GOO has finally come out with SEZ policy 2015 exempting entry tax levy on SEZ operations which were recently notified in December 2015. We have applied for the issuance of an eligibility certificate to IPICOL for availing entry tax exemption; however, an operational guideline is pending to be issued by the industry department. The declaration of SEZ policy being a recent development after the filing of a petition before court, hence Vedanta is trying to bring out the same before the Court by filing an affidavit separately for appreciation of the court in the coming hearing.

#### TSPL

TSPL has entered into a long-term Power Purchase Agreement (PPA) with Punjab State Power Corporation Limited (PSPCL) for supply of power. Due to delay in fulfilment of certain obligations by PSPCL as per the PPA, other related reasons and force majeure events, there has been a delay in implementation/completion of the project as compared to the PPA timelines. TSPL has received notices of claims from PSPCL seeking payment of Liquidated Damages (LD) maximum of US\$50.9 million each for delay in commissioning of Unit I, II and III, totalling US\$152.9 million.

During the year, PSPCL invoked the Performance Bank Guarantee of US\$24.1 million to recover the LD on account of delay in COD of Unit I. TSPL filed a petition at Punjab State Electricity Regulatory Commission (PSERC) for adjudication of above dispute. TSPL had

also filed a civil writ petition before the High Court of Punjab and Haryana against the bank guarantee invocation, which was disposed with a direction to refer the matter to PSERC for adjudication while granting stay. Further, PSERC vide order dated 22 October 2014 directed the matter to be settled through arbitration and allowed the stay on encashment of the bank guarantee until further orders. PSPCL has preferred an appeal in Appellate Tribunal for Electricity (APTEL) against the PSERC order and APTEL had, on 12 May 2015, disposed the matter with a direction that the matter will be heard by way of arbitration. The arbitration proceedings are in the early stages. The Group has been legally advised by its advisers who have opined that such claims for LD from PSPCL are unsustainable. Recently, Appellate Tribunal for Electricity has, in a separate petition, before it by TSPL has adjudicated that coal is an absolute obligation of PSPCL and it needs to enter into a Fuel Supply Agreement and assign to TSPL. In light of the delay by PSPCL in entering into the Fuel Supply Agreement, the claims of PSPCL are further unsustainable.

Miscellaneous disputes - Vedanta Limited, HZL, MEL, BALCO, Cairn, Lisheen, VRJL and VRJII

The Group is subject to various claims and exposures which arise in the ordinary course of conducting and financing its business from the income tax, excise, indirect tax authorities and others. These claims and exposures mostly relate to the assessable values of sales and purchases or to incomplete documentation supporting the companies' returns or other claims.

The approximate value of claims against the Group companies excluding claims shown above total US\$1,182.3 million (2015: US\$1,005.0 million), of which US\$14.9 million (2015: US\$29.3 million) is included as a provision in the balance sheet as at 31 March 2016 (including claims of US\$646.3 million in respect of income tax assessments out of which US\$2.1 million is included as a provision in the balance sheet as at 31 March 2016).

The Group considers that it can take steps such that the risks can be mitigated and that there are no significant unprovided liabilities arising.

#### Operating lease commitments: as lessee

Operating leases are in relation to the office premises, office equipment and other assets, some of which are cancellable and some are non-cancellable. There is an escalation clause in the lease agreements during the primary lease period. There are no restrictions imposed by lease arrangements and there are no sub leases. There are no contingent rents. The total of the future minimum lease payments under non-cancellable leases are as follows:

(US\$ million) Particulars	As at 31 March 2016	As at 31 March 2015
Within one year of the balance sheet date	3.9	4.9
Within two to five years from the balance sheet date	0.4	5.6
Total	4.3	10.5

Lease payments recognised as expenses during the year ended 31 March 2016, on non-cancellable leases, is US\$8.1 million (31 March 2015: US\$3.9 million).

# 39. Related party transactions

The information below sets out transactions and balances between the Group and various related parties in the normal course of business for the year ended 31 March 2016.

# Sterlite Technologies Limited (STL)

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Sales to STL	140.4	126.0
Recovery of expenses	0.2	0.0
Purchases	1.1	2.9
Net interest received	0.2	0.6
Net amounts receivable at year end	0.2	3.7
Net amounts payable at year end	1.4	
Dividend income	0.0	_

Sterlite Technologies Limited is related by virtue of having the same controlling party as the Group, namely Volcan. Pursuant to the terms of the Shared Services Agreement dated 5 December 2003 entered into by the Company and STL, the Company provides various commercial services in relation to STL's businesses on an arm's length basis and at normal commercial terms. For the year ended 31 March 2016, the commercial services provided to STL were performed by certain senior employees of the Group on terms set out in the Shared Services Agreement. The services provided to STL in this year amounted to US\$0.02 million (2015: US\$0.02 million).

#### Vedanta Foundation

During the year US\$0.5 million was paid to the Vedanta Foundation (2015: US\$0.7 million).

The Vedanta Foundation is a registered not-for-profit entity engaged in computer education and other related social and charitable activities. The major activity of the Vedanta Foundation is providing computer education for disadvantaged students. The Vedanta Foundation is a related party as it is controlled by members of the Agarwal family who control Volcan. Volcan is also the majority shareholder of Vedanta Resources plc.

#### Sesa Goa Community Foundation Limited

Following the acquisition of erstwhile Sesa Goa Limited, the Sesa Goa Community Foundation Limited, a charitable institution, became a related party of the Group on the basis that key management personnel of the Group have significant influence on the Sesa Goa Community Foundation Limited. During the year ended 31 March 2016, US\$0.4 million (2015: US\$0.4 million) was paid to the Sesa Goa Community Foundation Limited.

#### Sterlite Iron and Steel Limited

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Loan balance receivable	0.7	1.1
Net amount receivable at year end (including interest)	1.8	1.8
Net interest received	0.1	0.2

Sterlite Iron and Steel Limited is a related party by virtue of having the same controlling party as the Group, namely Volcan.

#### Vedanta Medical Research Foundation

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Donation	2.7	0.7

Vedanta Medical Research Foundation is a related party of the Group on the basis that key management personnel of the Group exercise significant influence.

#### Volcan Investments Limited

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Net amount receivable at the year end	0.2	0.4
Recovery of expenses	0.3	0.3
Dividend paid	75.0	115.6

Volcan Investments Limited is a related party of the Group by virtue of being an ultimate controlling party of the Group.

A bank guarantee has been provided by the Group on behalf of Volcan in favour of Income tax department, India as collateral in respect of certain tax disputes of Volcan. The guarantee amount is US\$17.3 million (2015: US\$18.4 million).

# Ashurst LLP

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Services received during the year	0.1	0.4

Ashurst LLP is a related party of the Group on the basis that an independent Director of the Group was a partner in the legal firm Ashurst LLP during the year ended 31 March 2016. It ceased to be a related party from 1 May 2015 onwards.

# **Employees Provident Fund Trust**

Details of transactions during the year with post-retirement trusts:

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
BALCO Employees Provident Fund Trust	1.7	2.2
Hindustan Zinc Ltd. Employee Contributory Provident Fund Trust	5.0	5.2
Sesa Group Employees Provident Fund	2.4	2.6
Sesa Resources Limited Employees Provident Fund	0.3	0.3
Sesa Mining Corporation Limited Employees Provident Fund	0.3	0.4

#### Remuneration of key management personnel

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Short-term employee benefits	20.0	15.9
Post-employment benefits	0.9	0.8
Share-based payments	2.3	2.5
	23.2	19.2

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any Director (whether executive or otherwise).

#### Other related party1

(US\$ million)	Year ended 31 March 2016	Year ended 31 March 2015
Salary paid	1.1	1.0
Interest bearing salary advance <sup>2</sup>	-	1.5

- 1 Close relative of the Executive Chairman.
- 2 Since repaid.

In addition to the above, sitting fees and commission of US\$34,371 (2015: US\$39,250) was also paid.

# 40. Share transactions – call options

#### (a) HZL

Pursuant to the Government of India's policy of divestment, in April 2002 the Company acquired 26% equity interest in HZL from the Government of India. Under the terms of the Shareholder's Agreement (SHA), the Group had two call options to purchase all of the Government of India's shares in HZL at fair market value. The Group exercised the first call option on 29 August 2003 and acquired an additional 18.9% of HZL's issued share capital. The Company also acquired an additional 20% of the equity capital in HZL through an open offer, increasing its shareholding to 64.9%. The second call option provides the Group the right to acquire the Government of India's remaining 29.5% share in HZL. This call option is subject to the right of the Government of India to sell 3.5% of HZL shares to HZL employees. The Group exercised the second call option on 21 July 2009. The Government of India disputed the validity of the call option and has refused to act upon the second call option. Consequently, the Company invoked arbitration which is in the early stages. The next date of the hearing is scheduled for 20 August 2016. Meanwhile, the Government of India, without prejudice to the position on the put/call option issue, has received approval from the Cabinet for divestment and the Government is looking to divest through the auction route.

#### (b) BALCO

Pursuant to the Government of India's policy of divestment, in March 2001 the Company acquired 51% equity interest in BALCO from the Government of India. Under the terms of the SHA, the Group has a call option to purchase the Government of India's remaining ownership interest in BALCO at any point from 2 March 2004. The Group exercised this option on 19 March 2004. However, the Government of India has contested the valuation and validity of the option and contended that the clauses of the SHA violate the (Indian) Companies Act, 1956 by restricting the rights of the Government of India to transfer its shares and that as a result such provisions of the SHA were null and void. In the arbitration filed by the Group, the arbitral tribunal by a majority award rejected the claims of the Group on the grounds that the clauses relating to the call option, the right of first refusal, the 'tag-along' rights and the restriction on the transfer of shares violate the (Indian) Companies Act, 1956 and are not enforceable. The Group has challenged the validity of the majority award in the High Court of Delhi and sought for setting aside the arbitration award to the extent that it holds these clauses ineffective and inoperative. The Government of India also filed an application before the High Court of Delhi to partially set aside the arbitral award in respect of certain matters involving valuation. The matter is currently scheduled for hearing by the Delhi High Court on 28 July 2016. Meanwhile, the Government of India, without prejudice to its position on the put/call option issue, has received approval from the Cabinet for divestment and the Government is looking to divest through the auction route.

On 9 January 2012, the Group offered to acquire the Government of India's interests in HZL and BALCO for the INR equivalent of US\$2,356.5 million and US\$271.1 million, respectively. This offer was separate from the contested exercise of the call options, and the Group proposed to withdraw the ongoing litigations in relation to the contested exercise of the options should the offer be accepted. To date, the offer has not been accepted by the Government of India and, therefore, there is no certainty that the acquisition will proceed.

The Group continues to include the shareholding in the two companies HZL and BALCO, in respect of which the Group has a call option as non-controlling interest.

## 41. Konkola Copper Mines: value added tax

In earlier years, Zambia Revenue Authority (ZRA) had raised an assessment demand related to output tax amounting to K4.71 billion (US\$600 million at the time). The assessment covered the years 2011, 2012 and the first quarter of 2013 and claimed non-submission of documentary evidence as required under Rule 18 of the Value Added Tax Rules to prove an export and claim it as zero rated sales. As a consequence, all sales of products that were zero rated in the returns became standard rated by this assessment. After a series of deliberations, submission of the requisite documents by KCM, followed by an independent audit by ZRA, the assessment demand has now been set aside.

