

GLENCORE

NEWS RELEASE

Baar, 23 February 2017

Preliminary Results 2016

Positioned for the challenges and opportunities that lie ahead

Glencore's Chief Executive Officer, Ivan Glasenberg, commented: "Since our IPO in 2011 and subsequent acquisition and integration of Xstrata, Glencore has never been so well positioned as it is today.

"Our swift and decisive actions to reposition and optimise our capital structure and industrial asset portfolio have reduced Net funding by \$14.7 billion over the past eighteen months and generated more than \$1.3 billion in cost savings at our industrial assets in 2016.

"As we look forward, increasingly favourable fundamentals provide the potential to create significant long-term value for Glencore shareholders via our leading portfolio of well capitalised tier one assets and resilient marketing business, combined with significant low-cost copper and zinc growth options and disciplined approach to supply."

US\$ million	2016	2015	Change %
Key statement of income and cash flows highlights¹:			
Adjusted EBITDA ²	10,268	8,694	18
Adjusted EBIT ²	3,930	2,172	81
Net income attributable to equity holders pre-significant items ⁴	1,992	1,342	48
Net income/(loss) attributable to equity holders as per financial statements	1,379	(4,964)	n.m.
Earnings per share (pre-significant items) (Basic) (US\$)	0.14	0.10	40
Earnings per share as per financial statements (Basic) (US\$)	0.10	(0.37)	n.m.
Funds from operations (FFO) ^{5,6}	7,770	6,615	17
Capital expenditure ³	3,497	5,957	(41)
US\$ million	31.12.2016	31.12.2015	Change %
Key financial position highlights:			
Total assets ⁷	124,600	128,485	(3)
Current capital employed (CCE) ^{6,7}	10,075	12,443	(19)
Net funding ^{5,6}	32,619	41,245	(21)
Net debt ^{5,6}	15,526	25,889	(40)
Ratios:			
FFO to Net debt ^{5,6}	50.0%	25.6%	95
Net debt to Adjusted EBITDA ⁶	1.51x	2.98x	(49)
Adjusted EBITDA to net interest ⁶	6.70x	6.67x	–

1 Refer to basis of preparation on page 6.

2 Refer to note 2 of the financial statements for definition and reconciliation of Adjusted EBIT/EBITDA.

3 Refer to note 2 of the financial statements for reconciliation of capital expenditure.

4 Refer to significant items table on page 7.

5 Refer to page 9.

6 Refer to Glossary for definition.

7 2016 reflects completion of the disposal of 50% of the Agricultural Products division on 1 December 2016, refer to note 23 of the financial statements.

Highlights

- **Strong 2016 financial performance in challenging market conditions**
 - Adjusted EBITDA of \$10.3 billion, up 18%; Adjusted EBIT of \$3.9 billion, up 81%
 - Net income pre-significant items of \$2 billion, up 48%
 - Funds from operations of \$7.8 billion, up 17%
 - Capital expenditure of \$3.5 billion, down 41%
- **Underpinned by outstanding cost performance ...**
 - Full year operational unit cost performance in our key commodities: copper 87c/lb, zinc –5c/lb (16c/lb ex gold), nickel 265c/lb and thermal coal \$39/t at a \$18/t margin
 - Significant reductions in copper and zinc cost structure expected to be sustained into 2017
- **... and the resilience of the marketing business**
 - Marketing Adjusted EBIT of \$2.8 billion, up 14%, supported by improved demand conditions
 - Strong H2 2016 contribution from all 3 segments
- **Capital structure repositioned**
 - Net funding reduced by \$14.7 billion over the past eighteen months to \$32.6 billion (Net Debt \$15.5 billion)
 - Cash flow coverage ratios improved to strong investment grade levels
 - FFO to Net debt: 50%
 - Net debt to Adjusted EBITDA: 1.5x
 - Available committed liquidity of \$16.7 billion
 - Achievement and maintenance of strong Baa/BBB credit ratings remains a top priority
 - Optimised capital structure ensures less risk, more flexibility and stability of distributions
- **Positioned for the challenges and opportunities that lie ahead**
 - Uniquely diversified by commodity and geography
 - Major low-cost supply positions in copper, zinc, nickel, coal, cobalt and ferroalloys
 - Favourable fundamentals for our key commodities - already in deficit or transitioning to deficit
 - Modest total capex guidance of c.\$4 billion per annum going forward (includes c.\$3 billion of sustaining capex) – no greenfields
 - Substantial volumes of low-cost capacity that can be restarted as and when appropriate
 - Fixed plus variable distribution policy effective from 2018 that leverages the resilience of marketing cash flows, while providing upside to commodity prices. \$1 billion distribution recommended for 2017
 - Strong investment grade balance sheet that offers headroom for highly selective growth opportunities
 - Annualised free cash flow of \$6.9 billion at current spot prices, based on spot annualised Adjusted EBITDA of \$14.6 billion

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Highlights

About Glencore

Glencore is one of the world's largest global diversified natural resource companies and a major producer and marketer of more than 90 commodities. The Group's operations comprise around 150 mining and metallurgical sites, oil production assets and agricultural facilities.

With a strong footprint in both established and emerging regions for natural resources, Glencore's industrial and marketing activities are supported by a global network of more than 90 offices located in over 50 countries.

Glencore's customers are industrial consumers, such as those in the automotive, steel, power generation, oil and food processing sectors. We also provide financing, logistics and other services to producers and consumers of commodities. Glencore's companies employ around 155,000 people, including contractors.

Glencore is proud to be a member of the Voluntary Principles on Security and Human Rights and the International Council on Mining and Metals. We are an active participant in the Extractive Industries Transparency Initiative.

CEO Review

Improving market conditions

Despite an uncertain start to 2016, commodities finally started reversing five years of underperformance compared to other asset classes. In this environment, the mining sector has been a significant outperformer, with the SXPP basic resources index up around 70% over the year, compared to a 17% increase for the FTSE 100 Index.

China's willingness and ability to reflate caught markets somewhat by surprise, given widespread scepticism over the sustainability of Chinese demand for commodities. This was then compounded by increasingly supportive economic conditions in other regions.

Looking ahead, political events across the globe have coincided with the expectation of higher inflation and with it, higher interest rates, a backdrop, which is generally influenced by and / or supportive of higher commodity prices.

The increasing likelihood of various regionally signalled fiscal economic stimulus programs should also promote improved physical demand for and positive sentiment towards commodities.

Robust financial performance

Our robust financial performance during 2016 (Adjusted EBITDA of \$10.3 billion, up 18% on 2015) reflects the quality of our industrial asset portfolio and the resilience of our large scale diversified marketing business.

Marketing Adjusted EBIT was \$2.8 billion in 2016, 14% higher than 2015 and above the \$2.7 billion top-end of our Q4 2016 narrowed guidance range, reflecting strong H2 contributions from all 3 segments. These activities continue to generate a consistent, high cash return on equity, underpinned by competitive funding rates, a stable cost base and low capex requirements.

Following the sale of a 50% interest in Glencore Agriculture in late 2016, our 2017 Marketing Adjusted EBIT guidance range is \$2.2 to \$2.5 billion (up from \$2.1 to \$2.4 billion in our December 2016 update), while also reflecting such sale, our longer-term guidance range has been lowered to \$2.2 to \$3.2 billion.

Our various industrial teams responded to the challenges of low prices, delivering robust cost structures and margins within our key commodities. The Industrial assets' Adjusted EBITDA of \$7.3 billion in 2016 was almost 22% higher than 2015, reflecting improving commodity prices in the latter part of the year, but mostly the delivery of material cost reductions and operational improvements. Since 2009, over \$38 billion has been spent on our industrial assets, which are now extremely well positioned, with largely Tier 1 costs, scale, diversification and optionality.

Debt reduction programme delivered

The plan of action we initiated in September 2015 to sensibly bring down our financial leverage and strengthen our balance sheet is now complete; at the end of 2016, net funding and net debt of \$32.6 billion and \$15.5 billion respectively, were around or better than target levels, with debt coverage ratios already comfortably below our recently reduced target levels.

This debt reduction was partly achieved through a highly successful divestment programme that raised \$6.2 billion since September 2015, including the following 2016 transactions:

- Antapaccay silver streaming transaction, raising \$500 million
- Sale of 50% of our agriculture business for \$3.1 billion
- Disposal of a 30% economic interest plus gold stream in Ernest Henry, delivering \$670 million and
- Sale of our Hunter Valley coal rail haulage business (GRail), for \$840 million.

The disposal programme underpinned a \$14.7 billion reduction in net funding in just 18 months.

The success of our deleveraging programme and capital structure / credit repositioning is now well understood and recognised by credit markets with public funding spreads and default swaps returning to 'normalised' levels. As previously communicated, we are now targeting maximum through the cycle leverage of 2x Net debt/EBITDA (previously <3x). This lower gearing target is aimed at sustainably reducing risk and providing greater flexibility and stability in the future. We believe our commitment to secure and thereafter maintain a strong Baa/BBB credit rating is well on track.

CEO Review

Capital allocation to maximise value creation for shareholders

In December 2016, we announced the reinstatement of shareholder distributions, following a 1-year suspension period. Initially we will return \$1 billion to shareholders in 2017, to be paid in equal tranches, following the full year and interim financial results, subject to shareholders' approval at the Annual General Meeting.

