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24 May 2017

## Vedanta Resources plc Preliminary Results for Year Ended 31 March 2017

### Financial highlights

- Revenue increased by 7% to US\$11.5 billion (FY2016: US\$10.7 billion) driven by firmer commodity prices and volume ramp-up
- EBITDA increased by 37% to US\$3.2 billion (FY2016: EBITDA: US\$2.3 billion)
- Adjusted EBITDA margin of 36% (FY2016: 28%), driven by firmer commodity prices and operational efficiencies
- Free cash flow (FCF) <sup>◆</sup> post capex of US\$1.5 billion (FY2016 US\$1.8 billion). Excluding one-time working capital initiatives FCF at US\$1.4 billion (FY2016:US\$0.9 billion)
- Gross debt at US\$18.2 billion (FY2016: US\$16.3 billion), higher on account of temporary borrowings at HZL (US\$1.2 billion) for special dividend payment
- Gross debt reduced by US\$1.4 billion post 31 March 2017
- Net debt <sup>◆</sup> at US\$8.5 billion (FY2016: US\$7.3 billion), higher driven by dividends paid to minorities and the associated dividend distribution tax
- Vedanta Limited and Cairn India merger completed
- Underlying profit <sup>◆</sup> per share of US cents 1.1 (FY2016: loss of US cents 131.9)
- Positive credit rating movements
  - S&P upgraded the issuer credit rating from B/Stable Outlook to B+/Stable Outlook
  - Moody's upgraded the company's Corporate Family Rating (CFR) by one notch from B2/Negative to B1/Stable
- Announced a final dividend of US cents 35 per share (total dividend US cents 55 per share), dividend yield of 6.5%
- Declaration of record interim dividend by subsidiaries in March 2017
  - Hindustan Zinc Limited announced dividend of US\$2.1 billion including dividend distribution tax
  - Vedanta Limited announced a dividend of US\$1.0 billion, of which US\$500 million was received by Vedanta Resources Plc

### Business Highlights

- Record annual production at Aluminium, Power, Zinc-India (Zinc and Silver) and Copper – India
- Successful ramp up from Mangala EOR with production level of 56,000 boepd in Q4 at Cairn-Oil & Gas

- Zinc International
  - Highest quarterly production in Q4 at Black Mountain in 4 years
  - Mobilisation on Skorpion Pit layback commenced in April
  - Gamsberg project on track to commence production in mid CY 2018
- Aluminium: Strong production during the year, volumes impacted by a pot outage in April
- Power:
  - 1,980 MW Talwandi Sabo Power Plant (TSPL) operating at 85% availability in Q4
  - TSPL operations impacted by a shutdown due to fire in April, rectification in process and expected to recommence operations by the end June 2017
- Iron ore:
  - Achieved 2.6 million tonnes of the additional production capacity granted in Goa for FY2017
- Copper Zambia
  - Strong custom production
  - Lower integrated production due to lower equipment availability
  - Ramp-up commenced at reconfigured Nchanga underground mine
- Delivered cumulative cost and marketing savings of US\$814 million over the past 2 years; ahead of plan to deliver \$1.3 billion in four years

Anil Agarwal, Chairman of Vedanta Resources Plc, commented: *"We delivered a strong set of results this year and took important steps towards achieving our strategic objectives. We reached record production levels across several of our businesses and I am confident of continued successful ramp ups from our world-class assets. An important milestone for us this year was the completion of the merger of Vedanta Limited and Cairn India, and our simplified group structure will support strong shareholder returns. We remain committed to a consistent strategy and de-levering the balance sheet, and look ahead to FY 2018 in a stronger financial position and with more confidence than ever."*

<i>(US\$ millions, except as stated)</i>		
<b>Consolidated Group results</b>	<b>FY2017</b>	<b>FY2016</b>
Revenue	11,520.1	10,737.9
EBITDA	3,191.1	2,336.4
EBITDA margin (%)	27.7%	21.8%
EBITDA margin excluding custom smelting ♦ (%)	36.5%	27.6%
Operating profit before special items	2,160.6	881.2
Loss attributable to equity holders	(22.7)	(1,837.4)
Underlying attributable profit/(loss) ♦	3.0	(364.1)
Basic loss per share (US cents)	(8.2)	(665.8)
Profit/(loss) per share on underlying profit (US cents)	1.1	(131.9)
ROCE ♦ (%)	15.6%	6.2%*
<b>Total dividend (US cents per share)</b>	<b>55</b>	<b>30.0</b>

\*Before impairment

♦ Indicates alternate performance measures which are defined in detail in 'Other information'

There will be a conference call at 9:00a.m. UK time (1:30p.m. India time) on 24 May 2017, where senior management will discuss the results.

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The results will be webcast and can be accessed via investor relations section of our website [www.vedantaresources.com](http://www.vedantaresources.com) or directly at <http://edge.media-server.com/m/p/rny2gdkq>.

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## About Vedanta Resources plc

Vedanta Resources plc (“Vedanta”) is a London listed diversified global natural resources company. 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 and Australia. With an empowered talent pool globally, Vedanta places strong emphasis on partnering with all its stakeholders based on the core values of trust, sustainability, growth, entrepreneurship, integrity, respect and care. To access the Vedanta Sustainable Development Report 2016, please visit

<http://sustainabledevelopment.vedantaresources.com/content/dam/vedanta/corporate/documents/Otherdocuments/SDreport2015-16/Vedanta%20SDR%20FY%2015-16.pdf>. For more

information on Vedanta Resources, please visit

[www.vedantaresources.com](http://www.vedantaresources.com).

Disclaimer This press release contains “forward-looking statements” – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “should” or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, uncertainties arise from the behaviour of financial and metals markets including the London Metal Exchange, fluctuations in interest and/or exchange rates and metal prices; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements.

## Chairman's Statement

### Anil Agarwal

After FY2016, where we showed our resilience in the face of a challenging economic climate, it is a pleasure to report that FY2017 was about price recovery and exciting potential.

Three key characteristics of Vedanta emerged from the year.

First, we are stronger. Having weathered the prior year's market downturn, we have continued to build on our status as a low-cost, diversified producer. During FY2017 we also delivered our promised merger of Cairn India Limited (Cairn India) and Vedanta Limited, simplifying the Group structure. This is a significant step forward towards achieving our stated long-term vision of alignment of interests between all shareholders for the creation of long-term sustainable value. We continued to strengthen our financial position, through our focus on deleveraging our balance sheet and extending maturity commitments. We have also enjoyed the upturn in the market, with the strong zinc and aluminium prices playing to our particular strengths.

Second, we are working smarter. In a country focused on technology and digitalisation we are acquiring best-in-class technology for our assets, and focusing on creating our own. During the year, we initiated a US\$30mn investment fund for in-house R&D, supporting our wealth of knowledge and spirit of innovation with meaningful resources. We are also actively incentivising our people to contribute their own ideas.

Third, we continue to operate sustainably, focusing on creating value and opportunity for all our stakeholders: employees, communities, investors and the countries we operate in. This is coupled with a firm aim to achieve 'zero harm, zero waste and zero discharge'. We are determined to mine safely and sensitively, minimising our environmental impact and being receptive to the needs of the local people.

We are in the business of producing commodities and supplying energy that make lives and economies better, from the essentials for creating infrastructure, to the basic needs of transportation and power and the material requirements of manufacturing consumer goods. We are also excellently located: Vedanta operates primarily in India and Africa, countries that are endowed with an abundant supply of natural resources, and has a growing economy waiting to make good use of them.

As an efficient and experienced natural resources player, we offer investors an opportunity to take part in the extraordinary growth story of India as it seeks to improve its infrastructure, house its growing population and develop its manufacturing base.

### HOW WE PERFORMED

With a strong operational performance and a supportive market environment, we were able to deliver encouraging numbers for FY2017.

Revenues rose to US\$11.5 billion with EBITDA at US\$3.2 billion. EBITDA margin (excluding custom smelting at Zinc India and Copper) was 36% and we delivered strong free cash flow of US\$1.5 billion.

This led the Board to recommend a final dividend of 35 US cents per share.

I was pleased that we were able to ramp up our production, despite some operational issues at Aluminium and Power businesses and the Konkola Copper Mines (KCM). We were also successful in controlling costs at majority of our businesses.

I also deeply regret that the year saw seven fatalities in the course of our operations. There are no circumstances in which this is acceptable, and I am personally committed to eradicating such incidents.

## **INDIA**

Vedanta sits at the heart of the fastest-growing economy in the world, and around 58% of our revenues are derived from our operations in the country.

India is an exciting place to be. Prime Minister Modi's government is spearheading huge changes in the business environment, and in turn this is making India a prime destination for investment. India attracted record foreign direct investment of more than US\$45 billion\*\* in CY 2016, and the country looks increasingly attractive to manufacturers and digital industries.

The "Make in India" government campaign to encourage national and multi-national companies to manufacture their products in India, is driving an exciting agenda of domestic growth. We expect to see the GDP growth of the nation translating into meaningful increases in metals and energy demand.

Currently, India only produces 20% of its oil and mineral requirements and mining represents just 2.4% of GDP and the country is spending US\$ 500bn on imports. Yet we have a similar geology to Africa and Australia with highly attractive prospects for oil, base and precious metals, and other minerals.

We remain a proud corporate citizen of India, and in FY2017 we contributed US\$6 billion to the exchequer and supported, directly or indirectly, at least 70,000 jobs.

## **AFRICA**

Vedanta enjoys a productive and longstanding relationship with Africa, and during the year I was pleased to accompany India's Prime Minister on a visit to South Africa, as part of his business delegation.

We continue to invest in projects and assets in both India and Africa. Our zinc project in Gamsberg, South Africa, is under active construction as we prepare to mine one of the world's largest deposits of zinc. Given strong zinc market fundamentals, this venture looks increasingly well-timed and we look forward to production going live in 2018. We are also looking at extending the life of the successful Black Mountain and Skorpion zinc mines. This is in sharp contrast to a few years ago, when Skorpion was being considered for closure.

In Zambia, although we experienced some operational challenges during the year, we continue to focus on being a leading player in copper. We have exciting technical projects planned, and are looking at initiatives both to ramp-up volumes and develop captive power generation sources over the coming years.

## **A COMPANY FOR COMMUNITIES**

For two decades now, Vedanta has maintained that financial returns alone are not the mark of a good business. We also care passionately about the well-being of our employees and, equally, the local communities in which we operate.

I am therefore proud to say that during the year, we backed our commitment to the communities we operate in with an investment of US\$18 million towards community initiatives.

A key part of our work in this area is to empower women and to give children the best possible start in life. As an example, Vedanta is participating in India's 'Nand Ghars' (also known as Anganwadi) programme, helping to transform 4,000 state-run child welfare centres across the country to support women and children by providing the education, skills development and healthcare they need.

In total, we support projects focused on constructive welfare and sustainability, impacting the lives of some 2.2 million people.

## OUR PEOPLE

Following the difficult market environment of the prior year, I want to thank all of our employees whose energy, talents and commitment came to fruition in FY2017.

I would also like to thank my fellow directors for their wise counsel and, in particular, our CEO Tom Albanese who has been instrumental to Vedanta's performance in his three years in the organisation. Tom's contract came to its scheduled end in March, and he decided it was an appropriate juncture to make the personal decision to re-join his family in the US.

He leaves the company having made a strong impact with his ideas and efficiencies starting to show positive results. I thank him warmly for the successful part he has played in our story and we wish him well. Tom remains in his position until August 2017 and the search for his successor is well under way.

As announced earlier in the year, Euan Macdonald, Non-Executive Director and Chairman of the Remuneration Committee and Sustainability Committee, retired from the Board. I would like to thank Euan for his huge contribution to sustainability at Vedanta, including improved safety standards and best practices in site closures. Katya Zotova, a member of our Sustainability Committee, will be leading its priorities in the coming year. Further, Edward Story has been appointed as a Non-Executive Director of the Company with effect from 1 June 2017. He will also be appointed as a member of the Company's Audit Committee with effect from 1 June 2017. I am delighted to welcome him to our Board. His background and domain experience in the oil and gas industry will significantly enhance our ability to grow and develop Vedanta's oil and gas business.

I welcome Ravi Rajagopal to his new roles, both as a Non-Executive Director of Vedanta Resources, and to the Audit and Sustainability Committee. He comes with a wealth of experience across finance and operational roles in a FTSE 100 company.

In line with regulatory guidance, Mr Aman Mehta will retire on conclusion of this year's AGM. Meanwhile he has overseen the Company's transition to a new auditor for the Group and I would like to thank him for his sound guidance and commitment over the years.

On behalf of the entire Board, I would also like to thank all our investors, communities and the governments of the countries in which we operate, for their constant support.

## **FY2018: OPTIMISM AND DISCIPLINE**

I am optimistic that the improvement in commodity markets we have experienced this year may be with us for the foreseeable future.

Prices in copper, aluminium, zinc, iron ore, oil and gas have all shown a strong recovery last year, so we approach FY2018 with a cautious optimism and a continuing discipline in our capital allocation.

Meanwhile, we will continue to contribute to India's exciting growth trajectory, working with the Indian Government, our employees and communities to make a difference.

**ANIL AGARWAL**

**Chairman**

**24 May 2017**

*\*\* Source: Department of Industry Policy and Promotion February 2017*



## CEO's Statement

Let me open this report on FY2017 by reverting to my statement for the previous year.

In May 2016, we were looking at two central themes. First, that Vedanta's low-cost production ethos and focus on cash flows positioned us to be highly resilient in the face of any prolonged downturn in the commodity market. In addition, Vedanta was well positioned to benefit from any upturn, and that we were cautiously optimistic that an improvement might come soon.

Back to today, and I'm pleased to report that the market did indeed see a marked upturn, and that we made sure we maximised the opportunities that came with that recovery. In FY2017, Vedanta delivered a strong performance across each of the key financial metrics and this has given us a good springboard into FY2018.

### **The market: returning to balance**

We saw an altogether better environment for our business in FY2017. The commodities sector benefited from a combination of positive global economic activity, coupled with a progressive tightening of commodity supply.

This resulted in the World Bank Commodities Prices Index for minerals and metals showing a healthy increase of almost 11%\* over the year. But the news was better still for Vedanta: the commodities that performed best were also the ones in which we're particularly strong (zinc and oil). This meant that Vedanta outperformed the sector generally, registering a significant increase.

Of these, the best performer was zinc. Vedanta is particularly well placed here, through Zinc India's low costs, its output as the world's second largest producer, and through our ramp-up of projects at Zinc India and at the Gamsberg mine at Zinc International. The net result is that Vedanta represents one of the best opportunities for investors looking to participate in the zinc market.

When we look at the key demand drivers, there was much concern a year ago about China. Despite a continuing growth rate that was the envy of most economies, the debate was whether China would go through a hard or soft landing. Since then, financial reform and fiscal stimulus have made analysts more confident of a soft landing trajectory, and this has certainly been our view in the specific area of metals.

Equally significant is that the strong improvement in the US economy has given the sense that, for the first time in a long period, there is a positive economic outlook globally. This was shown by how the market absorbed the considerable political and economic shocks that came from the elections and the markets during the year. This augurs well for commodities which, for the first time in five years, closed the year higher than they were at the outset. In addition to the more benign global environment, this was due to supply-side expansions of the last 10 years having run their course. This led to the emergence of supply pressures not seen since 2011 and, in the case of zinc, absolute shortages.

Indeed, we are under no illusions: volatility is a given in our sector, and our focus never wavers from exerting tight fiscal discipline and maintaining a robust balance sheet.

### **Highlights**

I'm pleased to report progress on a range of areas across the business, together with various challenges and tasks addressed and resolved.

### **Health, safety and environment**

Vedanta is committed to protecting the health and safety of our employees and stakeholders who might be impacted by our operations.

We operate a policy of 'zero harm', so it is with deep regret that we recorded seven fatalities during the year. Four occurred in a single tragic crane accident at our zinc operations in Rajasthan.

No injury of any kind is ever acceptable, and our non-negotiable principle is that everyone who works with us – direct employees or visiting contractors – should go home safe.

We continue to analyse every incident, and through acting on what we learn, our safety KPIs have showed measurable improvements, with LTIFR down to 0.39 (FY2016 0.51). However, it is clear that more is needed.

Our sustainable development agenda is at the core of Vedanta's strategic priorities and governs every business decision. During the year, our social Investment stood at US\$18 million and our efforts benefitted 2.2 million people across 576 villages and 1,142 peripheral villages where we operate.

Vedanta is a strong advocate of child development and women empowerment. In India, we are transforming 4,000 state-run child welfare centres into pre-fabricated units with the latest technology and modern amenities known as 'Nand Ghars' (also known as Anganwadi). These centres will be the convergence point for a number of government programmes such as clean water, sanitation facilities and electricity with additional services such as primary healthcare, women empowerment and entrepreneurship training.

In South Africa, we are supporting Pink Drive, a non-profit organisation to create awareness on breast cancer. Vedanta is also promoting skill development amongst youth in addition to agriculture, livestock & livelihood development programmes in India and Africa. In FY2017 for example, we assisted 90,000 farmers.

We are a signatory to the WBCSD 'WASH' (Water and Sanitation Hygiene) pledge. Under this we provide access to safe drinking water and promote best hygiene practices among employees and the community.

Our focus on sustainable development, inclusive growth and greater value creation for all our internal and external stakeholders is critical to ensure the future of our operations and helps us earn our social licence to operate.

Vedanta is also determined to minimise the impact of our operations on the environment. As a resources company, we appreciate the vital importance of using resources wisely, and one example is our water recycling programme that is now delivering water recycling rates of 24%.

We are also operating waste-to-revenue retrieval programmes, and during the year we will send about 50% of our fly ash waste for re-use in construction materials.

Our operations are mostly located in developing countries where growth of the country and human indices are dependent on reliable and affordable coal based power. We are committed to the climate change agenda and set up a Carbon Forum anchored by our CEO Power with representation from the businesses to guide the Group executive committee on our climate change mitigation programme. Practical examples of this include an investment in a 16 MW solar power project by our Zinc business in India.

### **Cairn India and Vedanta Limited merger completed**

I am pleased that we closed the year by completing the merger of Cairn India Limited into Vedanta Limited. The objective here is to simplify our group structure, and the move followed the strong approval from all sets of shareholders and the necessary regulatory permissions.

We see synergies ahead, principally through a more efficient balance sheet and through being able to allocate capital with more flexibility. We continue to be committed to expand energy

production through Cairn, one of the largest oil & gas private producers in India, focusing on the major discoveries at the Rajasthan block.

### **Volume ramp-up**

We achieved increased production across key commodities within our business.

- **Aluminium.** We began ramping up on 1 April 2016. At that point our run-rate was approximately 900 ktpa and by the close of the year we saw over 30% increase to 1.2 million tonnes. This improvement was not as fast as we had hoped, stalled by a few operational outages. However, the ramp-up in Q4 FY2017 saw production at a record level, up 56% year-on-year and marking strong progress towards our targeted total production capacity of 2.3 million tonne for aluminium.
- **Power.** The full 1980 MW Talwandi Sabo Power Limited (TSPL) in Punjab became operational this year enabling the business to contribute improved earnings.
- **Iron ore.** It is good to report that the mining ban in Goa is now in the past, and during the year we ramped up production within the mining cap limits. We have also been able to control costs, producing iron ore at a cash cost comparable with some of the world's largest operations. India's geology is similar to that of Western Australia, the world leader in iron ore mining and a lot needs to be done to realise the resource potential of the country.
- **Copper Zambia.** We remained focused on improving volumes and cost at this asset but was impacted by lower production due to low equipment availability. The custom production however was strong post the biennial shutdown at the smelter.

### **Continuing cost savings**

We complemented the benefits of better market conditions by maintaining tight financial discipline. Despite many analysts saying that the industry appears to have reached 'peak savings', our programme continues to drive down costs intelligently and safely, through optimising our plant and through achieving material efficiencies across the supply chain. We have achieved US\$814 million cost savings over the last two years since this cost savings programme was launched over the base of FY2015

### **Strengthening the balance sheet**

These successes play to our fiscal ethos: that we should be able to generate positive cash flow even in the most difficult passages of the market cycle. With this in mind, I also want to highlight the achievements on the balance sheet. Through tight cash flow control and capital discipline we have delivered on our promise to strengthen the balance sheet and extended our average debt maturities. This was also complemented by the success of our recent US\$1 billion bond issuance which was oversubscribed by three times. This bond issuance extended our 2018 and 2019 debt maturities to 2022. We also undertook several other liability management initiatives such as the bond buybacks and continue work in this direction to further strengthen the balance sheet.

### **FY2018 AND BEYOND**

We approach the new financial year with optimism. I believe the progressive improvements in the markets that we saw last year will continue, driven largely by supply side constraints.

At the same time, we bring a strong sense of realism and experience to our decision-making: our plans and investments do not rely on further help from market conditions, and we are prepared for volatility at any time.

We will maintain our focus on those factors that are in our control. This includes the safe expansion of our production, optimising costs, leveraging technology to run our business even more productively, and continuing our disciplined approach to capex.

On a personal note, I have elected to step down as CEO at the end of August 2017. I have spent a wonderful three-plus years in the role and leave the business in a strong position to contribute to, and benefit from, the future of India. I have always seen this extraordinary country as the next great growth vector, and my experiences here have only reinforced that view.

I believe Vedanta will continue to be the premier opportunity for those investing in India, and I look forward to watching the Company's progress in the exciting years ahead.

**TOM ALBANESE**

**Chief Executive Officer**

**24 May 2017**

*\*Source: World Bank Commodities Market Outlook January 2017*

## Strategic Overview

### Stronger

As commodity prices improved in FY2017 and continue to be favourable, we are reaping the benefits of the steps we have taken over the past few years to increase our resilience through the cycle: During the year, we achieved record production at Zinc India, Aluminium and Copper-India as well as significant ramp-up of volumes at Aluminium, Power and Iron Ore.

Our focus on optimising costs across our business through operational efficiencies has delivered savings of US\$814 million over two years.

Our successful US\$1bn bond issuance in January 2017 was a step towards proactive balance sheet management that has reduced our cost of debt and extended our debt maturities. Our international credit rating has improved to B+ with a stable outlook by S&P and B1 with a stable outlook by Moody's from B2 with a negative outlook.

The completion of the Cairn India merger at the end of the financial year has helped us to simplify our Group structure and will enable more flexibility in capital allocation, for the creation of long-term sustainable value.

As a result, we are now a stronger company and well-positioned to benefit from the improving market environment across our portfolio of diversified low cost, long-life assets. A disciplined ramp-up of production across our zinc, aluminium, iron ore and power businesses is delivering significant growth.

### Smarter

Digitilisation of the mining industry is gaining traction and Vedanta is capitalising on India's leading position and expertise in information technology. Building on two of our core values of entrepreneurship and innovation, during the year we have stepped up our efforts to discover and implement new, innovative and disruptive technologies through the introduction of new systems and incentive programmes.