Additionally, KCM has US\$129 million receivable on account of value added tax on inputs that are receivable from the Zambian Government. KCM has submitted all the requisite documents and is in full compliance as per the previous Rule 18. There are precedents where other companies have received refunds of such amounts from the Government on submission of documents. Further, effective February 2015, Rule 18 has been amended by allowing exporters to submit transit documents issued by the customs authority in the country of transit of the goods instead of import certificates from the country of destination, as proof of export for purposes of VAT zero rating.

The discharge of assessment demand and amendment to Rule 18 will make it easier to collect the refunds. The Group believes that it will receive a refund of the entire amount and there is no objective evidence of uncertainty around collectability.

#### 42. Cairn merger update

The Board of Directors of the Company and Cairn India Limited at their respective meetings held on 14 June 2015 had approved the Scheme of Arrangements (the Scheme) between the Company and Cairn India Limited and their respective shareholders and creditors, subject to regulatory and other approvals. On 10 September 2015, BSE Limited and the National Stock Exchange of India Limited has issued the 'No adverse observation' letter to the Scheme.

#### 43. Subsequent events

In March 2016, the Company has announced a third bond buyback programme through market purchase route. Post the balance sheet date and up to the date of approval of the financial statements it has bought back bonds worth US\$129.7 million.

#### 44. List of subsidiaries

The financial statements comprise the financial statements of the following subsidiaries:

		The Compan	y's economic ge holding	Country of incorporation	lanca di da	Immediate percentage holdi	
Subsidiaries	Principal activities	31 March 2016	31 March 2015		Immediate holding company	31 March 2016	31 March 2015
Direct subsidiaries of the parent Company							
Vedanta Resources Holding Limited (VRHL)	Holding company	100.00%	100.00%	United Kingdom	VR plc	100.00%	100.00%
Vedanta Resources Jersey Limited (VRJL)	Investment company	100.00%	100.00%	Jersey (CI)	VR plc	100.00%	100.00%
Vedanta Resources Jersey II Limited (VRJL-II)	Investment company	100.00%	100.00%	Jersey (CI)	VR plc	100.00%	100.00%
Vedanta Finance (Jersey) Limited (VFJL)	Investment company	100.00%	100.00%	Jersey (CI)	VR plc	100.00%	100.00%
Vedanta Jersey Investments Limited (VJIL)	Investment company	100.00%	100.00%	Jersey (CI)	VR plc	100.00%	100.00%
Indirect subsidiaries of the parent Company							
Vedanta Limited	Copper smelting, iron ore mining, aluminium mining, refining and smelting, power generation	62.85%	62.85%	India	Twin Star	46.53%	46.53%
Bharat Aluminium Company Limited (BALCO)	Aluminium mining and smelting	32.05%	32.05%	India	Vedanta Limited	51.00%	51.00%
Copper Mines of Tasmania Pty Limited (CMT)	Copper mining	62.85%	62.85%	Australia	MCBV	100.00%	100.00%
Fujairah Gold FZC <sup>1</sup>	Gold and silver processing	62.85%	62.85%	UAE	MEL	97.96%	-
Hindustan Zinc Limited (HZL)	Zinc and mining and smelting	40.80%	40.80%	India	Vedanta Limited	64.92%	64.92%
Monte Cello BV (MCBV)	Holding company	62.85%	62.85%	Netherlands	Vedanta Limited	100.00%	100.00%
Monte Cello Corporation NV (MCNV)	Holding company	100.00%	100.00%	Curacao	Twin Star	100.00%	100.00%
Konkola Copper Mines PLC	CCopper mining and	79.42%	79.42%	Zambia	VRHL	79.42%	79.42%

The Company's economic	
percentage holding	

			mpany's economic entage holding		leene diete	Immediate percentage holding	
Subsidiaries	Principal activities	31 March 2016	31 March 2015	Country of incorporation	Immediate holding company	31 March 2016	31 March 2015
(KCM)	smelting			·	<u></u>		
Sesa Resources Limited (SRL)	Iron ore	62.85%	62.85%	India	Vedanta Limited	100.00%	100.00%
Sesa Mining Corporation Limited	Iron ore	62.85%	62.85%	India	SRL	100.00%	100.00%
Thalanga Copper Mines Pt Limited (TCM)	yCopper mining	62.85%	62.85%	Australia	MCBV	100.00%	100.00%
Twin Star Holdings Limited (Twin Star)	Holding company	100.00%	100.00%	Mauritius	VRHL	100.00%	100.00%
MALCO Energy Limited (MEL)	Power generation	62.85%	62.85%	India	Vedanta Limited	100.00%	100.00%
Richter Holding Limited (Richter)	Investment company	100.00%	100.00%	Cyprus	VRCL	100.00%	100.00%
Westglobe Limited	Investment company	100.00%	100.00%	Mauritius	Richter	100.00%	100.00%
Finsider International Company Limited	Investment company	100.00%	100.00%	United Kingdom	Richter	60.00%	60.00%
Vedanta Resources Finance Limited (VRFL)	Investment company	100.00%	100.00%	United Kingdom	VRHL	100.00%	100.00%
Vedanta Resources Cyprus Limited (VRCL)	s Investment company	100.00%	100.00%	Cyprus	VRFL	100.00%	100.00%
Welter Trading Limited (Welter)	Investment company	100.00%	100.00%	Cyprus	VRCL	100.00%	100.00%
Lakomasko B.V.	Investment company	62.85%	62.85%	Netherlands	THL Zinc Holding B.V.	100.00%	100.00%
THL Zinc Ventures Limited	Investment company	62.85%	62.85%	Mauritius	Vedanta Limited	100.00%	100.00%
Twin Star Energy Holdings Limited (TEHL)	Holding company	62.85%	62.85%	Mauritius	BFM	100.00%	100.00%
THL Zinc Limited	Investment company	62.85%	62.85%	Mauritius	THL Zinc Ventures Ltd	100.00%	100.00%
Sterlite (USA) Inc.	Investment company	62.85%	62.85%	USA	Vedanta Limited	100.00%	100.00%
Talwandi Sabo Power Limited	Power generation	62.85%	62.85%	India	Vedanta Limited	100.00%	100.00%
Konkola Resources plc <sup>2</sup>	Holding company	-	100.00%	United Kingdom	VRHL	-	100.00%
Twin Star Mauritius Holdings Limited (TMHL)	Holding company	62.85%	62.85%	Mauritius	TEHL	100.00%	100.00%
THL Zinc Namibia Holdings (Pty) Limited (VNHL)	Mining and exploration	62.85%	62.85%	Namibia	THL Zinc Ltd	100.00%	100.00%
Skorpion Zinc (Pty) Limited (SZPL)	Acquisition of immovable and movable properties	62.85%	62.85%	Namibia	VNHL	100.00%	100.00%
Namzinc (Pty) Limited (SZ)	Mining	62.85%	62.85%	Namibia	SZPL	100.00%	100.00%
Skorpion Mining Company (Pty) Limited (NZ)	Mining	62.85%	62.85%	Namibia	SZPL	100.00%	100.00%
Amica Guesthouse (Pty) Ltd	Accommodation and catering services	62.85%	62.85%	Namibia	SZPL	100.00%	100.00%
Rosh Pinah Healthcare (Pty) Ltd	Leasing out of medical equipment and building	43.37%	43.37%	Namibia	SZPL	69.00%	69.00%

The Company's economic percentage holding

		The Company's economic percentage holding		percentage holding		Immediate percentage holdin		
Subsidiaries	sidiaries Principal activities	31 March 2016	31 March 2015	Country of incorporation	Immediate holding company	31 March 2016	31 March 2015	
	and conducting services related thereto							
Black Mountain Mining (Pty) Ltd	Mining	43.13%	43.13%	South Africa	THL Zinc Ltd	74.00%	74.00%	
THL Zinc Holding BV	Investment company	62.85%	62.85%	Netherlands	Vedanta Limited	100.00%	100.00%	
Lisheen Mine Partnership	Mining partnership firm	62.85%	62.85%	Ireland	VLML	50.00%	50.00%	
Pecvest 17 Proprietary Ltd.	Investment company	62.85%	62.85%	South Africa	THL Zinc Ltd	100.00%	100.00%	
Vedanta Lisheen Holdings Limited (VLHL)	Investment company	62.85%	62.85%	Ireland	THL Zinc Holding BV	100.00%	100.00%	
Vedanta Exploration Ireland Limited	dExploration company	62.85%	62.85%	Ireland	VLHL	100.00%	100.00%	
Vedanta Lisheen Mining Limited (VLML)	Mining	62.85%	62.85%	Ireland	VLHL	100.00%	100.00%	
Killoran Lisheen Mining Limited	Mining	62.85%	62.85%	Ireland	VLHL	100.00%	100.00%	
Killoran Lisheen Finance Limited	Investment company	62.85%	62.85%	Ireland	VLHL	100.00%	100.00%	
Lisheen Milling Limited	Manufacturing	62.85%	62.85%	Ireland	VLHL	100.00%	100.00%	
Vizag General Cargo Berth Private Limited	Infrastructure	62.85%	62.85%	India	Vedanta Limited	99.99%	99.99%	
Paradip Multi Cargo Berth Private Limited	Infrastructure	46.51%	46.51%	India	Vedanta Limited	74.00%	74.00%	
Sterlite Ports Limited (SPL)	Investment company	62.85%	62.85%	India	Vedanta Limited	100.00%	100.00%	
Maritime Ventures Private Limited	Infrastructure	62.85%	62.85%	India	SPL	100.00%	100.00%	
Sterlite Infraventures Limited	Investment company	62.85%	62.85%	India	Vedanta Limited	100.00%	100.00%	
Bloom Fountain Limited (BFM)	Investment company	62.85%	62.85%	Mauritius	Vedanta Limited	100.00%	100.00%	
Western Cluster Limited	Mining company	62.85%	62.85%	Liberia	BFM	100.00%	100.00%	
Sesa Sterlite Mauritius Holdings Limited	Investment company	100.00%	100.00%	Mauritius	VRHL	100.00%	100.00%	
Vedanta Finance UK Limited	Investment company	100.00%	100.00%	United Kingdom	Welter	100.00%	100.00%	
Valliant (Jersey) Limited	Investment company	100.00%	100.00%	Jersey (CI)	VRJL-II	100.00%	100.00%	
Cairn India Limited	Oil & gas exploration, and production	37.64%	37.64%	India	TMHL	34.43% <sup>3</sup>	39.41%	
Cairn India Holdings Limited	Investment company	37.64%	37.64%	Jersey	Cairn India Limited	100.00%	100.00%	
Cairn Energy Holdings Limited	Investment company	37.64%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%	
Cairn Energy Hydrocarbons Ltd	sExploration and production	37.64%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%	
Cairn Exploration (No.7) Limited <sup>4</sup>	Exploration and production	37.64%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%	
Cairn Exploration (No.6)	Exploration and	37.64%	37.64%	Scotland	Cairn India	100.00%	100.00%	

		The Company percentage			Immediate	Immediate perc	entage holding
Subsidiaries	Principal activities	31 March 2016	31 March 2015	Country of incorporation	holding company	31 March 2016	31 March 2015
Limited <sup>2</sup>	production				Holdings Limited		
Cairn Exploration (No.2) Limited	Exploration and production	37.64%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%
Cairn Energy Gujarat Block 1 Limited	Exploration and production	37.64%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%
Cairn Energy Discovery Limited	Exploration and production	37.64%	37.64%	Scotland	Cairn India Holdings Limited	100.00%	100.00%
Cairn Energy Australia Pty Limited	Investment company	37.64%	37.64%	Australia	Cairn India Holdings Limited	100.00%	100.00%
Cairn Energy India Pty Limited	Exploration and production	37.64%	37.64%	Australia	Cairn Energy Australia Pty Limited	100.00%	100.00%
CIG Mauritius Holdings Private Limited	Investment company	37.64%	37.64%	Mauritius	Cairn India Limited	100.00%	100.00%
CIG Mauritius Private Limited	Investment company	37.64%	37.64%	Mauritius	CIG Mauritius Holding Private Limited	100.00%	100.00%
Cairn Lanka Private Limited	dExploration and production	37.64%	37.64%	Sri Lanka	CIG Mauritius Pvt Ltd	100.00%	100.00%
Cairn South Africa Pty Limited	Exploration and production	37.64%	37.64%	South Africa	Cairn Energy Hydrocarbons Limited	100.00%	100.00%

Pursuant to additional capital infusion in FG by MEL during the year ended 31 March 2016. Immediate percentage holding as of 31 March 2015 was 98% held by CMT. Dissolved during the year ended 31 March 2016.