As announced in December 2016, starting from 2018, our new distribution policy, in respect of 2017 actual cash flow generation, will comprise a fixed \$1 billion component and a variable element representing a minimum pay-out of 25% of free cash flow from our industrial assets. The components will reflect prevailing conditions and outlook at the time and will be confirmed annually alongside release of our full-year results.

The right commodity mix to meet the needs of the future

We believe that not all commodities are equal and, in general, we have the right ones. Glencore's diverse asset portfolio, comprising low-cost positions in mid- and late-cycle commodities, such as copper, cobalt, nickel, zinc and thermal coal, positively matches the changing needs of current and future commodity demand.

We take a highly disciplined approach towards supply, evidenced by curtailing production at a number of coal, copper, oil and zinc assets in 2015/2016 to preserve value for the longer term and assist in market rebalancing. We have significant operational leverage to improving fundamentals in our key commodities with substantial volumes of low-cost latent capacity that can be restarted as and when appropriate.

We believe that our presence throughout the commodity value chain affords Glencore the unique position to generate superior shareholder value over the longer term.

Integrated approach to sustainability

It is with great sadness to report that 16 people died at our assets, from eight incidents, during 2016. This loss of life is unacceptable. We expend great efforts and continuously strive towards our goals of zero harm across the organisation. We are committed to achieving strong health and safety performances at all of our assets through resolving local challenges and transforming behaviour at all levels.

We recognise that we have stewardship obligations across our business and a duty to the local communities we work with. During 2016, our sustainability team rolled out revised water management and health strategies and published a paper setting out the potential impact of climate change on our business.

Going forward

The last 18 months have been challenging for Glencore. On a positive note, we have demonstrated that Glencore is a strongly cash generative business, even at low points in the cycle, and is capable and willing to react decisively and quickly as circumstances require. Important lessons have been learned and the actions taken ensure that Glencore remains extremely well positioned to create value for all stakeholders.



Ivan Glasenberg
Chief Executive Officer

Financial Review

Basis of presentation

The financial information in the Financial Review is on a segmental measurement basis (see note 2) and has been prepared on the basis as outlined in note 1 of the financial statements with the exception of the accounting treatment applied to certain associates and joint ventures for which Glencore's attributable share of revenues and expenses are presented. Results are presented pre-significant items unless otherwise stated to provide an enhanced understanding and comparative basis of the underlying financial performance. Significant items (see reconciliation below) are items of income and expense which, due to their financial impact and nature or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore's results.

Financial results

Net income attributable to equity holders increased from a loss of \$5 billion in 2015 to a profit of \$1.4 billion in 2016. Adjusted EBITDA was \$10,268 million and Adjusted EBIT was \$3,930 million, increases of 18% and 81% respectively compared to 2015. These double digit increases resulted from our continuous focus on cost reduction and operational efficiency initiatives (supply chain, contractor management, employee productivity, etc.) with decisive action also taken to reduce supply and associated capex/opex, notably within our copper, zinc, coal and oil portfolios. To a lesser, but still meaningful extent, 2016 also benefited from currency depreciation relative to the US dollar e.g. Kazakhstan (53% lower) and South Africa (15% lower), while commodity prices themselves were a relatively minor contributor to the year-on-year progression with a mixed overall net result e.g. net average commodity prices were up for zinc and gold (9% and 8% respectively), offset by reductions in copper and nickel (12% and 19% respectively). In addition, during 2016, Energy industrial earnings bore an 'opportunity cost' resulting from a corporate risk management decision in Q2 to lock-in / economically hedge pricing in respect of a large share of Glencore's remaining 2016 future steam coal production.

Cyclical pricing lows were likely reached in a number of key markets in Q1 2016, with large average price increases seen in H2 relative to H1, notably thermal coal (GC Newcastle up 55%), coking coal (135%), zinc (33%) and nickel (22%).

Adjusted EBITDA/EBIT

Adjusted EBITDA by business segment is as follows:

US\$ million	Marketing activities	Industrial activities	2016 Adjusted EBITDA	Marketing activities	Industrial activities	2015 Adjusted EBITDA	Change %
Metals and minerals	1,586	6,030	7,616	1,280	4,030	5,310	43
Energy products	959	1,503	2,462	826	2,269	3,095	(20)
Agricultural products	454	138	592	584	150	734	(19)
Corporate and other	(74)	(328)	(402)	(30)	(415)	(445)	n.m.
Total	2,925	7,343	10,268	2,660	6,034	8,694	18

Adjusted EBIT by business segment is as follows:

US\$ million	Marketing activities	Industrial activities	2016 Adjusted EBIT	Marketing activities	Industrial activities	2015 Adjusted EBIT	Change %
Metals and minerals	1,562	2,182	3,744	1,255	148	1,403	167
Energy products	909	(842)	67	778	(88)	690	(90)
Agricultural products	418	104	522	461	63	524	–
Corporate and other	(74)	(329)	(403)	(30)	(415)	(445)	n.m.
Total	2,815	1,115	3,930	2,464	(292)	2,172	81

Marketing Adjusted EBITDA and EBIT increased by 10% and 14% to \$2,925 million and \$2,815 million respectively:

- Metals and minerals Adjusted marketing EBIT, was up 24% over 2015, reflecting healthy demand and generally supportive marketing conditions. In percentage terms, albeit from a relatively low 2015 base, nickel and ferroalloys delivered markedly improved contributions, on account of the significantly higher stainless steel production, notably in China.
- Energy products Adjusted marketing EBIT was up 17% compared to 2015, with solid contributions from both oil and coal. Oil declined somewhat from the buoyant comparative prior period, while coal was able to capitalise on market driven supply and quality constraints and concerns, in the aftermath of Chinese policy amendments to curb domestic coal production.

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- The Agricultural products Adjusted marketing EBIT was down 9% (\$43 million) compared to 2015, in large part due to a lower Viterro Canada contribution.

Industrial Adjusted EBITDA increased by 22% to \$7,343 million (Adjusted EBIT was \$1,115 million, compared to negative \$292 million in 2015), owing primarily to significant operating cost reductions and productivity efficiencies, comfortably offsetting any near-term volume impact from curtailing output across a number of operations. The reduction in US dollar costs was also greatly assisted by weaker producer currencies notably, in Kazakhstan, South Africa and Argentina. The benefits of the H2 rally in seaborne steam coal prices did not fully convert into reported Coal industrial earnings, following the corporate risk decision taken in Q2 2016 to economically hedge a portion of H2 2016 and H1 2017 future coal production. Reported Coal Industrial Adjusted EBITDA in H1 and H2 2016 was \$506 million and \$876 million respectively, giving a FY 2016 Adjusted EBITDA of \$1,382 million. During 2016, the locking-in / capping of the effective realised sales price in respect of 44 million tonnes, resulted in an 'opportunity cost' of \$980 million being incurred i.e. EBITDA would have been higher in H2 and FY had no such economic hedging been in place.

Earnings

A summary of the differences between reported Adjusted EBIT and income attributable to equity holders, including significant items, is set out in the following table:

US\$ million	2016	2015
Adjusted EBIT ¹	3,930	2,172
Net finance and income tax expense in certain associates and joint ventures ¹	(264)	(159)
Net finance and income tax expense of discontinued operations ²	(201)	(198)
Net finance costs	(1,533)	(1,303)
Income tax (expense)/benefit ⁷	(362)	469
Non-controlling interests	422	361
Income attributable to equity holders of the Parent from continuing and discontinued operations pre-significant items	1,992	1,342
Earnings per share (Basic) pre-significant items (US\$)	0.14	0.10
Significant items		
Share of Associates' significant items ³	(477)	(88)
Mark-to-market valuation on certain coal hedging contracts ⁴	(225)	–
Unrealised intergroup (profit)/loss elimination and other ⁴	(374)	445
Other expense – net ⁵	(1,615)	(7,998)
Gain/(losses) on disposals and investments ⁶	2,333	(994)
Income tax expense ⁷	(276)	(460)
Non-controlling interests' share of other income ⁸	21	2,789
Total significant items	(613)	(6,306)
Income/(Loss) attributable to equity holders of the Parent from continuing and discontinued operations	1,379	(4,964)
Earnings/(Loss) per share (Basic) (US\$)	0.10	(0.37)

1 Refer to note 2 of the financial statements.

2 Refer to note 23 of the financial statements.

3 Recognised within share of income from associates and joint ventures, see note 2 of the financial statements.

4 Recognised within cost of goods sold, see note 2 of the financial statements.

5 Recognised within other expense – net, see notes 2 and 4 of the financial statements.

6 See notes 2 and 3 of the financial statements.

7 Refer to Glossary for the allocation of the total income tax (expense)/benefit between pre-significant and significant items.

8 Recognised within non-controlling interests.

Significant items

Significant items are items of income and expense which, due to their financial impact and nature or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore's results to provide a better understanding and comparative basis of the underlying financial performance.