One example is Eureka, our new digital platform to nurture and incubate house innovation and technology, which is currently being embedded throughout the business. It encourages our employees to come up with innovative ideas focusing on using technology to support mining in a sustainable way by reducing waste and improving energy efficiency. To date around 1,000 ideas have been submitted and 200 were selected for implementation, and will be rolled out across our operations. Quarterly innovation awards reward those employees who produce the most innovative ideas, providing employees with a further incentive. The top three ideas were awarded after evaluation by an expert committee comprising of business CEOs and senior cross-functional managers.

Our aim is to work smarter, improving the sustainability of our operations and optimising our costs.

### Sustainable

We operate as a responsible business minimising our impacts and promoting social inclusion across our operations through our focus on safety, environmental protection and community engagement.

Employee safety and achieving zero harm remains our number one priority. We deeply regret to report seven fatalities at our operations this year. We have learnt from these incidents and continue to work towards becoming zero-harm.

We continue to focus on reducing our environmental footprint, improving our resource efficiency through higher waste water recycling rates, implementing biodiversity plans across our

operations including the new Gamsberg project-and successfully rehabilitating the Lisheen mine in Ireland following its closure in 2015. We have also introduced a long-term carbon strategy which supports India's approach to managing climate change

Our aim is to create sustainable value for all our stakeholders. To this end, we empower local communities and proactively engage them in resolving any concerns they have. Where we plan new operations we ensure Free, Prior and Informed Consent of the local communities. We also undertake focused CSR activities which create positive social impacts.

## Finance review

### Key financial priorities:

#### Increasing shareholders' returns while continuing to strengthen the balance sheet

##### ■ Disciplined capital allocation: focusing on free cash flow

During the year, there has been a significant ramp-up of production at our Aluminium, Power and Iron Ore businesses, in line with guidance. With a significant amount of the capital investment programme completed, our operations have been generating positive cash flow over the years. We will be able to reach our full capacities with only limited capex requirement and, consequently, our cash flows are poised for a further improvement in the current price environment.

The Company is pursuing value-accretive organic growth, in line with our approach towards prudent capital allocation, through activities such as our Gamsberg zinc project and the next set of oil and gas opportunities at the Rajasthan block. Both zinc and oil are commodities that have a particularly favourable outlook, which we expect to deliver strong results.

The Company has a Group-level executive committee that evaluates potential capital expenditure based on its risk and returns profile, and sets the priorities while considering the dynamics of the macro environment. We only invest in high return projects in businesses that pass the test of achieving the hurdle rate criteria.

Cash outflow on capex excluding capital creditors<sup>◆</sup> was US\$668 million during FY2017 compared with US\$566 million in FY2016.

##### ■ Deleveraging: Strengthening the balance sheet

In line with our stated financial strategy to extend maturities and strengthen the balance sheet, we have been successful in extending our maturing debt through rollovers / refinancing of debt, new debt issuances and repayments from internal cash generation during the year, both at Vedanta plc and its subsidiaries. During the year, we successfully issued a US\$1.0 billion bond in January 2017, proactively refinancing and extending part of our 2018 and 2019 bond maturities. Post 31 March 2017 we have already reduced another US\$1.4 billion of gross debt.

The Company continues to have strong liquidity with cash and liquid investments of US\$9.7 billion and undrawn committed facilities of US\$0.9 billion.

During the year, the rating agency Moody's upgraded the company's Corporate Family Rating (CFR) by one notch from B2 / Negative Outlook to B1/ Stable Outlook. The rating agency Standard & Poor's upgraded the Company's rating by one notch from B / Stable Outlook to B+ / Stable Outlook. We are focused on further strengthening our credit profile to target to attain investment grade.

##### ■ Continuous focus on cost and maximising operational potential

We maintain a relentless focus on cost optimisation and aspire to be one of the lowest cost producers across our operations. In 2015, we set a target to deliver cost and marketing savings of US\$1.3 billion, and we have already delivered cumulative savings of US\$814 million over the past 24 months and are also keeping the program fresh. We believe that digitisation of mining processes will lead to improved efficiencies and costs. We also have a renewed program on vendor optimisation and quality score carding which will help us improve our vendor interaction in terms of the quality of partnership leading to efficiency and cost benefits. Furthermore, we are looking at various mutually beneficial outsourcing models where service providers with technology can help improve volumes, recoveries and exploration efforts. The Group will continue to stay contemporary in terms of trends, ideas and best practices to keep this cost bucket fresh.

### ■ Long-term shareholder value

During the year, total shareholders' return was c.150%. We believe in the philosophy of working and growing with our investors. We recently announced a new dividend policy at Vedanta Limited and earlier in the year at Zinc India

### **Executive summary: operational performance and the commodity upturn**

During FY2017, a combination of ramp-up of operations, cost and marketing savings and improved commodity prices over the lows of FY2016, all resulted in a strong EBITDA of US\$3.2 billion with robust margin of 36%. (FY2016: EBITDA US\$2.3 billion, Margins 28%).

The upturn in commodity prices resulted in increased EBITDA by US\$552 million. Most of the operating currencies depreciated against the US\$ during FY2017, resulting in a favourable foreign exchange impact on EBITDA of US\$105 million.

Stable mined-metal volumes at our Zinc business (as per guidance) were supported by the higher volume from iron ore and aluminium business with the full operations of our Power portfolio. Overall, this resulted in an overall EBITDA impact of US\$151 million.

Depreciation and amortisation expenses were lower given the impairment in FY2016, primarily at our Oil & Gas business and the Lisheen mine closure in November 2015. As a result, operating profit (before special items) increased by US\$1.3 billion to US\$2.2 billion, during the year.

FCF<sup>◆</sup> was US\$1.5 billion which represented 48% EBITDA conversion. Gross debt increased by c. US\$2.0 billion to US\$18.2 billion (FY2016: 16.3 billion), primarily due to temporary borrowings at Zinc India to finance the special dividend outflow requirements of US\$1.2 billion and preference shares of US\$0.5 billion to be issued on account of the Cairn merger. Gross debt reduced by US\$1.4 billion post March 2017 till 24 May 2017.

### **Consolidated operating profit**

Operating profit increased by US\$6.5 billion to US\$2.1 billion in FY2017 (FY2016: Operating loss: US\$4.3 billion) driven by prior year impairment charges of US\$5.2 billion predominantly related to Cairn India.

In FY2017, operating profit before special items increased by US\$1.3 billion to US\$2.2 billion (FY2016: US\$0.9 billion) driven by stronger operational performance and improved price environment.



## Consolidated operating profit summary before special items

(In US\$ million, except as stated)

Consolidated operating profit before special items*	FY2017	FY2016	% Change
Oil & Gas	186.2	(255.9)	-
Zinc	1,384.8	886.8	56.2%
India	1,274.0	875.1	45.6%
International	110.8	11.7	-
Iron Ore	124.3	10.9	-
Copper	115.9	106.9	8.4%
India/Australia	223.3	304.3	(26.6)%
Zambia	(107.4)	(197.4)	45.6%
Aluminium	203.2	4.9	-
Power	156.6	122.2	28.2%
Others	(10.4)	5.4	-
<b>Total Group operating profit before special items*</b>	<b>2,160.6</b>	<b>881.2</b>	<b>-</b>

## Consolidated operating profit bridge before special items

(In US\$ million)

Operating profit before special items for FY2016	881.2
<b>Market &amp; regulatory: US\$556.1 million</b>	
a) Prices	552.1
LME	575.1
Brent	47.5
Premium	(43.3)
Power rates	(27.2)
b) Direct raw material inflation	(2.1)
c) Foreign exchange movement	104.7
Rupee depreciation	99.2
ZAR & NAD depreciation	3.5
Kwacha appreciation on local spend	(30.9)
Kwacha appreciation on VAT receivable	81.0
EBITDA translation	(48.1)
d) Profit petroleum to GoI at Cairn	(51.6)
e) Regulatory changes	(47.0)
<b>Operational: US\$723.3 million</b>	
f) Volume	150.6
g) Cost saving initiatives	197.5
Marketing initiatives	(3.3)
h) Depreciation & amortisation <sup>(1)</sup>	424.7
i) Others including one-off expenses, technology & base change and allied businesses	(46.2)
<b>Operating profit before special items for FY2017</b>	<b>2,160.6</b>

(1) The variance is driven by impairment charges in prior year.

### a) Prices

Our operating profit before special items benefited significantly from our strong operational performance on volumes and cost as well as the upturn and positive sentiment in commodity prices. Commodity price fluctuations significantly impact the Group's business. Our usual policy is to sell products at prevailing market prices and not to enter into price hedging arrangements. The only exception is custom smelting and purchased alumina, where back-to-back hedging is used to mitigate pricing risks.

**Oil & gas:** The average Brent price for the year was US\$48.6/bbl, higher by 2% compared with US\$47.5/bbl during FY2016, and was also supported by a lower discount to Brent during the year (FY2017: 10.8%; FY2016: 13.6%), increasing operating profit by US\$48 million.

**Zinc, lead & silver:** Average zinc LME prices during FY2017 were up by 29% to US\$2,368 per tonne. Lead LME prices were up by 13% to US\$2,005 per tonne, and silver was up by 17% to US\$17.8 per ounce. Together, these increased operating profits by \$478 million.

**Aluminium:** Average aluminium LME prices were up by 6% to US\$1,688 per tonne in FY2017, increasing operating profit by US\$85 million.

**Copper:** Average copper LME prices were down by 1% to US\$5,152 per tonne in FY2017, adversely affecting Zambian operating profit by US\$5 million.

**Iron ore:** Iron Ore Karnataka prices realization increased by 31% to US\$18.1 per tonne (FY2016: US\$13.8 per tonne) primarily on account of increase in National Mineral Development Corporation (NMDC) prices. This resulted in increase in operating profit by US\$17 million.

**Others:** Lower energy prices on the back of a weaker power market had an adverse effect of US\$27 million.

These impacts totalled US\$596 million, with a US\$43 million decrease targets due to lower premiums in aluminium and copper, partly offset by higher premiums in zinc. The combined increase in prices and premiums resulted in a positive movement of US\$552 million.

#### b) Direct raw material inflation

Key input commodity prices increased during FY2017, including alumina, coal, coking coal, fuel, petroleum products and iron ore, impacting operating profit marginally by US\$2 million.

#### c) Foreign exchange fluctuation

Most of our operating currencies depreciated against the US dollar during FY2017 compared with FY2016. Weaker currencies are favourable to Vedanta, given the local cost base and predominantly US dollar-linked pricing.

During FY2017, the US dollar strengthened against the Indian rupee to an average of 67.09 Indian Rupees/US\$, compared to 65.46 Indian Rupees/US\$ in FY2016. At Zinc International, South African rand depreciated by 2.1% to 14.07 (FY2016: 13.78). The Zambian kwacha (ZMW) depreciated by 2.5% to 9.95 (FY2016: 9.71).

Information regarding key exchange rates against the US dollar:

	Average FY2017	Average FY2016	% Change (FY2017 vs FY2016)	As at 31.3.17	As at 31.3.16
Indian rupee	67.09	65.46	2.5%	64.84	66.33
South African rand	14.07	13.78	2.1%	13.41	14.83
Zambian kwacha	9.95	9.71	2.5%	9.66	11.24

During FY2017, the USD dollar depreciated against the Zambian kwacha (ZMW) to ZMW 9.66/US\$ on 31 March 2017 (31 March 2016: ZMW 11.24/US\$). This favourable foreign exchange movement positively impacted operating profit by US\$81 million in the year, driven by the gain on the kwacha-denominated VAT receivable from the Government of the Republic of Zambia. During the comparable prior period, the sharp appreciation of the US dollar against the ZMW adversely impacted operating profits by US\$31 million.

All currency movement against US dollar net of translation increased operating profits by US\$105 million compared to the prior year.

#### **d) Profit petroleum to GOI at Cairn**

The profit petroleum outflow to the Government of India (GOI), as per the production sharing contract (PSC), increased by US\$52 million. The increase was driven by lower capex and opex during the year, and was partially offset by a lower provision for past costs compared to the previous year.

#### **e) Regulatory**

During FY2017, regulatory headwinds impacted operating profit by US\$47 million.

Regulatory levies such as the increase in the Clean Energy Cess on coal (US\$67 million), electricity duty (US\$15 million), District Mineral Foundation (DMF) (US\$11 million), and others such as the increase in RPO and IPP coal rates (US\$4 million), were partially offset by a lower oil energy cess (US\$50 million).

#### **f) Volumes**

In line with the ramp-up in capacities during FY2017, we achieved record production at our Aluminium, Power, Iron Ore and Copper businesses. These contributed to the increased operating profit of US\$151 million, which was partially offset by lower volumes at Oil & Gas, Zinc India and Zinc International.

**Zinc India (negative US\$37 million):** Integrated zinc metal production was lower by 12% y-o-y and integrated lead metal production was lower by 1% y-o-y. This was driven by a lower availability of mined metal in H1 due to the cyclical pattern of the yearly plan for the Rampura Agucha open cast mine. We had a record level of integrated silver production of 14.55 million ounces, 7% higher y-o-y, driven by higher volumes from the Sindesar Khurd and Zawar mines.

**Zinc International (negative US\$24 million):** Production was affected by the planned closure of the Lisheen mine in November 2015.

**Cairn India (negative US\$51 million):** Production was lower, primarily through volume loss due to natural decline, but this was partly offset by the successful Enhanced Oil Recovery (EOR) project at Mangala.

**Iron Ore (positive US\$90 million):** During FY2017, mining limits were achieved at Goa (5.5mt per annum) and Karnataka (2.3mt per annum) with additional approved mining production of 2.6 million tonnes in Goa.

**Power (positive US\$105 million):** Record volumes were achieved with the commissioning of the remaining units at Talwandi Sabo and BALCO during FY2017.

**Aluminium (positive US\$45 million):** Ramp up of capacities resulted in strong production during the year.

Together, the above factors and marginal increase in Copper and other businesses (US\$23 million) resulted in increase in operating profit before special items of US\$151 million.

#### **g) Cost saving and marketing initiatives**

We launched company-wide cost saving initiatives and price realisation improvements during FY2016.

Our cost-saving and marketing initiatives have already yielded positive results, contributing US\$194 million to operating profit during FY2017 over FY2016; and we expect them to yield further benefits going forward. We have achieved a cumulative saving of over US\$814 million under this programme in last 24 months compared with the FY2015 baseline. This program is progressing ahead of the original plan, announced in FY2015 to deliver \$1.3 billion of cumulative savings by H1 of FY2019.

The reported savings are on a total cost of ownership (TCO) methodology and do not include benefits or extra spend due to input commodity inflation / deflation, nor regulatory or technology changes. Over FY2017 we widened our coverage for cost savings initiatives into areas including operations improvement, effective utilisation of mining equipment, improvised methods of mining, metal recovery improvement, logistics, quality control and operation planning across all our businesses with the following set of initiatives:

- Sourcing and logistics by leveraging technology and quality controls in fuels and commodities, haulage capacities and third party logistics management;
- Low-cost country sourcing or sourcing of spares from original part manufacturers;
- Renegotiations of service / supply contracts based on vendor clean sheet costing/vendor profit & loss analysis;
- Improvement in metal recovery through multiple technical initiatives;
- Enhanced use of geo-technical tools for better mine planning, drilling and blasting, in order to reduce dilution in ore grade (external stope) at mines;
- Outsourcing of mine operations resulting in consolidation of multiple contracts, improved efficiencies and productivity;
- Alternative fuels/input raw materials;
- Improvement in the truck fill-factor at mines, and an increase in haulage capacity through better monitoring and education of operators, resulting in a reduction in ore handling cost and enhanced production;
- Renegotiations, reverse auctions, deployment of higher capacity trucks, and backhauling and improvement in trucks' turnaround time, resulting in a 10-15% reduction in logistics cost; and
- Deploying innovative technologies, and establishing better supplier relationship management and sales and operations planning.

#### **h) Depreciation and amortisation**

Depreciation and amortisation reduced by US\$425 million during FY2017 compared with FY2016. Of the total reduction, US\$282 million was due to lower amortisation on account of impairment in Oil & Gas in FY2016. Depreciation at Oil & Gas was down by US\$134 million due to lower entitlement interest volume. Depreciation at KCM decreased by US\$66 million as a major portion of Nchanga underground assets were fully depreciated in FY2016 post reaching its mine life. A lower depreciation charge of US\$27 million at Lisheen in Zinc International was due to the closure of the mine in November 2015. The decrease in depreciation and amortisation was partly offset by the commissioning of new capacities at Aluminium & Power business.

#### **i) Others**

These items are primarily driven by one-off adjustments, provisions, or reversals and lower profitability at other allied businesses, together adversely impacted operating profit by US\$46 million over the base year.

#### **Income statement**

	<i>(In US\$ million, except as stated)</i>		
	<b>FY2017</b>	<b>FY2016</b>	<b>% Change</b>
Revenue	11,520.1	10,737.9	7.3%
EBITDA	3,191.1	2,336.4	36.6%
EBITDA margin (%)	27.7%	21.8%	-
EBITDA margin without custom smelting (%)	36.5%	27.6%	-
Special items	(17.3)	(5,210.1)	-

Depreciation	(928.3)	(1,108.4)	(16.2)%
Amortisation	(102.2)	(346.8)	(70.5)%
Operating profit/(loss)	2,143.3	(4,328.9)	-
Operating profit without special items	2,160.6	881.2	-
Net interest expense	(739.6)	(582.6)	26.9%
Other losses	(23.8)	(72.5)	(67.2)%
Profit/(loss) before taxation	1,379.9	(4,984.0)	-
Profit before taxation without special items	1,397.2	226.1	-
Income tax expense	(495.4)	(255.5)	-
Income tax credit (special items)	(4.9)	1,737.4	-
Effective tax rate without special items (%)	35.5%	113.0%	-
Profit/(loss) for the year	879.6	(3,502.1)	-
Profit/(loss) for the year without special items	901.8	(29.4)	-
Non-controlling interest	902.3	(1,664.7)	-
Non-controlling interest without special items	908.6	363.5	-
Attributable profit/(loss)	(22.7)	(1,837.4)	-
Attributable profit/loss without special items	(6.8)	(392.9)	-
Underlying attributable Profit/(loss) ♦	3.0	(364.1)	-
Basic earnings/(loss) per share (US cents per share)	(8.2)	(665.8)	-
Earnings/(loss) per share without special items (US cents per share)	(2.5)	(142.4)	-
Underlying earnings/(loss) per share (US cents per share)	1.1	(131.9)	-

## Revenue

Revenue was up by 7% at US\$11,520 million compared with US\$10,738 million in FY2016. The table below indicates the movement by segment. The increase was primarily driven by improved zinc and aluminium metal prices; improved volumes on account of our aluminium ramp-up; full year operations 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 the mine plan), Cairn India due to natural decline, KCM largely due to issues pertaining to lower equipment availability, and the mine closure at Lisheen.

## Consolidated revenue - detail

(In US\$ million, except as stated)

	FY2017	FY2016	Net Revenue % Change
Zinc	2,857.4	2,502.5	14.2%
– India	2,525.0	2,111.0	19.6%
– International	332.4	391.5	(15.1)%
Oil & Gas	1,222.7	1,322.3	(7.5)%
Iron Ore	615.4	350.0	75.8%
Copper	4,008.0	4,169.7	(3.9)%
– India/Australia	3,133.7	3,197.2	(2.0)%
– Zambia	874.3	972.5	(10.1)%
Aluminium	2,040.0	1,694.3	20.4%
Power	835.9	707.5	18.1%
Others <sup>(1)</sup>	(59.3)	(8.4)	-
<b>Revenue</b>	<b>11,520.1</b>	<b>10,737.9</b>	<b>7.3%</b>

(1) Includes port business & eliminations of inter segment sales which were lower in the current period.

The combined impact of LME, premium and currency movements of 4.2% and improved volume performance of 3.1% resulted in an overall revenue increase of 7.3% compared to prior year.

## Consolidated EBITDA

The consolidated EBITDA by sector is set out in the table below:

*(In US\$ million, except as stated)*

	FY2017	FY2016	% Change	Key drivers	EBITDA Margin % FY2017	EBITDA Margin % FY2016
Oil & Gas	597.2	570.4	4.7%	Lower cess & discount	48.8%	43.1%
Zinc	1,561.5	1,063.1	46.9%		54.6%	42.5%
– India	1,423.2	995.0	43.0%	LME	56.4%	47.1%
– International	138.3	68.1	-	LME & one-offs	41.6%	17.4%
Iron Ore	194.2	73.4	-	Re-start of operations	31.6%	21.0%
Copper	258.1	318.7	(19.0)%		6.4%	7.6%
– India/Australia	252.2	336.6	(25.1)%	Lower TC/RC & by-product credits	8.0%	10.5%
– Zambia	5.9	(17.9)	-	Currency appreciation	0.7%	(1.8)%
Aluminium	344.2	106.7	-	Ramp-up	16.9%	6.3%
Power	244.8	196.3	24.7%	Ramp-up	29.3%	27.7%
Others <sup>(1)</sup>	(8.9)	7.8	-			
<b>Total</b>	<b>3,191.1</b>	<b>2,336.4</b>	<b>36.6%</b>		<b>27.7%</b>	<b>21.8%</b>

(1) Includes port business & elimination of inter-segment transactions.

## EBITDA and EBITDA margin

EBITDA for FY2017 improved by 37% to US\$3,191 million. This was primarily driven by firmer prices, the ramp-up at our Aluminium and Power businesses, restarting of operations at Iron Ore and cost efficiencies across the business, partially offset by lower volumes at Zinc, Cairn India and KCM. (See 'Operating profit variance' for more details.)

In FY2017, EBITDA margin was 28%, compared with 22% in FY2016. Adjusted EBITDA margin was 36% compared with 28% in FY2016.

The main margin contributors across the individual businesses were:

- Oil & Gas (43% to 49%) – lower opex, lower quality discount to Brent and cess reduction, partially offset by lower volumes;
- Zinc International (17% to 42%) – improved LME prices, a one-off royalty refund at BMM and an insurance receipt at Skorpion against the fire incident in early 2015, partially offset by lower volumes;
- Copper Zambia (-2% to 1%) – local currency appreciation on VAT receivable and lower costs, partially offset by lower integrated volumes;
- Aluminium (6% to 17%) – improved LME prices, cost-efficiencies and volume ramp-up;
- Power (28% to 29%) – commissioning of new power units, mainly at Talwandi Saboo;
- Zinc India (47% to 56%) – improved LME prices and a one-off provision provided in previous year, offset by lower volumes; and
- Copper India (11% to 8%) – lower treatment charges and refining charges (TC/RC), by-product credits, acid volumes and margin, and a one-off Target Plus Scheme (TPS) benefit in FY2016.