Pursuant to transfer of 4.98% of TMHL holdings in Cairn India to Vedanta Limited.

The Group owns directly, or indirectly through subsidiaries, more than half of the voting power of all of its subsidiaries as mentioned in the list above, and has power over the subsidiaries, is exposed or has rights, to variable returns from its involvement with the subsidiaries and has the ability to affect those returns through its power over the subsidiaries.

# 45. Ultimate controlling party

At 31 March 2016, the ultimate controlling party of the Group was Volcan, which is controlled by persons related to the Executive Chairman, Mr Anil Agarwal. Volcan is incorporated in the Bahamas, and does not produce Group accounts.

Dissolved subsequently on 19 April 2016.

### 46. Company balance sheet

(US\$ million)	Note	31 March 2016	31 March 2015
Fixed assets			
Tangible assets	48	0.2	0.3
Investments in subsidiaries	49	1,226.3	1,226.3
Investment in preference shares of subsidiaries	50	4.7	1.7
Financial asset investment	51	0.1	0.1
		1,231.3	1,228.4
Current assets			
Debtors due within one year	52	505.5	422.7
Debtors due after one year	52	4,683.9	5,066.8
Investments	53	28.1	33.2
Cash at bank and in hand		0.6	0.1
		5,218.1	5,522.8
Creditors: amounts falling due within one year			
Trade and other creditors	54	(104.3)	(97.2)
External borrowings	54	(742.7)	(270.4)
Loan from subsidiary	54	(600.3)	_
Derivative liability	54	-	(2.0)
		(1,447.3)	(369.6)
Net current assets		3,770.8	5,153.2
Total assets less current liabilities		5,002.1	6,381.6
Creditors: amounts falling due after one year			
Loan from subsidiary	55	(278.0)	(1,430.2)
External borrowings	55	(4,220.0)	(4,345.7)
		(4,498.0)	(5,775.9)
Net assets		504.1	605.7
Capital and reserves			
Called up share capital	56	30.1	30.0
Share premium account	56	201.5	198.5
Share-based payment reserve	56	29.9	27.4
Convertible bond reserve	56	10.8	38.4
Other reserves	56	(2.2)	(2.2)
Treasury shares	56	(490.6)	(490.6)
Profit and loss account	56	724.6	804.2
Equity shareholders' funds	56	504.1	605.7

The financial statements of Vedanta Resources plc, registration number 4740415, were approved by the Board of Directors on 11 May 2016 and signed on its behalf by:

# Tom Albanese

Chief Executive Officer

# 47. Company accounting policies

# Basis of accounting

Vedanta Resources plc (the Company) has transitioned from UK Generally Accepted Accounting Practice (UK GAAP) to Financial Reporting Standard 101 'Reduced disclosure framework' (FRS 101), for all periods presented. The Company meets the definition of a qualifying entity under FRS 101 issued by the Financial Reporting Council. Accordingly, in the year ended 31 March 2016 the Company has changed its accounting framework from pre-2015 UK GAAP to FRS 101 and has, in doing so, applied the requirements of IFRS 1.6—33 and related appendices.

These financial statements have been prepared in accordance with FRS 101.

The Company balance sheet and related notes have been prepared under the historical cost convention and in accordance with Financial Reporting Standards 100 'Application of financial reporting requirements' (FRS 100) and FRS 101.

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Company is not presented as part of these financial statements. The (loss)/profit after tax for the year of the Company amounted to US\$(8.0) million (2015: profit US\$284.7 million).

These financial statements are presented in US dollars, being the functional currency of the Company.

The change in the basis of preparation has not materially altered the recognition and measurement requirements previously applied in accordance with UK GAAP. Consequently, the principal accounting policies are unchanged from the prior year. The change in basis of preparation has enabled the Company to take advantage of all the available disclosure exemptions permitted by FRS 101 in the financial statements because the Group presents the exempted information in the consolidated Group financial statements. There have been no other material amendments to the disclosure requirements previously applied in accordance with UK GAAP, except disclosure of the related party transactions.

#### Significant accounting policies

#### Investments in subsidiaries

Investments in subsidiaries represent equity holdings in subsidiaries except preference shares, valued at cost less any provision for impairment. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable.

# Investment in preference shares of subsidiaries

Investments in preference shares of subsidiaries are stated at fair value. The fair value is represented by the face value of the preference shares as the investments are redeemable at any time for their face value at the option of the Company.

#### Cash and cash equivalents

Cash in the balance sheet comprises of cash at bank and cash in hand.

#### Financial asset investments

Financial asset investments are classified as available for sale under IAS 39 and are initially recorded at cost and then remeasured at subsequent reporting dates to fair value. Unrealised gains and losses on financial asset investments are recognised directly in equity. On disposal or impairment of the investments, the gains and losses in equity are recycled to the income statement.

#### Currency translation

Transactions in currencies other than the functional currency of the Company, being US dollars, are translated into US dollars at the spot exchange rates ruling at the date of transaction. Monetary assets and liabilities denominated in other currencies at the balance sheet date are translated into US dollars at year end exchange rates, or at a contractual rate if applicable.

# Tangible fixed assets

Tangible fixed assets are stated at cost less accumulated depreciation and provision for impairment.

#### Deferred taxation

Deferred taxation is provided in full on all timing differences that result in an obligation at the balance sheet date to pay more tax, or a right to pay less tax, at a future date, subject to the recoverability of deferred tax assets. Deferred tax assets and liabilities are not discounted

#### Share-based payments

The cost of equity-settled transactions with employees is measured at fair value at the date at which they are granted. The fair value of share awards with market-related vesting conditions are determined by an external valuer and the fair value at the grant date is expensed on a straight-line basis over the vesting period based on the Company's estimate of shares that will eventually vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet date up to the vesting date at which point the estimate is adjusted to reflect the current expectations. No adjustment is made to the fair value after the vesting date even if the awards are forfeited or not exercised. Amounts recharged to subsidiaries in respect of awards granted to employees of subsidiaries are recognised as intercompany debtors until repaid.

#### **Borrowings**

Interest bearing loans are recorded at the net proceeds received i.e. net of direct transaction costs. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on accruals basis and charged to the profit and loss account using the effective interest method and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

# Convertible bonds

The convertible bond issued by VRJL and VRJL-II (Note 54) are accounted for as a compound instrument. The gross proceeds (net of issue costs) were lent to the Company by VRJL and VRJL-II. The equity component has been recognised in a separate reserve of the Company and is not subsequently remeasured. The recognition of the equity component by the Company acts to reduce the payable to VRJL and VRJL-II which arises once the gross proceeds are borrowed. The liability component is held at amortised cost. The interest expensed on the liability component is calculated by applying an effective interest rate. The difference between interest expensed and interest paid is added to the carrying amount of the liability component.

The bonds are first convertible into preference shares of the issuer having a principal value of \$100,000 per preference share, which are exchanged immediately for ordinary shares of the Company.

#### Financial instruments

The Company has elected to take the exemption provided in paragraph 8 of FRS 101 in respect of these parent Company financial

statements. Full disclosures are provided in Note 29 to the financial statements of the Group for the period ended 31 March 2016.

#### Derivative financial instruments

Derivative financial instruments are initially recorded at their fair value on the date of the derivative transaction and are re-measured at their fair value at subsequent balance sheet dates.

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the profit and loss account. The hedged item is recorded at fair value and any gain or loss is recorded in the profit and loss account and is offset by the gain or loss from the change in the fair value of the derivative.

Derivative financial instruments that do not qualify for hedge accounting are marked to market at the balance sheet date and gains or losses are recognised in the profit and loss account immediately.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting.

#### Cash flow statement

The Company's individual financial statements are outside the scope of FRS 1 'Cash flow statements' because the Company prepares publicly available Group financial statements, which include a consolidated cash flow statement. Accordingly, the Company does not present an individual Company cash flow statement.

#### Financial guarantees

Guarantees issued by the Company on behalf of other Group companies are designated as 'Insurance Contracts'. Accordingly, these are shown as contingent liabilities (Note 57).

#### Debtors

Debtors are stated at their nominal value as reduced by appropriate allowance for estimated irrecoverable amounts. An allowance for impairment for debtors is made where there is an indication of a reduction in the recoverability of the carrying value of the debtor.

#### Creditors

Creditors are stated at their nominal value.

#### 48. Company tangible fixed assets

At 31 March 2016	0.2
At 31 March 2015	0.3
Net book value At 1 April 2014	0.7
At 31 March 2016	2.1
Charge for the period	0.1
At 31 March 2015	2.0
Charge for the period	0.4
At 1 April 2014	1.6
Accumulated depreciation	
At 31 March 2016	2.3
Additions	0.0
At 31 March 2015	2.3
Additions	0.0
At 1 April 2014	2.3
Cost	
(US\$ million)	

#### 49. Investments in subsidiaries

At 31 March 2016	1,226.3
At 1 April 2015	1,226.3
At 1 April 2014	1,061.8
Cost	
(US\$ million)	

At 31 March 2016, the Company held 157,538,524 shares in Vedanta Resources Holdings Limited (VRHL) (March 2015: 157,538,524 shares), being 100% of VRHL's issued equity share capital. The Company also held one deferred share in VRHL (March 2015: one). At 31 March 2016, the Company held two shares in Vedanta Finance Jersey Limited (VFJL) (March 2015: two), two shares in Vedanta Resources Jersey Limited (VRJL) (March 2015: two), two shares in Vedanta Resources Jersey II Limited (VRJL-II) (March 2015: two), two shares in Vedanta Jersey Investment Limited (VJIL) (March 2015: two), being 100% of its issued equity share capital.

VRHL is an intermediary holding company incorporated in the United Kingdom (Note 44) and registered in England and Wales. VFJL, VRJL, VJIL and VRJL-II are companies, registered and incorporated in Jersey, established to raise funds for the Vedanta Group.