In 2016, Glencore recognised a net \$613 million of significant items, including \$276 million of income tax adjustments mainly related to the gains on disposals. The net expense comprises primarily:

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- Impairments of \$622 million related to Chad oil, \$311 million related to Equatorial Guinea oil operations, \$345 million related to Cerrejón coal (recognised within share of income from associates) and various coal shipping investments (\$61 million).
- A \$225 million expense relating to an accounting measurement mismatch between the fair value of coal derivative positions in respect of portfolio risk management/hedging activities initiated in Q2 2016 and the anticipated future revenue to be generated from the sale of future unsold coal production. The derivative positions manage forward sales price exposure relating to some 11 million tonnes of future attributable coal production, substantially all of which is expected to be settled before 30 June 2017. These transactions were not able to be designated as hedging instruments under IFRS, which would have allowed for the deferment of any income statement effect until performance of the underlying future sale transactions. The fair value movements in the derivative portfolio will be offset against future revenue in the segment information as the related sales (of production) are realised, as was the case in 2016.
- \$75 million relating to restructuring and closure costs, mainly associated with finalisation of the disposal of Optimum Coal (\$28 million) and \$92 million to settle a compliance dispute related to a U.S. biofuels program.
- Gains on disposals of \$430 million related to GRail and \$1,848 million related to Glencore Agri.

See notes 3, 4, 5 and 23 to the consolidated financial statements for further explanations.

In 2015, Glencore recognised a net \$6,306 million of significant items, including \$460 million of largely foreign exchange related income tax expense adjustments. The net expense comprised primarily impairments of \$1,424 million (\$3,989 million less \$2,565 million attributable to non-controlling interests) related to Koniambo nickel and \$1,031 million related to Chad oil and a \$1,034 million loss (including \$311 million of foreign currency translation losses previously recognised in equity) on cessation of control of Optimum Coal, placed into business rescue proceedings in August 2015, with subsequent sale agreed. See notes 3, 4 and 5 to the consolidated financial statements for further explanations.

Net finance costs

Net finance costs were \$1,533 million in 2016 compared to \$1,303 million incurred during the comparable reporting period. Interest expense in 2016 was \$1,688 million, a 14% increase from \$1,482 million in 2015, owing mainly to interest that was required to be capitalised in the prior period, in respect of certain capital development projects offset by additional accretion expenses in 2016, representing the time value of the upfront prepaid gold/silver streams entered into in late 2015 and 2016. Interest income in 2016 was \$155 million, consistent with the prior year.

Income taxes

An income tax expense of \$638 million was recognised during 2016 compared to an income tax benefit of \$9 million in 2015. Adjusting for a net \$276 million (2015: \$460 million) of income tax expense related to significant items - \$19 million (2015: \$307 million) due to currency translation effects and a net \$257 million of income tax arising from the significant items (mainly the gains on disposals), the 2016 pre-significant items income tax expense was \$362 million (2015: a benefit of \$469 million). The effective tax rate, pre-significant items, in 2016 was 32.4% compared to a calculated income tax benefit of 38.5% in 2015 as the mix of taxable profits between marketing and industrial, the latter generally in higher tax jurisdictions and subject to commodity price swings, began to normalise during 2016. In 2015, the income tax benefit relating to pre-significant items was estimated as Adjusted EBIT for marketing and industrial assets less an allocated interest expense multiplied by an estimated tax rate of 10% and 25% respectively. Refer to the Glossary for further information and a reconciliation of this calculation.

Assets, leverage and working capital

Total assets were \$124,600 million as at 31 December 2016 compared to \$128,485 million as at 31 December 2015, a period over which, current assets increased from \$42,198 million to \$43,412 million, due to increases in receivables and inventories as a result of commodity price rises, notably oil in late Q4. Non-current assets decreased from \$86,287 million to \$81,188 million, primarily due to the various disposals, notably Glencore Agri and GRail, as outlined in note 23 of the financial statements.

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Cash flow and net funding/debt

Net funding

US\$ million	31.12.2016	31.12.2015
Total borrowings as per financial statements	33,218	44,049
Associates and joint ventures net funding ¹	1,919	(58)
Cash and cash equivalents and marketable securities	(2,518)	(2,746)
Net funding	32,619	41,245

Cash and non-cash movements in net funding

US\$ million	31.12.2016	31.12.2015
Cash generated by operating activities before working capital changes	7,868	7,454
Coal related hedging, legal settlement and incremental metal leak costs included above (via statement of income)	368	264
Associates and joint ventures Adjusted EBITDA ²	1,447	995
Net interest paid	(1,271)	(1,085)
Tax paid ¹	(680)	(1,072)
Dividends received from associates ¹	38	59
Funds from operations	7,770	6,615
Working capital changes (excluding gold and silver streaming proceeds) ¹	(2,386)	6,686
Gold and silver streaming proceeds	971	900
Acquisition and disposal of subsidiaries ¹	5,944	(106)
Purchase and sale of investments ¹	(13)	(195)
Purchase and sale of property, plant and equipment ¹	(3,306)	(5,688)
Net margin calls in respect of financing related hedging activities	(695)	(618)
Acquisition of additional interests in subsidiaries	(7)	–
Share issuance	–	2,444
Distributions paid and purchase of own shares	(88)	(2,695)
Coal related hedging, legal settlement and incremental metal leak costs (refer above)	(368)	(264)
Cash movement in net funding	7,822	7,079
Foreign currency revaluation of borrowings and other non-cash items	804	1,434
Total movement in net funding	8,626	8,513
Net funding, beginning of period	(41,245)	(49,758)
Net funding, end of period	(32,619)	(41,245)
Less: Readily marketable inventories ³	17,093	15,356
Net debt, end of period	(15,526)	(25,889)

¹ Adjusted to include the impacts of proportionate consolidation of certain associates and joint ventures as outlined in the Glossary.

² See note 2 of the financial statements.

³ Refer to Glossary for definition.

The reconciliation in the table above is the method by which management reviews movements in net funding and net debt and comprises key movements in cash and any significant non-cash movements on net funding items.

Net funding as at 31 December 2016 decreased by \$8,626 million to \$32,619 million from \$41,245 million as at 31 December 2015. In addition to funds from operations and disposal proceeds of \$5,944 million, the decrease was aided by \$971 million received under gold/silver streaming arrangements, a 41% reduction in net capital expenditure, offset by a \$2,386 million increase in net working capital as a result of higher year-end commodity prices and \$515 million of non-current advances in support of oil marketing growth initiatives.

Business and investment acquisitions and disposals

Net inflows from business divestures and investments was \$5,944 million compared to an outflow on acquisitions of \$301 million in 2015. See note 23 for further explanations.

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Liquidity and funding activities

In 2016, the following significant financing activities took place:

- In February 2016, fully syndicated and effective from May 2016, Glencore signed a new one-year revolving credit facility for a total amount of \$7.7 billion. This facility refinanced the \$8.45 billion one-year revolving credit facility signed in May 2015. Funds drawn under the facilities bear interest at US\$LIBOR plus a margin of 50/60 basis points per annum. The current facilities comprise:
 - a \$7.7 billion short-term revolving credit facility with a 12 month borrower's term-out option (to May 2018) and 12 month extension option; and
 - a \$6.8 billion medium-term revolving credit facility (to May 2020) with one 12 month extension option or 24 month extension option.
- In May, issued a 5 year CHF 250 million, 2.25% coupon bond.
- In September, issued a 7 year Euro 1,000 million, 1.875% coupon bond.
- In October, repurchased bonds with a nominal value of \$1,492 million, comprising primarily 2018 and 2019 maturities.
- In December, repurchased bonds with a nominal value of \$1,137 million, comprising primarily 2019 and 2020 maturities.

As at 31 December 2016, Glencore had available committed undrawn credit facilities and cash amounting to \$16.7 billion.

Credit ratings

In light of the Group's extensive funding activities, maintaining an investment grade credit rating status is a financial priority/target. The Group's credit ratings are currently Baa3 (stable) from Moody's and BBB- (positive outlook) from Standard & Poor's. Glencore's publicly stated objectives, as part of its overall financial policy package, is to seek and maintain strong Baa / BBB credit ratings from Moody's and Standard & Poor's respectively.

Value at risk

One of the tools used by Glencore to monitor and limit its primary market risk exposure, namely commodity price risk related to its physical marketing activities, is the use of a value at risk (VaR) computation. VaR is a risk measurement technique which estimates the potential loss that could occur on risk positions as a result of movements in risk factors over a specified time horizon, given a specific level of confidence. The VaR methodology is a statistically defined, probability based approach that takes into account market volatilities, as well as risk diversification by recognising offsetting positions and correlations between commodities and markets. In this way, risks can be measured consistently across all markets and commodities and risk measures can be aggregated to derive a single risk value.

Glencore has set a consolidated VaR limit (1 day 95%) of \$100 million representing some 0.2% of equity. In Q2 2016, this limit was technically breached for 1 day by \$1 million as the VaR calculation did not account for the future physical coal production that was economically hedged with the corresponding captured and reported on coal derivatives. If such underlying hedged exposure had been included in the VaR calculation, the actual VaR number would have been substantially lower, with no resulting technical breach. Much of this hedge book has now been realised, as noted above. Glencore uses a VaR approach based on Monte Carlo simulations and is either a one day or one week time horizon computed at a 95% confidence level with a weighted data history.

Average market risk VaR (1 day 95%) during 2016 was \$42 million, representing less than 0.1% of equity. Average equivalent VaR during 2015 was \$35 million.