## Special items

'Special items' was US\$17 million in FY2017 (FY2016: US\$5,210 million) primarily on account of impairment of aged assets under construction in Aluminium partial offset by an impairment reversal at Cairn India. In the previous year, impairment charges were primarily related to the Oil & Gas business.

## Net interest

Finance costs increased by 8% to US\$1,382 million in FY2017 (FY2016: US\$1,280 million). This was due to commissioning of new capacities in the Aluminium & Power businesses, an increase in INR-denominated borrowings in the borrowing mix, and a one-off impact of c.US\$40 million for bond buy-back activity in line with our strategy of extending the near-term maturities. This 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 the Group was 7.5% (7.3% in FY2016).

Investment revenue in FY2017 decreased to US\$643 million (FY2016: US\$698 million). This was primarily driven by a 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 the Group's cash and investments reside. The average post-tax return on investment of the Group was 7.55% (7.2% in FY2016).

The combination of higher finance costs and lower investment revenues led to an increase of US\$157 million in net interest expense during FY2017.

## Other gains and losses

Other gains and losses include 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).

As a result, the MTM cost in FY2017 was US\$24 million (FY2016: US\$73 million).

## Taxation

The Effective Tax Rate (ETR) (excluding tax impact on special items and dividend distribution tax) in FY2017 was 18% (FY2016: 3%). The higher tax rate was primarily on account of phasing out of the tax holiday benefits from 100% to 30% at Zinc India and expiry of tax holiday benefit in Oil & Gas business from FY2016.

Tax impact on special items of US\$5 million in FY2017 (FY2016: US \$1,737 million). Dividend distribution tax for FY2017 was US\$245 million (FY2016: US\$249 million).

## Attributable (loss) / profit

The attributable loss before special items was US\$7 million, compared with an attributable loss of US\$393 million in the previous year, mainly driven by higher EBITDA due to better commodity prices and improved volumes, and lower depreciation and amortisation costs following impairment, primarily in the Oil & Gas division. These were partially offset by higher tax and net interest expenses.

## Earnings per share

Basic loss per share for the period was 8.2 US cents (FY2016: loss of 665.8 US cents). Excluding the impact of special items and other gains and losses, the underlying EPS was 1.1 US cents per share (FY2016: loss of 131.9 US cents).

## Fund Flow and movement in Net debt

Fund Flow and Movement in net debt in FY2017 are set out below.

<i>(In US\$ million, except as stated)</i>		
Details	FY2017	FY2016
EBITDA	3,191.1	2,336.4
Operating exceptional items	-	(23.0)
Working capital movements (a)	295.0	1,164.6
Changes in non-cash items	28.7	22.8
Sustaining capital expenditure	(145.4)	(184.9)
Movements in capital creditors	(158.1)	(210.3)
Sale of property, plant and equipment	25.2	10.0
Net interest (c)	(700.8)	(489.9)
Tax paid (b)	(323.9)	(287.0)
Expansion capital expenditure	(668.2)	(565.8)
<b>Free cash flow post capex (FCF) ♦</b>	<b>1,543.6</b>	<b>1,772.9</b>
Dividend paid to equity shareholders	(138.4)	(110.6)
Dividend paid to non-controlling interests	(1,393.3)	(325.4)
Tax on dividend from group companies <sup>(1)</sup>	(454.7)	(67.7)
Other movements <sup>(2)</sup>	(731.9)	(137.7)
<b>Movement in net debt</b>	<b>(1,174.7)</b>	<b>1,131.5</b>

<sup>(1)</sup> The taxes paid on distribution of dividends from group companies have been shown separately to reflect the free cash flow from operations more appropriately, and previous year amounts have been reclassified to ensure consistency.

<sup>(2)</sup> Includes foreign exchange movements and preference shares of US\$464 million to be issued in relation to Cairn merger.

### Fund flow

The Group generated FCF of US\$1.5 billion, representing 48% EBITDA conversion into FCF. This was driven by strong operating performance, continued focus on cost saving program and disciplined capex outflow.

Even after substantial growth in EBITDA, FCF was lower during FY2017 compared to FY2016. The key drivers were:

- a) Working capital movements: During FY2017, working capital movement was lower by c.US\$870 million compared with FY2016, primarily due to one-time special initiatives taken during FY2016. Against the expectation of unwinding some of the one-time initiatives taken last year, we successfully maintained the initiatives at similar levels during FY2017. The positives were partly offset by a temporary increase of mined metal inventory at our Zinc India and Iron Ore businesses.
- b) Tax outflow: A higher Minimum Alternate Tax (MAT), primarily at the Zinc India business, was due to a reduction in the tax holiday.
- c) Net interest: Net interest cost increased, due mainly to a reduction in the invested amount. This followed the special dividend outflow by the Zinc India business to minorities in April 2016.

The negative effects were partially offset by improved EBITDA and efficient capital allocation by prioritising capital on high-return, low-risk projects: primarily, mining capex at the Zinc India and Zinc International businesses, EOR and gas-related projects in the Oil & Gas business, and a ramp-up at the Aluminium and Power businesses.



## Net debt

We remain focused on optimising our opex and capex, increasing FCF and improving the maturity profile of the debt portfolio. The FCF, as explained above, helped to reduce the net debt by US\$1.5 billion. However, overall net debt increased by US\$1.2 billion during the year (FY2017: US\$8.5 billion; FY2016 US\$7.3 billion) due to payment of special dividend to minorities and the associated dividend distribution tax by Zinc India and preference shares to be issued under the scheme of arrangement for the merger between the Company and Cairn India.

Zinc India, an independent group subsidiary declared a special dividend of US\$2.1 billion including DDT at its board meeting in March 2017. This is the second year in succession that a Zinc India board has considered special interim dividend.

## Debt maturity profile and refinancing

Gross debt as at 31 March 2017 was US\$18.2 billion (31 March 2016: US\$16.3 billion). The increase in borrowings was primarily to fund the special dividend payment at Zinc India with temporary short term borrowings, and the effect of the appreciating Indian rupee and preference shares to be issued on account of the Cairn merger.

Of our total gross debt of US\$14.3 billion (excluding US\$1.6 billion working capital loans and temporary borrowing at Zinc India to fund the dividend & US\$2.3 billion short term borrowings), term debt at our subsidiaries was US\$8.1 billion, with the balance in the holding company. The total undrawn fund based credit limit was c.US\$0.9 billion as at 31 March 2017. The maturity profile of term debt (totalling US\$14.3 billion) of Vedanta Resources plc is as follows:

As at 31 March 2016	Particulars	As at 31 March 2017	FY2018	FY 2019	FY2020	FY2021	FY2022	Beyond FY 2022
7.5	Debt at Vedanta Resources plc	6.2	1.0	1.8	0.4	0.1	1.1	1.8
7.3	Debt at subsidiaries	8.1	1.9	2.4	1.2	1.2	0.6	0.8
14.8	Total Term debt	14.3	2.9	4.3	1.6	1.3	1.7	2.6

We have been successful in extending our maturing debt through rollovers, new debt and repayments from internal accruals during the year, both at Vedanta plc and its subsidiaries. In line with our stated financial strategy to proactively refinance the debt and extend the near-term maturities, we successfully issued a US\$1.0 billion bond in January 2017 to refinance proactively part of our 2018 and 2019 bond maturities.

**Vedanta Plc:** The upcoming US\$1.0 billion debt maturing at Vedanta plc comprises term loans out of which US\$74 million has been repaid in April 2017 and the balance will be repaid or refinanced. Of the FY2019 term maturities, US\$379 million has already been paid in April 2017 through an early redemption of the bond maturing in July 2018.

**Subsidiary:** Of the US\$1.9 billion debt maturing during FY2018 (excluding US\$1.6 billion working capital loans and temporary borrowing at Zinc India to fund the dividend & US\$2.3 billion short term borrowings which, as previously, will be rolled over in the normal way), we have already repaid c.US\$1.0 billion after March 31, 2017. The balance will either be repaid from opening cash and liquid investment and cash generation from operations, or refinanced through other sources such as NCDs and term loans.

Cash and liquid investments stood at US\$9,725 million at 31 March 2017 (31 March 2016: US\$8,937 million). The portfolio continues to be conservatively invested in debt mutual funds, and in cash and fixed deposits with banks.

## Going concern

The Directors have considered the Group's cash flow forecasts for the next twelve-month period, from the date of signing the financial statements ending 31 March 2017. Net debt has increased by US\$1.2 billion in the financial year to US\$8.5 billion, with US\$0.9 billion of undrawn facilities at the balance sheet date. Further analysis of net debt is set out in note 16 of the condensed financial statements and details of borrowings and facilities are set out on page 94. The Board is satisfied that the Group's forecasts and projections show that the Group will be able to operate within the level of its current facilities for the foreseeable future. This takes into account reasonably possible changes in trading performance on cash flows and forecast covenant compliance; the transferability of cash within the Group; the flexibility that the Group has over the timings of its capital expenditure; and other uncertainties. For these reasons, the Group continues to adopt the 'going concern' basis in preparing its financial statements.

## Longer term viability statement

In accordance with provision C.2.1 of the UK Corporate Governance Code, the Directors have assessed the viability of the Group taking into account the Group's current position and the potential impact of the principal risks which could threaten the business model, future performance, solvency or liquidity of the Group.

## Period of Viability Statement

As per provision C2.2 of the UK Corporate Governance Code the Directors have reviewed the length of time to be covered by the Viability Statement, particularly given its primary purpose of providing investors with a view of financial viability that goes beyond the period of the Going Concern statement.

The Board of Directors have considered a three-year period of appropriate for the longer term viability testing on account of following key reasons:

- Commodity prices which are key to Group's viability are difficult to forecast beyond 3 years
- Capital allocation and refinancing plans are prepared for period of 3 years
- Conversion of exploration projects to mining typically requires 3 to 5 years
- Internal financial modeling is performed over 3 year period

In assessing the Group's longer term viability, the going concern assumptions and financial model were used as the starting position. Severe but plausible risks were subsequently quantified both individually and in combination, to apply additional stress testing into the viability model.

Details of the Group's principal risks are documented on the page 57. The Directors have considered the following risks as particularly relevant for assessing the longer term viability:

- Decline in commodity prices
- Delays in ramping up of Aluminium production
- Operational turnaround at KCM Operations
- Adverse outcomes of material legal and tax cases

The Group remains viable under these severe but plausible scenarios taking into consideration the specific mitigations highlighted above and the Group financing optionality. These include capital allocation and dividend policy flexibility and readily available access to lines of credit and alternative sources of finance.

## Conclusion

While it is impossible to foresee all risks, and the combinations in which they could manifest, based on the results of this assessment and taking into account the Group's current position and principal risks, the Directors have assessed the prospects of the Group, over the next three years, and have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over a period of three years from 1 April 2017.

## Covenants

The lending banks of Vedanta Resources plc have consented to certain changes to its covenants requested by the Company under the terms of the relevant debt facilities effective from 31 March 2017 until the period ending 30 September 2018. With this, the Company is in compliance with its covenants relating to all facilities for the testing period ending 31 March 2017.

## Credit rating

During FY2017, our group simplification with the Cairn merger, upward movement on metal and oil prices, successful ramp-up and volume growth have supported the improved Company's credit rating.

During the year, the rating agency Moody's upgraded the company's Corporate Family Rating (CFR) by one notch from B2 / Outlook Negative to B1/ Stable Outlook. The rating agency Standard & Poor's upgraded the Company's rating by one notch from B / Stable Outlook to B+ / Stable Outlook.

We are focused on further strengthening our credit profile to attain investment grade ratings through ramp-ups in our businesses which will deliver accelerated cash flows.

## Balance sheet

*(In US\$ million, except as stated)*

	31 March 2017	31 March 2016
Goodwill	16.6	16.6
Intangible assets	95.6	92.2
Property, plant and equipment	16,806.1	16,647.8
Other non-current assets	2,101.3	1,862.3
Cash and liquid investments	9,725.2	8,936.5
Other current assets	2,758.6	2,763.9
Gross debt	(18,228.7)	(16,263.3)
Other current and non-current liabilities	(7,260.1)	(7,203.6)
<b>Net assets</b>	<b>6,014.6</b>	<b>6,852.4</b>
Shareholders' equity	(408.5)	(712.8)
Non-controlling interests	6,423.1	7,565.2
<b>Total equity</b>	<b>6,014.6</b>	<b>6,852.4</b>

Shareholders' (deficit)/equity was US\$(409) million at 31 March 2017 compared with US\$(713) million at 31 March 2016. This largely reflected the impact of Cairn merger US\$817 million, currency appreciation US\$87 million partly offset by preference share issuance of US\$464 million, dividend payment of US\$138 million by Vedanta plc and attributable loss of US\$23 million.

Non-controlling interests decreased to US\$6,423 million at 31 March 2017 (from US\$7,565 million at 31 March 2016), mainly due to dividend payments to minorities of US\$ 1,340 million, impact of Cairn merger US\$817 million partly offset by the attributable profit to minority shareholders during the year US\$902 million and the impact of rupee appreciation US\$129 million.

## Property, plant and equipment

During the year, we invested US\$814 million in property, plant and equipment, comprising US\$668 million on our expansion and improvement projects and US\$145 million on sustaining capital expenditure. Expansion project expenses were US\$56 million in our Oil & Gas business; US\$238 million at Zinc India; US\$60 million in the Power business (mainly at Talwandi Saboo); US\$263 million in our Aluminium business; US\$45 million at Zinc International and US\$7 million at Copper India.

### Contribution to exchequer:

We contributed c.US\$6.0 billion to the exchequer in FY2017 compared to US\$3.2 billion in FY2016 through direct and indirect taxes, levies, royalties and dividend.

### Project Capex

Capex in Progress	Status	Total Capex Approved (\$mn)	Cumulative Spend up to March 2017	Spend in FY2017	Unspent as at 3/31/2017*
Cairn India		306	56	56	250
RDG, Mangala Infill, EOR, Aishwariya Barmer Hill, Liquid handling & others)					
<b>Aluminium Sector</b>					
BALCO - Korba-II 325ktpa Smelter and 1200MW power plant(4x300MW) <sup>(1)</sup>	Smelter: fully operational and to be capitalized 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 capitalized	2,920	2,746	178	174
<b>Power Sector</b>					
Talwandi 1980MW IPP	Completed	2,150	2,113	60	37
<b>Zinc Sector</b>					
Zinc India (Mines Expansion)	Phase-wise by FY2020	1,600	1,015	225	585
Others		150	12	12	138
<b>Zinc International</b>					
Gamsberg Mining Project	First production by mid 2018	400	63	42	337
<b>Capex Flexibility</b>					
<b>Metals and Mining</b>					
Lanjigarh Refinery (Phase II) - 4mtpa	Subject to Bauxite availability	1,570	822	10	748
Tuticorin Smelter 400ktpa	Under evaluation	367	139	7	228
Skorpion Refinery Conversion	Currently deferred	156	14	3	142

\* Unspent capex represents difference between the total projected capex and the cumulative spend as at 31 March 2017

(1) Cost over-run on account of changes in exchange rate. Total over-run expected to be US\$120 million upto FY2018-19.

## Key performance indicators

### Revenue

- *Description* - Revenue represents the value of goods and services provided to third parties during the year.

- *Commentary* – In FY2017, overall revenue was up by 7% to US\$11.5 billion compared with US\$10.7 billion in FY2016. The increase was primarily driven by firmer prices and volume ramp-up.

## EBITDA

- *Description* – Earnings before interest, tax, depreciation and amortisation (EBITDA) is a factor of volume, prices and cost of production. This measure is calculated by adjusting operating profit for special items, and adding depreciation and amortisation.
- *Commentary* – EBITDA for FY2017 was up by 37% at US\$3.2 billion. This was primarily due to increase in LME and Brent prices, strong operating performance, cost savings initiatives and local currency depreciation.

## FCF post capex

- *Description* – This represents net cash flow from operations after investing in expansion projects. This measure ensures that profit generated by our assets is reflected by cash flow in order to de-lever or maintain future growth.
- *Commentary* – We generated FCF of US\$1.5 billion, driven by operational performance, optimisation of operational and capital expenditures.

## Project Capex

- *Description* – This represents the amount invested in our organic growth programme during the year.
- *Commentary* – Our strategy was one of disciplined capital allocation on high-return, low-risk projects. Expansion capital expenditure during the year was at US\$0.7 billion with most of this invested in ramping up our Aluminium and Power businesses, expansion of Zinc India, the Mangala EOR programme at Oil & Gas, and the Gamsberg project at our Zinc International business.

## Return on capital employed (ROCE)

- *Description* – This is calculated on the basis of operating profit before special items and net of tax, as a ratio of capital invested in operations as at the balance sheet date, and excludes investment in project capital work in progress and exploration assets. The objective is to earn a post-tax return above the weighted average cost of capital consistency. To have consistency of comparison, the effect of one-time non-cash impairment charges have been taken out in calculating ROCE.
- *Commentary* – ROCE in FY2017 (without project work in progress and exploration assets) was 15.6% compared to 6.2% in the previous year.

## Underlying EPS

- *Description* – This represents the net profit attributable to equity shareholders and is stated before special items and their attributable tax (including taxes classified as special items) and minority interest impacts.
- *Commentary* – In FY2017, underlying EPS was at 1.1 US cents per share, higher than the previous year loss per share of (131.9) US cents. This reflects increased commodity prices, resulting in higher EBITDA.

## Dividend

- *Description* – Dividend per share is the total of the final dividend recommended by the Board in relation to the year, and the interim dividend paid out during the year.

- *Commentary* - The Board has recommended a final dividend of 35 US cents per share this year compared with 30 US cents per share in the previous year.

## LTIFR

- *Description* - The Lost Time Injury Frequency Rate (LTIFR) is the number of lost-time injuries per million man-hours worked. This includes our employees and contractors working in our operations and projects.
- *Commentary* - We have been able to reduce LTIFR to a 0.39 this year. The continuous fall in LTIFR can be attributed to our efforts in training and coaching our employees on workplace safety practices.

## Gender Diversity

- *Description* - The percentage of women in the total permanent employee workforce.
- *Commentary* - We provide equal opportunities and safe work place to men and women. During the year, the ratio of female employees remained 9.4% of total employees.

## CSR footprint

- *Description* - Total number of beneficiaries through our community development programmes across all our operations.
- *Commentary* - We benefited around 2.2 million people this year through our community development projects comprising community health, nutrition, education, water and sanitation, sustainable livelihood, women empowerment and bio-investment.

## Last five-year data

Vedanta Resources PLC	2016-17	2015-16	2014-15	2013-14	2012-13
Revenue \$mn	11,520	10,738	12,879	12,945	14,640
EBITDA \$mn	3,191	2,336	3,741	4,491	4,909
ROCE <sup>◆</sup> (%)	15.6	6.2*	8.7*	14.9	17.5
Free cash flow post capex(FCF) <sup>◆</sup> \$mn	1,544	1,773	1,047	1,270	1,516
Growth capex \$mn <sup>◆</sup>	668	566	1,531	1,425	2,019
Underlying EPS (US cents)	1.1	(131.9)	(14.2)	14.7	134.8
Dividend (US cents per share)	55	30	63	61	58

\* Before impairment.

## Operational Reviews

### Oil & Gas

#### The year in summary

During FY2017, with a recovery in prices, we have started moving ahead with our growth opportunities specifically at the prolific Rajasthan assets. The production volumes were maintained with operating cost at the lower end among global peers and strong free cash flows.

Low crude oil price environment was channelized to rebase costs for key projects in the portfolio. These constant efforts to optimize costs across the value chain have enabled healthy project economics even at US\$40 per barrel. The recent rise and expected sustained stability in the Brent prices will enhance the returns further.

In FY2018 we intend to restart our capex cycle which shall enable us to unlock the full potential of the Barmer Basin in Rajasthan.

## Safety

In Oil & Gas, we made significant progress towards Zero Harm by halving our lost time injuries to 7, from the previous year's 14. The frequency rate stood at 0.30 against the 0.35 in FY2016.

Oil & Gas business received recognitions for excellence in our Safety and Security Management systems:

- Seven International Merit awards from British Safety Council (BSC) for its various operating installations.
- International Fire Security Exhibition and Conference (IFSEC) Award towards our efforts in leveraging technology to protect our assets across locations.

## Environment

The water recycling rate for the reporting year was 82%, compared to 66% in FY2016. Further demonstrating our commitment to the environment, two satellite fields (NI2 & Raag Oil) fuel source is switched over from Diesel to Natural Gas.

## Production performance

	Unit	FY2017	FY2016	% Change
Gross production	Boepd	189,926	203,703	(6.8)%
Rajasthan	Boepd	161,571	169,609	(4.7)%
Ravva	Boepd	18,602	23,845	(22.0)%
Cambay	Boepd	9,753	10,249	(4.8)%
Oil	Bopd	184,734	196,955	(6.2)%
Gas	Mmscfd	31.2	40.5	(23.0)%
Net production - working interest	Boepd	121,186	128,191	(5.5)%
Oil	Bopd	118,976	125,314	(5.1)%
Gas	Mmscfd	13.3	17.3	(23.1)%
Gross production	Mboe	69.3	74.6	(7.1)%
Working interest production	Mboe	44.2	46.9	(5.7)%

## Operations

Average gross production for FY2017 was 189,926 barrels of oil equivalent per day (boepd), which was 6.8% lower than the previous year. Cairn India operates approximately 26% of India's crude oil production. Rajasthan block production was 4.7% lower at 161,571 boepd. The production was lower due to the reservoir under performance at Bhagyam and Aishwariya fields and the planned maintenance shutdown at Mangala Processing Terminal in November 2016. However, the decline was partially offset by the successful execution of the polymer Enhanced Oil Recovery (EOR) project at Mangala, which enhanced production from the Mangala Field. Production from the Ravva and Cambay blocks was down by 22% and 5% respectively, due to natural decline.

The Mangala EOR, the world's largest polymer flood project, continued to show its exemplary performance. The polymer injection was maintained at target levels of 400,000 barrels of liquid per day and resulted in a positive production impact of ~52,000 barrel oils per day (bopd) in FY2017. The Rajasthan block recorded an excellent plant uptime of over 99% for the year.

In the Ravva block, coil tubing and acid stimulation campaign was executed in Q4 FY2017 and this has helped to 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 rates to support production from the oil wells. The Ravva block recorded an excellent uptime of over 99% for the year.



In the Cambay block, natural decline was restricted to 5%, supported by production optimisation activities. The Oil and Natural Gas Corporation (ONGC) Olpad gas tolling commenced to utilize surplus facilities at the onshore terminal. The Cambay block recorded an excellent uptime of over 99% for the year.

Gas production from Raageshwari Deep Gas (RDG) in Rajasthan was maintained at an average of 26 mmscfd in FY2017, with average sales at 10 mmscfd. The technical issue between the transporter and the gas buyers, which resulted in the temporary suspension of sales from October to mid-February, has now been resolved.