#### 50. Investment in preference shares of subsidiaries

1.7
3.0
-
4.7
1.7
-
-
1.7

As at 31 March 2016, the Company held 47 preference shares in Vedanta Resources Jersey Limited (VRJL) (31 March 2015: 17 preference shares).

During the year, VRJL received notice from the bondholders to exercise the option to convert US\$3,000,000 bonds into equity shares of the Company in accordance with the provisions of the Offer circular and accordingly 30 preference shares with a nominal value of US\$100,000 each were issued by VRJL to the Company.

# 51. Financial asset investment

(US\$ million)	
Fair value	
At 1 April 2015	0.1
Fair value movement	-
At 31 March 2016	0.1
At 1 April 2014	0.1
Fair value movement	-
At 31 March 2015	0.1

The investment relates to an equity investment in the shares of Victoria Gold Corporation. At 31 March 2016, the investment in Victoria Gold Corporation was revalued and no gain or loss (2015: no gain/loss) was recognised in equity.

#### 52. Company debtors

(US\$ million)	31 March 2016	31 March 2015
Amounts due from subsidiary undertakings	5,188.4	5,485.6
Prepayments and accrued income	0.5	3.5
Other taxes	0.5	0.4
Total	5,189.4	5,489.5
Total  Debtors due within one year	<b>5,189.4</b> 505.5	<b>5,489.5</b> 422.7
	•	

# Amounts due from subsidiary undertakings

At 31 March 2016, the Company had loans due from VRHL of US\$1,737.4 million (2015: US\$1,507.5 million) which represented the funds being loaned to other Group companies for funding the subsidiaries. Out of the total loan, US\$579.2 million bears interest at six month US\$LIBOR plus 350 basis points, US\$500 million at 5.8%, US\$31.2 million at 5.9%, US\$47 million at 9.7%, and US\$580.0 million at US\$LIBOR plus 367 basis points.

At 31 March 2016, the Company had a loan of US\$3,069.6 million (2015: US\$3,590.5 million) from Vedanta Resources Jersey II Limited. Out of the total loan US\$119.2 million bears interest at US\$LIBOR plus 357 basis points, US\$1,413.0 million at 7.45%, US\$1,200 million at 6.50%, US\$107.4 million at LIBOR plus 300 basis points, US\$60 million at 3.15%, US\$63.1 million at 7.25% and US\$106.9 million at six month US\$LIBOR plus 430 basis points.

In addition to the loans, the Company was owed US\$372.1 million of accrued interest from VRHL and Vedanta Resources Jersey II Limited (2015: US\$323.3 million) and US\$9.3 million (2015: US\$64.3 million) other receivables from Group companies.

#### 53. Company current asset investments

(US\$ million)	31 March 2016	31 March 2015
Bank term deposits	28.1	33.2
Total	28.1	33.2
54. Company creditors: amounts falling due within one year		
(US\$ million)	31 March 2016	31 March 2015
Accruals	(104.3)	(97.2)
External borrowings	(742.7)	(270.4)
Loan from subsidiary	(600.3)	_
Derivative liability	-	(2.0)
Total	(1,447.3)	(369.6)

#### 54. Company creditors: amounts falling due within one year continued

The external borrowings as at 31 March 2016 represent 6.75% non-convertible bond of US\$750 million repayable in June 2016. During the year, the Company bought back US\$7 million worth of these bonds from open market. As at 31 March 2016, loans from subsidiaries included a loan of US\$1,140.3 million from VRJL relating to its issue of US\$1,250 million convertible bonds (bond issued in July 2009). In March 2015, as the final maturity was in July 2016, the above loan was classified in amounts falling due after one year and during the year the same was transferred from amounts due after one year to amounts falling due within one year (2015: US\$1,110.5 million). During the year, the Company bought back from the market these bonds of face value of US\$549.3 million for a consideration of US\$522.4 million. The carrying value of this bond as on 31 March 2016 is US\$533.5 million and accrued coupon interest is US\$6.5 million. On maturity of these bought back convertible bonds, there will not be any cash exchange between the Company and its subsidiary, VRJL, but a set off of the Company's bought back amount of the bond and inter-co liability towards this convertible bond. Accordingly, the carrying value of the bought back bond amount along with accrued interest i.e. US\$540 million has been reduced from the inter-co loan outstanding amount of US\$1,140.3 million from the subsidiary, VRJL.

During the year ended 31 March 2016, interest was charged at the effective interest rate of 8.2% (March 2015: 8.27%).

#### 55. Company creditors: amounts falling due after one year

(US\$ million)	31 March 2016	31 March 2015
Loan from subsidiary	(278.0)	(1,430.2)
External borrowings	(4,220.0)	(4,345.7)
Total	(4,498.0)	(5,775.9)

Loans from subsidiaries include a loan of US\$22.2 million due to Richter Holdings Limited and US\$255.8 million to Vedanta Finance UK Limited. As at 31 March 2015, the loan from subsidiaries included US\$1,110.5 million due to VRJL (as discussed in Note 54).

Of the US\$1,250 million non-convertible bond issued during 2008, US\$500 million was repaid in January 2014 and the remaining US\$750 million 9.5% bonds are due for repayment in July 2018.

In July 2011, the Company issued US\$750 million, 6.75% bonds due June 2016, and US\$900 million, 8.25% bonds due June 2021. As at 31 March 2015, the outstanding amount under this facility was US\$1,650.0 million. During the year, the Company bought back US\$7 million 6.75% bonds due June 2016 from the open market, and the outstanding amount of US\$743 million has been shown under creditors falling due within one year and balance US\$900 million in creditors falling due after one year.

In April 2013, the Company entered into a Standby Letter of Credit agreement arranged by Axis Bank for an amount of US\$150 million at a commission of 1% per annum payable quarterly. The facility is funded by Bank of India to the extent of US\$148.5 million and bears interest rate at three month US\$LIBOR plus 290 basis points. The facility is repayable in two equal annual instalments starting April 2017. As at 31 March 2016, the outstanding amount under this facility is US\$148.5 million.

In June 2013, the Company issued US\$1,200 million, 6.00% bonds due January 2019, and US\$500 million, 7.125% bonds due May 2023.

In December 2013, the Company entered into a facility agreement with Bank of India for borrowing up to US\$100 million at an interest rate of US\$LIBOR plus 357 basis points repayable to the extent of 50% in October 2017 and the balance in January 2018. As at 31 March 2016, the outstanding amount under this facility is US\$100 million.

In March 2015, the Company entered into a facility agreement with State Bank of India for borrowing up to US\$350 million. US\$100 million is repayable in March 2020 and bears interest at a rate of US\$LIBOR plus 370 basis points. US\$250 million bears interest at a rate of US\$LIBOR plus 403 basis points repayable in two instalments, being US\$100 million and US\$150 million at the end of 72 and 84 months respectively after initial utilisation. As at 31 March 2016, the outstanding amount under this facility is US\$350 million.

In January 2016, the Company entered into a facility agreement with State Bank of India for borrowing up to US\$300 million. US\$120 million is repayable in February 2022 and bears interest at a rate of US\$LIBOR plus 450 basis points. US\$180 million is repayable in February 2023 and bears interest at a rate of US\$LIBOR plus 460 basis points. As at 31 March 2016, the outstanding amount under this facility is US\$300 million.

#### 56. Company reconciliation of movement in equity shareholders' funds

(US\$ million)	Share capital (Note 35)	Share premium	Share-based payment reserve	Convertible bond reserve	Treasury shares	Retained earnings	Other reserves	Total
Equity shareholders' funds at 1 April 2015	30.0	198.5	27.4	38.4	(490.6)	804.2	(2.2)	605.7
Loss for the year	_	_	-	_	_	(8.0)	-	(8.0)
Dividends paid (Note 14)	_	_	_	_	_	$(111.3)^1$	_	$(111.3)^1$
Exercise of LTIP awards (Note 32)	0.1	_	(13.1)	_	_	13.1	_	0.1
Recognition of share-based payments (Note 32)	_	_	15.6	_	_	_	_	15.6
Gift to Employee Benefit Trust	_	_	_	_	_	(0.9)	_	(0.9)
Exercise of conversion of bonds	0.0	3.0	_	(0.1)	_	_	_	2.9
Convertible bond transfer (Note 28)	_	_	-	(27.5)	_	27.5	_	_
Equity shareholders' funds at 31 March 2016	30.1	201.5	29.9	10.8	(490.6)	724.6	(2.2)	504.1

<sup>1</sup> Total dividends of US\$111.3 million includes a dividend of US\$0.7 million paid to a separate investment trust which is consolidated in the Group's financial statements with that element of dividends paid by the Company being eliminated (refer Note 14).

(US\$ million)	Share capital (Note 35)	Share premium	Share-based payment reserve	Convertible bond reserve	Treasury shares	Retained earnings	Other reserves	Total
Equity shareholders' funds at 1 April 2014	29.8	198.5	46.9	80.1	(490.6)	601.0	(2.2)	463.5
Profit for the year	_	_	_	_	_	284.7	_	284.7
Dividends paid (Note 14)	_	_	_	_	_	(171.3)	_	(171.3)
Exercise of LTIP awards (Note 32)	0.2	_	(48.1)	_	_	48.1	_	0.2
Recognition of share-based payments (Note 32)	_	_	28.6	_	_	_	_	28.6
Convertible bond transfer (Note 28)	_	_	-	(41.7)	_	41.7	_	_
Equity shareholders' funds at 31 March 2015	30.0	198.5	27.4	38.4	(490.6)	804.2	(2.2)	605.7

### 57. Company contingent liabilities

- The Company has guaranteed US\$1,250 million convertible bonds issued by VRJL (2015: US\$1,250 million), of the above US\$113.8 million was repaid pursuant to exercise of put option during the year ended 31 March 2015. During the year, the Company bought back US\$549.3 million of these bonds from open market. See Note 28 to the financial statements for further details on the convertible bonds.
- The Company has given a corporate guarantee to Konkola Copper Mines for an amount of US\$897 million.
- The Company has guaranteed US\$883 million convertible bonds issued by VRJL-II (2015: US\$883 million). During the year ended 31 March 2015 and 31 March 2014, US\$65.1 million and US\$809.8 million respectively was repaid to the bondholders on exercise of put option. See Note 28 to the financial statements for further details on the convertible bonds.
- The Company has guaranteed US\$170 million for a loan facility entered by Valliant Jersey Limited with ICICI Bank and US\$180 million for loan facility entered by Vedanta Finance Jersey Limited with ICICI Bank.
- The Company has guaranteed US\$500 million for a syndicated facility agreement entered by Welter Trading Limited with Standard Chartered Bank as facility agent.
- The Company has guaranteed US\$500 million for a loan facility entered by Monte Cello NV with ICICI Bank.
- The Company has guaranteed US\$150 million for a loan facility entered by Twin Star Holdings Limited with ICICI Bank. During the year ended 31 March 2016, US\$90 million was repaid under this facility.
- The Company has guaranteed US\$80 million for a revolving credit facility entered by Twin Star Holdings Limited with National Bank of Abu Dhabi PJSC.
- The Company has guaranteed US\$500 million for a syndicated facility entered by Twin Star Holdings Limited with Axis Bank as lead arranger and facility agent.
- The Company has guaranteed US\$1,200 million for a syndicated facility entered by Twin Star Mauritius Holdings Limited with Standard Chartered Bank as facility agent. During the year ended 31 March 2016, US\$300 million was repaid under this facility.
- The Company has guaranteed US\$500 million for a loan facility entered by Twin Star Mauritius Holdings Limited with Standard Chartered Bank and First Gulf Bank PJSC of which US\$250 million is under a commodity murabaha structure (Islamic financing) and the balance US\$250 million is under a conventional loan structure. During the year ended 31 March 2016, US\$25 million was repaid under this facility.
- The Company has guaranteed US\$1,250 million for a loan facility entered by its subsidiaries THL Zinc Limited with Cairn India Holdings Limited (intercompany loan).
- The Company has guaranteed US\$900 million for a loan facility entered by its subsidiaries Twin Star Mauritius Holdings Limited with Fujairah Gold FZC (intercompany loan).
- The Company has provided a guarantee for the Cairn India Group's obligation under the Production Sharing Contract (PSC).