Subsequent events

- Further to the announcements in December 2016, Glencore and Qatar Investment Authority ("QIA") entered into various agreements establishing a 50:50 consortium that would acquire 19.5% of OSJC Rosneft Oil ("Rosneft"), enter into a 5 year offtake agreement with Rosneft on market terms and collectively evaluate and potentially enter into additional opportunities related to infrastructure, logistics and global trading. As at 31 December 2016, only the establishment of the 50:50 consortium and payment of Glencore's funding commitment of EUR 300 million were finalised. The balance of the funding and purchase of the 19.5% interest in Rosneft by the 50:50 consortium and completion of the 5 year offtake agreement was finalised on 3 January 2017.
- In February 2017, Glencore announced that it had acquired the remaining 31% stake in Mutanda Mining Sarl ("Mutanda"), which it did not previously own, and an additional 10.25% stake in Katanga Mining Limited ("Katanga") for a cash outlay of \$534 million, including settlement of loan balances. Following the acquisition, Glencore owns 100% of the shares in Mutanda and approximately 86.3% of the shares in Katanga.

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Distributions

The directors have recommended a 2016 financial year cash distribution of \$7 cents per share amounting to \$996 million, excluding any distribution on own shares and ignoring any attribution of shares which may take place prior to the record dates for each tranche. Payment will be effected as a \$3.5 cents per share distribution in May 2017 (see below) and a \$3.5 cents per share distribution in September 2017 (in accordance with the Company's announcement on the 2017 Distribution timetable also made on 23 February 2017).

First tranche of proposed distribution	2017
Applicable exchange rate determination date (Johannesburg Stock Exchange (JSE))	28 April
Last time to trade on JSE to be recorded in the register for distribution	9 May
Last day to effect removal of shares cum div between Jersey and JSE registers	9 May
Ex-dividend date (JSE)	10 May
Ex-dividend date (HK)	10 May
Ex-dividend date (Jersey)	11 May
Last time for lodging transfers in Hong Kong	4:30 p.m. (HK), 11 May
Record date in JSE	Close of business (SA) 12 May
Record date in Hong Kong	Opening of business (HK) 12 May
Record date in Jersey	Close of business (UK) 12 May
Deadline for return of currency elections form (Jersey shareholders)	15 May
Removal of shares between the Jersey and JSE registers permissible from	15 May
Applicable exchange rate reference date (Jersey and Hong Kong)	17 May
Annual General Meeting (shareholder vote to approve aggregate distribution)	24 May
Payment date	31 May

The distribution is proposed to be effected as a reduction of the capital contribution reserves of the Company. As such, this distribution would be exempt from Swiss withholding tax. As at 31 December 2016, Glencore plc had CHF 38 billion of such capital contribution reserves in its statutory accounts. The distribution is subject to shareholders approval at its AGM on 24 May 2017.

The distribution is proposed to be declared and ordinarily paid in US dollars. Shareholders on the Jersey register may elect to receive the distribution in sterling, euros or Swiss francs, the exchange rates of which will be determined by reference to the rates applicable to the US dollar as stated above. Shareholders on the Hong Kong branch register will receive their distribution in Hong Kong dollars, while shareholders on the Johannesburg register will receive their distribution in South African rand. Further details on distribution payments, together with currency election and distribution mandate forms, are available from the Group's website (www.glencore.com) or from the Company's Registrars.

Metals and Minerals

Highlights

Metals and Minerals' Adjusted EBITDA of \$7,616 million represents a \$2,306 million (43%) increase over 2015.

Marketing and Industrial activities delivered higher Adjusted EBITDA of 24% and 50% respectively, over prior year. Unsurprisingly, the greater part of the increase flowed from the Industrial side, augmented by large productivity improvements and cost reductions implemented over the last 18 months, and to a lesser extent, by price increases in the second half of the year and the stronger US dollar effect on producer country costs. The more defensive/stable Marketing activities reported a solid earnings increase, supported by improved demand fundamentals, notably in China. Indications in early 2017 reflect a continuation of these positive fundamentals.

US\$ million	Marketing activities	Industrial activities	2016	Marketing activities	Industrial activities	2015
Revenue	42,142	24,196	66,338	41,151	24,782	65,933
Adjusted EBITDA	1,586	6,030	7,616	1,280	4,030	5,310
Adjusted EBIT	1,562	2,182	3,744	1,255	148	1,403
<i>Adjusted EBITDA margin</i>	3.8%	24.9%	11.5%	3.1%	16.3%	8.1%

Market Conditions

Selected average commodity prices

	2016	2015	Change%
S&P GSCI Industrial Metals Index	272	291	(7)
LME (cash) copper price (\$/t)	4,867	5,503	(12)
LME (cash) zinc price (\$/t)	2,094	1,928	9
LME (cash) lead price (\$/t)	1,868	1,785	5
LME (cash) nickel price (\$/t)	9,606	11,835	(19)
Gold price (\$/oz)	1,248	1,160	8
Silver price (\$/oz)	17	16	6
Metal Bulletin cobalt price 99.3% (\$/lb)	12	13	(8)
Metal Bulletin ferrochrome 6-8% C basis 60% Cr, max 1.5% Si (¢/lb)	90	94	(4)
Iron ore (Platts 62% CFR North China) price (\$/DMT)	58	56	4

Metals and Minerals

Currency table

	Average 2016	Spot 31 Dec 2016	Average 2015	Spot 31 Dec 2015	Change in average %
AUD : USD	0.75	0.72	0.75	0.73	–
USD : CAD	1.32	1.34	1.28	1.38	3
USD : COP	3,052	3,002	2,749	3,175	11
EUR : USD	1.11	1.05	1.11	1.09	–
GBP : USD	1.35	1.23	1.54	1.47	(12)
USD : CHF	0.99	1.02	0.96	1.00	3
USD : KZT	342	334	223	341	53
USD : ZAR	14.69	13.74	12.78	15.47	15

Marketing

Highlights

2016 is likely to be remembered as the year in which industrial metals prices found their cyclical floor and some meaningful year-over-year price appreciation (spot basis) was seen towards the end of the year. These increases were fundamentally supported by demand strength from China's industrial base and confidence in the sustainability thereof, together with the enhanced realisation that fear of a supply glut in many markets was overdone, as evidenced by declining stock levels in most key commodity categories.

Against this improving background, Marketing delivered an Adjusted EBIT of \$1,562 million in 2016, a 24% increase over 2015.

Financial information

US\$ million	2016	2015	Change %
Revenue	42,142	41,151	2
Adjusted EBITDA	1,586	1,280	24
Adjusted EBIT	1,562	1,255	24

Selected marketing volumes sold

	Units	2016	2015	Change%
Copper metal and concentrates ¹	mt	3.5	3.1	13
Zinc metal and concentrates ¹	mt	2.0	3.1	(35)
Lead metal and concentrates ¹	mt	0.9	1.1	(18)
Gold	moz	2.1	1.9	11
Silver	moz	92.1	89.3	3
Nickel	kt	221	231	(4)
Ferroalloys (incl. agency)	mt	7.6	5.0	52
Alumina/aluminium	mt	11.4	13.6	(16)
Iron ore	mt	47.1	41.2	14

¹ Estimated metal unit contained.

Copper

After underperforming the base metals complex for most of the year, the copper market sprang back into life in the closing months of 2016 amid a fundamental shift in sentiment. The no-show of the much-trumpeted "wall of supply", lack of inventory build during the year and significantly stronger than expected Chinese demand propelled copper up towards \$6,000/t by year end, from a low of \$4,310/t in early 2016. Copper averaged \$4,867/t during the year.

Chinese government stimulus measures coupled with tighter scrap supply underpinned stronger global demand growth. European growth also lent support while North American cathode offtake was largely flat year-on-year. Near-term demand prospects appear positive. A political transition year in China should ensure continued positive fundamentals while the actual and looming infrastructure programs in Japan and North America should start to lend support to non-Chinese consuming regions.

Metals and Minerals

Supply-side fundamentals also improved markedly during the year. Despite some scaremongering, the “wall of supply” failed to emerge. New supply growth from Peru was almost fully offset by production decreases in Chile and elsewhere, and continued shutdowns in the African copper belt. Indeed, the copper market appears to be reverting to form, with an unusually low volume of mine disruptions seen in H1 2016, but increasing in the second half of the year. The stresses induced by 18 months of low pricing and related actions to enhance cash flows are only just starting to manifest themselves.

The prospect of demand growth across Asia, Europe and the US, as well as the likelihood of difficult labour contract negotiations at some of the industry’s major mines over the coming year, suggest that pricing risks lie to the upside in 2017.

Zinc

Zinc was one of the best performing industrial metals in 2016, with an average year-over-year price increase of 9%. The widely anticipated zinc mining output reduction materialised and resulted in significantly tighter physical market conditions, particularly for zinc concentrate. Confirmation of decreasing supply, in combination with better than anticipated demand conditions driven by the recovery of the Chinese real estate and global automotive market, has resulted in destocking of both zinc concentrates and metal during the year and a higher corresponding LME price.