## Prices

	FY2017	FY2016	% Change
Average Brent prices – US\$/barrel	48.6	47.5	2.3%

FY2017 saw a substantial recovery in crude oil prices compared with the record lows at the beginning of the calendar year (CY) 2016. The Brent crude oil price averaged US\$48.6 per barrel, with a closing rate of US\$51.9 per barrel on 31 March 2017. The year marked the landmark deal wherein the Organisation of the Petroleum Exporting Countries (OPEC) surprised the market by announcing a production cut agreement of 1.2 million barrels per day (mbpd), for the first time since 2008. The deal also called for an additional 0.6 mbpd reduction from non-OPEC suppliers. This action by OPEC signalled a return to its focus on active market management in order to stabilise crude oil prices.

Market reports have indicated an impressive level of compliance by the producers from the effective date of January 2017, as well as growing support for an extension of the pact beyond the agreed six-month period to tackle the global supply glut. However, a sustained and rapid growth in the US oil rig count, indicating an increase in shale drilling activities, kept the price within the US\$45 - US\$55 range per barrel. Prices were also burdened by US Government data showing a sustained build-up of supplies to record levels since the beginning of the 2017 calendar year. The U.S. Energy Information Administration (EIA) reported that US crude oil inventories rose to 535.5 million barrels – the highest level ever.

In CY2017, global production and consumption are both expected to increase, with consumption expected to grow at a faster rate. However, due to the sustained low levels of oil prices internationally, approvals of new conventional crude oil projects in 2015-2016 fell to the lowest level seen since the 1950s. The International Energy Agency (IEA) believes that if approvals continue to remain low, an unprecedented effort will be needed to avoid a supply-demand gap in the future.

## Financial performance

	FY2017	FY2016	% Change
Revenue	1,222.7	1,322.3	(7.5)%
EBITDA	597.2	570.4	4.7%
EBITDA margin	48.8%	43.1%	-
Depreciation	411.0	544.6	(24.5)%
Acquisition related amortisation♦	-	281.7	-
Operating profit	186.2	(255.9)	-
Share in Group EBITDA %	18.7%	24.4%	-
Capital expenditure	62.2	214.2	(71.0)%
Sustaining	6.2	15.8	(60.8)%
Projects	56.0	198.4	(71.8)%

(In US\$ million, unless stated)



Revenue for the year was lower at US\$1,223 million (after profit and royalty sharing with the Government of India), impacted by lower production volumes. However, EBITDA for the year FY2017 was higher by 5% at US\$597 million, due to cost optimisation initiatives and reduced cess on an ad-valorem basis. The Rajasthan water flood operating cost was further reduced by 17% to US\$4.3 per barrel compared with US\$5.2 per barrel in the previous year, through the continuous improvement in crude processing and well-maintenance costs. Despite a ramp-up of polymer injection volumes to 400,000 barrels of liquid per day, blended operating cost decreased to US\$6.2 per barrel during FY2017 compared with US\$6.5 per barrel in FY2016.

In FY2017 capital expenditure was US\$62 million, which was primarily focused on the Mangala Polymer Project, the Raageswari Deep Gas Project and the Palar drilling campaign.

## Reserves

In FY2017, the Oil & Gas division started the year with working interest (WI) 2P reserves of 175 mmboe, and ended the period with 124 mmboe. Excluding production, our working interest 2P reserves for the year declined by approximately 4.6 mmboe, driven by the polymer flood project's deferral in the Bhagyam field. However, reserves were added from certain new projects – Mangala Infill, Nagayalanka, Aishwariya BH Stage 1 - and from some satellite fields and better reservoir performance in offshore fields, mainly at Cambay. . The 2P reserves would increase by approximately 175 mmboe (WI) on the extension of Rajasthan Production sharing contract (PSC) beyond 2020.

## Exploration & development

### Development

#### ■ Raageshwari Deep 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 FY2017. The capex investment programme in the project includes plans for a new well drilling programme in FY2018. A new gas processing infrastructure is also progressing well.

#### ■ Enhanced Oil recovery in Bhagyam & Aishwariya

We look to leverage the learnings from the excellent performance of Mangla EOR to enhance production from Bhagyam and Aishwariya through polymer injection. A multi-well polymer injectivity test for Bhagyam was successfully completed during the quarter 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.

#### ■ Aishwariya Barmer Hill

The large Hydrocarbons initially in place (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 Q1 FY2018. Execution of Stage-2 is expected to begin in fiscal 2018.

#### ■ Mangala Infill

Mangala has been the most prolific field over the years. We are commencing a 15 well Infill drilling program at Mangala to monetize the reserves early. The field development plan for this project has been approved and drilling of the wells is planned for Q2 FY18.

- Surface Facility Upgrade

In order to maximize production, we are focusing on creating ullage at the Mangala Processing Plan (MPT) & debottleneck surface network. Series of measures are being planned to increase the liquid handling and water injection capacities

- Krishna-Godavari Basin Onshore - (BLOCK KG-ONN-2003/1)

Our joint venture partner and operator ONGC has submitted the Field Development Plan (FDP), which has been approved by the Management Committee.

## Exploration

- Rajasthan- (BLOCK RJ-ON-90/1)

During FY2017, our 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 FY2018. New prospects based on both new-play concepts and proven-play extensions have added 436 mmboe of prospective resources in FY 2016-17. Exploration prospects have been firming up for drilling in FY2018, based on the interpretations of newly acquired 3D seismic data.

- Krishna-Godavari Basin Offshore - (BLOCK KG-OSN-2009/3)

The initial exploration period in the block expired on 8 March 2016. We continue to engage with the Ministry of Petroleum & Natural Gas for an extension of the initial exploration period and defence clearance for drilling exploration wells. Interpretation of the new seismic volumes has resulted in the identification of robust drillable prospects and a number of leads over different play types. Prospects are now being firming up for exploration drilling in fiscal 2018.

- Palar-Pennar Basin Offshore - (BLOCK PR-OSN-2004/1)

An exploratory drilling campaign in the frontier block started on 10 Feb 2017. Three well-drilling campaigns were completed by April 2017 and the wells were subsequently abandoned.

- Orange Basin Offshore, South Africa - (BLOCK-1, South Africa)

The prospect inventory matured in the outboard plays. The assessment of exploration potential of inboard plays is ongoing, to provide other drilling options. Cairn along with the Joint Venture (JV) partner Petro SA have deferred entry into the second renewal phase (Feb 2015 - Feb 2017) in Block-1, South Africa, awaiting clarity on the changes in fiscal terms as proposed in the Mineral and Petroleum Resources Development (MPRD) Amendment Bill.

## Outlook

We remain committed to maintaining a healthy free cash flow post-capex from the Oil & Gas business. We expect Rajasthan production volumes to remain steady at 165kboepd with potential upside from execution of growth projects in FY2018. The net capex is estimated at 250 million dollars with further optionality for growth projects. The key development projects being pursued in FY2018 are Mangala Infill, Surface facility upgrade, Aishwariya EOR, Bhagyam EOR, RDG and Barmer Hill with expected capex investment of of US\$250 million

## Strategic priorities

- Generate free cash flow post growth capex from the Oil & Gas business;

- Continue managing base production with a focus on opex optimisation and efficient reservoir management;
- Activate growth capex plans to unlock the potential of the Barmer Basin. Key projects being planned are Mangala Infill, Surface facility upgrade, Aishwariya EOR, Bhagyam EOR, RDG and Barmer Hill; and
- Pursue an alternate strategy of executing projects through an integrated project development model in partnership with consortiums led by global oil field services majors. This shall help us drive in incremental efficiencies and execute project faster with the aim of increasing the production to 300 kboepd in foreseeable future.

## Zinc India

### The year in summary

FY2017 was a year of achievement at Zinc India; one in which we broke our production records for mined metal and silver. Significantly we also delivered these volumes at marginally higher cost compared to FY2016. However, Zinc India's zinc composite cost of production remains in the first decile on the global cost curves position.

During the year, we continued our transition programme away from open cast and into underground mining, from where 52% of our production is now derived. We also made good progress towards our growth objectives: our plans to expand capacity are well under way, and our initiatives to extend existing mines have been successful. We are targeting another record year of production in FY2018, in line with our expectation of delivering 1.2 million tonnes a year in FY2020.

### Safety

During the reporting year, we had a tragic crane accident at Zinc India project site where four of our contractual workers lost their lives in a rare crane collapse. This tragedy triggered the development of a group wide safety standards on cranes and lifting.

We saw an improving picture in lost time injuries. Incidents were reduced from 23 in FY2016 to 15 in FY2017, and the lost time injury frequency rate was 0.3 compared to 0.5 in the previous year.

Since 2013, we have adopted various world-class safety management practices such as the DuPont safety programme to improve our safety culture.

### Environment

The business continued to improve its performance in conservation and recycling. During the reporting year, the water recycling rate was 33% (FY2016: 35%) and waste recycling rose to 93% compared to 95% in FY2016.

Further, business took initiative to replenish the groundwater by:

- Creating a 1,200 m<sup>2</sup> groundwater recharge structure, developed at the Township Hospital of the Chanderiya lead zinc smelter. In a typical year, this has the capacity to conserve 900 m<sup>3</sup> of rainwater.
- The deepening of nine water ponds in the neighbouring villages of the Sindesar Khurd Mine, resulting in increasing the water storage capacity by 2,77,575 m<sup>3</sup>.

### Production performance

	FY2017	FY2016	% Change
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Production (kt)			
Total mined metal	907	889	2.0%
Production – zinc			
Mined metal content	756	744	1.6%
Refined metal	672	759	(11.5)%
- Integrated	670	759	(11.7)%
- Custom	2	-	-
Production – lead <sup>(1)</sup>			
Mined metal content	151	145	4.1%
Refined metal	139	145	(4.1)%
- Integrated	139	140	(0.7)%
- Custom	-	5	-
Production – silver (m. oz) <sup>(2)</sup>	14.55	13.65	6.6%
- Integrated	14.55	13.56	7.3%
- Custom	-	0.09	-

(1) Excluding captive consumption of 5kt v/s 7 kt in FY2017 v/s FY2016

(2) Excluding captive consumption of 881 thousand ounces v/s 1,108 thousand ounces in FY2017 vs FY2016

## Operations

In FY2017, mined metal production stood at a record level of 907,000 tonnes, in line with the mine plan.

Overall ore production rose slightly by 14%, to 11.9 million tonnes compared to 10.5 million tonnes during FY2016. Production from the underground mines ramped up significantly during the year, with ore production and metal in concentrate (MIC) production from underground sources up by 44% and 32% respectively compared to previous year.

The increase was primarily due to higher production from the underground mines; in particular, from the Rampura Agucha underground and Sindesar Khurd mines.

Cumulative MIC production from the underground mines increased by 32% compared with the previous year. The share of mined metal production from underground mines increased to 52%. We achieved mined metal production in line with full year guidance, with second half production substantially higher than H1 FY2017.

Integrated zinc metal production was lower by 12% y-o-y and integrated lead metal production was down by 1% y-o-y. This was due to lower availability of mined metal in H1, caused by the cyclical pattern of the Rampura Agucha open cast mine plan for the year. Substantially higher mined metal production in H2 resulted in an increase in mined metal inventory, despite MIC sales of 26,000 tonnes during Q4. The closing stock of MIC was approx. 80,000 tonnes, which will be converted into refined metal in FY2018.

We achieved a record level of integrated silver production of 14.55 million ounces, 7% higher y-o-y, driven by higher grades and greater volumes from Sindesar Khurd mine.

We closed the fourth quarter of the year with the highest-ever quarterly production performance, Mined metal stood at a record 312,000 tonnes, integrated zinc-lead metal production was at an all-time high of 260,000 tonnes and integrated silver production set a record of 4.47 million ounces. These increases were in line with the availability of mined metal, also supported by enhanced smelter efficiencies.

## Prices

	FY2017	FY2016	% Change
Average zinc LME cash settlement prices US\$/T	2,368	1,829	29.5%
Average lead LME cash settlement prices US\$/T	2,005	1,768	13.4%

Average silver prices US\$/ounce	17.8	15.2	16.7%
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In CY2016, zinc prices rallied with zinc LME prices reaching a nine-year high of US\$2900 per tonne. Supply of zinc ore drastically reduced as a result of the mine cutbacks that gathered pace last year, following a sustained period of low prices. Zinc's improving fundamentals, a weaker dollar and a low concentrate inventory all combined to propel the zinc rally and make it the most sought-after base metal. The zinc price averaged US\$2,368 per tonne compared with US\$1,829 per tonne last year; an increase of 30%.

Lead averaged US\$2,005 per tonne compared with US\$1,768 per tonne the previous year, which was an increase of 13%. This was primarily due to concentrate market supply constraints, owing to mine production cuts in 2015 and 2016.

Silver averaged US\$17.8 per ounce compared with US\$15.2 per ounce the previous year, rising by 17% y-o-y. According to the Silver Institute, silver will continue to benefit predominantly from higher industrial demand, notably in the solar sector.

### Unit costs

	FY2017	FY2016	% Change
Unit costs (US\$ per tonne)			
Zinc (including royalty)	1,154	1,045	10.5%
Zinc (excluding royalty)	830	804	3.3%

The unit cost of zinc production increased by 11% to US\$1,154 per tonne in FY2017 compared with US\$1,045 per tonne in FY2016, due mainly to higher royalties driven by higher LME prices and Indian rupee depreciation.

Excluding royalties, the cost of zinc production increased from US\$804 per tonne to US\$830 per tonne. The increase was primarily driven by higher power costs, due to increased coal prices, metallurgical coke & commodity prices, mine development expenses and lower integrated production. This was partly offset by cost reduction initiatives for operational and commercial efficiencies.

According to the Wood Mackenzie report for CY2017, Zinc India's zinc composite cost of production remains in the first decile on the global cost curves position.

Out of the total cost of production of US\$1,154 per tonne, total government levies were US\$339 per tonne (FY2016: US\$277 per tonne), comprised mainly of royalty payments, the District Mineral Fund (DMF), the Clean Energy Cess, electricity duty and other taxes.

### Financial performance

	FY2017	FY2016	% Change
Revenue	2,525.0	2,111.0	19.6%
EBITDA	1,423.2	995.0	43.0%
EBITDA margin (%)	56.4%	47.1%	-
Depreciation and amortisation	149.2	119.9	24.4%
Operating profit before special items	1,274.0	875.1	45.6%
Share in group EBITDA (%)	44.6%	42.6%	-
Capital expenditure	288.0	234.9	22.6%
Sustaining	50.4	46.5	8.4%
Growth	237.6	188.4	26.1%

EBITDA in FY2017 was US\$1,423 million, an increase of 43% compared with FY2016. The increase was primarily driven by better zinc, lead and silver prices, higher realised premiums and rupee

depreciation. However, these were marginally offset by lower metal volumes and a higher cost of production.

## Projects

The mining projects we have announced are progressing in line with the expectation of reaching 1.2 million tonnes per annum in FY2020.

Zinc India's successful transition from open cast to underground mining continues. When the mining expansion projects were announced in early 2013, share of mined metal from underground mines was 15%. This increased to 52% in FY2017 and is expected to reach 80% in FY2018 and 100% in FY2019.

Total mine development during the year reached 66,545 metres, an increase of 15% on a year ago.

Mine development at the Rampura Agucha underground mine ranked at an all-time high of 5,309 metres in fourth quarter, after consistently exceeding the 4,000 metres benchmark for the previous four quarters. During the year, it produced 1.4 million tonnes of ore, compared with 0.2 million tonnes a year ago.

The sinking of the south ventilation shaft was completed during the year, following the sinking of the main shaft that reached the ultimate depth of 955 metres. Further commissioning of both production and service winders was completed during the year as shaft equipping work continued to progress satisfactorily. The underground mine achieved a record ore production run-rate of over 2 million tonnes per annum (mtpa) at the end of the fourth quarter.

At the Sindesar Khurd mine, environmental clearance was received in December 2016 for the expansion from 3.75 to 4.5 mtpa in ore production and beneficiation from 4.5 mtpa to 5 mtpa. The current mining run-rate is above 4 mtpa and is ahead of schedule. The winder foundation work for the shaft was completed during the year and head gear erection is nearing completion. The new mill of 1.5 mtpa capacity was completed in a record 14 months and was commissioned in January 2017.

At Zawar, environmental clearance of the 4 mtpa ore production and beneficiation was received in January 2017, and this was followed by consent to establish and operate. The mill expansion to 2.5 mtpa and the associated power upgrade project are at an advanced stage, with completion targeted at August 2017.

The Kayad project is now complete and the mine has attained its rated capacity of 1.0 mtpa.

In addition to the ongoing mining expansion projects, we started the Fumer project during the second half of the year, with duration of 18-20 months. This project will further improve cost and metal recoveries from the Company's hydro plant and could be replicated in other hydro plants in the coming years. The work is progressing well and anticipated to be completed in mid-FY2019.

In keeping with the Company's commitment to green energy, we have successfully commissioned 16MW of captive solar farms during the year, adding to the existing 273MW Wind Power Plant (WPP). A unique feature of this project was set up on un-utilisable land like tailing dam and jarofix pond.

## Exploration

During the year, gross additions of 26.4 million tonnes were made to reserves and resources (R&R), prior to depletion of 11.9 million tonnes. As at 31 March 2017, Zinc India's combined mineral resources and ore reserves were estimated to be 404.4 million tonnes, containing 36.09 million tonnes of zinc-lead metal and 1,032 million ounces of silver. Overall mine-life continues to be more than 25 years.

## Outlook

In FY2018, mined metal production is expected to be higher than in FY2017. Refined zinc-lead metal production will be around 950kt, which will be evenly spread through the year. Silver production will be over ~15.0 million ounces (or 500 metric tonnes). Both the Rampura Agucha and Sindesar Khurd shafts are on track for completion in FY2019.

Share of mined metal from underground mining, which was 52% of total production in FY2017, is expected to reach 80% in FY2018 and 100% by FY2019.

The cost of production excluding royalties is expected to be marginally higher based on current levels of coal and input commodity prices.

The capex on the ongoing mine expansion projects, the Fumer project and smelter de-bottlenecking will be around \$350 million in FY2018.

## Strategic priorities

- To progress the brownfield expansion of underground mines to achieve 1.2 mpta of mined zinc-lead, with mining projects completed in FY2020;
- Ramp-up underground mining in Rampura Agucha, Zawar and SK mine cluster;
- Remain in the top cost decile with the focus on operational and commercial efficiencies;
- Ramp up production volumes of silver; and
- Continue our focus on adding more reserves and resources than we deplete, through exploration.

## Zinc International

### The year in summary

FY2017 saw outright shortages in the supply side of zinc, making our major investment focus on Zinc International particularly well timed. Our Gamsberg project represents the largest undeveloped zinc deposit in the world. Pre-start activities progressed well during the year, with more than 15.5 million tonnes of rock excavated from the site.

Gamsberg is targeted to start production mid-CY2018, and Skorpion's mine life has been extended by three years. By investing at the right point in the cycle, we are well positioned to benefit from positive market fundamentals.

### Safety

This year business has reported a small but positive reduction in lost time injuries, from 22 in FY2016 to 18 in the reporting year. The frequency rate was 2.24 (FY2016: 2.49).

### Environment

The water recycling rate also showed an improvement, rising to 22% compared with 16% in FY2016.

### Production performance

	FY2017	FY2016	% Change
Total production (kt)	156	226	(30.9)%
Production- mined metal (kt)			
BMM	70	63	11.2%
Lisheen	-	81	-
Refined metal Skorpion	85	82	4.1%

## Operations

Production for FY2017 was 31% lower than in FY2016, due mainly to the closure of the Lisheen mine in Ireland in November 2015 after 17 years in operation. Excluding Lisheen, total production was 7% higher than FY2016, primarily due to better performances from the Skorpion and Black Mountain Mines (BMM).

Skorpion production was 4% higher compared with FY2016, driven by better grades and recoveries. This was partially impacted by material handling challenges due to ore being wetter than anticipated, and breakdowns at the acid plant which will undergo a 30-day maintenance shutdown in May 2017 to return it to its original capacity. This work will partially impact production from the refinery. In FY2016, Skorpion's production was impacted by the extended planned 30-day maintenance shutdown and by temporary industrial action.

At BMM, production was 11% higher than the previous year. Higher grades and improved recoveries were mainly driven by efficiency improvements on backfill, long-hole blasting and better availability of ore hoisting. During the year, we made significant progress in shifting the mining methodology from cut-and-fill to the more cost effective long-hole massive mining. March 2017 marked the highest metal production in five years, with Q4 FY2017 delivering record quarterly production of 20,000 tonnes.

## Unit costs

	FY2017	FY2016	% Change
Zinc (US\$per tonne) Unit cost	1,417	1,431	(1.0)%

The unit cost of production decreased by 1% to US\$1,417 per tonne from the previous year's US\$1,431 per tonne. Excluding Lisheen, the unit cost of production was lower by 7% at US\$1,417 per tonne from US\$1,521 per tonne last year. This was driven by higher production, lower treatment and refining charges (TC/RCs), commercial cost saving initiatives and local currency depreciation.

## Financial performance

(In US\$ million, unless stated)

	FY2017	FY2016	% Change
Revenue	332.4	391.5	(15.1)%
EBITDA	138.3	68.1	-
EBITDA margin	41.6%	17.4%	
Depreciation	24.8	54.3	(54.3)%
Acquisition related amortisation	2.7	2.1	28.6%
Operating profit before special items	110.8	11.7	-
Share in group EBITDA %	4.3%	2.9%	
Capital expenditure	56.7	54.5	4.0%
Sustaining	11.6	31.4	(63.1)%
Growth	45.1	23.2	94.4%

During the year, revenue was reduced to US\$332 million, due principally to lower volumes following the closure of the Lisheen mine and delays in concentrate shipments, partially offset by higher realised prices. In FY2017, EBITDA doubled to US\$138 million from US\$68 million in FY2016, driven mainly by higher zinc and lead prices, lower TC/RCs, a one-off insurance claim refund at Skorpion Zinc and a royalty refund at BMM.

## Projects

As part of our strategic growth priorities, the Gamsberg project is of the utmost importance. As we communicated last year, pre-start activities and waste-stripping at the project have progressed



well. To date, we have excavated over 15.5 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. Major contractors have been mobilised to the site.

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). There is also significant potential for further expansion at the Gamsberg North deposit.

First production is on track for mid-CY2018, with 9-12 months for ramp-up to full production of 250 ktpa.

At Skorpion, the Pit 112 project is progressing well and all equipment will be in place by Q1 FY2018. This project, which involves high wall push back 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).

## Outlook

In FY2018, production volumes are expected to be around 160 ktpa. Mine life expansion at Skorpion is being evaluated.

The cost of production is expected to be around US\$1,500 per tonne, higher due to appreciating local currency, higher throughput and significant investment in exploration.

## Strategic priorities

- To deliver the Gamsberg project with targeted first production by mid-CY2018;
- To extend the mine life at Skorpion by investing into Pit 112 lay-back with high wall push back;
- Carrying out a project study for Swartberg Phase II and Gamsberg Phase II to extend the life of Black mountain complex; and
- Focused local exploration programme.