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### 58. Related party transactions

During the year the Company entered into transactions, in the ordinary course of business, with other related parties. The Company has taken advantage of the exemption under paragraph 8(k) of FRS 101 not to disclose transactions with wholly owned subsidiaries. Transactions entered into and trading balances outstanding at 31 March with other related parties are as follows:

(US\$ million) Name of company	Relationship	Nature of transaction	2016	2015
Vedanta Limited	Subsidiary	Management fees charged	5.0	5.0
Konkola Copper Mines Plc	Subsidiary	Management and guarantee fees charged	2.8	2.3
Cairn India Limited	Subsidiary	Management fees charged	6.5	15.5
Sterlite Technologies Limited	Related party	Management fees charged	0.0	0.0
Volcan Investments Limited	Holding company	Dividend paid	75.0	115.6
Vedanta Limited	Subsidiary	Receipt of service	0.4	0.4
Vedanta Limited	Subsidiary	Payment of expenses	0.1	0.4
Vedanta Limited	Subsidiary	Recovery against share option expense	11.3	22.9
Konkola Copper Mines Plc	Subsidiary	Recovery against share option expense	1.5	1.4
Copper Mines of Tasmania Pty Limited	Subsidiary	Recovery against share option expense	0.1	0.0
Fujariah Gold FZC	Subsidiary	Recovery against share option expense	0.4	0.2
Vedanta Lisheen Holdings Limited	Subsidiary	Recovery against share option expense	0.0	0.6
Namzinc Pty Limited	Subsidiary	Recovery against share option expense	0.0	0.6
Black Mountain Mining (Pty) Limited	Subsidiary	Recovery against share option expense	0.7	1.1
Western Cluster Limited	Subsidiary	Recovery against share option expense	0.0	0.2
Twin Star Mauritius Holdings Limited	Subsidiary	Reimbursement of expenses	0.0	0.0
Twin Star Energy Holdings Limited	Subsidiary	Reimbursement of expenses	0.0	0.0
THL Zinc Limited	Subsidiary	Reimbursement of expenses	0.0	_
THL Zinc Ventures Limited	Subsidiary	Reimbursement of expenses	0.0	_
Ashurst LLP (was related up to 30 April 2016)	Related party	Receipt of service	0.1	0.4

# Outstanding balances

(US\$ million) Name of company	Relationship	Nature of transaction	2016	2015
Vedanta Limited	Subsidiary	(Payable)/Receivable	(3.9)	29.1
Konkola Copper Mines Plc	Subsidiary	Receivable	2.3	7.2
Cairn India Limited	Subsidiary	Receivable	1.2	2.7
Sterlite Technologies Limited	Related party	Receivable	0.0	0.0
Copper Mines of Tasmania Pty Limited	Subsidiary	Receivable	0.7	0.6
Fujariah Gold FZC	Subsidiary	Receivable	0.6	0.2
Vedanta Lisheen Holdings Limited	Subsidiary	(Payable)/Receivable	(0.0)	0.2
Namzinc Pty Limited	Subsidiary	Receivable/(Payable)	0.0	(0.0)
Black Mountain Mining (Pty) Limited	Subsidiary	Receivable	1.0	0.3
Western Cluster Limited	Subsidiary	Receivable	0.2	0.2
Twin Star Mauritius Holdings Limited	Subsidiary	Receivable	0.0	0.0
Twin Star Energy Holdings Limited	Subsidiary	Receivable	0.0	0.0
THL Zinc Limited	Subsidiary	Receivable	0.0	_
THL Zinc Ventures Limited	Subsidiary	Receivable	0.0	_
Monte Cello BV	Subsidiary	(Payable)	(1.0)	(1.0)

# 59. Company share-based payment

The Company had certain LTIP awards outstanding as at 31 March 2016. See Note 32 to the financial statements for further details on these share-based payments.

# ANNEX A — LIFE OF MINES

Company Par	ticulars	Reserves (Proved & Probable) Mt	Reserves & Resources Mt <sup>(1)</sup>	Fiscal year 2017 Production Mt	Mine Life — Reserves — Years as of 1 April 2017	Mine Life — Reserves & Resources — Years as of 1 April 2017
HZL	Rampura Agucha	49.7	100.0	4.7	10.6	21.3
HZL	Rajpura Dariba	9.0	59.3	0.7	12.9	84.7
HZL	Zawar Group	9.5	95.2	1.8	5.3	52.9
HZL	Kayad	5.4	7.1	1.0	5.4	7.1
HZL	Sindesar Khurd	35.6	122.8	3.7	9.6	33.2
HZL	Bamnia Kalan	_	20.1	_	_	_
CMT	Mt. Lyell	_	59.8	_	_	_
KCM	Konkola	44.6	280.7	1.3	34.3	215.9
KCM	Nchanga (Underground)	_	63.4	0.6	_	105.7
KCM	Nchanga (Open-Pit)	10.6	53.9	1.3	8.2	41.5
KCM	Other Pits	30.9	154.8	7.2	4.2	21.5
Skorpion	Skorpion	4.2	7.7	1.2	2.9	5.2
Black MountainMining .	Black Mountain — Deeps	6.1	13.0	1.2	4.0	9.8
Black MountainMining	Swartberg	2.1	52.2	0.35	4.0	30.7
Black MountainMining .	Gamsberg	53.2	215.5	_	12	29.1
Vedanta Limited	Codli	24.1	31.5	2.9	8.5	11.1
Vedanta Limited	Sonsi	37.7	61.3	0.2	188.5	306.5
Vedanta Limited	Mareta Sodo	10.8	16.5	0.1	83.1	126.9
Vedanta Limited	Vedanta Others	8.6	20.5	_	_	_
Vedanta Limited	A Narain	39.4	80.9	2.2	17.9	36.8
Vedanta Limited	Bicholim	38.8	92.2	0.4	97.0	230.3
Vedanta Limited	Surla	30.9	60.5	0.21	147.14	288.6
Vedanta Limited	Curfm	2.1	7.2	_	_	_
Vedanta Limited	Colamba	0.5	3.9	_	_	_
SRL	SRL Others	0.7	9.0	0.6	1.1	14.8

See Annex B — "Mineral Resources (exclusive reporting basis)". The reporting methodology for Mineral Resources differs from that of Ore Reserves under international reporting codes as certain factors (termed "Modifying Factors", such as mining losses and dilution) are included in the reporting of Ore Reserves, whereas Mineral Resources are reported on an in-situ basis. Accordingly, the two numbers are not added together under international reporting codes such as JORC (2012) and SAMREC (2009). Consequently, considerable caution should be exercised when considering life of mine estimates based on Mineral Resource plus Ore Reserves. Life of mine estimates which include Mineral Resources have been undertaken by the Company and have not been subject to review by the Independent Consultants named in the Offering Circular. See "Presentation of Information — Basis of Presentation of Reserves and Resources — Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources for Mining Operations" and "Risk Factors — Risks Relating to Business — There are uncertainties inherent in estimating Vedanta's Ore Reserves and Mineral Resources and oil, condensate and sales-gas reserves, and if the actual amounts of such reserves and resources are less than estimated, its results of operations and financial condition may be materially and adversely affected". The life of mine estimates presented in this table take into account the fiscal year 2016 production for all mines except for all SGL mines, Kayad mine and Gamsberg, which take into account the production capacity. Furthermore, it should be noted that the Ore Reserves are derived from Life-of-mine plans which in certain instances assume expanded production which is significantly increased when compared to historical production capacity. Accordingly, the mine lives for such instances will be significantly shorter than the theoretical values reported above. Furthermore, there are scenarios where the contribution of Inferred Mineral Resources is significant and as these are not separately identified this may constitute non-material disclosure.

<sup>(2)</sup> Exlcuded from the Table are the Ore Reserves at KCM of 44.4Mt for the Taiulings Dams and 112.2Mt for the Refractory Ore as well as 3.8Mt of Inferred Mineral Resource

ANNEX B — MINERAL RESOURCES (EXCLUSIVE REPORTING BASIS)

	Measured			Indicated			Inferred		
	Quantity	Grade	Grade	Quantity	Grade	Grade	Quantity	Grade	Grade
Zinc-Lead Mines	Mt.	Zinc %	Lead %	Mt.	Zinc %	Lead %	Mt.	Zinc %	Lead %
Rampura Agucha	5.5	15.2	2.3	7.8	16.1	2.0	36.9	10.1	2.5
Rajpura Dariba	7.7	7.6	2.0	14.8	6.5	2.5	27.7	6.6	1.8
Zawar Group	2.3	4.0	1.9	21.6	4.7	1.9	61.8	4.7	2.5
Kayad	1.2	14.1	2.0	0.1	8.7	1.3	0.4	7.3	1.2
Sindesar Khurd	3.8	5.2	2.9	13.6	4.3	3.1	69.8	3.7	1.9
Bamnia Kalan	_	_	_	5.4	4.5	1.6	14.7	3.7	1.8
BMM Deeps	2.9	3.6	3.9	4.1	3.0	3.0	_	_	_
Swartberg	_	_		45.3	0.5%	3.2	4.7	0.8	2.8
Gamsberg North	43.3	6.6	0.6	54.6	5.9	0.5	32.1	5.8	0.4
Gamsberg East	_	_	_	_	_	_	32.3	9.8	0.6
Total - Gamsberg	43.3	6.6	0.6	54.6	5.9	0.5	64.4	7.8	0.5

	Meas	sured	Indi	cated	Inferred	
Copper Mines	Tonnage (Mt)	Grade (%TCu)	Tonnage (Mt)	Grade (%TCu)	Tonnage (Mt)	Grade (%TCu)
Mt Lyell	3.5	1.22	26.1	1.07	30.0	1.06
Konkola	3.4	3.17	14.8	3.19	217.9	3.76
Nchanga (Underground)	0.7	4.54	16.1	2.46	46.6	2.28
Nchanga (Open-Pit)	_	_	43.4	1.24	_	_
Other Open Pits	0.2	2.46	79.3	1.92	44.8	1.64
Refractory Ore	_	_	_	_	3.8	0.68

	Measured		Indicated		Inferred		Total
	Quantity	Grade Fe	Quantity	Grade Fe	Quantity	Grade Fe	Quantity
Iron Ore	Mt.	%	Mt.	<b>%</b>	Mt.	<b>%</b>	Mt.
Codli Group	3.9	51.4	2.9	52.6	0.60	52.3	7.4
Sonshi Group	8.4	56.6	12.1	55.8	3.1	57.8	23.6
Mareta Group	2.6	48.8	2.2	52.4	0.9	56.7	5.7
Other	2.4	51.7	4.1	53.6	5.5	55.2	11.9
A. Narrain	19.1	43.5	12.9	48.5	9.5	52.9	41.5
Bicholim	23.6	55	24.4	57	5.3	59.8	53.4
Surla	15.9	40.2	11.2	40.3	2.6	42.6	29.6
Curpem	3.6	57.2	1.2	57.1	.3	58	5.1
Colomba	1.8	55.7	1.3	57.7	.4	58.8	3.4
SRL	7.7	53.0	0.6	53.4	0	0	8.3

See "Presentation of Information — Basis of Presentation of Reserves and Resources — Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources for Mining Operations" and "Risk Factors — Risks Relating to Business — There are uncertainties inherent in estimating Vedanta's Ore Reserves and Mineral Resources and oil, condensate and sales-gas reserves, and if the actual amounts of such reserves and resources are less than estimated, its results of operations and financial condition may be materially and adversely affected".