2016 Chinese zinc mine production was similar to 2015, despite the incentive of a higher SHFE zinc metal price, and a reduction in zinc mine production from the rest of the world (“ROW”) of around 900kmtu (10.8%). Consequently, realised Benchmark TCs reduced by \$32/dmt (\$243 to \$211) while average spot TCs were down by \$99/dmt (\$201 to \$102). The tightness in zinc concentrates is yet to impact Chinese zinc metal production, even though Chinese concentrate imports were down by 640kmtu and domestic mine production was flat year-over-year. Chinese smelters reported similar production as in 2015, which is attributed to destocking of concentrates stock built up in prior years. ROW zinc metal production was down by 244kmtu compared to prior year.

ROW zinc metal continues to be shipped to China, following the trend of the last few years. Metal imports into China were stable year on year, causing further inventory drawdowns from LME exchanges (stocks down from 463kt to 428kt), while SHFE (199kt to 153kt) and Shanghai Metal Market stocks have also been drawn to cover the needs of the Chinese physical market. Published non-exchange stocks in China have also reduced by a further 50-80kt. Real estate and infrastructure end markets in China are performing better than expected, supported by Chinese government actions in H1 2016, while the automotive market continues to show strong growth both in China and ROW.

The lead supply side trend is similar, given that it is generally a by-product of zinc. Lead benchmark TCs were down by \$22.50/dmt (\$170 versus \$192.50), while spot was down by \$60/dmt (\$117 versus \$177) compared to 2015 averages. Chinese lead concentrates imports were also down by 24% year over year.

Going forward, we expect tight zinc concentrates supply to translate into lower metal production in 2017, which should cause further inventory drawdowns and provide support to the metal price.

Nickel

Whilst average nickel prices in 2016 were at multi-year lows with prices bottoming in February around \$7,600/t, prices rebounded through the rest of the year, exceeding \$12,000/t in November before closing the year at c. \$10,000/t.

Despite a weak January and February 2016, global stainless steel production expanded materially in 2016, led by double-digit demand growth in China. Furthermore, we saw a continued shift to austenitic grades in Europe, India and the US which supported nickel demand growth.

We estimate global stainless production in 2016 at over 45 million tonnes, up over 7% on the prior year, including over 24 million tonnes from China. Globally 300S austenitic production totalled over 25 million tonnes which is a 10% increase versus 2015.

Developments in non-stainless remain mixed, with special steel producers reporting challenging conditions primarily due to continued oil and gas weakness, whilst demand from the critical alloys industry and battery sector remains robust.

Overall we estimate primary nickel demand in 2016 of 2.05 million tonnes, representing an ~8% increase versus 2015.

Nickel supply continued to fall in 2016 with further shutdowns (BCL, Tati, Votorantim, Mirabella), and lower nickel unit exports (in ore) from the Philippines all driving a fall in projected nickel output to approximately 1.95 million tonnes of nickel, down 2% versus 2015.

Consequently the market entered its first material deficit since 2010 enabling global inventories to fall by around 100,000 tonnes. Whilst inventories remain elevated, the outlook is for continued deficits and further draws in primary nickel inventories as demand remains strong. Supply increases relate to Indonesia exporting more nickel units in nickel pig iron, with production elsewhere continuing to flat-line or even fall.

Metals and Minerals

Ferroalloys

Oversupply, raw material destocking and limited growth in key demand regions resulted in ferrochrome and chrome ore prices falling to multi-year lows during Q1 2016, eventually contributing to meaningful mine and foundry closures. Following these production cuts, a resurgent Chinese stainless steel market led to sharp recoveries in chrome pricing starting Q2 2016. Between Q2 2016 and Q4 2016, the European benchmark price for ferrochrome increased 34%, indicative of the improved market sentiment and a more positive global pricing environment going into 2017.

Reduced manganese ore and alloy supply caused a price recovery during the first half of 2016, which, together with improved demand from the global carbon steel sector during the second half, sparked a rally in prices towards the end of 2016.

Vanadium demand and prices increased through the year as a recovery in high-strength structural and specialty steel continued, together with increased order flow from premium aerospace and battery applications. This demand, coupled with a reduction in supply during the second half of the year, particularly from China, led to a global reduction in the stock overhang experienced over the last two years, resulting in a more balanced market heading into 2017.

Alumina/Aluminium

Average primary aluminium prices decreased by 3% during 2016, but as with other industrial metals the price increased strongly towards the end of the year, finishing at \$1,693/t, up 12% from 31 December 2015. Demand for aluminium remains very healthy with growth expected in all three major sectors: automotive, packaging and construction. The market was in deficit in the west and oversupplied in China, yielding similar year-over-year exports from China.

Following the significant reductions seen last year, premiums completed their return to historical levels during 2016 with Europe and Japan trading around \$70-120/t. The US premium closed 2016 at \$184/t and is expected to remain the strongest of the three regions, due to its large deficit, importing over 4 million tonnes on an annualised basis.

The FOB Australia alumina price showed a reversal of the fall in 2015, opening the year at \$199/t, and closing at \$350/t. Increases in alumina production have lagged behind the increase in demand from increased aluminium production.

Iron Ore

Both iron ore and rebar (steel) experienced tremendous volatility throughout the year. Iron ore surpassed most analysts' expectations and continued to move higher despite an increase in inventories. As the year progressed, two factors impacted the iron ore market: steel demand improved on the back of renewed Chinese stimulus and coal capacity cuts created a surge in coking coal prices. The resulting increase in steel margins and higher coking coal prices led to an increase in demand for higher grade iron ore, which stepped up benchmark prices for iron ore, which are based on such higher grade cargoes.

Elsewhere in the market, India exported close to 40 million tonnes in 2016, compared to under 10 million tonnes in 2015. The increase in supply from India, which tends to be of lower quality and mills switching from low grade to high grade ore, led to significantly greater discounts for lower grade ore and certain product penalties. Finally, as financial players continued to become a bigger part of the market, prices often became disconnected from short term physical fundamentals, all such factors contributing to a challenging price environment to manage.

Metals and Minerals

Industrial activities

Highlights

The Metals and Minerals industrial portfolio delivered a \$2,000 million (50%) increase in Adjusted EBITDA to \$6,030 million and a \$1,454 million reduction in capex. Some external factors played a part, such as the relative strength of the US dollar versus key producer country currencies, notably in South Africa, Kazakhstan and Argentina, and price increases towards the end of the year, however the largest positive impact on earnings and cash generation was the extensive cost reduction and efficiency initiatives embedded into the businesses over the last 18 months.

It is noteworthy that among the asset groups where some tough decisions were made in 2015 regarding production curtailments, Adjusted EBITDA is up strongly year over year, demonstrating the successful implementation thereof. More generally, the overall portfolio has benefited from such supply discipline, which saw copper and zinc own production decline year-over-year by 5% and 24% respectively.

Financial information

US\$ million	2016	2015	Change %
Revenue			
Copper assets			
African copper (Katanga, Mutanda, Mopani)	1,839	3,038	(39)
Collahuasi ¹	1,006	876	15
Antamina ¹	820	702	17
Other South America (Alumbrera, Lomas Bayas, Antapaccay, Punitaqui)	2,257	1,943	16
Australia (Mount Isa, Ernest Henry, Townsville, Cobar)	1,799	2,049	(12)
Custom metallurgical (Altonorte, Pasar, Horne, CCR)	6,572	5,988	10
Intergroup revenue elimination	(429)	(172)	n.m.
Copper	13,864	14,424	(4)
Zinc assets			
Kazzinc	2,602	2,244	16
Australia (Mount Isa, McArthur River)	1,133	1,211	(6)
European custom metallurgical (Portovesme, San Juan de Nieva, Nordenham, Northfleet)	1,209	1,172	3
North America (Matagami, Kidd, Brunswick, CEZ Refinery)	1,030	1,084	(5)
Other Zinc (AR Zinc, Los Quenuales, Sinchi Wayra, Rosh Pinah, Perkoa)	537	632	(15)
Zinc	6,511	6,343	3
Nickel assets			
Integrated Nickel Operations (Sudbury, Raglan, Nikkelverk)	1,432	1,340	7
Australia (Murrin Murrin)	503	600	(16)
Nickel	1,935	1,940	-
Ferroalloys	1,873	1,717	9
Aluminium/Alumina	13	358	(96)
Metals and minerals revenue	24,196	24,782	(2)

¹ Represents the Group's share of these JVs.