## IRON ORE

### The year in summary

We can report a productive year from our Iron Ore business, with full permitted allocations achieved at both our Goa and Karnataka mines.

This, combined with improving realised prices, boosted revenues and EBITDA.

Against this positive backdrop, we continue to engage with both state Central government and Supreme Court with the objective of securing increased allocations, ramped-up volumes and lower production cost.

### Safety

We are deeply saddened to report a fatality at our Karnataka mining operation wherein a vehicle collided with an employee, resulting in a fatal accident. This led us to review and strengthen our overall systems some of the initiatives are as under.

- Designing and implementation of HEMM parking yard across all mines.
- Institutionalization of "Take 5" and safety pause.
- Strengthening "one day safety officer" and "Monthly theme based safety" drive.
- Introducing "Simulator" for enhancing safe driving skills.

- Training on “defensive driving” by “Institute of road traffic education”.
- Checking the CAPA compliance for the last 5 years Major Incidents / HIPOs / Safety alerts.

We continue to invest time, effort and resources to make our business and behaviours safer.

## Environment

It is our endeavour to make our operations ZERO discharge. At this point, the entire processed water from mines, plants and value added business is recycled and reused as a part of the process, except for blow down of cooling tower of power plant which is treated and discharged as per consent condition. Some of the initiatives during the reporting period are as under.

- Biodiversity studies across all our mines in Goa, with the aim of integrating biodiversity conservation during the operational phase, and at closure.
- Installation of wheel wash systems at all mine exits.
- Truck mounted road sweeping machines across major transport routes.
- Fixed dust suppression systems on identified stretches.
- Additional bag houses to capture graphite dust at VAB.
- Development of Green belt across VAG.
- Creation of rain water harvesting ponds in the nearby villages at our Karnataka mines which will help recharging of ground water.

## Production performance

	FY2017	FY2016	% Change
<b>Production (dmt)</b>			
Saleable ore	10.9	5.2	-
Goa	8.8	2.2	-
Karnataka	2.1	3.0	(30.0)%
Pig iron (kt)	708	654	8.2%
<b>Sales (dmt)</b>			
Iron ore	10.2	5.3	91.0%
Goa <sup>(1)</sup>	7.4	2.2	-
Karnataka	2.7	3.1	(12.9)%
Pig iron (kt)	714	663	7.6%

## Operations

At Goa, production was 8.8 million tonnes and sales were 7.4 million tonnes during FY2017. We achieved our annual mining allocation of 5.5 million tonnes in January 2017. The Goa Government granted an additional allocation of 2.6 million tonnes in Q4 FY2017. Production in FY2016 was significantly lower as we were ramping up after the lifting of the mining ban in August 2015.

At Karnataka, production was 2.1 million tonnes with sales of 2.7 million tonnes during FY2017. Sales included 0.7 million tonnes of opening ore inventory. Environmental Clearance (EC) annual capacity of 2.29 million tonnes was achieved during the year and we continue to engage with the Government to enhance the mining capacity in Karnataka.

During the year, production of pig iron ramped up from the previous year’s 654,000 tonnes to a record 708,000 tonnes, with higher plant availability.

## Prices

Prices for 62Fe grade averaged US\$67.8 per tonne CFR basis, up by 30% in FY2017 compared to prior year. The net realisation after freight for 56Fe grade was around US\$39 per tonne for FY2017. The realisation for Goa ore was also lower due to the 10% Goa Permanent Fund.

In FY2017, the price recovered, following lower production forecasts compared to the earlier guidance from the majors Iron Ore mining companies, and an uptick in Chinese demand. The main driver of this price increase was a rebounding of the billet and futures market. Also, the Chinese Government announced deadlines to halt substandard steel production of induction furnaces; this resulted in incentives for blast furnaces to increase steel production to compensate for this loss. This resulted in increase in demand for iron ore demand and a rise in iron ore and steel futures market.

Currently, the realisation for 56Fe has softened due to the surge in steel inventory and inventory of IO at steel mills and ports in China.

Because of its logistical proximity to the port and inland waterways, Vedanta's iron ore business in Goa caters primarily for the global seaborne trade. Goa low-grade exports are primarily destined for Chinese steel mills that are able to blend the low grades with other high-grade expensive ores from Brazil, Australia or within China.

In contrast, the iron ore business in Karnataka caters primarily for the domestic steel industry in the state of Karnataka, within a 200 km radius of the mine.

Karnataka ex-works realisation was US\$18.1 per tonne for FY2017, as domestic prices are largely determined by government mining companies and local supply and demand factors.

The value added business (Pig iron) margin reduced from US\$72 per tonne in FY2016 to US\$51 per tonne, primarily due to higher coking coal prices.

## Financial performance

(In US\$ million, unless stated)

	FY2017	FY2016	% Change
Revenue	615.4	350.0	75.8%
EBITDA	194.2	73.4	-
EBITDA margin	31.6%	21.0%	
Depreciation	25.7	26.8	4.2%
Acquisition related amortisation♦	44.2	35.7	23.9%
Operating (loss) before special items	124.3	10.9	-
Share in group EBITDA %	6.1%	3.1%	
Capital expenditure	3.7	13.2	(71.9)%
Sustaining	3.7	10.3	(64.2)%
Growth	0.0	2.8	-

In FY2017, EBITDA increased to US\$194 million compared with US\$73 million in FY2016. The increase was due mainly to volume ramp-up and better price realisations, partly offset by higher met coke prices.

## Outlook

The Company has been engaging with the respective State governments to increase the mining cap in Goa and Karnataka.

The State of Goa is seeking the intervention of the Honourable Supreme Court to accept the recommendation of the Expert Committee for a higher limit of 37 million tonnes per annum for the state. The Government of Goa has asked mining companies to aim for cumulative production of 8 million tonnes during Q1 FY 2018.

Iron ore production in Karnataka has reached close to 30 million tonnes. We are continuously engaging with government for our EC enhancement from 2.29 million tonnes per annum to 6 million tonnes per annum.

To be ready for future production growth, we will debottleneck the capacity at pig iron plant furnaces from 785kt to 890kt.

### Strategic priorities

- To enhance environmental clearance limits in both Goa and Karnataka, and ramp up to full capacity;
- To achieve focused cost reduction through various operational and commercial initiatives; and
- To increase our footprint in iron ore by continuing to participate in auctions across the country;

## COPPER - INDIA / AUSTRALIA

### The year in summary

FY2017 was a strong year for Copper India from a volume perspective where record delivery of copper cathodes and phosphoric acid were achieved.

Although the unit conversion costs were higher, these were partially offset by various operational efficiencies. The business was also successful in reducing environmental waste, and making measurable improvements in safety.

With positive fundamentals in place, we will now be exploring the feasibility of expanding our smelter capacity.

### Safety

Consistent with the previous year, our lost time injuries again numbered four, with the frequency rate standing at 0.37 (FY2016: 0.49).

During the year we launched a number of safety programmes, including one focusing on the basic and essential area of knowing how to treat tools properly and safely. One example was the 'Centralisation of Lifting Tools and Tackles', with the emphasis on the pre- and post-use of all relevant lifting tools and tackles, including proper handling, storage, tracking and competency certification.

### Environment

The water recycling rate recorded for the reporting year was 13%, compared with 18% in the previous year. The waste recycling rate stood at 101.18%, due to the additional recycling of historic as well as current operational waste stored at the site

### Production performance

	FY2017	FY2016	% Change
Production (Kt)			
India - cathode	402	384	4.9%

### Operations

In FY2017, copper cathode production achieved a record level of 402,000 tonnes through in-house technological upgrades at the refinery that raised the previous design level density of 310 Amp/m<sup>2</sup> to 350Amp/m<sup>2</sup>. This was offset by lower copper grades and a few unplanned outages

spread over the year. Our plant utilisation touched a record level of 94% with overall equipment effectiveness (OEE) of 86%. Sulphuric Acid availability was at record levels 100% throughout the year.

In FY2017, phosphoric acid production was at 200,000 tonnes, its highest ever.

Additionally, as a process enhancement and with the objective of reducing environmental waste, scrubber cakes generated at the smelter were transformed from a hazardous to a non-hazardous state through the installation of bag houses before the scrubbers. This has led to a significant reduction of hazardous cake generation, enhancing secured land fill (SLF) life. We continued to focus on safety and environmental performance. There were zero liquid discharges, and we recorded our lowest ever lost time injury frequency rate (LTIFR) and total injuries down by almost 50%.

The 160MW power plant at Tuticorin operated at a plant load factor (PLF) of 56% in FY2017 compared with 71% in FY2016. This was primarily due to a lower offtake from the Tamil Nadu Electricity Board (TNEB) and the Telangana State Electricity Board (TSEB), owing to weaker power demand in the region.

The Company entered into a contract with TSEB for power supply from June 2016 to May 2017, following the completion of the sales contract with TNEB. The Company is entitled to compensation at 20% of the contracted rate for offtake below 85% of the contracted quantity.

Our copper mine in Australia has remained under extended care and maintenance since 2013. We continue to evaluate various options for its profitable restart given the current favourable government support and prices.

## Prices

	FY2017	FY2016	% Change
Average LME cash settlement prices (US \$ per tonne)	5,152	5,211	(1.1)%
Realised TC/RCs (US cents per lb)	22.4	24.1	(7.2)%

In CY2016, world mined production of copper is estimated to have risen by 5.2% to 20.18 million tonnes, while refinery production is estimated to have increased by 4.3% to 22.855 million tonnes. World refined copper consumption grew by 2.5% in 2016 while that of China, the largest consumer of copper, grew by 4.9%. Also, the materially stronger fundamental developments that contributed to this surge has increased demand in China, due to a greater impact of government stimulus on the power grid investments, as well as higher-end use demand, particularly for appliances and consumer goods. Copper prices have also firmed up on the prospects of infrastructure plans in the US.

Average LME copper prices decreased by 1.1% and treatment and refining charges (TC/RCs) reduced by 7.2% compared with FY2016.

In concentrates, annual benchmark settlements for CY2017 concluded at 92.5/9.25 TC/RCs of payable copper. This is approximately a 5% reduction over the previous year, mainly due to mine disruptions resulting in a decline in concentrate availability. Mine supply of copper concentrate has been significantly affected by disruptions such as the suspension of exports from PT Freeport Indonesia and a strike at the Escondida mine during Q4 2016-17. Conventional disruptions in concentrate production for CY2016 was 925kt. Additions to the global mine supply of concentrate, such as through new mine projects and expansions, outpaced the increase in smelter capacity in 2016. This situation is set to reverse from 2017 as the current wave of mine construction comes to an end, while Chinese primary smelter capacity continues to grow.

## Unit costs

	FY2017	FY2016	% Change
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Unit conversion costs (CoP) - (US cents per lb)	5.0	3.2	56.3%
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At the Tuticorin smelter, the cost of production increased from US cents 3.2 per lb to US cents 5.0 per lb, due mainly to lower by-product credits, higher petro prices and an increased Clean Energy Cess on coal.

According to the Wood Mackenzie report CY2017, we are positioned in the first quartile of the cost curve.

Sulphuric acid realisation was impacted significantly with Abu Dhabi National Oil Company (ADNOC) prices reduced from US\$142 per tonne to US\$84 per tonne year-on-year.

## Financial performance

(In US\$ million, unless stated)

	FY2017	FY2016	% Change
Revenue	3,133.7	3,197.2	(2.0)%
EBITDA	252.2	336.6	(25.1)%
EBITDA margin	8.0%	10.5%	-
Depreciation and amortisation	28.9	32.3	(10.5)%
Operating profit before special items	223.3	304.3	(26.6)%
Share in group EBITDA %	7.9%	14.4%	-
Capital expenditure	23.5	17.6	33.5%
Sustaining	16.5	14.4	14.6%
Growth	7.0	3.2	-

During the year, EBITDA was US\$252 million, a decrease of 25% on the previous year's US\$337 million. The reduction was mainly due to lower TCs/RCs and lower by-product credits, the Clean Energy Cess on coal consumed in the Thermal Power Plant (TPP), and one-off benefits of the Target Plus export incentive scheme. These were partially offset by improved operational efficiencies.

## Outlook

Production is expected to remain at around 400,000 tonnes.

## Strategic priorities

- To set up a brownfield 400 ktpa capacity copper smelter;
- To sustain operating efficiencies, reducing our cost profile; and
- A continuous upgrade in technology to ensure high quality products and services that sustain market leadership and surpass customer expectations.

## COPPER - ZAMBIA

### The year in summary

FY2017 was a challenging year for production at Copper Zambia. The focus is on accelerated dewatering and development initiatives to improve long term production from Konkola mine, smelter throughput improvements, technology interventions to improve reliability of the Tailings Leach Plant and resumption of Nchanga underground mine in FY2017.

More positively, custom smelting delivered increased volumes. Spend base are also well controlled, and we are achieving an overall reduction in the operational cost base. The turnaround actions required are understood and under way, and although there is much to be done, it remains a world-class asset with a 50-year mine life. It remains an integral part of our vision for the future.

## Safety

With deep regret we reported two fatalities during the year. One person died as a result of a blasting incident, and the other due to an accident leading to heart failure in the Konkola underground mine. While blasting related safety risks are known in the mining industries the second incident is very rare but has happened in other mines in the past. Both incidents were thoroughly investigated, and as a result, learnings have been shared and implemented across the business to avoid such incidents in future.

Separately, we were pleased to see an encouraging decline in lost time injuries, down from 20 in FY2016 to 8 in FY2017. The lost time frequency rate improved from 0.54 to 0.32.

With preventative safety in mind, KCM conducted a risk assessment on the structural integrity of tailing dams. A third party consultant reviewed three dams and found no major deviation from the standard design or management practices.

KCM initiated the Chingilila programme, training mine captains to become safety champions who regularly visit every working area to improve the safety awareness in the field and in the workplace. In total 112 leaders were trained in company safety procedures and practices.

## Environment

Improvement in water management remains to be the priority. Our water recycling rate recorded in FY2017 was 6%, compared to 8% in the previous year. We are committing more resources to this challenge and have targeted a recycling rate of 10% for FY2018.

We also take seriously the safe disposal of hazardous chemicals. In December 2016, we completed a project that enables expired materials to be processed through neutralisation and solidification at the Nkana Smelter Complex.

## Production performance

	FY2017	FY2016	% Change
Production (kT)			
Total mined metal	94	123	(23.5)%
Konkola	36	49	(27.0)%
Nchanga	12	18	(34.9)%
Tailings Leach Plant	46	55	(16.5)%
Finished copper	180	182	(1.0)%
Integrated	96	117	(18.4)%
Custom	84	64	30.8%

## Operations

In FY2017, mined metal production of 94,000 tonnes was 23.5% lower than in FY2016. The decrease was primarily due to lower production from the Nchanga underground mine, which was placed under care and maintenance in Q3 FY2016, as well as a lower availability of trackless equipment at the Konkola deep mine.

At Nchanga, open pit mine equipment availability and throughput constraints at the mills resulted in lower production.

At the Tailings Leach Plant, production was 46,000 tonnes, down by 16% y-o-y due to maintenance breakdowns at the Tailing trails and lower feeds.

Improvement actions were put in place and stabilisation is underway.



During Q3, trial mining began at the Nchanga underground mine and initial results for recovery and mining productivity were promising. Average ore production of 100 kT per month was achieved in Q4 FY2017 and continued to improve in Q1 FY2018.

Custom volumes at 84,000 tonnes were 31% higher y-o-y 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 FY2017.

We are working on the engineering design for accelerated dewatering and development to increase production from the Konkola Mine.

The elevated temperature leach project, which will improve recoveries at the Tailings Leach Plant, was commissioned in Q3 FY2017 and is currently under stabilisation. Planning and engineering for phase II of the project has started.

### Unit costs (integrated production)

	FY2017	FY2016	% Change
Unit costs (US cents per lb) excluding royalty	208.6	197.9	5.4%
Unit costs (US cents per lb) including royalty <sup>(1)</sup>	278.9	261.0	6.9%

(1) Including sustaining capex and interest cost

The unit cost of production (excluding royalty) was higher by 5.4% at US cents 209 per lb. This was mainly due to lower volumes, higher power costs and lower credits, partly offset by cost initiatives to optimise stores, spares and consumables and the impact of kwacha appreciation on VAT receivables.

Excluding the impacts of an increased power tariff and the unrealised gain of kwacha appreciation on VAT receivables, the unit cost of production (excluding royalty) rose by 7.5% at US cents 201 per lb compared with US cents 187 per lb in the previous year.

The power tariff increase in January 2016 resulted in an adverse impact of US\$3 million per month on the cost of production. During FY2017, this increased our costs by 13 US cents per lb. Effective from 1 January 2017, Copperbelt Energy Corporation Plc has announced revised power tariffs that are ~15% lower than those launched in January 2016. Necessary amendments have been incorporated in the power supply agreement (PSA).

Water levels at Kariba Dam are improving and are currently at 50% compared with 23% at the end of FY2016.

In January 2017, KCM had successfully signed off a consent order with ZCCM-IH to settle its price participation liability. This outlined an amended schedule of repayment in three parts: US\$ 20 million by 31 January 2017, US\$ 22 million by 28 February 2017 and the balance in 24 equal monthly instalments. We see this as a positive step towards an amicable settlement of the case.

### Financial performance

	FY2017	FY2016	% Change
Revenue	874.3	972.5	(10.1)%
EBITDA	5.9	(17.9)	-
EBITDA margin	0.7%	(1.8)%	-
Depreciation and amortisation	113.3	179.5	(36.9)%
Operating loss before special items	(107.4)	(197.4)	45.6%
Share in group EBITDA (%)	0.2%	(0.8)%	-
Capital expenditure	28.3	27.6	(2.5)%
Sustaining	28.3	27.6	(2.5)%
Growth	-	-	-

(In US\$ million, unless stated)



Revenue in FY2017 was lower at US\$ 874 million compared with US\$973 million in the previous year, mainly due to lower sales volumes, metal prices and lower credits. The EBITDA for the year was US\$6 million, an improvement of US\$24 million on the previous year's loss of US\$18 million, mainly due to the impact of kwacha appreciation on VAT receivable.

## **Outlook**

### **Konkola underground mine**

The Konkola underground mine remains the focused priority for KCM. Prioritisation strategies are underway to improve operating productivity levels, mobile fleet utilisation and to progress a deeper horizontal development level. A feasibility study is underway on the dry mine initiative and process reengineering options to find opportunities for cost and efficiency improvements.

### **Smelter and refinery**

We envisage continuous improvements as we step up production with an increase in third-party purchase concentrates, improved smelter reliability and the ability to handle feed rates higher than 80 tonnes per hour (tph) following the biennial smelter shutdown in Q3 FY2017.

We continue to focus on the refinery ramp-up and gaining greater cost efficiencies by installing oil-fired boilers for electrolyte heating.

### **Nchanga operations**

At Nchanga, we are focused on sustaining and improving the operations at the Tailings Leach Plant by treating stockpiled refractory ore and old tailings. We are also working on a new outsourcing model for focused maintenance operations and better equipment reliability.

The Nchanga underground trial operations are progressing well with improved grades and recoveries. We continue to focus on a further ramp-up and to break through the two million tonne mark for ore production on an annual basis.

Full-year production is expected to ramp up further during FY2018, to around 190,000-210,000 tonnes with integrated production of c. 110,000-120,000 tonnes, at a c1 cost of 160-180 US cents per pound.

### **Our strategic priorities**

- To create a highly productive underground mine at Konkola with an additional horizontal development;
- A reliable Tailings Leach facility with potential to increase recoveries through the application of thermos-applications;
- Increased smelter utilisation from the processing of available third-party concentrates sourced from Zambia and the Democratic Republic of Congo; and
- Sustained cost efficiencies through value-focused initiatives.

## **ALUMINIUM**

### **The year in summary**

We can look back on FY2017 with satisfaction: we achieved record production of aluminium and alumina, leading to a strong growth in revenues and EBITDA with ramp-up of capacities. This was despite pot outages at Jharsuguda and BALCO. However, many were returned to production during the reporting year and we anticipate all being back in service by Q3 this year.

Indeed, we are now well on the way to achieving our target aluminium volume of 1.5 to 1.6 mtpa (excluding trial run) in FY2018, with lower costs aided by improving supplies of local bauxite and coal. The higher volumes will also deliver valuable economies of scale.

## Safety

We have recorded 15 lost time injuries in FY2017 (FY2016: 13). The frequency rate was increased to 0.32 compared to 0.29 in the previous year. We are targeting an improvement, on the back of a number of safety programmes initiated during the year to promote employee health, safety and well-being.

These activities included an extensive Making Better Risk Decisions (MBRD) programme where we trained our 200 frontline leaders across the aluminium businesses including BALCO. We also focused on identifying and mitigating risks, conducting workshops on Experience Based Quantification (EBQ).

## Environment

Controlling emissions was a focus during the year with workshops on high PM emissions and pot line FTP stack emissions.

Waste management is also an area where we are seeking continuous improvement. During FY2017 we recycled 37.1 % of waste products. This compared to 34% in the previous year.

## Production performance

	FY2017	FY2016	% Change
<b>Production (kt)</b>			
Alumina - Lanjigarh	1,208	971	24.4%
Total aluminium production	1,213	923	31.4%
Jharsuguda I	525	516	1.9%
Jharsuguda II <sup>(1)</sup>	261	76	-
BALCO I	256	257	(0.4)%
BALCO II <sup>(2)</sup>	171	75	-
BALCO 270 MW <sup>(3)</sup>	-	169	-
Jharsuguda 1800 MW (Surplus Power Sales in Million Units) <sup>(3)</sup>	511	-	-

(1) Including trial run production of 95kt in FY2017 vs. 51kt in FY2016

(2) Including trial run production of 47kt in FY2017 vs. Nil in FY2016

(3) Jharsuguda 1,800MW and BALCO 270 MW have been moved from the Power to the Aluminium segment from 1 April 2016.

## Operations

### Alumina refinery: Lanjigarh

At Lanjigarh, production ramped up with the restarting of the second stream of the refinery during Q1 FY2017. In FY2017, the alumina refinery produced 1,208,000 tonnes, up 24% on FY2016. We ended March 2017 at a run rate of 1.4 million tonnes. The refinery currently has a debottlenecked capacity of 1.7-2.0 million tonnes per annum. Approval was received to expand to 4 million tonnes per annum, and this will be considered when we have further visibility on bauxite sources.

### Aluminium smelters

We achieved record annual production of 1.2 million tonnes of aluminium in FY2017, with an exit run-rate of 1.4 million tonnes per annum (excluding trial run production) in March 2017.