# ANNEX C — MINERAL RESOURCE AND ORE RESERVE REPORTING

The JORC Code (2012) and the SAMREC Code (2016) require that for Reporting of Mineral Resources and Ore Reserves, the publication of additional supplemental information, specifically in respect of assumed modifying factors and economic assumptions as well as a detailed narrative in respect of certain elements as noted under the JORC Codes (2012) Table 1 declarations. Certain sections of this Offering Circular present historical production sections as well as technical descriptions of the Company's Mineral Assets and as such includes some of the supporting information incorporated into such declarations.

The detailed split for Proved and Probable Ore Reserves are included under the relevant business description sections for each of the Mineral Assets.

The Competent Persons' responsible for confirming that the Mineral Resources and Ore Reserves are reported in accordance with the terms and definitions of the reporting codes are:

For HZL where Mineral Resources and Ore Reserves are reported in accordance with the terms and definitions of the JORC Code (2012):

The Competent Person who is responsible for the Mineral Resources as reported in the 31 March 2017 Statements is Mr. Mark Campodonic, FGS, MAusIMM, MSc who is an employee of SRK UK. He is a Fellow of the Geological Society ("FGS") which is a Recognised Overseas Professional Organisation ("ROPO") within the meaning of the JORC Code. Mr Mark Campodonic is a mining geologist with 18 years' experience in the mining industry which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

The Competent Person who is responsible for the Ore Reserves as reported in the 31 March 2017 Statements is Mr John Miles, C Eng, MIMMM, MSc who is an associate of SRK UK. He is a Member of the Institute of Materials, Minerals and Mining ("MIMMM") which is a ROPO within the meaning of the JORC Code. Mr John Miles is a mining engineer with 32 years' experience in the mining industry which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

For KCM where Mineral Resources and Ore Reserves are reported in accordance with the terms and definitions of the SAMREC Code (2009):

The Competent Person who is responsible for the Mineral Resources (Resource Estimation) for KCM is Mr Victor Simposya, Pr. Sci. Nat., SAIMM, MSc who is an employee of SRK SA. He is a Professional Natural Scientist with the South African Institute of Mining and Metallurgy ("SAIMM"). Mr Victor Simposya is a geologist with over 38 years' experience in the mining industry which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the SAMREC Code (2009).

The Competent Person who is responsible for the Ore Reserves for KCM is Mr Boniface Mwila, Pr. Eng., ECSA (South Africa), MSAIMM, MSc who is an employee of SRK. Mr Boniface Mwila is a Mining Engineer with over 28 years' experience in the mining industry which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the SAMREC Code (2009).

For CMT where Mineral Resources are reported in accordance with the terms and definitions of the JORC Code (2012):

The Competent Person who is responsible for the Mineral Resources of CMT is John Hooper BSc (Hons). He is a Member of the Australian Institutes of Mining and Metallurgy. Mr John Hooper has sufficient experience relevant to the style and type of mineral deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the JORC Code (2012).

For Black Mountain Mining where Mineral Resources and Ore Reserves are reported in accordance with the terms and definitions of the SAMREC Code (2009):

The Competent Person who is responsible for the Mineral Resources and Ore Reserves of Black Mountain Mining's mines is S Jenniker, Mining Resources Manager at Black Mountain Mining. He is a Member of the South African Council for Natural Scientific Professions and a Member of the Geological Society of South Africa. S Jenniker has sufficient experience relevant to the style and type of mineral deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the SAMREC Code (2009).

For Skorpion where Mineral Resources and Ore Reserves are reported in accordance with the terms and definitions of the JORC Code (2012):

The Competent Person who is responsible for the Mineral Resources and Ore Reserves for Skorpion, as reported by the Axe Valley Mining Consultants Ltd, is Matthew Randall, MIMM, C.Eng, PhD, BSc Mining. Dr Matthew Randall is a full time employee and Director of Axe Valley Mining Consultants Ltd, a mining consultant who has over 35 years' experience in the mining and metals industry, who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

For BALCO where Mineral Resources and Ore Reserves are reported in accordance with the terms and definitions of the JORC Code (2012):

The Competent Person who is responsible for the Mineral Resources and Ore Reserves of BALCO is Shalabh Saha. He is M.Sc (Geology) from Rajasthan University, Raipur, India (Batch 1990) and M.Phil (Mineral Exploration) from Ravishankar University, Raipur, India (Batch 1991). Shalabh Saha is the Director of Geo Solutions Private Limited and has over 35 years' experience in the mining and metals industry. He has sufficient experience relevant to the style and type of mineral deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the JORC Code (2012).

For Vedanta Limited and SRL where Mineral Resources and Ore Reserves for Iron ore mines are reported in accordance with the terms and definitions of the JORC Code (2012):

# ANNEX D — PRODUCTION RELEASE FOR THE THREE MONTHS ENDED 30 JUNE 2017

26 July 2017

Oil & Gas

		Q1			Q4		
Particulars	Fiscal year 2018 (30 June 2017)	Fiscal year 2017 (30 June 2016)	% change Yo Y	Fiscal year 2017 (31 March 2017)	% change QoQ	Fiscal year 2017 (31 March 2017)	
OIL AND GAS							
Average Daily Total Gross Operated Production (boepd) 1	196,656	206,455	(5)%	194,343	1%	199,574	
Average Daily Gross Operated Production							
(boepd)	187,203	196,861	(5)%	184,585	1%	189,926	
Rajasthan	159,351	166,943	(5)%	157,338	1%	161,571	
Ravva	18,361	19,637	(6)%	17,769	3%	18,602	
Cambay	9,491	10,281	(8)%	9,477	0%	9,753	
Average Daily Working Interest Production							
(boepd)	119,473	125,391	(5)%	117,926	1%	121,186	
Rajasthan	111,546	116,860	(5)%	110,137	1%	113,100	
Ravva	4,131	4,418	(6)%	3,998	3%	4,185	
Cambay	3,796	4,113	(8)%	3,791	0%	3,901	
Total Oil and Gas (million boe)							
Oil & Gas- Gross	17.0	17.9	(5)%	16.6	3%	69.3	
Oil & Gas-Working Interest.	10.9	11.4	(5)%	10.6	2%	44.2	

<sup>(1)</sup> Including internal gas consumption

Oil & Gas delivered a consistent quarterly performance during the three months ended 30 June 2017, with average gross production across assets at 187,203 barrels of oil equivalent per day (boepd), 1% higher q-o-q on account of continued reservoir management practices and production optimisation activities. Average gross production declined 5% y-o-y primarily due to natural decline in the fields, partially offset by Enhanced Oil Recovery (EOR) and other interventions.

Gross production from the Rajasthan block averaged 159,351 boepd for the quarter, 1% higher q-o-q. Mangala EOR continued to demonstrate strong performance with average volumes of 56 kboepd during the quarter, at the same level as of the three months ended 31 March 2017 (the three months ended 30 June 2016: 42 kboepd). During the quarter, we commenced production from two satellite fields, Kaam West-2 and Guda. Gross production from Development Area-1 (DA-1), Development Area-2 (DA-2) and Development Area-3 (DA-3) averaged 142,148 boepd, 16,988 boepd and 215 boepd respectively

Gas production from RDG increased to an average of 35.4 million standard cubic feet per day (mmscfd) in the three months ended 30 June 2017 with gas sales at 20.4 mmscfd (the three months ended 31 March 2017: RDG Gas production 20.9 mmscfd and sales 3.6 mmscfd).

The Ravva block produced at an average rate of 18,361 boepd for the quarter. Lining up of new oil producing zones in two wells and re-activation of a few gas wells through well intervention activities have helped in generating additional production from the field. Maintaining strong focus on safe operations, the asset has been awarded the prestigious Golden Peacock Award for HSE performance.

The Cambay block reported at an average production rate of 9,491 boepd for the quarter. Targeting incremental production opportunities, an oil well has been re-activated and a gas zone has been lined up by adding new perforations in a well, to offset the natural decline.

Drilling of 15 infill wells at the Mangala field has commenced from July 2017. Aishwariya Barmer Hill Phase I has been approved and the production from existing appraisal wells has commenced from July 2017. The multi-well polymer injection test at Bhagyam EOR and Aishwariya EOR has been successfully completed and the Field Development Plans are under discussion with JV Partner. RDG Phase I is on track to complete in the second quarter of fiscal year 2018 and would increase gas production to 40-45 mmscfd. For Phase II, the drilling rig contract has been awarded. Tendering activity for new gas terminal is progressing well. Phase II is expected to increase the gas production to over 100 mmscfd and condensate production to about 5,000 boepd by first half of calender Year 2019.

As guided previously, we expect Rajasthan production volumes to remain steady at 165kboepd in FY2018, with potential upside from execution of growth projects.

Zinc India

		Q1			Q4	
Particulars	Fiscal year 2018 (30 June 2017)	Fiscal year 2017 (30 June 2016)	% change Yo Y	Fiscal year 2017 (31 March 2017)	% change QoQ	Fiscal year 2017 (31 March 2017)
Zinc India(kt)						
Mined metal content	233	127	84%	312	(25)%	907
Refined Zinc — Total	194	102	90%	215	(10)%	672
Refined Zinc —						
Integrated	194	101	92%	215	(10)%	670
Refined Zinc — Custom	_	1	_	_	_	2
Refined Lead — Total $^2$	35	25	42%	45	(23)%	139
Refined Lead —						
Integrated	35	25	42%	45	(23)%	139
Refined Lead — Custom	_	_	_	_	_	_
Silver — Total (in mn						
ounces) <sup>3</sup>	3.70	2.85	30%	4.47	(17)%	14.55
Silver — Integrated (in						
mn ounces)	3.70	2.85	30%	4.47	(17)%	14.55
Silver — Custom (in mn						
ounces)	_	_	_	_	_	_

excluding Captive consumption of 1,956 tonnes in three months ended 30 June 2017 vs 1,084 tonnes in three months ended 30 June 2016 and 1,633 tonnes in the three months ended 31 December 2016.

excluding Captive consumption of 3,28,077 ounces in three months ended 30 June 2017 vs 1,77,000 ounces in three months ended 30 June 2016 and 2,78,000 ounces in three months ended 31 December 2016.