Metals and Minerals

US\$ million	Adjusted EBITDA			Adjusted EBIT		
	2016	2015	Change %	2016	2015	Change %
Copper assets						
African copper	264	51	418	(240)	(533)	n.m.
Collahuasi ¹	542	343	58	286	85	236
Antamina ¹	602	463	30	341	220	55
Other South America	1,060	718	48	407	202	101
Australia	458	414	11	85	48	77
Custom metallurgical	407	301	35	280	210	33
Copper	3,333	2,290	46	1,159	232	400
<i>Adjusted EBITDA mining margin²</i>	38%	23%				
Zinc assets						
Kazzinc	989	490	102	539	44	n.m.
Australia	454	284	60	143	(81)	n.m.
European custom metallurgical	174	168	4	84	81	4
North America	184	121	52	104	21	395
Other Zinc	115	10	n.m.	1	(141)	n.m.
Zinc	1,916	1,073	79	871	(76)	n.m.
<i>Adjusted EBITDA mining margin²</i>	33%	18%				
Nickel assets						
Integrated Nickel Operations	446	421	6	(28)	(64)	n.m.
Australia	(19)	32	(159)	(61)	(7)	n.m.
Nickel	427	453	(6)	(89)	(71)	n.m.
<i>Adjusted EBITDA margin</i>	22%	23%				
Ferroalloys	423	271	56	310	138	125
Aluminium/Alumina	(60)	(43)	n.m.	(60)	(60)	n.m.
Iron ore	(9)	(14)	n.m.	(9)	(15)	n.m.
Metals and minerals Adjusted EBITDA/ EBIT	6,030	4,030	50	2,182	148	n.m.
<i>Adjusted EBITDA mining margin²</i>	33%	21%				

1 Represents the Group's share of these JVs.

2 Adjusted EBITDA mining margin is Adjusted EBITDA (excluding custom metallurgical assets) divided by Revenue (excluding custom metallurgical assets and intergroup revenue elimination) i.e. the weighted average EBITDA margin of the mining assets. Custom metallurgical assets include the Copper custom metallurgical assets and Zinc European custom metallurgical assets and the Aluminium/Alumina group, as noted in the table above.

Metals and Minerals

US\$ million	2016			2015		
	Sustaining	Expansion	Total	Sustaining	Expansion	Total
Capital expenditure						
Copper assets						
African copper	270	357	627	390	756	1,146
Collahuasi ¹	160	4	164	100	5	105
Antamina ¹	194	1	195	182	5	187
Other South America	310	34	344	464	67	531
Australia	176	2	178	198	23	221
Custom metallurgical	127	3	130	178	124	302
Copper	1,237	401	1,638	1,512	980	2,492
Zinc assets						
Kazzinc	127	26	153	189	37	226
Australia	209	–	209	357	29	386
European custom metallurgical	54	–	54	79	–	79
North America	61	4	65	62	9	71
Other Zinc	55	–	55	102	–	102
Zinc	506	30	536	789	75	864
Nickel assets						
Integrated Nickel Operations	96	34	130	140	88	228
Australia	14	–	14	20	–	20
Koniambo	–	263	263	–	360	360
Other nickel projects	–	–	–	–	4	4
Nickel	110	297	407	160	452	612
Ferroalloys	101	13	114	118	25	143
Aluminium/Alumina	–	–	–	19	18	37
Iron ore	–	–	–	1	–	1
Capital expenditure	1,954	741	2,695	2,599	1,550	4,149

¹ Represents the Group's share of these JVs.

Metals and Minerals

Production from own sources – Total¹

		2016	2015	Change %
Copper	Kt	1,425.8	1,502.2	(5)
Zinc	Kt	1,094.1	1,444.8	(24)
Lead	Kt	294.2	297.7	(1)
Nickel	Kt	115.1	96.2	20
Gold	koz	1,027	964	7
Silver	koz	39,069	36,592	7
Cobalt	Kt	28.3	23.0	23
Ferrochrome	Kt	1,523	1,462	4
Platinum	koz	148	158	(6)
Palladium	koz	209	202	3
Rhodium	koz	16	18	(11)
Vanadium Pentoxide	mlb	21.1	20.9	1

Production from own sources – Copper assets¹

		2016	2015	Change %	
African Copper (Katanga, Mutanda, Mopani)					
	Copper metal ²	Kt	254.4	421.9	(40)
	Cobalt ³	Kt	24.5	19.4	26
Collahuasi ⁴					
	Copper metal	Kt	2.1	9.8	(79)
	Copper in concentrates	Kt	220.8	190.6	16
	Silver in concentrates	koz	3,276	2,828	16
Antamina ⁵					
	Copper in concentrates	Kt	145.5	131.8	10
	Zinc in concentrates	Kt	66.8	79.3	(16)
	Silver in concentrates	koz	6,778	5,987	13
Other South America (Alumbrera, Lomas Bayas, Antapaccay, Punitaqui)					
	Copper metal	Kt	80.0	71.1	13
	Copper in concentrates	Kt	308.8	272.0	14
	Gold in concentrates and in doré	koz	382	318	20
	Silver in concentrates and in doré	koz	2,366	1,918	23
Australia (Mount Isa, Ernest Henry, Townsville, Cobar)					
	Copper metal	Kt	205.1	205.6	–
	Copper in concentrates	Kt	53.9	50.8	6
	Gold	koz	86	90	(4)
	Silver	koz	1,794	1,723	4
Total Copper department					
	Copper	Kt	1,270.6	1,353.6	(6)
	Cobalt	Kt	24.5	19.4	26
	Zinc	Kt	66.8	79.3	(16)
	Gold	koz	468	408	15
	Silver	koz	14,214	12,456	14

Metals and Minerals

Production from own sources – Zinc assets¹

			2016	2015	Change %
Kazzinc					
	Zinc metal	Kt	187.6	193.4	(3)
	Lead metal	Kt	44.0	26.3	67
	Lead in concentrates	Kt	15.2	–	n.m.
	Copper metal ²	Kt	53.9	51.9	4
	Gold	koz	521	520	–
	Silver	koz	4,510	3,653	23
	Silver in concentrates	koz	469	–	n.m.
Australia (Mount Isa, McArthur River)					
	Zinc in concentrates	Kt	488.4	750.9	(35)
	Lead in concentrates	Kt	185.4	216.0	(14)
	Silver in concentrates	koz	8,741	8,248	6
North America (Matagami, Kidd)					
	Zinc in concentrates	Kt	130.1	115.2	13
	Copper in concentrates	Kt	48.0	48.3	(1)
	Silver in concentrates	koz	2,292	2,368	(3)
Other Zinc (Aguilar, Los Quenuales, Sinchi Wayra, Rosh Pinah, Perkoa)					
	Zinc metal	Kt	–	26.1	(100)
	Zinc in concentrates	Kt	221.2	279.9	(21)
	Lead metal	Kt	12.7	12.7	–
	Lead in concentrates	Kt	36.9	42.7	(14)
	Copper in concentrates	Kt	2.1	2.4	(13)
	Silver metal	koz	666	691	(4)
	Silver in concentrates	koz	7,553	8,566	(12)
Total Zinc department					
	Zinc	Kt	1,027.3	1,365.5	(25)
	Lead	Kt	294.2	297.7	(1)
	Copper	Kt	104.0	102.6	1
	Gold	koz	521	520	–
	Silver	koz	24,231	23,526	3

Metals and Minerals

Production from own sources – Nickel assets¹

		2016	2015	Change %	
Integrated Nickel Operations (“INO”) (Sudbury, Raglan, Nikkelverk)					
	Nickel metal	Kt	65.6	49.1	34
	Nickel in concentrates	Kt	0.6	0.5	20
	Copper metal	Kt	16.6	14.9	11
	Copper in concentrates	Kt	34.6	31.1	11
	Cobalt metal	Kt	1.0	0.8	25
	Gold	koz	37	35	6
	Silver	koz	624	610	2
	Platinum	koz	90	76	18
	Palladium	koz	173	157	10
	Rhodium	koz	6	5	20
Murrin Murrin					
	Nickel metal	Kt	35.3	37.5	(6)
	Cobalt metal	Kt	2.8	2.8	–
Koniambo					
	Nickel in ferronickel	Kt	13.6	9.1	49
Total Nickel department					
	Nickel	Kt	115.1	96.2	20
	Copper	Kt	51.2	46.0	11
	Cobalt	Kt	3.8	3.6	6
	Gold	koz	37	35	6
	Silver	koz	624	610	2
	Platinum	koz	90	76	18
	Palladium	koz	173	157	10
	Rhodium	koz	6	5	20

Production from own sources – Ferroalloys assets¹

		2016	2015	Change %	
Ferrochrome⁶					
		Kt	1,523	1,462	4
PGM⁷					
	Platinum	koz	58	82	(29)
	Palladium	koz	36	45	(20)
	Rhodium	koz	10	13	(23)
	Gold	koz	1	1	–
	4E	koz	105	141	(26)
Vanadium Pentoxide					
		mlb	21.1	20.9	1

Metals and Minerals

Total production – Custom metallurgical assets¹

		2016	2015	Change %	
Copper (Altonorte, Pasar, Horne, CCR)					
	Copper metal	Kt	489.1	433.7	13
	Copper anode	Kt	522.5	502.8	4
Zinc (Portovesme, San Juan de Nieva, Nordenham, Northfleet)					
	Zinc metal	Kt	789.8	788.8	–
	Lead metal	Kt	216.6	199.2	9
	Silver	koz	14,845	11,220	32
Ferroalloys					
	Ferromanganese	Kt	136	146	(7)
	Silicon Manganese	Kt	82	98	(16)

1 Controlled industrial assets and joint ventures only. Production is on a 100% basis, except as stated.

2 Copper metal includes copper contained in copper concentrates and blister.

3 Cobalt contained in concentrates and hydroxides.

4 The Group's pro-rata share of Collahuasi production (44%).

5 The Group's pro-rata share of Antamina production (33.75%).

6 The Group's attributable 79.5% share of the Glencore-Merafe Chrome Venture.

7 Consolidated 50% of Mototolo and 100% of Eland (placed on care and maintenance from October 2015).

Metals and Minerals

Operating highlights

Copper assets

Copper production of 1,425,800 tonnes was 76,400 tonnes (5%) below 2015, reflecting the production suspensions at African Copper, partly offset by improved grades and volumes at the South American assets.