## Jharsuguda I & II Smelters

The Jharsuguda-I smelter was stable at 525,000 tonnes during FY2017. 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 will be repaired over the next few months, and put back into production. The commissioning of pots at the first line of the 1.25 mtpa Jharsuguda-II aluminium smelter was completed at the end of July 2016. However, this line was impacted by pot outages during the year. The impacted pots are currently being rectified, with 80 of 336 pots restarted in May 2017, and we expect to be fully ramped up during Q3 FY2018. 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, and full ramp-up is expected by Q3 FY2018.

## BALCO I & II smelters

Production was stable at 256,000 tonnes in BALCO-I during the year. The BALCO-II smelter was fully commissioned, with all 336 pots operational in August 2016. However, this was impacted by a pot failure incident in September 2016 and 168 pots were taken out of production. All 336 pots are fully operational by the end of March 2017 and expected to be capitalized in Q1 FY2018, upon stabilisation.

The rolled product facility at BALCO, which was temporarily shut down in Q2 FY2016, restarted operations during Q2 FY2017 following optimisation of its cost structure. Production was 18,000 tonnes during the year.

## Captive power plant

### *Jharsuguda - 1,800MW*

Power sales from the Jharsuguda 2,400MW (4x600MW) power plant were historically reported in the Power segment until Q4 FY2016. However, effective from 1 April 2016, the surplus power sales from 1800MW of the capacity has been reported in the Aluminium segment, since the plant has been converted to a captive power plant (CPP) for the Jharsuguda-II smelter. One unit of 600MW, which has been tied up for power to sales to GRIDCO, will continue to be reported in the Power segment.

During FY2017, there were lower external sales of 511 million units from the 1,800 MW Jharsuguda power plant due to a weak short term power market. However, the plant loading factor (PLF) will continue to increase as we ramp up the Jharsuguda-II smelter.

### *BALCO 270MW*

Similarly, the 270MW CPP at BALCO was moved to the Aluminium segment from 1 April 2016. This power unit will be used as a backup power source for the smelters, and will remain on standby. Sales were therefore nil during the year.

## Coal linkages

The Company has secured coal linkages of 6 mtpa through auctions in Q2 FY2017 for the CPPs at BALCO and Jharsuguda. Supply from these linkages started in November 2016, and 2.0 million tonnes of coal were received during the year.

## Prices

	FY2017	FY2016	% Change
Average LME cash settlement prices (US\$ per tonne)	1,688	1,590	6.2%

Average LME prices for aluminium for the year stood at US\$1,688 per tonne, up 6.2% on the previous year's US\$1,590 per tonne. During the year, aluminium traded at a two-year high of

US\$1,900 per tonne. Support was driven by the Chinese Government's pledge in late 2016 to clamp down on pollution, as well as expectations of a significant increase in infrastructure spending following the US presidential election.

## Unit costs

	<i>(US\$ per tonne)</i>		
	<b>FY2017</b>	<b>FY2016</b>	<b>% Change</b>
Alumina cost (ex-Lanjigarh)	282	315	(10.6)%
Aluminium hot metal production cost	1,463	1,572	(6.9)%
Jharsuguda CoP	1,440	1,519	(5.2)%
BALCO CoP	1,506	1,659	(9.2)%

During FY2017, the alumina cost of production (CoP) was US\$282 per tonne, compared with US\$315 per tonne in FY2016. The decrease was mainly due to double-stream operations leading to cost optimisation, a lower bauxite cost driven by higher quality bauxite, lower caustic cost with better silica and operating efficiencies, and rupee depreciation.

In FY2017, the total bauxite requirement of about 3.4 million tonnes was met from three sources: captive mines 31%, domestic sources 23% and imports 46%. In the previous year, each made an equal, one-third contribution. The other key raw material - coal - was secured from a combination of secured coal linkages, e-auctions, ad-hoc allocation and imports.

The hot metal CoP at Jharsuguda was US\$1,440 per tonne, down from US\$1,519 in FY2016. The decrease was primarily due to lower alumina cost, volume ramp-up, rupee depreciation, and the implementation of various cost-saving initiatives. These were partially offset by regulatory headwinds of the Clean Energy Cess, electricity duty and power imports required during power outages.

The cost of production at BALCO reduced to US\$1,506 per tonne from US\$1,659 in FY2016. This decrease was due to lower power costs driven by secured coal linkages; the shifting of power generation to the more efficient, newly constructed 600MW CPP; input commodity deflation; currency depreciation; and various cost saving initiatives.

## Financial performance

	<i>(In US\$ million, unless stated)</i>		
	<b>FY2017</b>	<b>FY2016</b>	<b>% Change</b>
Revenue	2,040.0	1,694.3	20.4%
EBITDA	344.2	106.7	-
EBITDA margin	16.9%	6.3%	-
Depreciation and amortisation	141.0	101.8	38.5%
Operating profit before special items	203.2	4.9	-
Share in group EBITDA (%)	10.8%	4.6%	-
Capital expenditure	290.9	118.9	-
Sustaining	28.0	11.6	-
Growth	262.9	107.3	-

EBITDA was higher at US\$344 million compared with US\$107 million in FY2016, driven mainly by volume ramp-up, increased LME, input commodity deflation, improved product mix, Indian rupee depreciation and cost savings initiatives. FY2016 EBITDA was impacted by an additional one-off charge of US\$36 million relating to renewable power obligations, incurred in the previous financial years.

## Outlook

### Volume and cost

In FY2018, aluminium volume is expected to be in the range of 1.5 to 1.6 million tonnes (excluding trial run) with the fully ramped-up BALCO II smelter and the progressive ramp-up of balance lines at the 1.25 million tonnes Jharsuguda-II smelter. With continued focus on cost reduction, a hot metal cost is expected to be in the range of US\$1,475-1,500 per tonne with Q1 FY2018 likely to be higher.

### Alumina

During FY2018, the Company will continue to double-stream operations to support the aluminium pot ramp-ups with debottlenecked capacity of 1.7 - 2.0 million tonnes per annum. The main sources of bauxite will be a mix of mines at BALCO, and the balance will be met from laterite mines, other domestic sources and imports.

### Coal

Multiple initiatives are being taken to meet our coal requirements. We will source our overall coal mix from the secured 6 million tonnes of coal linkages, low-cost imports and auctioned coal to optimise the cost in FY2018.

### Strategic priorities

- Full capacity ramp-up at the Jharsuguda II and BALCO II smelters 2.3 MTPA;
- Bauxite sourcing and supply chain;
- Expanding the Lanjigarh refinery to 4 million tonnes; and
- Reducing hot metal cost by optimising raw material sourcing, and through various cost reduction initiatives.

## POWER

### The year in summary

A series of positive metrics underpinned a successful FY2017 in Power with entire power assets were operational; Talwandi Sabo attained record plant availability in fourth quarter with all units functioning; For Balco and Jharsuguda IPP plants, there was less reliance on imported coal.

### Safety

A broadly consistent year in terms of lost time injuries: 1 took place during the year, compared to 2 in FY2016. The frequency rate was decreased as 0.09 compared to 0.18 previously.

At MALCO energy we implemented the SAP EHS Module, to provide us with tighter control and better data on safety observations, the Risk Register, Work Clearance Management (WCM) and incident investigations.

We also conducted workshops on Experience Based Quantification (EBQ), and on high PM emissions and pot line FTP stack emissions with participants from TSPL and other power plants.

### Environment

One of the main environmental challenges for power plants is the management and recycling of fly ash. We were pleased to record an improvement in our overall waste recycling rate, from 44.34% in FY2016 to 54.84% in this reporting year.

We also saw an improvement in the way we collect, recycle and reuse water. The rate rose to 11% in FY2017 compared to 6% in the previous year.

## Production performance

	FY2017	FY2016	% Change
<b>Total power sales (MU)</b>	<b>12,916</b>	<b>12,121</b>	<b>6.6%</b>
Jharsuguda 600 MW* 6	3,328	7,319	(54.5)%
BALCO 600 MW	2,609	1,025	-
BALCO 270 MW* 6	-	169	-
MALCO	190	402	(52.7)%
HZL wind power	448	414	8.2%
TSPL	6,339	2,792	-
<b>TSPL - availability</b>	<b>79%</b>	<b>80%</b>	

\* Jharsuguda 1,800MW and BALCO 270 MW have been moved from the Power to the Aluminium segment from 1 April 2016.

## Operations

In FY2017, power sales were higher at 12,916 million units compared with 12,121 million units in FY2016, driven by commissioning of additional units at Talwandi Sabo Power Limited (TSPL) and BALCO over the last year. The Jharsuguda 1,800 MW and BALCO 270 MW smelters have been moved from the Power segment to the Aluminium segment, effective from 1 April 2016.

The Jharsuguda 600MW power plant operated at a lower plant load factor (PLF) of 68% in FY2017 (FY2016: 71%).

Power sales from TSPL were significantly higher during the year at 6,339 million units, with all three units fully operational. The third 660MW unit achieved its commercial operation date (COD) on 24 August 2016 and was capitalised on 1 September 2016. The plant achieved full ramp-up during FY 2017, and had record availability of 85% in Q4. The power purchase agreement with the Punjab State compensates Vedanta based on the availability of the plant. 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 600 MW BALCO IPP units (2x300MW) operated at a PLF of 58% in FY2017, due to the weak power market.

The MALCO power plant operated at a lower PLF of 23% in FY2017 compared with 48% in FY2016, due to a lower offtake from the Telangana State Electricity Board (TSEB). We entered into a contract with TSEB for power supply from June 2016 to May 2017, following the completion of the earlier sales contract with the Tamil Nadu Electricity Board. However, we are entitled to compensation at 20% of the contracted rate for any offtake below 85% of the contracted quantity.

## Unit sales and costs

	FY2017	FY2016	% Change
Sales realisation (US cent/kwh) <sup>1</sup>	4.2	4.5	(6.4)%
Cost of production (US cent/kwh) <sup>1</sup>	3.1	3.3	(4.5)%
TSPL sales realisation (US cent/kwh) <sup>2</sup>	7.0	6.6	5.4%
TSPL cost of production (US cent/kwh) <sup>2</sup>	5.6	5.4	4.8%

(1) Power generation excluding TSPL

(2) TSPL sales realisation and cost of production is considered above based on availability declared during the respective period

Average power sales prices, excluding TSPL, were lower in FY2017 at US cents 4.2 per kwh (FY2016: US cents 4.5 per kwh) primarily due to softening rates in the open access power market.

During FY2017, average power generation costs excluding TSPL improved to US cents 3.1 per kwh (FY2016: US cents 3.3 per kwh) mainly due to increased generation from the newly commissioned and more energy-efficient BALCO Power Plant.

TSPL's average sales price was higher at US cents 7.0 per kwh compared with US cents 6.6 per kwh in FY2016, and power generation cost was higher at US cents 5.6 per kwh compared with US cents 5.4 per kwh in the previous year, driven mainly by increased coal prices.

## Financial performance

*(US\$ million, unless stated)*

	FY2017	FY2016	% Change
Revenue	835.9	707.5	18.1%
EBITDA	244.8	196.3	24.7%
EBITDA margin	29.3%	27.7%	-
Depreciation and amortisation	88.2	74.1	19.0%
Operating profit before special items	156.6	122.2	28.2%
Share in group EBITDA%	7.7%	8.4%	-
Capital expenditure	59.6	50.1	19.0%
Sustaining	-	7.6	-
Project	59.6	42.5	40.2%

EBITDA improved by 25%, driven mainly by extra power sold from the commissioning of additional capacities at TSPL and BALCO, despite the weaker demand.

## Outlook

During FY2018, we will remain focused on increasing the plant availability and increased sales from fully commissioned capacities at BALCO and TSPL plant availability above 75%.

## Strategic priorities

- Tie up balance capacity under long- or medium-term open access for BALCO;
- Achieve over 90% availability;
- Achieve successful outcome in regulatory matters; and
- Tie-up for power sales at MALCO.

## Port business

### Vizag General Cargo Berth (VGCB)

During FY2017, VGCB operations showed a decrease of 38% in discharge as well as in dispatch, compared with FY2016. This was mainly due to reduced coal imports, driven by higher coal prices and a weaker power market. The dispatch tonnage decreased by 38% to 4.4 million tonnes (FY2016: 7.1 million tonnes) and generated an EBITDA of 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.

### Mormugao Port, Goa

Sterlite Ports has been awarded the project to design, build and operate a multi-cargo port terminal in Mormugao Port, Goa, with 19 million tonnes per annum capacity, to handle iron ore, coal and other commodities.

Visakhapatnam and Goa together will place Vedanta Limited in the major league of port infrastructure operators, with combined handling capacity of 33 million tonnes.





## PRINCIPAL RISKS AND UNCERTAINTIES

Vedanta's principal risks and uncertainties as set out below may impact the following areas of the Group's business:

Area	Impact
<b>Business model (BM)</b>	Ability to conduct our operations across the value chain in order to generate revenue and make a profit from operations.
<b>Future performance (FP)</b>	Ability to deliver on our financial plans in short/medium term.
<b>Solvency (S)</b>	Ability to meet all our financial obligations.
<b>Liquidity (L)</b>	Ability to meet our short-term obligations/liabilities as they fall due.
<b>Health, safety, environment and communities (HSEC)</b>	Ability to send our employees and contractors home safe and healthy every day and work with our communities and partners to achieve Group's sustainable development goals.
<b>Reputation (R)</b>	Ability to maintain investor confidence and our social licence to operate.

The order in which these risks appear in the section below does not necessarily reflect the likelihood of their occurrence or the relative magnitude of their impact on our business. The risk direction of each risk was reviewed based on events, economic conditions, changes in business environment and regulatory changes during the year. While Vedanta's risk management framework is designed to help the organisation meet its objectives, there can be no guarantee that the Group's risk management activities will mitigate or prevent these or other risks from occurring. Our approach is not intended to eliminate risk entirely, but rather to provide the structural means to identify, prioritise and manage the risks involved in our activities in order to support our value creation objectives.

The Board with the assistance of management carries out periodic and robust assessment of the principal risks and uncertainties of the Group (including those that threaten the business model, future performance, solvency or liquidity) and tested the financial plans for the Group for each of the principal risks and uncertainties mentioned below.

Risk and Impact	Risk direction	Impact criteria	Mitigation
<b>Access to capital</b>			
The Group may not be able to meet its payment obligations when due or be unable to borrow funds in the market at an acceptable price to fund actual or proposed commitments. A sustained adverse economic downturn and/or suspension of its operation in any business, effecting revenue and free cash flow generation, may cause stress on the Company's financing and covenant compliance and its ability to raise financing at competitive terms. Any constraints on upstreaming of funds from the subsidiaries to the Group may affect the liquidity position at the Group level.	▼	<p>Future performance</p> <p>Solvency</p> <p>Liquidity</p> <p>Reputation</p>	<ul style="list-style-type: none"> <li>■ Focused team working on completing the near term refinancing, reducing cost of borrowing, extending maturity profile &amp; deleveraging the balance sheet.</li> <li>■ Vedanta Limited – Cairn India Limited merger has become effective. The merger with Vedanta Limited will de-risk Cairn India by providing access to a portfolio of diversified Tier-I, low cost, long-life assets, to deliver significant near term growth, while retaining the substantial upside from our oil &amp; gas business.</li> <li>■ Track record of good relations with banks and of raising borrowings in last few years.</li> <li>■ Structured ramp-up of facilities to give better margins and help in loan repayments/interest servicing.</li> <li>■ Regular discussions with rating agencies. Ratings have been upgraded.</li> <li>■ Early redemption of 2018 bonds in line with the stated strategy to deleverage at Plc level and extend average debt maturity.</li> <li>■ Group generates healthy cash flows from its 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.</li> <li>■ Continued compliance with the group's treasury policies which govern our financial risk management practices.</li> </ul>
<b>Operational turnaround at KCM</b>			
Lower production and higher cost at KCM may impact our profitability.	▲	<p>Business Model</p> <p>Future performance</p> <p>Liquidity</p> <p>Reputation</p>	<ul style="list-style-type: none"> <li>■ Management team reviewing operations and engaging with all stakeholders in light of operating challenges. Focus at Konkola is to improve efficiency, equipment availability, dewatering and enhance volumes. Committed to improving KCM operating performance.</li> <li>■ Several cost-saving initiatives and restructuring reviews under way at KCM to preserve cash.</li> <li>■ Process improvement actions put in place through focused operating teams to improve production performance.</li> <li>■ Working on the engineering design for accelerated dewatering and development to increase production from the Konkola Mine</li> <li>■ Elevated temperature leach project to improve recoveries at the Tailings Leach Plant, has been commissioned and is currently under stabilisation. Planning and engineering for phase II of the elevated temperature leach initiated.</li> <li>■ Strategically working on outsourcing model for maintenance activities to improve asset availability.</li> <li>■ Commenced trial mining at Nchanga underground mine and initial results for recovery and mining productivity promising</li> <li>■ VAT refunds are being pursued.</li> </ul>
<b>Challenges to operationalize investments in aluminium and power businesses</b>			

Some of our projects have been completed (pending commissioning) and may be subject to number of challenges during operationalisation phase. These may include challenges around sourcing raw materials.



Business Model

Future performance

Liquidity

Reputation

- Have commenced operationalisation of Jharsuguda and BALCO facilities.
- Jharsuguda II pot failure rectification is in process. The first line is expected to be ramped up by Q3 FY2018.
- Execution in progress for gradual completion of potlines.
- OEMs engaged for health check as well as remediation of issues. They are also studying and strengthening protection systems.
- Continuous focus on plant operating efficiencies improvement program to achieve design parameters, manpower rationalization, logistics infrastructure and cost reduction initiative.
- Continue to pursue developing sources of bauxite.
- Augmentation of experienced resources for potroom.
- Continuous augmentation of power security and infrastructure.
- Supply of coal has commenced from the 6mtpa coal linkages secured earlier this year.
- Rolled product facility at BALCO re-commenced its operations in Q2 FY2017.
- Two streams of the Lanjigarh refinery operated during the year.
- Continuing our efforts to secure key raw material linkages for our alumina/aluminium business. Various infrastructure related challenges are being addressed.
- Strong management team continues to work towards sustainable low cost of production, operational excellence and securing key raw material linkages.
- TSPL matters are being addressed in a structured manner by a competent team.
- For more information see the Aluminium and Power reviews on page number 50 and 53 respectively

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**Extension of Production Sharing Contract of Cairn beyond 2020 or extension at less favourable terms**

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Cairn India has 70% participating interest in Rajasthan Block. The production sharing contract (PSC) of Rajasthan Block runs till 2020. Challenges in extension of production sharing contract of Cairn (beyond 2020) or extension at less favourable terms may have implications.



Business Model

Future performance

Liquidity

Solvency

- Ongoing dialogue with the Government and relevant stakeholders.
- The Indian Government has notified PSC extension policy for pre-NELP exploration blocks. This policy is applicable to 10 pre-NELP exploration blocks which includes Rajasthan (RJ-ON-90/1). Same is being studied.

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**Discovery risk**

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Increased production rates from our growth oriented operations place demand on exploration and prospecting initiatives to replace reserves and resources at a pace faster than depletion. A failure in our ability to discover new reserves, enhance existing reserves or develop new operations in sufficient quantities to maintain or grow the current level of our reserves could negatively affect our prospects. There are numerous uncertainties inherent in estimating ore and oil & gas reserves, and geological, technical and economic assumptions that are valid at the time of estimation. These may change significantly when new information becomes available.



Business Model

Future performance

- Strategic priority is to add to our reserves and resources by extending resources at a faster rate than we deplete them, through continuous focus on drilling and exploration programme.
- Appropriate organisation and adequate financial allocation in place for exploration.
- Dedicated exploration cell with continuous focus to enhance exploration capabilities.
- Exploration related systems being strengthened and new technologies being utilised wherever appropriate.
- International technical experts and agencies are working closely with our exploration team to build on this target.
- Continue to work towards long-term supply contracts with mines to secure sufficient supply where required.

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**Transitioning our zinc and lead mining operations from open pit to underground mining**

Our zinc and lead mining operations in India are transitioning from an open pit mining operation to an underground mining operation. Difficulties in managing this transition may result in challenges in achieving stated business milestones.



Future performance

Liquidity

- Strong separate empowered organisation working towards ensuring a smooth transition from open pit to underground mining.
- Internationally renowned engineering and technology partners on this project.
- Strong focus on safety aspects in the project.
- Geo-technical audits are being carried out by independent agencies.
- Reputable contractors have been engaged to ensure completion of the project on indicated time lines.
- Mines being developed using best in class technology and equipment and ensuring the highest level of productivity and safety.
- Stage gate process to review risks and remedy at multiple stages on the way. Robust quality control procedures have also been implemented to check safety and quality of services/design/actual physical work.

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**Fluctuation in commodity prices (including oil)**

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Prices and demand for the Group's products are expected to remain volatile/uncertain and strongly influenced by global economic conditions. Volatility in commodity prices and demand may adversely affect our earnings, cash flow and reserves.



Business Model

Future performance

Solvency

Liquidity

- Pursue low cost production, allowing profitable supply throughout the commodity price cycle
- Structured cost reduction programme delivering transformational improvements will reset our cost base to the lowest possible level.
- Continued focus on manpower rationalisation and deriving value out of procurement synergies across locations.
- Group has a well-diversified portfolio which acts as a hedge against fluctuations in commodities and delivers cash flows through the cycle.
- Vedanta considers exposure to commodity price fluctuations to be an integral part of the Group's business and its usual policy is to sell its products at prevailing market prices and not to enter into price hedging arrangements other than for businesses of custom smelting and purchased alumina, where back-to-back hedging is used to mitigate pricing risks.
- Group monitors the commodity markets closely to determine the effect of price fluctuations on earnings, capital expenditure and cash flows. The CFO Committee reviews all commodity-related risks and suggests necessary courses of action as needed by business divisions.
- Continued compliance with the groups treasury policies which govern our financial risk management practices
- Continuous focus is on cost control and cost reduction.

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**Currency exchange rate fluctuations**

Our assets, earnings and cash flows are influenced by a variety of currencies due to the diversity of the countries in which we operate. Fluctuations in exchange rates of those currencies may have an impact on our financials.



Business Model

Future performance

Solvency

Liquidity

- Forex policy prohibits speculation in forex.
- Developed robust controls in forex management to hedge currency risk liabilities on a back-to-back basis.
- CFO Committee reviews our forex-related matters periodically and suggests necessary courses of action as may be needed by businesses from time to time, and within the overall framework of our forex policy.
- Seek to mitigate the impact of short-term movements in currency on the businesses by hedging short-term exposures progressively based on their maturity. However, large or prolonged movements in exchange rates may have a material adverse effect on the Group's businesses, operating results, financial condition and/or prospects.
- At the time of borrowing decisions, appropriate sensitivity analysis is carried out for domestic borrowings vis-à-vis overseas borrowings.
- Notes to financial statements in the Annual Report give details of accounting policy followed in computation of currency translation impact. We continue to monitor the currency translation impact and highlight this separately in the financials to give appropriate perspective.

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**Tax related matters**

Our businesses are in a tax regime and change in any tax structure or any tax related litigation may impact our profitability.