Mined metal production in Quarter One was at 233kt, up 84% higher y-o-y. The increase was primarily on account of higher volumes from all mines, higher zinc grades and depletion of opening ore stock. Q-o-q production was 25% lower as of the three months ended 31 March 2017 performance was exceptionally high as per mine plan in line with previously provided guidance.

Integrated zinc metal production during the quarter was at 194kt, up 92% y-o-y. Integrated saleable lead metal production during the quarter was at 35kt, up 42% y-o-y. The increase was in line with availability of mined metal, supported by smelter efficiencies. Integrated saleable silver production during the quarter was 3.7 mn ounces (115 metric tonnes), up 30% y-o-y due to higher grades and volumes from Sindesar Khurd mine.

At Rampura Agucha during the quarter, the equipping of the main shaft was completed and winder will be commissioned in the current quarter. We expect the production from the shaft to start in third quarter of fiscal 2019.

Sindesar Khurd mine main shaft headgear erection was completed and preparatory work for equipping is in progress. We expect the production from the shaft to start in the second quarter of fiscal year 2019. In Q1, we have awarded an order for a new mill of 1.5 mtpa capacity, to take total capacity to 5.8 mtpa.

Zawar mill debottlenecking project, upgraded to 2.7 mtpa, will be completed by the second quarter of fiscal 2018. Based on the encouraging exploratory drilling results, we believe that the Zawar group of mines has potential far beyond its existing R&R. We have hence increased our focus on the exploration programme for Zawar.

The fumer project is progressing as per schedule and expected to complete by mid fiscal 2019. All long lead items are ordered and civil works are in full swing.

As previously guided, mined metal production in fiscal year 2018 is expected to be higher than fiscal year 2017. Refined zinc-lead metal production is expected to be around 950kt. Silver production is expected to be over 15 million ounces (500 metric tonnes). We are on track to reach mined metal capacity of 1.2 mtpa in fiscal year 2020.

Zinc — International

		Q1		Q	Full Year	
Particulars (in'000 tonnes, or as stated)	Fiscal year 2018 (30 June 2017)	Fiscal year 2017 (30 June 2016)	% change YoY	Fiscal year 2017 (31 March 2017)	% change QoQ	Fiscal year 2017 (31 March 2017)
Zinc International	32	43	(25)%	41	(22)%	156
Zinc-refined — Skorpion	14	24	(42)%	21	(36)%	85
Mined metal content — BMM	18	19	(4)%	20	(7)%	70

Total production for the three months ended 30 June 2017 was 32,000 tonnes, 25% lower y-o-y and 22% lower q-o-q. The decrease was mainly due to the planned shutdown at the acid plant, and lower recoveries at Skorpion.

Production at Skorpion during the quarter was 14,000 tonnes, 42% lower y-o-y and 36% lower q-o-q, mainly on account of a planned shutdown at the acid plant, and lower recoveries. BMM production for the quarter was 18,000 tonnes, 4% lower y-o-y and 7% lower q-o-q, largely due to lower feed grades.

At the Gamsberg project, pre-start activities and waste-stripping at the project have progressed well. The completion of the North Access Ramp - critical milestone and part of the open pit development has been achieved to schedule and the north pit pre-stripping has fully ramped up in the three months ended 30 June 2017. To date, we have excavated over 22.5 million tonnes of waste rock. All major orders for the integrated process plant, water and power, mining and other prestart activities have already been placed. Manufacturing of critical machinery such as Mills, Crusher, and Transformers is progressing well. Major contractors have been mobilised to the site and site activities including civil works, power lines and water lines are in full swing.

The first phase of the project is expected to have a mine life of 13 years, replacing the production lost by the closure of the Lisheen mine and restoring volumes to over 300,000 tonnes per annum (tpa) at Zinc International. There is also significant potential for further optimisation at the Gamsberg North deposit. First production is on track for mid-CY2018, with 9-12 months to ramp-up to full production of 250 ktpa.

At Skorpion, the Pit 112 extension project is progressing well and most equipment is in place. Waste mining has started in April 2017. This project, which involves push back of the high wall of the existing pit, will increase the mine life from 0.5 years to 3 years and increase current reserves from 0.9 million tonnes (at 6.5% grade) to 4.2 million tonnes (at 9.9% grade).

As guided previously, production volumes are expected to be around 160 ktpa in FY2018.

Iron Ore

	Q1			Q4		Full Year
Particulars (in million dry metric tonnes, or as stated)	Fiscal year 2018 (30 June 2017)	Fiscal year 2017 (30 June 2016)	% change YoY	Fiscal year 2017 (31 March 2017)	% change QoQ	Fiscal year 2017 (31 March 2017)
IRON ORE						
Sales	2.3	2.6	(12)%	3.0	(24)%	10.2
Goa	1.9	2.1	(11)%	2.3	(19)%	7.4
Karnataka	0.4	0.5	(15)%	0.7	(40)%	2.7
Production of Saleable						
Ore	3.2	3.2	1%	3.7	(12)%	10.9
Goa	2.2	2.4	(10)%	3.7	(42)%	8.8
Karnataka	1.1	0.8	36%	_	_	2.1
Production ('000 tonnes)						
Pig Iron	163	181	(10)%	182	(10)%	708

At Goa, production was 2.2 million tonnes and sales were 1.9 million tonnes during the quarter. Production was lower y-o-y primarily due to the early onset of the monsoon as well as a temporary halt of mining in some areas by the Goa government, which is expected to be resolved in Q3 FY2018. Q-o-q production at Goa is not comparable due to seasonality as well as additional allocation granted to us in the three months ended 31 March 2017.

Sales in Goa were lower than production due to the low pricing environment and widening of discount for our c. 56% grade as compared to the benchmark price of 62% iron grade. We are working on beneficiation and blending with high grades, to narrow the discounts and improve our realisations per tonne. We currently have inventory of 2.4 million tonnes, which will be sold in the future quarters post beneficiation.

At Karnataka, we achieved c.50% of our annual mining cap, with production of 1.1 million tonnes, during the quarter. Sales were lower at 0.4 million tonnes due to muted e-auction sales. We have inventory of 0.8 million tonnes, which will be sold in the coming quarters.

Production of pig iron was lower y-o-y as well as q-o-q at 163,000 tonnes due to lower metallurgical coal availability on account of weather-related supply disruptions in Australia. Coal supplies have now normalised and production will pick up in the coming quarters.

We remain confident of achieving our allocations of 5.5 million tonnes and 2.3 million tonnes at Goa and Karnataka, respectively, well ahead of the end of the financial year, and continue to engage with the respective State governments for increased mining allocations in both states.

## Copper — India

	Q1			Q4		Full Year	
Particulars (in'000 tonnes, or as stated)	Fiscal year 2018 (30 June 2017)	Fiscal year 2017 (30 June 2016)	% change YoY	Fiscal year 2017 (31 March 2017)	% change QoQ	Fiscal year 2017 (30 March 2017)	
COPPER- INDIA							
Copper — Cathodes  Tuticorin Power Sales	90	100	(10)%	103	(12)%	402	
(MU)	30	60	(51)%	64	(54)%	200	

The Tuticorin smelter produced 90,000 tonnes of cathodes during the three months ended 30 June 2017, 10% lower y-o-y and 12% lower q-o-q. Production was lower primarily due to a planned shutdown for eleven days, as well as an unplanned shutdown for four days due to a boiler leakage at the smelter. The planned shutdown was advanced to balance the concentrate market disruptions experienced in Q1. Global concentrate supply has recovered, as the affected mines have ramped up production. The smelter is now operating at a high efficiency following the shutdown.

The smelter is expected to produce around 400,000 tonnes of cathodes during FY2018.

We continue to evaluate the expansion of the Tuticorin smelter by a further 400,000 tonnes per annum, and expect to provide further updates during the course of the year.

The 160 MW power plant at Tuticorin operated at a lower Plant Load Factor (PLF) of 48% during Q1 FY2018 (PLF of 60% in the three months ended 30 June 2016 and 62% in the three months ended 31 March 2017). PLF was lower due to low off-take by the Telangana State Electricity Board (TSEB) during the contract period, which ended on 25th May 2017. Due to the current demand supply situation of power, we are yet to enter into a new power purchase agreement and will continue to explore viable supply agreement options. Under the earlier contract, we are entitled to compensation at the rate of 20% of the contracted rate for the off-take below 85% of the contracted quantity as per terms of PPA.

Copper — Zambia

	Q1			Q4		Full Year
	Fiscal year	Fiscal year		Fiscal year 2017 (31		Fiscal year 2017 (31
Particulars	2018 (30	2017 (30	% change	March	% change	March
(in'000 tonnes, or as stated)	June 2017)	June 2016)			$Q \circ Q$	
COPPER — ZAMBIA						
Mined Metal	20	29	(30)%	15	35%	94

	Q1			Q4		Full Year	
	Fiscal year	Fiscal year		Fiscal year 2017 (31		Fiscal year 2017 (31	
Particulars	2018 (30	2017 (30	% change	March	% change	March	
(in'000 tonnes, or as stated)	June 2017)	June 2016)	Yo Y	2017)	QoQ	2017)	
Copper — Total	47	45	5%	51	(7)%	180	
Integrated	21	28	(26)%	19	9%	96	
Custom	27	17	56%	32	(17)%	84	

Mined metal production was 20,000 tonnes during the three months ended 30 June 2017, up by 35% q-o-q as a result of improvement in equipment availability at the Konkola mine, increased throughput at the Nchanga operations and improvement in Tailings Leach Plant availability.

Fleet availability at the Konkola mine improved to 53% in the current quarter compared with 23% in the three months ended 31 March 2017. Productivity improvement at Nchanga open pits along with concentrator plant availability of 88% and Tailing Leach Plant availability of 86% has led to an exit integrated production of 8,000 tonnes in the month of June 2017, with the trend continuing into July.

Mined metal production was 30% lower on a y-o-y basis mainly due to lower equipment availability at Konkola mine and availability at Tailings Leach Plant compared to last year, which have now improved significantly.

Custom volumes at 27,000 tonnes were 56% higher on a y-o-y basis due to improved third party concentrate availability and our ability to handle feed rates greater than 70 tonnes per hour at the smelter, following the biennial shutdown during Q3 FY 2017. Custom volumes were 17% lower q-o-q due to relatively lower availability of local concentrate.

Phase 1 of the elevated temperature leaching project targeted at improving TLP recoveries is under stabilisation and we are in the process of appointment of an engineering consultant for Phase II. Construction of Heap Leach pilot test pads is progressing well and commissioning is expected before Q3 FY 2018.

On the Cobalt project, preliminary proposals have been received and the process of identifying an off-take and techno-economic partner through an RFP led process is underway, which is expected to be completed before Q3 FY 2018.

Water level at the Kariba Dam are improving and is currently at 56% compared with 34% y-o-y. Power cuts in the country have been stopped but the force majeure declared by ZESCO and CEC continues.

The outlook on volumes for FY 2018 is 95-110kt of integrated production. Custom smelting production is expected at 80-90kt. We expect c.25kt of integrated production in Q2 FY2018.