African copper

Mutanda's production of 213,300 tonnes was in line with 2015. Cobalt production of 24,500 tonnes was 8,000 tonnes (48%) higher, reflecting various plant optimisation projects completed during the year.

Mopani produced 41,100 tonnes of copper from own sources, 51,000 tonnes (55%) lower than 2015, as a result of the partial suspension of production, while the major upgrade projects are being completed.

Collahuasi

Glencore's share of Collahuasi's production was 222,900 tonnes, a 22,500 tonne (11%) increase over 2015, due to improved milling rates and grades.

Antamina

Glencore's share of Antamina's copper production was 145,500 tonnes, a 13,700 tonne (10%) increase over 2015 and zinc production of 66,800 tonnes was 12,500 tonnes (16%) lower than 2015, reflecting the mix of copper and zinc/copper ore encountered in the mine.

Other South America

Copper production of 388,800 tonnes was 45,700 tonnes (13%) higher than 2015, mainly relating to higher grades at Alumbraera, the Tintaya plant being operational for the full year at Antapaccay and incremental expansion at the Antapaccay plant completed in the year. The increase in gold production (318,000 ounces to 382,000 ounces) mainly related to improved grades at Alumbraera.

Australia

Copper production of 259,000 tonnes was 2,600 tonnes up on 2015, reflecting a strong operating performance.

Custom metallurgical assets

Copper cathode production of 489,100 tonnes was 55,400 tonnes (13%) higher than 2015 and anode production of 522,500 tonnes was 19,700 tonnes (4%) higher, mainly as a result of the restart of Pasar, following its upgrade in 2015.

Zinc assets

Zinc production of 1,094,100 tonnes was 350,700 tonnes (24%) lower than 2015, mainly reflecting the production suspensions announced in October 2015.

Kazzinc

Own-sourced zinc production of 187,600 tonnes was slightly lower than 2015, as a result of the mix of own and third party feeds. Total zinc production of 305,500 tonnes was in line with 2015.

Own-sourced lead production of 59,200 tonnes was 32,900 tonnes (125%) higher than 2015, due to operational improvements at the lead smelter, following maintenance in 2015, and additional volumes from the Zhairam mine.

Own-sourced copper production of 53,900 tonnes was 2,000 tonnes (4%) higher than the previous year, mainly due to maintenance activities impacting volumes during 2015.

Own-sourced gold production of 521,000 ounces was in line with the comparable period.

Australia

Zinc production of 488,400 tonnes was 262,500 tonnes (35%) lower than 2015 and lead production of 185,400 tonnes was 30,600 tonnes (14%) lower, reflecting suspended production at George Fisher, Lady Loretta and McArthur River. Q4 zinc production of 138,200 tonnes was 19,700 tonnes (17%) higher than Q3, mainly reflecting higher head grades at McArthur River.

North America

Zinc production of 130,100 tonnes was 14,900 tonnes (13%) higher than in 2015, mainly due to higher grades being achieved at Kidd and Matagami. Copper production of 48,000 tonnes was in line with the previous year.

Metals and Minerals

Other Zinc

Zinc production of 221,200 tonnes was 84,800 tonnes (28%) below 2015, mainly due to the suspension of the Iscaycruz mine in Peru (part of Los Quenuales).

European custom metallurgical assets

Zinc production of 789,800 tonnes was in line with 2015. Lead production of 216,600 tonnes was 17,400 tonnes (9%) higher than the comparable period, reflecting operational improvements at Northfleet and prior year maintenance at Portovesme.

Nickel assets

Own-sourced nickel production of 115,100 tonnes was 18,900 tonnes (20%) higher than 2015, due to the processing in 2016 of material stockpiled during maintenance work at the Sudbury smelter during the prior year.

Integrated Nickel Operations ("INO")

Own-sourced nickel production of 66,200 tonnes was 16,600 tonnes (33%) higher than 2015, mainly due to the Sudbury smelter shutdown in 2015. Total nickel production of 93,400 tonnes, including third-party sources, was in line with 2015.

Own-sourced copper production of 51,200 tonnes was an increase of 5,200 tonnes (11%) over the comparable period, due to improved mill throughput at Sudbury and the impact of the smelter shutdown on the base period.

Murrin Murrin

Own-sourced nickel production of 35,300 tonnes was 2,200 tonnes (6%) lower than 2015, reflecting maintenance throughout the year. Cobalt production of 2,800 tonnes from own sources was in line with 2015.

Koniambo

Nickel production of 13,600 tonnes was up 4,500 tonnes (49%) over the comparable period, reflecting the ongoing ramp-up of processing operations.

Ferroalloys assets

Ferrochrome

Attributable ferrochrome production of 1,523,000 tonnes was 4% higher than 2015, due to the timings of refurbishments in 2016 versus 2015 leading to more available furnace hours, and the full-year benefits of operating the Lion 2 furnace which was ramping up through H1 2015.

Platinum Group Metals ("PGM")

Glencore's share of Mototolo's production of 105,000 ounces was comparable with 2015, after adjusting for Eland mine, which has been on care and maintenance since October 2015.

Vanadium

Vanadium production of 21.1 million pounds was in line with 2015.

Manganese

Manganese production of 218,000 tonnes was 26,000 tonnes (11%) below 2015, mainly due to maintenance activities, including a furnace rebuild in Norway that is now complete.

Energy Products

Highlights

Energy products Adjusted EBITDA of \$2,462 million was 20% down on 2015, with 2016 impacted by the corporate risk management decision in Q2 2016 to economically price hedge some 55 million tonnes of future coal production, thereby locking-in/capping the effective realised sales price of 44 million tonnes in 2016, resulting in an 'opportunity cost' of \$980 million being realised as coal markets rallied into H2 2016. Adjusting for this hedging impact, 2016 Adjusted EBITDA would have been up 11% over the prior year.

Marketing activities Adjusted EBIT delivered an improvement of 17%, while industrial activities, pre hedge impact, delivered a 3% Adjusted EBITDA margin improvement to 32%, the latter driven largely by the continuous and relentless focus on cost reduction and margin improvement initiatives.

US\$ million	Marketing activities	Industrial activities	2016	Marketing activities	Industrial activities	2015
Revenue	81,872	7,149	89,021	75,206	8,406	83,612
Adjusted EBITDA	959	1,503	2,462	826	2,269	3,095
Adjusted EBIT	909	(842)	67	778	(88)	690
Adjusted EBITDA margin	1.2%	21.0%	2.8%	1.1%	27.0%	3.7%

Market conditions

Selected average commodity prices

	2016	2015	Change %
S&P GSCI Energy Index	151	175	(14)
Coal API4 (\$/t)	64	57	12
Coal Newcastle (6,000) (\$/t)	65	58	12
Oil price – Brent (\$/bbl)	45	54	(17)

Marketing

Highlights

Coal and oil markets were notably impacted during 2016 by sovereign developments, key being China for coal and OPEC for oil. Coal news was dominated by China's effective domestic supply reduction campaign to restore/accelerate financial health to an oversupplied industry and its consequential effect on seaborne pricing. Oil's persistent fears of oversupply and inventory builds were eventually tackled by OPEC's first agreed production cut in almost a decade and pledges to do likewise by various non-OPEC countries, including Russia. Solid contributions from both the oil and coal divisions showcase Glencore's abilities to successfully navigate such choppy markets.

Financial information

US\$ million	2016	2015	Change %
Revenue	81,872	75,206	9
Adjusted EBITDA	959	826	16
Adjusted EBIT	909	778	17

Selected marketing volumes sold

		2016	2015	Change %
Thermal coal ¹	mt	105.7	93.9	13
Metallurgical coal ¹	mt	2.4	2.5	(4)
Coke ¹	mt	0.9	0.7	29
Crude oil	m bbl	911	566	61
Oil products	m bbl	844	634	33

¹ Includes agency volumes.

Energy Products

Thermal Coal

The introduction of Chinese policy measures in Q2 2016 to limit domestic coal production (address overcapacity concerns) provided strong support for increased prices and thermal coal import demand, particularly during the second half of 2016. At the end of December 2016, market index prices for Newcastle, API4 and API2 closed respectively 88%, 77% and 85% higher than December 2015. Overall, Chinese thermal coal imports increased by over 40 million tonnes in 2016, which together with demand growth in the emerging economies of South East Asia, offset demand reductions in India and the EU, to hold overall 2016 seaborne demand in line with 2015. South East Asian demand growth continues to be supported by the construction of new coal fired generation capacity.

On the supply side, export declines from the US and Indonesia were offset by some growth from Colombia and Mozambique, while Australian exports and total seaborne supply volumes were broadly flat year-over-year. The price recovery from the lows at the beginning of 2016 has facilitated the return to positive cash margins for the majority of seaborne thermal coal producers, yet price volatility, access to capital and project lead times continue to limit supply growth. Indonesia, however, is looking to return some idled low quality capacity / production.

There continues to be a general decline in supply volumes of higher energy coal export products, particularly from Indonesia and South Africa, as high grade reserves are depleted. Consequently, high energy coals remain in tighter supply, supporting market segmentation and price differentiation.