Solvency

Liquidity

Reputation

- Robust organisation in place at Business Division and Group level to handle tax-related matters.
- Engage, consult and take opinion from reputable tax consulting firms. Reliance is placed on appropriate legal opinion and precedence.
- Continue to take appropriate legal opinions and actions on the tax matters to mitigate the impact of these actions on the Group and its subsidiaries.

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**Breaches in information/IT security**

Like many other global organisations, our 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. Security breaches could also result in misappropriation of funds or disruptions to our business operations. A cyber security breach could have an impact on business operations.



Future performance  
Reputation

- Chief Information Security Officer (CISO) at Group level focuses on formulating necessary frameworks, policies, procedures and for leading any agreed group wide initiatives to mitigate risks.
- Group level standards and policies to ensure uniformity in security stance & assessments
- Various initiatives taken up to strengthen IT/cyber security controls in last few years.
- Cyber security risk being addressed through increased standards, ongoing monitoring of threats and awareness initiatives throughout the organisation.
- IT system is in place to monitor logical access controls.
- Continue to carry out periodic IT security reviews by experts and improve IT security standards.

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**Political, legal and regulatory risk**

We have operations in many countries around the globe, which have varying degrees of political and commercial stability. The political, legal and regulatory regimes in the countries we operate in may result in higher operating costs, restrictions such as the imposition or increase in royalties or taxation rates, export duty, impact on mining rights/ban and change in legislation pertaining to repatriation of money. We may also be affected by the political acts of governments including resource nationalisation and legal cases in these countries over which we have no control.



Business Model  
Future performance  
Reputation

- Group and its business divisions monitor regulatory and political developments on an ongoing basis.
- BU teams identify and meet regulatory obligations and respond to emerging requirements.
- Focus has been to communicate our responsible mining credentials through representations to government and industry associations.
- Continue to demonstrate the Group's commitment to sustainability by proactive environmental, safety and CSR practices. Ongoing engagement with local community/media/NGOs on these matters.
- SOX compliant subsidiaries (Vedanta Ltd and its subsidiaries).
- Online portal for compliance monitoring. Appropriate escalation and review mechanisms are in place.
- Competent in-house legal organisation exists at all the businesses and the legal teams have been strengthened with induction of senior legal professionals at all businesses.
- Standard Operating Procedures (SOPs) have been implemented across businesses for compliance monitoring.
- Contract management framework has been strengthened with issue of boiler plate clauses across the group which will form part of all contracts. All key contract types standardized.
- Involvement of legal in decision making process is being reinforced.
- Framework for monitoring performance against Anti Bribery & Corruption guidelines is also in place.

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**Community relations**

The continued success of our existing operations and future projects are in part dependent upon broad support and a healthy relationship with the respective local communities. Failure to identify and manage local concerns and expectations can have a negative impact on relations with local communities and therefore affect the organisation's reputation and social licence to operate and grow.



Business Model

Future performance

HSEC

Reputation

- CSR approach to community programmes is governed by the following key considerations: the needs of the local people and the development plan in line with the new Companies Act in India, CSR guidelines, UN Millennium Development Goals (UNMDG) and also CSR National Voluntary Guidelines of Ministry of Corporate Affairs, Government of India and UN's sustainable development goals.
- Board level CSR Committee comprising Independent Directors, Full-Time Directors and CEO decides focus areas of CSR, budget and programmes of respective businesses.
- Sustainable development programmes are driven by stakeholder engagement and consultation along with baseline studies and need-based assessments.
- Periodic meetings with existing and potential SRI Investors, lenders and analysts and hosting of maiden Sustainable Development Day in London helps in two-way engagement and understanding the material issues for stakeholders.
- Every business has a dedicated CSR team. Key focus areas for CSR are health, nutrition, sanitation, education, sustainable livelihoods and female empowerment. Dedicated team of over 180 corporate social responsibility personnel.
- Help communities identify their priorities through participatory need assessment programmes and work closely with them to design programmes that seek to make progress towards improvements in quality of life of local communities.
- Our business leadership teams have periodic engagements with the local communities to build relations based on trust and mutual benefit. Our businesses seek to identify and minimise any potentially negative operational impacts and risks through responsible behaviour - acting transparently and ethically, promoting dialogue and complying with commitments to stakeholders.
- Integration of sustainability objectives into long term plans.

**Health, safety and environment (HSE)**

The resources sector is subject to extensive health, safety, and environmental laws, regulations and standards. Evolving regulations, standards and stakeholder expectations could result in increased cost, litigation or threaten the viability of operations in extreme cases.



HSEC

Business Model

Reputation

- Health, Safety and Environment (HSE) is a high priority area for Vedanta. Compliance with international and local regulations and standards, protecting our people, communities and the environment from harm and our operations from business interruptions are our key focus areas.
- Vedanta has a Board level Sustainability Committee chaired by a non-executive director and of which the group CEO is a member which meets periodically to discuss HSE performance.
- Appropriate policies and standards in place to mitigate and minimise any HSE related occurrences. Structured monitoring and a review mechanism and system of positive compliance reporting is in place.
- Company has implemented a set of standards to align its sustainability framework with international practice. A structured sustainability assurance programme continues to operate in the business divisions covering environment, health, safety, community relations and human rights aspects and to embed our commitment at operational level.
- HSE experts are also inducted from reputed Indian and global organisations to bring in best-in-class practices.
- All businesses have appropriate policies in place for occupational health related matters supported by structured processes, controls and technology. Our operations ensure the issue of operational health and potential

risk/obligations are carefully handled. Depending on the nature of the exposure and surrounding risk, our operations have different levels of processes, controls and monitoring mechanisms.

- Strong focus on safety during project planning/execution with adequate oversight of contract workmen safety.
- Report, investigate and share learnings from HSE incidents. Fatal accidents and injury rates have declined.
- Building safety targets into performance management to incentivise safe behaviour and effective risk management
- Leadership coaching being rolled out across businesses to make better risk decisions.
- High potential actions closure and standards implementation discussed at Executive Committee level.
- Critical environment controls being reviewed including measure, monitor and report requirements.
- Leadership remains focused on a Zero-Harm culture across the organisation. Consistent application of 'Life-Saving' performance standards, introduction of making better risk decisions concept, quantitative risk assessments for critical risks and the formal identification of process safety risks with the focus on the implementation of controls are central to our improvement programme. We continue to improve on our safety investigations and follow-up processes.

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**Talent/skill shortage risk**

The Company's efforts to continue its growth and efficient operations will place significant demand on its management resources. Our highly skilled workforce and experienced management team is critical to maintaining its current operations, implementing its development projects and achieving longer-term growth. Any significant loss or diminution in the collective pool of Vedanta's executive management or other key team members could have a material effect on its businesses, operating results and future prospects.



Future performance

Reputation

- Progressive HR policies and strong HR leadership have ensured that career progression, job rotation and job enrichment are focus areas for our businesses.
- Continue to invest in initiatives to widen our talent pool. This is a priority area for the group.
- Senior leadership actively involved in development of talent pool.
- Talent management system in place to identify and develop internal candidates for critical management positions and processes to identify suitable external candidates.
- Manpower optimisation across businesses ensuring proper skill development of employees.
- Our performance management system is designed to provide reward and remuneration structures and personal development opportunities to attract and retain key employees.
- Structured programme maps critical positions and ensures all such positions are filled with suitable candidates.
- Established the Mining Academy in Rajasthan to develop an employee pool with enhanced underground mining skills.
- Structured programme to develop a technically proficient employee pool.
- Continued focus on improving diversity at all levels.

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**Loss of assets or profit due to natural calamities**



Our operations may be subject to a number of circumstances not wholly within the Group's control. These include damage to or breakdown of equipment or infrastructure, unexpected geological variations or technical issues, extreme weather conditions and natural disasters, any of which could adversely affect production and/or costs.



Future performance  
Reputation

- Vedanta has taken appropriate Group insurance cover to mitigate this risk.
- External agency reviews the risk portfolio and adequacy of this cover and assists us in our insurance portfolio.
- Our underwriters are reputed institutions and have capacity to underwrite our risk.
- Established mechanism of periodic insurance review in place at all entities. However, any occurrence not fully covered by insurance could have an adverse effect on the Group's business.
- Continue to focus on capability building within the Group.

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**Tailings Dam Failure**

A release of waste material leading to loss of life, injuries, environmental damage, reputational damage, financial costs and production impacts.



Future performance  
Reputation  
HSEC  
Business Model

Tailings dam failure is considered a catastrophic risk - i.e. a very high severity but very low frequency event that must be treated with the highest priority.

- The Risk Management Committee included tailings dams on the Group Risk Register with a requirement for annual internal review and three-yearly external review.
- Operation of tailings dams by suitable experienced personnel within the businesses.
- Periodic audit of tailings dam facilities.
- Management standard developed with business involvement.
- Individuals responsible for dam management have received training from reputed agency.
- Third-party expert assessment of the dams to identify tailings dams related risks largely completed across the group by reputable international firm and improvement opportunities / remedial work in line with best practice identified.
- Options to provide ongoing assurance are being assessed.
- "Dam Break" analysis being done to determine the impact should a dam fail and indicate the actions required to protect communities.
- Businesses ensuring ongoing management of all tailings facilities with Risk Management Committee oversight.

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**Emissions and climate change**

Our global presence exposes us to a number of jurisdictions in which regulations or laws have been or are being considered to limit or reduce emissions. The likely effect of these changes will be to increase the cost for fossil fuels, impose levies for emissions in excess of certain permitted levels and increased administrative costs for monitoring and reporting.



Business Model  
Future performance  
HSEC  
Reputation

- Carbon forum with business representation established in October 2016. Forum to monitor developments and set out defensive policies, strategy and actions.
    - Defining targets and implementing action plans to reduce the carbon intensity of our operations. This will include:
    - Reduce emission intensity through technology, energy conservation and efficiency
    - Increase renewable mix to the extent feasible
    - Increase green cover at our locations
  - Engaging with government on carbon policies and innovation technologies.
  - Facilitate development and implementation of the adaptive measures in the community around our operations.
  - Institutionalize system to manage carbon risks and opportunities across the business over the life cycle of its products.
  - Engage with stakeholders in creating awareness and developing climate change solutions.
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Increasing regulation of greenhouse gas (GHG) emissions, including the progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets is likely to raise costs and reduce demand growth.

- Monitor and report carbon emissions from the businesses in line with local standards as well as accepted international standards.
  - Increasing focus on renewable power obligations.
  - Regarding emission norm related guidelines, focused strategy in place to address the issue.
-

## Financial Statements for the Year Ended 31 March 2017

### CONSOLIDATED INCOME STATEMENT

*(US\$ million except as stated)*

	Year ended 31 March 2017				Year ended 31 March 2016		
	Note	Before Special items	Special items	Total	Before Special items	Special items	Total
Revenue	5	11,520.1	-	11,520.1	10,737.9	-	10,737.9
Cost of sales		(8,789.2)	-	(8,789.2)	(9,241.1)	-	(9,241.1)
<b>Gross profit</b>		<b>2,730.9</b>	<b>-</b>	<b>2,730.9</b>	<b>1,496.8</b>	<b>-</b>	<b>1,496.8</b>
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	6	-	(17.3)	(17.3)	-	(5,210.1)	(5,210.1)
<b>Operating profit/ (loss)</b>		<b>2,160.6</b>	<b>(17.3)</b>	<b>2,143.3</b>	<b>881.2</b>	<b>(5,210.1)</b>	<b>(4,328.9)</b>
Investment revenue	7	642.6	-	642.6	697.8	-	697.8
Finance costs	8	(1,382.2)	-	(1,382.2)	(1,280.4)	-	(1,280.4)
Other gains and (losses) [net]	9	(23.8)	-	(23.8)	(72.5)	-	(72.5)
<b>Profit/ (loss) before taxation (a)</b>		<b>1,397.2</b>	<b>(17.3)</b>	<b>1,379.9</b>	<b>226.1</b>	<b>(5,210.1)</b>	<b>(4,984.0)</b>
Tax credit/ (expense)- special items	10	-	(4.9)	(4.9)	-	1,737.4	1,737.4
Net tax expense- others	10	(495.4)	-	(495.4)	(255.5)	-	(255.5)
<b>Net tax credit/ (expense) (b)</b>	10	<b>(495.4)</b>	<b>(4.9)</b>	<b>(500.3)</b>	<b>(255.5)</b>	<b>1,737.4</b>	<b>1,481.9</b>
<b>Profit/ (loss) for the year from continuing operations (a+b)</b>		<b>901.8</b>	<b>(22.2)</b>	<b>879.6</b>	<b>(29.4)</b>	<b>(3,472.7)</b>	<b>(3,502.1)</b>
<b>Attributable to:</b>							
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)

Vedanta Resources plc

Financial Statements For The Year Ended 31 March 2017

<b>Profit/ (loss) for the year from continuing operations</b>		<b>901.8</b>	<b>(22.2)</b>	<b>879.6</b>	<b>(29.4)</b>	<b>(3,472.7)</b>	<b>(3,502.1)</b>
<b>Loss per share (US cents)</b>							
Basic loss per ordinary share	11	(2.5)	(5.7)	(8.2)	(142.4)	(523.4)	(665.8)
Diluted loss per ordinary share	11	(2.5)	(5.7)	(8.2)	(142.4)	(523.4)	(665.8)

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	<i>(US\$ million)</i>	
	Year ended 31 March 2017	Year ended 31 March 2016
<b>Profit/(Loss) for the year from continuing operations</b>	<b>879.6</b>	<b>(3,502.1)</b>
<b>Income and expenses recognised directly in equity:</b>		
<b>Items that will not be reclassified subsequently to income statement:</b>		
Remeasurement of net defined benefit plans	(0.8)	8.0
Tax effects on net defined benefit plans	0.6	(2.5)
<b>Total (a)</b>	<b>(0.2)</b>	<b>5.5</b>
<b>Items that may be reclassified subsequently to income statement:</b>		
Exchange differences arising on translation of foreign operations	216.3	(810.2)
Gain in fair value of available-for-sale financial assets	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
<b>Total (b)</b>	<b>216.2</b>	<b>(836.6)</b>
<b>Other comprehensive income/(loss) for the year (a+b)</b>	<b>216.0</b>	<b>(831.1)</b>
<b>Total comprehensive income/(loss) for the year</b>	<b>1,095.6</b>	<b>(4,333.2)</b>
Attributable to:		
Equity holders of the parent	64.5	(2,223.6)
Non-controlling interests	1,031.1	(2,109.6)
<b>Total comprehensive income/ (loss) for the year</b>	<b>1,095.6</b>	<b>(4,333.2)</b>

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(US\$ million)

	Note	As at 31 March 2017	As at 31 March 2016
<b>Assets</b>			
<b>Non-current assets</b>			
Goodwill		16.6	16.6
Intangible assets		95.6	92.2
Property, plant and equipment		16,806.1	16,647.8
Financial asset investments		10.7	6.5
Non-current tax assets		434.6	361.7
Other non-current assets		544.4	237.9
Financial instruments (derivatives)		0.6	0.8
Deferred tax assets		1,111.0	1,255.4
		<b>19,019.6</b>	<b>18,618.9</b>
<b>Current assets</b>			
Inventories		1,670.1	1,365.8
Trade and other receivables		1,084.8	1,344.3
Financial instruments (derivatives)		1.6	18.3
Current tax assets		2.1	35.5
Liquid investments	13	8,043.0	8,508.2
Cash and cash equivalents	14	1,682.2	428.3
		<b>12,483.8</b>	<b>11,700.4</b>
<b>Total assets</b>		<b>31,503.4</b>	<b>30,319.3</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Short term borrowings	15	(7,658.5)	(3,726.6)
Convertible bonds		-	(587.2)
Trade and other payables		(6,223.4)	(5,876.1)
Financial instruments (derivatives)		(126.9)	(67.7)
Retirement benefits		(7.5)	(4.9)
Provisions		(17.5)	(132.1)
Current tax liabilities		(37.8)	(17.0)
		<b>(14,071.6)</b>	<b>(10,411.6)</b>
<b>Net current (liabilities)/assets</b>		<b>(1,587.8)</b>	<b>1,288.8</b>
<b>Non-current liabilities</b>			
Medium and long-term borrowings	15	(10,570.2)	(11,949.5)
Trade and other payables		(68.5)	(223.5)
Financial instruments (derivatives)		(8.6)	(1.2)
Deferred tax liabilities		(371.1)	(620.2)
Retirement benefits		(59.6)	(61.6)
Provisions		(327.3)	(187.4)
Non equity non-controlling interests		(11.9)	(11.9)
		<b>(11,417.2)</b>	<b>(13,055.3)</b>
<b>Total liabilities</b>		<b>(25,488.8)</b>	<b>(23,466.9)</b>
<b>Net assets</b>		<b>6,014.6</b>	<b>6,852.4</b>
<b>Equity</b>			
Share capital		30.1	30.1
Share premium		201.5	201.5
Treasury shares		(557.9)	(557.2)
Share-based payment reserve		28.2	29.9
Convertible bond reserve		-	6.0
Hedging reserve		(90.9)	(87.7)

**Vedanta Resources plc**  
**Financial Statements For The Year Ended 31 March 2017**

	Note	As at 31 March 2017	As at 31 March 2016
Other reserves		140.5	(1.4)
Retained earnings		(160.0)	(334.0)
Equity attributable to equity holders of the parent		(408.5)	(712.8)
Non-controlling interests		6,423.1	7,565.2
<b>Total equity</b>		<b>6,014.6</b>	<b>6,852.4</b>

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

		<i>(US\$ million)</i>	
	Note	Year ended 31 March 2017	Year ended 31 March 2016
<b>Operating activities</b>			
Profit / (loss) before taxation		1,379.9	(4,984.0)
<b>Adjustments for:</b>			
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
<b>Operating cash flows before movements in working capital</b>		<b>3,219.7</b>	<b>2,337.6</b>
(Increase) / decrease in inventories		(266.7)	163.7
Decrease in receivables		18.8	343.3
Increase in payables		522.3	657.4
<b>Cash generated from operations</b>		<b>3,494.1</b>	<b>3,502.0</b>
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)
<b>Net cash inflow from operating activities</b>		<b>1,457.6</b>	<b>2,401.7</b>
<b>Cash flows from investing activities</b>			
Purchases of property, plant and equipment and intangibles		(873.9)	(872.4)
Proceeds on disposal of property, plant and equipment		25.2	10.0
Proceeds from redemption of liquid investments	16	15,284.8	15,839.7
Purchases of liquid investments	16	(14,363.3)	(16,839.6)
<b>Net cash from / (used in) investing activities</b>		<b>72.8</b>	<b>(1,862.3)</b>
<b>Cash flows from financing activities</b>			
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	16	46.1	32.5
Proceeds from other short-term borrowings	16	11,335.8	6,353.2
Repayment of other short-term borrowings	16	(10,803.0)	(7,407.8)
Buyback of non-convertible bond	16	(858.5)	(7.0)
Proceeds from medium and long-term borrowings	16	2,146.4	2,383.2
Repayment of medium and long-term borrowings	16	(205.9)	(951.0)
Buyback/repayment of convertible bond		(590.3)	(523.6)
<b>Net cash from / (used in) financing activities</b>		<b>(343.2)</b>	<b>(446.8)</b>
<b>Net increase / (decrease) in cash and cash equivalents</b>	16	1,187.2	92.6
Effect of foreign exchange rate changes	16	66.7	(18.0)
Cash and cash equivalents at beginning of the year		428.3	353.7
<b>Cash and cash equivalents at end of the year</b>	14 & 16	<b>1,682.2</b>	<b>428.3</b>



## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(US\$ million)

	Attributable to equity holders of the Company								Total	Non-controlling Interests	Total equity
	Share capital	Share premium	Treasury Shares	Share-based payment reserves	Convertible bond reserve	Hedging reserve	Other reserves <sup>(1)</sup>	Retained earnings			
<b>At 1 April 2016</b>	30.1	201.5	(557.2)	29.9	6.0	(87.7)	(1.4)	(334.0)	(712.8)	7,565.2	6,852.4
Profit for the year	-	-	-	-	-	-	-	(22.7)	(22.7)	902.3	879.6
Other comprehensive income for the year	-	-	-	-	-	(3.2)	90.4	-	87.2	128.8	216.0
<b>Total comprehensive income/ (loss) for the year</b>	-	-	-	-	-	(3.2)	90.4	(22.7)	64.5	1,031.1	1,095.6
Acquisition of shares under DSBP scheme	-	-	(0.8)	-	-	-	-	(1.2)	(2.0)	-	(2.0)
Convertible bond transfer	-	-	-	-	(6.0)	-	-	6.0	-	-	-
Transfers <sup>(1)</sup>	-	-	-	-	-	-	51.5	(51.5)	-	-	-
Dividends paid/ payable (note 12)	-	-	-	-	-	-	-	(137.5)	(137.5)	(1,340.1)	(1,477.6)
Exercise of stock options	0.0	-	0.1	(15.1)	-	-	-	15.0	-	-	0.0
Recognition of share-based payment	-	-	-	13.4	-	-	-	-	13.4	-	13.4
Change in non-controlling interest- merger (note 17)	-	-	-	-	-	-	-	368.4	368.4	(817.1)	(448.7)
Other changes in non-controlling interests*	-	-	-	-	-	-	-	(2.5)	(2.5)	(16.0)	(18.5)
<b>At 31 March 2017</b>	30.1	201.5	(557.9)	28.2	-	(90.9)	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.

(US\$ million)

	Attributable to equity holders of the Company								Total	Non-controlling Interests	Total equity
	Share capital	Share premium	Treasury Shares	Share-based payment reserves	Convertible bond reserve	Hedging reserve	Other reserves <sup>(1)</sup>	Retained earnings			
<b>At 1 April 2015</b>	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)
<b>Total comprehensive loss for the year</b>	-	-	-	-	-	(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	-	-	-	-	(24.6)	-	-	24.6	-	-	-
Conversion of bond into equity	0.0	3.0	-	-	(0.1)	-	-	-	2.9	-	2.9
Convertible bond buy back	-	-	-	-	(7.7)	-	-	5.1	(2.6)	-	(2.6)
Transfers <sup>(1)</sup>	-	-	-	-	-	-	31.9	(31.9)	-	-	-
Dividends paid/ payable (note 12)	-	-	-	-	-	-	-	(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	-	-	-	15.6	-	-	-	-	15.6	-	15.6

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Others <sup>(3)</sup>	-	-	-	-	-	-	-	3.2	3.2	3.2	
<b>At 31 March 2016</b>	<b>30.1</b>	<b>201.5</b>	<b>(557.2)</b>	<b>29.9</b>	<b>6.0</b>	<b>(87.7)</b>	<b>(1.4)</b>	<b>(334.0)</b>	<b>(712.8)</b>	<b>7,565.2</b>	<b>6,852.4</b>

OTHER RESERVES COMPRISE<sup>(1)</sup>

(US\$ million)

	Currency translation reserve	Merger reserve <sup>(2)</sup>	Investment revaluation reserve	General reserves <sup>(4)</sup>	Total
<b>At 1 April 2015</b>	<b>(1,876.5)</b>	<b>4.4</b>	<b>2.6</b>	<b>2,209.4</b>	<b>339.9</b>
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
<b>At 1 April 2016</b>	<b>(2,255.2)</b>	<b>4.4</b>	<b>4.1</b>	<b>2,245.3</b>	<b>(1.4)</b>
Exchange differences on translation of foreign operations	87.9	-	-	-	87.9
Gain in fair value of available-for-sale financial assets	-	-	2.5	-	2.5
Remeasurements	-	-	-	0.0	0.0
Transfer from retained earnings <sup>(1)</sup>	-	-	-	51.5	51.5
<b>At 31 March 2017</b>	<b>(2,167.3)</b>	<b>4.4</b>	<b>6.6</b>	<b>2,296.8</b>	<b>140.5</b>

(1) Transfer to general reserve during the Year ended 31 March 2017 and 31 March 2016 includes US\$51.5 million and US\$31.9 million of debenture redemption reserve respectively.