#### Aluminium

	Q1			Q4		Full Year
Particulars	Fiscal year 2018 (30	Fiscal year 2017 (30	% change	Fiscal year 2017 (31 March	% change	Fiscal year 2017 (31 March
(in'000 tonnes, or as stated)  Aluminium	June 2017)	June 2016)	Yo Y	2017)	QoQ	2017)
Alumina-Lanjigarh	303	275	10%	313	(3)%	1,208

	Q1			Q4		Full Year
	Fiscal year	Fiscal year		Fiscal year 2017 (31		Fiscal year 2017 (31
Particulars	2018 (30	2017 (30	% change	March	% change	March
(in'000 tonnes, or as stated)	June 2017)	June 2016)	Yo Y	2017)	$Q \circ Q$	2017)
Total Aluminium						
Production	352	244	44%	353	0%	1,213
Jharsuguda-I	92	129	(29)%	132	(30)%	525
Jharsuguda-II <sup>4</sup>	120	28	_	100	20%	261
Korba-I	63	63	0%	64	(2)%	256
Korba-II <sup>5</sup>	77	24	_	57	35%	171
Power Sales (million units)						
BALCO 270 MW *	_	_	_	_	_	_
Jharsuguda 1800 MW						
(Surplus Power Sales) *	_	355	_	_	_	511

The Lanjigarh refinery produced 303,000 tonnes of alumina in Q1 FY2018, 10% higher y-o-y but 3% lower q-o-q.

Aluminium production in Q1 was at 352,000 tonnes, 44% higher y-o-y driven by ramp ups at the Jharsuguda-II and BALCO-II smelters. The BALCO-II smelter was ramped up and capitalised during the quarter. Aluminium production was flat q-o-q, as the continued ramp up at Jharsuguda-II & BALCO-II was offset by lower production from the Jharsuguda-I smelter due to the pot outage in early April 2017.

At Jharsuguda-I, out of the 228 pots that were affected in the April outage, 35 pots are operational to date, and the balance will be operational by Q3 FY2018.

Stabilised production (i.e. production excluding trial run) was c.320,000 tonnes in Q1 FY2018. We exited the quarter at a run rate of 1.4 million tonnes per annum of stabilised production.

During the three months ended 30 June 2017, there were no external sales from the 1,800 MW Jharsuguda power plant due to a weak power market. However, the PLF's will continue to increase as we ramp up the Jharsuguda-II smelter.

On coal supplies, domestic linkages contribute to the long-term security of our coal requirements at a competitive price. We experienced temporary disruptions in domestic coal supply from Coal India during the quarter.

From the coal linkages of 6mtpa, which were secured through auctions in Q2 FY2017 for the captive power plants at BALCO and Jharsuguda, 1.8 mn tonnes of coal were received during the quarter compared to 1.4 mn tonnes in the three months ended 31 March 2017. In addition to this, we secured further linkages of 2 mtpa in July. Coal imports continue to be minimal for Aluminium business.

<sup>\*</sup> Jharsuguda 1,800MW and Balco 270 MW power plants have been moved from the Power to the Aluminium segment from 1st April 2016.

including Trial Run production of 19 kt in the three months ended 30 June 2017 vs 13 kt in the three months ended 30 June 2016 and 28 kt in the three months ended 31 December 2016.

including Trial Run production of 15 kt in the three months ended 30 June 2017 vs 6 kt in the three months ended 30 June 2016 and 19 kt in the three months ended 31 December 2016.

We expect to produce c.1.5 to 1.6 million tonnes of aluminium (excluding trial run production) in fiscal year 2018.

#### **Power**

	Q1			Q4		Full Year
Particulars	Fiscal year 2018 (30	Fiscal year 2017 (30	% change	Fiscal year 2017 (31 March	% change	Fiscal year 2017 (31 March
(in million units)	June 2017)	June 2016)			QoQ	2017)
Power						
Total Power Sales	1,838	3,010	(39)%	3,462	(45)%	12,916
Jharsuguda 600 MW	564	892	(37)%	952	(41)%	3,328
TSPL	563	1,272	(56)%	1,596	(61)%	6,339
BALCO 600 MW	551	607	(9)%	793	(31)%	2,609
MALCO	4	90	(96)%	46	(93)%	190
HZL Wind Power	156	148	5%	75	_	448
TSPL — Availability	20%	72%	_	85%	_	79%

During the three months ended 30 June 2017, power sales were 1,838 million units, lower y-o-y and q-o-q, primarily due to the TSPL plant being out of operation for most of quarter following the fire incident in April, announced earlier.

The TSPL plant was shut for around 65 days during the quarter. The plant was restarted at the end of June and is now running at an availability of above 90%. Consequently, the availability of the plant was lower at 20% in the three months ended 30 June 2017 compared to 85% in the three months ended 31 March 2017. The Power Purchase Agreement with the Punjab State Electricity Board (PSEB) compensates us based on the availability of the plant. We are targeting an average availability of over 70% for the full year.

The 600MW Jharsuguda power plant operated at a plant load factor (PLF) of 47% in the three months ended 30 June 2017 (PLF of 78% in the three months ended 31 March 2017, 74% in the three months ended 30 June 2016). Power sales from this plant were significantly lower due to a temporary coal shortage.

The 100MW MALCO power plant operated at a lower PLF of 2% in Q1 FY2018. The plant has been put under care and maintenance effective from 26th May 2017 due to low demand in Southern India. The plant has been selling commercial power for the last 8 years, and has generated a significant cumulative EBITDA of c. \$ 170 mn over these years.

The 600 MW BALCO IPP (2x300MW) operated at a PLF of 68% in the three months ended 30 June 2017 compared to 72% the three months ended 31 March 2017 (the three months ended 30 June 2016: 64%).

(In '000 tonnes, except as stated)

Particulars	Three months period ended 30 June 2017			Three months period ended 31 March 2017		Full Year ended 31 March 2017	
	Fiscal year 2018	Fiscal year 2017	% Change Yo Y	Fiscal year 2017	% Change QoQ	Fiscal year 2017	
OIL AND GAS							
Average Daily Total Gross Operated Production							
(boepd) <sup>1</sup>	196,656	206,455	(5)%	194,343	1%	199,574	
Average Daily Gross Operated Production			. ,				
(boepd)	187,203	196,861	(5)%	184,585	1%	189,926	
Rajasthan	159,351	166,943	(5)%	157,338	1%	161,571	
Rayva	18,361	19,637	(6)%	17,769	3%	18,602	
			1 1		0%		
Cambay	9,491	10,281	(8)%	9,477	0%	9,753	
Average Daily Working Interest Production							
(boepd)	119,473	125,391	(5)%	117,926	1%	121,186	
Rajasthan	111,546	116,860	(5)%	110,137	1%	113,100	
Ravva	4,131	4,418	(6)%	3,998	3%	4,185	
Cambay	3,796	4,113	(8)%	3,791	0%	3,901	
Total Oil and Gas (million boe)							
Oil & Gas- Gross	17.0	17.9	(5)%	16.6	3%	69.3	
Oil & Gas-Working			(0),1				
Interest	10.9	11.4	(5)%	10.6	2%	44.2	
Zinc India			. ,				
Mined metal content	233	127	84%	312	(25)%	907	
Refined Zinc — Total	194	102	90%	215	(10)%	672	
Refined Zinc —	17.	102	7070	213	(10)/0	0,2	
Integrated	194	101	92%	215	(10)%	670	
Refined Zinc — Custom	_	1	_	_	_	2	
Refined Lead — Total <sup>2</sup>	35	25	42%	45	(23)%	139	
Refined Lead —	33	23	12 70	15	(23) 70	137	
Integrated	35	25	42%	45	(23)%	139	
Refined Lead — Custom	_	_		_		_	
Silver — Total (in mn							
ounces) <sup>3</sup>	3.70	2.85	30%	4.47	(17)%	14.55	
Silver — Integrated (in					(,,,-		
mn ounces)	3.70	2.85	30%	4.47	(17)%	14.55	
Silver — Custom (in mn					,		
ounces)	_	_	_	_	_	_	
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Mined metal content —			· /·		· -/-		
BMM	18	19	(4)%	20	(7)%	70	
			*		*		

Particulars	Three months period ended 30 June 2017			Three months period ended 31 March 2017		Full Year ended 31 March 2017
	Fiscal year 2018	Fiscal year 2017	% Change YoY	Fiscal year 2017	% Change QoQ	Fiscal year 2017
IRON ORE (in million dry	2010		101		2°2	
metric tonnes, or as stated)						
Sales	2.3	2.6	(12)%	3.0	(24)%	10.2
Goa	1.9	2.1	(11)%	2.3	(19)%	7.4
Karnataka	0.4	0.5	(15)%	0.7	(40)%	2.7
<b>Production of Saleable</b>						
Ore	3.2	3.2	1%	3.7	(12)%	10.9
Goa	2.2	2.4	(10)%	3.7	(42)%	8.8
Karnataka	1.1	0.8	36%	_	_	2.1
Pig Iron	163	181	(10)%	182	(10)%	708
COPPER — INDIA						
Copper — Cathodes	90	100	(10)%	103	(12)%	402
Tuticorin Power Plant						
Sales (MU)	30	60	(51)%	64	(54)%	200
COPPER — ZAMBIA						
Mined metal	20	29	(30)%	15	35%	94
Copper — Total	47	45	5%	51	(7)%	180
Integrated	21	28	(26)%	19	9%	96
Custom	27	17	56%	32	(17)%	84
Aluminium						
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Total Aluminium					. ,	
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Korba-I	63	63	0%	64	(2)%	256
Korba-II <sup>5</sup>	77	24	_	57	35%	171
Balco 270 MW	_	_	_	_	_	_
Jharsuguda 1800 MW						
(Surplus Power Sales)	_	355	_	_		511
POWER (in million units)						
Total Power Sales	1,838	3,010	(39)%	3,462	(45)%	12,916
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TSPL	563	1,272	(56)%	1,596	(61)%	6,339
BALCO 600 MW	551	607	(9)%	793	(31)%	2,609
MALCO	4	90	(96)%	46	(93)%	190
HZL Wind Power	156	148	5%	75	_	448
TSPL — Availability	20%	72%	_	85%	_	79%
Ports — VGCB (in million tonnes) <sup>6</sup>						
Cargo Discharge	1.2	1.6	(23)%	0.8	53%	4.3
Cargo Dispatches	1.1	1.5	(28)%	0.8	34%	4.4
Cargo Dispatenes	1.1	1.5	(20) //	0.0	5770	7.7

Full Year

- (1) Including internal gas consumption
- excluding Captive consumption of 1,956 tonnes in three months ended 30 June 2017 vs 1,084 tonnes in three months ended 30 June 2016 and 1,633 tonnes in the three months ended 31 December 2016.
- excluding Captive consumption of 3,28,077 ounces in three months ended 30 June 2017 vs 1,77,000 ounces in three months ended 30 June 2016 and 2,78,000 ounces in three months ended 31 December 2016.
- including Trial Run production of 19 kt in the three months ended 30 June 2017 vs 13 kt in the three months ended 30 June 2016 and 28 kt in the three months ended 31 December 2016.
- including Trial Run production of 15 kt in the three months ended 30 June 2017 vs 6 kt in the three months ended 30 June 2016 and 19 kt in the three months ended 31 December 2016.
- VGCB refers to Vizag General Cargo Berth

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