(2) 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.

(3) Others: US\$3.2 million of tax refund received on appropriation of reserves in BALCO during the year 2015-16 (2016-17 : Nil).

(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 PRELIMINARY ANNOUNCEMENT

### 1. General information and accounting policies

This preliminary results announcement is for the year ended 31 March 2017. While the financial information contained in this preliminary results announcement has been prepared in accordance with the recognition and measurement criteria of International Financial Reporting Standards ("IFRS"), this announcement does not itself contain sufficient information to comply with IFRS. For these purposes, IFRS comprise the Standards issued by the International Accounting Standards Board ("IASB") and Interpretations issued by the IFRS Interpretations Committee ("IFRIC") that have been endorsed by the European Union. The financial information contained in the preliminary announcement has been prepared on the same basis of accounting policies as set out in the previous financial statements. The Company expects to publish full financial statements that comply with IFRSs in July, 2017.

### Going Concern

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the Operational and Financial Review. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Finance Review on pages 15 to 30.

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+ and B1 respectively, with Stable outlook both from Standard and Poor's and Moody's. 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.

The Board is satisfied that the Group's forecasts and projections, taking into account reasonably possible changes in trading performance on cash flows and forecast covenant compliance, the transferability of cash within the Group, the flexibility the Group has over the timings of its capital expenditure and other uncertainties, show that the Group will be able to operate within the level of its current facilities for the foreseeable future. For these reasons the Group continues to adopt the going concern basis in preparing its financial statements. Management had renegotiated certain financial covenants in previous year, which have been modified until September 2018.

After making enquiries, the Directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the Annual Report and Accounts.

### 2. Compliance with applicable law and IFRS

The financial information contained in this preliminary results announcement has been prepared on the going concern basis. This preliminary results announcement does not constitute the

Group's statutory accounts as defined in section 434 of the Companies Act 2006 (the "Act") but is derived from those accounts. The statutory accounts for the year ended 31 March 2017 have been approved by the Board and will be delivered to the Registrar of Companies following the Company's Annual General Meeting which will be held on 14 August 2017. The auditors have reported on those accounts and their report was unqualified, with no matters by way of emphasis, and did not contain statements under section 498(2) of the Act (regarding adequacy of accounting records and returns) or under section 498(3) (regarding provision of necessary information and explanations). The information contained in this announcement for the year ended 31 March 2016 also does not constitute statutory accounts. A copy of the statutory accounts for that year has been delivered to the Registrar of Companies. The auditors' report on those accounts was unqualified, with no matters by way of emphasis, and did not contain statements under sections 498(2) or (3) of the Companies Act 2006.

### **3. 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 6.

### (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 6.

### (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 6.

### (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 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 6.

#### **(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.

#### **(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.

#### **(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. 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.

#### 4. 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.

Vedanta Resources plc  
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(a) Reportable segments

Year ended 31 March 2017

(US\$ million)

	Zinc-India	Zinc- International	Oil and gas	Iron Ore	Copper-India/ Australia	Copper- Zambia	Aluminium	Power	Total reportable segment	Others	Eliminatio n	Total operations
<b>REVENUE</b>												
Sales to external customers	2,521.9	332.4	1,222.7	609.3	3,131.4	830.1	2,037.1	822.6	11,507.5	12.6	-	11,520.1
Inter-segment sales <sup>(3)</sup>	3.1	-	-	6.1	2.3	44.2	2.9	13.3	71.9	1.0	(72.9)	-
<b>Segment revenue</b>	<b>2,525.0</b>	<b>332.4</b>	<b>1,222.7</b>	<b>615.4</b>	<b>3,133.7</b>	<b>874.3</b>	<b>2,040.0</b>	<b>835.9</b>	<b>11,579.4</b>	<b>13.6</b>	<b>(72.9)</b>	<b>11,520.1</b>
<b>Segment Result</b>												
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)	-	3,191.1
Depreciation and amortisation <sup>(2)</sup>	(149.2)	(27.5)	(411.0)	(69.9)	(28.9)	(113.3)	(141.0)	(88.2)	(1,029.0)	(1.5)	-	(1,030.5)
Special items	-	-	12.6	-	-	-	(29.9)	-	(17.3)	-	-	(17.3)
<b>Operating profit</b>	<b>1,274.0</b>	<b>110.8</b>	<b>198.8</b>	<b>124.3</b>	<b>223.3</b>	<b>(107.4)</b>	<b>173.3</b>	<b>156.6</b>	<b>2,153.7</b>	<b>(10.4)</b>	<b>-</b>	<b>2,143.3</b>
Investment revenue												642.6
Finance costs												(1,382.2)
Other gains and (losses) [net]												(23.8)
<b>PROFIT BEFORE TAXATION</b>												<b>1,379.9</b>
Segments assets	2,422.7	553.2	2,548.9	1,409.0	1,183.5	2,006.8	7,103.5	2,837.5	20,065.1	85.6	-	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
<b>TOTAL ASSETS</b>												<b>31,503.4</b>
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)	-	(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)
<b>TOTAL LIABILITIES</b>												<b>(25,488.8)</b>
<b>Other segment information</b>												
Additions to property, plant and equipment	324.2	72.3	151.9	10.5	24.2	28.2	285.8	79.0	976.1	-	-	976.1
Impairment losses	-	-	12.6	-	-	-	(29.9)	-	(17.3)	-	-	(17.3)

(1) EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax.

(2) Depreciation and amortisation is also provided to the chief operating decision maker on a regular basis.

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*(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

(US\$ million)

	Zinc-India	Zinc- International	Oil and gas	Iron Ore	Copper-India/ Australia	Copper- Zambia	Aluminium	Power	Total reportable segment	Others	Elimination	Total operation s
<b>REVENUE</b>												
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)	-
<b>Segment revenue</b>	<b>2,111.0</b>	<b>391.5</b>	<b>1,322.3</b>	<b>350.0</b>	<b>3,197.2</b>	<b>972.5</b>	<b>1,694.3</b>	<b>707.5</b>	<b>10,746.3</b>	<b>23.8</b>	<b>(32.2)</b>	<b>10,737.9</b>
<b>Segment Result</b>												
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>	(119.9)	(56.4)	(826.3)	(62.5)	(32.3)	(179.5)	(101.8)	(74.1)	(1,452.8)	(2.4)	-	(1,455.2)
Special items	(4.6)	(0.3)	(4,934.2)	(252.4)	(7.6)	(0.5)	(10.5)	-	(5,210.1)	-	-	(5,210.1)
<b>Operating profit / (loss)</b>	<b>870.5</b>	<b>11.4</b>	<b>(5,190.1)</b>	<b>(241.5)</b>	<b>296.7</b>	<b>(197.9)</b>	<b>(5.6)</b>	<b>122.2</b>	<b>(4,334.3)</b>	<b>5.4</b>	<b>-</b>	<b>(4,328.9)</b>
Investment revenue												697.8
Finance costs												(1,280.4)
Other gains and (losses) [net]												(72.5)
<b>LOSS BEFORE TAXATION</b>												<b>(4,984.0)</b>
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	-	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
<b>TOTAL ASSETS</b>												<b>30,319.3</b>
Segment liabilities	(442.7)	(125.8)	(803.6)	(172.2)	(1,974.5)	(591.9)	(682.2)	(572.1)	(5,365.0)	(37.8)	-	(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)
<b>TOTAL LIABILITIES</b>												<b>(23,466.9)</b>
<b>Other segment information</b>												
Additions to property, plant and equipment	239.9	58.5	214.3	14.8	18.4	27.6	119.6	50.3	743.4	7.3	-	750.7
Impairment losses	-	-	(4,934.2)	(245.2)	(7.6)	-	-	-	-	-	-	(5,187.0)

\* 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.

## 4. 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 31 March 2017	Percentage	Year ended 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%
<b>Total</b>	<b>11,520.1</b>	<b>100%</b>	<b>10,737.9</b>	<b>100%</b>

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 amount of non-current assets(1)		Additions to property, plant and equipment	
	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
<b>Total</b>	<b>17,473.4</b>	<b>17,001.0</b>	<b>976.1</b>	<b>750.7</b>

(1) 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.

## 5. Total Revenue

*(US\$ million)*

	Year ended 31 March 2017	Year ended 31 March 2016
Sale of products (including excise duty)	11,998.7	11,151.5
Less: Excise duty	(588.2)	(569.9)
<b>Sale of products (net of excise duty)</b>	<b>11,410.5</b>	<b>10,581.6</b>
Sale of services	71.4	102.8
Export incentives	38.2	53.5
<b>Total Revenue</b>	<b>11,520.1</b>	<b>10,737.9</b>

## 6. Special items

(US\$ million)

	Year ended 31 March 2017			Year ended 31 March 2016		
	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
<b>Impairment of oil &amp; gas assets<sup>(1)(a)</sup></b>	12.6	(4.9)	9.7	(4,934.2)	1,903.3	(3,030.9)
Impairment of mining reserves and assets						
<b>Iron ore<sup>(1)(b)</sup></b>	-	-	-	(245.2)	-	(245.2)
<b>Copper<sup>(1)(c)</sup></b>				(7.6)	-	(7.6)
<b>Aluminium<sup>(1)(d)</sup></b>	(29.9)	-	(29.9)	-	-	-
<b>Total impairment charge</b>	<b>(17.3)</b>	<b>(4.9)</b>	<b>(22.2)</b>	<b>(5,187.0)</b>	<b>1,903.3</b>	<b>(3,283.7)</b>
<b>Voluntary retirement schemes (redundancy costs)<sup>(2)</sup></b>	-	-	-	(23.1)	7.9	(15.2)
<b>Special tax item<sup>(3)</sup></b>	-	-	-	-	(173.8)	(173.8)
<b>Special items</b>	<b>(17.3)</b>	<b>(4.9)</b>	<b>(22.2)</b>	<b>(5,210.1)</b>	<b>1,737.4</b>	<b>(3,472.7)</b>

- 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. 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 the year 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.
2. 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.

## 7. Investment revenue

	<i>(US\$ million)</i>	
	Year ended 31 March 2017	Year ended 31 March 2016
Fair value gain on financial assets held for trading	483.5	541.3
<b>Interest Income:</b>		
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
<b>Dividend Income:</b>		
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
	<b>642.6</b>	<b>697.8</b>

## 8. Finance costs

	<i>(US\$ million)</i>	
	Year ended 31 March 2017	Year ended 31 March 2016
<b>Interest cost:</b>		
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	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	(99.7)	(75.6)
	<b>1,382.2</b>	<b>1,280.4</b>

All borrowing costs are capitalised using rates based on specific borrowings with the interests ranging between of 3.3% to 9.1% per annum.

## 9. Other gains and (losses) (net)

	<i>(US\$ million)</i>	
	Year ended 31 March 2017	Year ended 31 March 2016
Gross foreign exchange (losses)	(16.4)	(103.7)
Qualifying exchange losses capitalised	1.9	10.1
Net foreign exchange (losses)	<b>(14.5)</b>	<b>(93.6)</b>
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
	<b>(23.8)</b>	<b>(72.5)</b>

## 10. Tax

	<i>(US\$ million)</i>	
	Year ended 31 March 2017	Year ended 31 March 2016
<b>Current tax:</b>		
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	<b>588.0</b>	<b>536.7</b>



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<b>Deferred tax:</b>		
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 6)	4.9	(1,911.2)
Deferred tax charge/(reversal) due to change in tax regime in Zambia	-	173.8
<b>Total deferred tax</b>	<b>(87.7)</b>	<b>(2,018.6)</b>
<b>Net tax expense/(credit)</b>	<b>500.3</b>	<b>(1,481.9)</b>
<b>Effective tax rate</b>	<b>36.2%</b>	<b>29.7%</b>

## Tax expense

	<i>(US\$ million)</i>	
	<b>Year ended 31 March 2017</b>	<b>Year ended 31 March 2016</b>
Tax effect of special items (note 6)	4.9	(1,911.2)
Deferred tax charge/ (reversal) due to change in tax regime in Zambia (note 6)	-	173.8
Net tax expense/ (credit)	<b>4.9</b>	<b>(1,737.4)</b>
Tax expense - others	495.4	255.5
Net tax expense/ (credit)	<b>500.3</b>	<b>(1,481.9)</b>

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.

	<i>(US\$ million)</i>	
	<b>Year ended 31 March 2017</b>	<b>Year ended 31 March 2016</b>
Accounting profit/(loss) before tax	1,379.9	<b>(4,984.0)</b>
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	<b>(1,481.9)</b>

\* Includes US\$173.8 million due to change in tax regime in Zambia (note 6) 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).

## **11. 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 31 March 2017	Year ended 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	-
<b>Adjusted weighted average number of shares of the Company in issue (million)</b>	<b>282.3</b>	<b>276.0</b>

## 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
<b>Loss per share on loss for the year (US cents per share)</b>	<b>(8.2)</b>	<b>(665.8)</b>

### 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)	(22.7)	(1,837.4)
Adjusted weighted average number of shares of the Company in issue (million)	277.3	276.0
<b>Diluted loss per share on loss for the year (US cents per share)</b>	<b>(8.2)</b>	<b>(665.8)</b>

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 9) 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 31 March 2017	Year ended 31 March 2016
Loss for the year attributable to equity holders of the parent	(22.7)	(1,837.4)
Special items	6	5,210.1
Other (gains)/losses [net]	9	72.5
Tax and non-controlling interest effect of special items (including taxes classified as special items) and other losses/ (gains)	(15.4)	(3,809.3)
<b>Underlying attributable profit/ (loss) for the year</b>	<b>3.0</b>	<b>(364.1)</b>

**Basic earnings/ (loss) per share on Underlying profit/ (loss) for the year (Non-GAAP)**

	<i>(US\$ million except as stated)</i>	
	<b>Year ended</b>	<b>Year ended</b>
	<b>31 March 2017</b>	<b>31 March 2016</b>
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
<b>Earnings/ (Loss) per share on Underlying loss for the year (US cents per share)</b>	<b>1.1</b>	<b>(131.9)</b>

**Diluted earnings/ (loss) per share on Underlying profit/ (loss) for the year (Non-GAAP)**

	<i>(US\$ million except as stated)</i>	
	<b>Year ended</b>	<b>Year ended</b>
	<b>31 March 2017</b>	<b>31 March 2016</b>
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
<b>Diluted earnings/ (Loss) per share on Underlying loss for the year (US cents per share)</b>	<b>1.1</b>	<b>(131.9)</b>

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 anti-dilutive 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.

## 12. Dividends

	<i>(US\$ million)</i>	
	<b>Year ended</b>	<b>Year ended</b>
	<b>31 March</b>	<b>31 March</b>
	<b>2017</b>	<b>2016</b>
Amounts recognised as distributions to equity holders:		
<b>Equity dividends on ordinary shares:</b>		
Final dividend for 2015-16: 30.0 US cents per share (2014-15: 40.0 US cents per share)	82.8	110.6
Interim dividend paid during the year: 20.0 US cents per share (2015-16: Nil)	55.6	-
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

## 13. Liquid investments

	<i>(US\$ million)</i>	
	<b>As at</b>	<b>As at</b>

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**Financial Statements For The Year Ended 31 March 2017**

	<b>31 March 2017</b>	<b>31 March 2016</b>
Bank deposits <sup>(1)</sup>	882.6	530.3
Other investments	7,160.4	7,977.9
	<b>8,043.0</b>	<b>8,508.2</b>

*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.

## **14. Cash and cash equivalents**

	<i>(US\$ million)</i>	
	<b>As at</b>	<b>As at</b>
	<b>31 March 2017</b>	<b>31 March 2016</b>
<i><b>Cash and cash equivalents consist of the following</b></i>		
Cash at bank and in hand	1,323.7	217.2
Short-term deposits	185.3	166.3
Restricted cash and cash equivalents <sup>(1)</sup>	173.2	44.8
<b>Total</b>	<b>1,682.2</b>	<b>428.3</b>

*(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.

## 15. Borrowings

	<i>(US\$ million)</i>	
	<b>As at</b>	<b>As at</b>
	<b>31 March 2017</b>	<b>31 March 2016</b>
<b>Short-term borrowings consist of:</b>		
Banks and financial institutions	5,587.9	1,803.4
Current portion of medium and long-term borrowings	2,070.6	1,923.2
<b>Short-term borrowings (A)</b>	<b>7,658.5</b>	<b>3,726.6</b>
<b>Medium and long-term borrowings consist of:</b>		
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 17)	464.2	-
Other	14.4	13.6
<b>Medium and Long-term borrowings</b>	<b>12,640.8</b>	<b>13,872.7</b>
Less: Current portion of medium and long-term borrowings	(2,070.6)	(1,923.2)
<b>Medium and long-term borrowings, net of current portion (B)</b>	<b>10,570.2</b>	<b>11,949.5</b>
<b>Total (A+B)</b>	<b>18,228.7</b>	<b>15,676.1</b>

16. Movement in net debt<sup>(1)</sup>

(US\$ million)

	Cash and cash equivalents	Liquid investments	Total cash and liquid investments	Debt due within one year		Debt due after one year		Total Net Debt
				Debt carrying value	Debt carrying value	Debt-related derivatives <sup>(2)</sup>		
<b>At 1 April 2015</b>	<b>353.7</b>	<b>7,856.1</b>	<b>8,209.8</b>	<b>(3,179.2)</b>	<b>(13,488.6)</b>	<b>(2.3)</b>	<b>(8,460.3)</b>	
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)	
<b>At 1 April 2016</b>	<b>428.3</b>	<b>8,508.2</b>	<b>8,936.5</b>	<b>(4,313.8)</b>	<b>(11,949.5)</b>	<b>(2.0)</b>	<b>(7,328.8)</b>	
Cash flow	1,187.2	(921.5)	265.7	74.1	(1,144.6)	-	(804.8)	
Other non-cash changes <sup>(3)</sup>	-	321.0	321.0	(3,266.6)	2,643.4	2.0	(300.2)	
Foreign exchange differences	66.7	135.3	202.0	(152.2)	(119.5)	-	(69.7)	
<b>At 31 March 2017</b>	<b>1,682.2</b>	<b>8,043.0</b>	<b>9,725.2</b>	<b>(7,658.5)</b>	<b>(10,570.2)</b>	<b>-</b>	<b>(8,503.5)</b>	

(1) 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.

(2) Debt related derivatives exclude derivative financial assets and liabilities relating to commodity contracts and forward foreign currency contracts.

(3) 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.



## 17. 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 INR 10 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.

## Other information

### Alternative performance measures

#### *Introduction*

Vedanta Group is committed to providing timely and clear information on financial and operational performance to investors, lenders and other external parties, in the form of annual reports, disclosures, RNS feeds and other communications. We regard high standards of disclosure as critical to business success.

Alternative Performance Measure (APM) is an evaluation metric of financial performance, financial position or cash flows that is not defined or specified under International Financial Reporting Standards (IFRS).

The APMs used by the group fall under two categories:

- **Financial APMs:** These financial metrics are usually derived from financial statements, prepared in accordance with IFRS. Certain financials metrics cannot be directly derived from the financial statements as they contain additional information such as profit estimates or projections, impact of macro-economic factors and changes in regulatory environment on financial performance.
- **Non-Financial APMs:** These metrics incorporate non - financial information that management believes is useful in assessing the performance of the group.


APMs are not uniformly defined by all the companies, including those in the Group's industry. APM's should be considered in addition to, and not a substitute for or as superior to, measures of financial performance, financial position or cash flows reported in accordance with IFRS.

#### *Purpose*

The Group uses APMs to improve comparability of information between reporting periods and business units, either by adjusting for uncontrollable or one-off factors which impacts upon IFRS measures or, by aggregating measures, to aid the user of the Annual Report in understanding the activity taking place across the Group's portfolio.

APMs are used to provide valuable insight to analysts and investors along with Generally Accepted Accounting Practices (GAAP). We believe these measures assist in providing a holistic view of the company's performance.

*Alternative performance measures (APMs) are denoted by  where applicable.*

 APM terminology*	Closest equivalent IFRS measure	Adjustments to reconcile to primary statements
Adjusted Revenue	Revenue	Revenue Less: Revenue of Custom Smelting Operations at Copper & Zinc business
Adjusted EBITDA	Operating profit/(loss) before special items	EBITDA Less: EBITDA of Custom Smelting Operations at Copper & Zinc business
EBITDA Margin excluding custom smelting	No direct equivalent	Not applicable
Underlying profit/(loss)	Profit/(loss) for the year before special items	Underlying: Profit/(loss) for the year before special items Add: Other gains/(losses) (net of tax)
Underlying attributable profit/(loss)	Attributable Profit/(loss) before special items	Attributable Profit/(Loss) before special items Add: Other gains/(losses) net of tax & non-controlling interests
Underlying earnings per share	Basic Earnings per share before special items	Underlying attributable profit/(loss) divided by weighted avg. no. of shares of the company in issue
Project Capex	Expenditure on Property, Plant and Equipment (PPE)	Gross Addition to PPE Less: Gross Disposals to PPE Add: Accumulated Depreciation on Disposals Less: Decommissioning Liability Less: Sustaining capex
Free cash flow	Net Cash flow from Operating Activities	Net Cash flow from Operating Activities Less: purchases of property, plant and equipment and intangibles less proceeds on disposal of property, plant and equipment Add: Dividend paid and Dividend Distribution Tax Paid Add/Less: Other non-cash adjustments  In the current year, dividend distribution tax was excluded from the FCF definition. In the prior year, this was included in FCF. Previous year amounts have been reclassified to ensure consistency.
Net debt	Borrowings and debt related derivatives Less: Cash and cash Equivalents and Liquid Investment	No Adjustments
Net gearing	No direct Equivalent	Not Applicable
ROCE	No Direct Equivalent	Not Applicable