Oil

The first half of 2016 saw a period of sustained recovery in oil prices up to \$50 per barrel for Brent, after hitting a decade low, amidst surging volatility, of close to \$27/bbl in January. Whilst price increases were initially driven by a recovery from perceived oversold levels, this was later supported by increasingly frequent supply disruptions and declining US production. However, the oil price trajectory stalled during the second half of 2016 and traded mostly within a range of \$45 to \$55 per barrel as oversupply concerns remained, inventories were high and refinery margins came under pressure. OPEC continued to produce at record levels, rig count increases indicated higher US production and higher prices prompted renewed producer hedging. On the demand side, expectations remained for robust demand growth.

December 2016 saw the first agreed output cut by OPEC since 2008, which marked a major shift from the 'market share policy' it had followed for the past two years. Oil prices rallied to end the year at \$56 per barrel, as the market viewed this as significantly accelerating oil market re-balancing expectations. A curve shift took place eroding contango or even shifting to backwardation. Looking into 2017, the focus is now firmly on OPEC compliance and non-OPEC producers delivering the agreed cuts as outlined.

Energy Products

Industrial activities

Highlights

Energy Products' Adjusted EBITDA of \$1.5 billion was down year-over-year, on account of the coal economic price hedging initiatives noted above. Prior to such hedging impact, underlying Coal Adjusted EBITDA was up 14% year over year, with Adjusted EBITDA margins consistent at ~30%. In a period of considerable uncertainty around the oil market, the development programme in Chad was significantly curtailed, resulting in year-over-year capex savings of almost \$0.5 billion but, inevitably, also in lower production and earnings. Some limited development will recommence in 2017.

Financial information

US\$ million	2016	2015	Change %
Net revenue			
Coal operating revenue			
Coking Australia	651	540	21
Thermal Australia	3,763	3,584	5
Thermal South Africa	1,349	1,458	(7)
Prodeco	1,130	1,089	4
Cerrejón ¹	606	620	(2)
Impact of corporate coal economic hedging	(980)	–	n.m.
Coal operating revenue	6,519	7,291	(11)
Coal other revenue			
Coking Australia	2	204	(99)
Thermal Australia	325	425	(24)
Thermal South Africa	9	3	200
Prodeco	12	2	n.m.
Cerrejón ¹	1	–	n.m.
Coal other revenue (buy-in coal)	349	634	(45)
Coal total revenue			
Coking Australia	653	744	(12)
Thermal Australia	4,088	4,009	2
Thermal South Africa	1,358	1,461	(7)
Prodeco	1,142	1,091	5
Cerrejón ¹	607	620	(2)
Impact of corporate coal economic hedging	(980)	–	n.m.
Coal total revenue	6,868	7,925	(13)
Oil	281	481	(42)
Energy products revenue	7,149	8,406	(15)

¹ Represents the Group's share of this JV.

Energy Products

US\$ million	Adjusted EBITDA			Adjusted EBIT		
	2016	2015	Change %	2016	2015	Change %
Coking Australia	154	117	32	12	(33)	n.m.
Thermal Australia	1,334	1,159	15	(26)	44	(159)
Thermal South Africa	456	386	18	213	56	280
Prodeco	178	228	(22)	16	62	(74)
Cerrejón ¹	240	189	27	62	3	n.m.
Coal result prior to hedging	2,362	2,079	14	277	132	110
Impact of corporate coal economic hedging	(980)	–	n.m.	(980)	–	n.m.
Total coal	1,382	2,079	(34)	(703)	132	n.m.
<i>Adjusted EBITDA margin²</i>	31%	29%				
Oil	121	190	(36)	(139)	(220)	n.m.
<i>Adjusted EBITDA margin</i>	43%	40%				
Energy products Adjusted EBITDA/ EBIT	1,503	2,269	(34)	(842)	(88)	n.m.
<i>Adjusted EBITDA margin – pre economic hedge</i>	32%	29%				
<i>Adjusted EBITDA margin – post economic hedge</i>	22%	29%				

¹ Represents the Group's share of this JV.

² Coal EBITDA margin is calculated on the basis of Coal operating revenue before corporate hedging, as set out in the preceding table.

US\$ million	2016			2015		
	Sustaining	Expansion	Total	Sustaining	Expansion	Total
Capex						
Australia (thermal and coking)	181	110	291	277	177	454
Thermal South Africa	98	30	128	89	120	209
Prodeco	43	3	46	36	5	41
Cerrejón ¹	31	2	33	31	5	36
Total Coal	353	145	498	433	307	740
Oil	72	1	73	431	132	563
Capital expenditure	425	146	571	864	439	1,303

¹ Represents the Group's share of this JV.

Energy Products

Production data

Coal assets¹

		2016	2015	Change %
Australian coking coal	mt	5.3	5.9	(10)
Australian semi-soft coal	mt	4.2	3.6	17
Australian thermal coal (export)	mt	52.5	52.4	–
Australian thermal coal (domestic)	mt	5.6	3.9	44
South African thermal coal (export)	mt	17.2	19.7	(13)
South African thermal coal (domestic)	mt	12.1	17.3	(30)
Prodeco	mt	17.3	17.6	(2)
Cerrejón ²	mt	10.7	11.1	(4)
Total Coal department	mt	124.9	131.5	(5)

1 Controlled industrial assets and joint ventures only. Production is on a 100% basis except for joint ventures, where the Group's attributable share of production is included.

2 The Group's pro-rata share of Cerrejón production (33.3%).

Oil assets

		2016	2015	Change %
Glencore entitlement interest basis				
Equatorial Guinea	kbbbl	3,629	4,937	(26)
Chad	kbbbl	3,882	5,632	(31)
Total Oil department	kbbbl	7,511	10,569	(29)
Gross basis				
Equatorial Guinea	kbbbl	16,909	22,939	(26)
Chad	kbbbl	5,308	7,699	(31)
Total Oil department	kbbbl	22,217	30,638	(27)

Operating highlights

Coal assets

Production of 124.9 million tonnes was 6.6 million tonnes (5%) lower than 2015, mainly reflecting the deconsolidation and subsequent sale of Optimum Coal and scheduled mine closures in South Africa and weather-related constraints on production in Colombia.

Australian coking

Production of 5.3 million tonnes was 0.6 million tonnes lower than 2015, mainly due to geological issues at Oaky Creek earlier in the year.

Australian thermal and semi-soft

Production of 62.3 million tonnes was 2.4 million tonnes (4%) higher than 2015, mainly as a result of planned increases at Mangoola, Rolleston and Ravensworth North, along with improved production at South Blakefield, following geological challenges in 2015.

South African thermal

Production of 29.3 million tonnes was 7.7 million tonnes (21%) lower than 2015, mainly due to the deconsolidation and subsequent sale of Optimum Coal and some smaller scheduled mine closures.

Prodeco

Production of 17.3 million tonnes was 0.3 million tonnes (2%) less than in 2015, impacted by heavy rainfall during the year.

Cerrejón

Glencore's share of volumes from Cerrejón was 10.7 million tonnes, 0.4 million tonnes (4%) lower than the prior year, mainly due to weather-related production disruptions.

Energy Products

Oil assets

In 2016, Glencore's entitlement interest production was 7.5 million barrels, 3.1 million barrels (29%) lower than 2015, reflecting the natural depletion of existing fields. During the first quarter of 2016, the remaining workover rig in Chad was temporarily suspended; a one-rig drilling schedule is expected to recommence in 2017.

Agricultural Products

The disposal of 50% of the Agricultural Products division was completed on 1 December 2016, as discussed in the Financial Review and the financial statements. These highlights reflect 11 months' results on a 100% consolidated basis and 1 month on a 50% proportionate consolidated basis.

US\$ million	Marketing activities	Industrial activities	2016	Marketing activities	Industrial activities	2015
Revenue	18,678	3,292	21,970	20,617	2,529	23,146
Adjusted EBITDA	454	138	592	584	150	734
Adjusted EBIT	418	104	522	461	63	524
Adjusted EBITDA margin	2.4%	4.2%	2.7%	2.8%	5.9%	3.2%

Market conditions

Selected average commodity prices

	2016	2015	Change %
S&P GSCI Agriculture Index	295	295	–
CBOT wheat price (US¢/bu)	436	507	(14)
CBOT corn no.2 price (US¢/bu)	358	377	(5)
CBOT soya beans (US¢/bu)	989	945	5
ICE cotton price (US¢/lb)	66	63	5
ICE sugar # 11 price (US¢/lb)	18	13	38

Marketing and handling highlights

Prices and volatility generally remained subdued during the period, with our grain and oilseed marketing business performing consistently well in the circumstances. The marketing of wheat, Brazilian corn, soyameal and the rapeseed complex, supported by our asset ownership, exceeded expectations, while sugar and cotton were below expectations.

Viterra Canada faced challenges in the first half of 2016, as the crop harvested in September 2015 was below average, with margins suffering from competition amongst handlers in the face of low prices and farmer retention. Margins improved in the final quarter with a near-record, albeit poor quality, crop harvested in September 2016. South Australia was broadly similar, with the first half impacted by the disappointing October 2015 harvest and the final quarter benefiting from a record 2016 South Australian crop. In the meantime, we had added storage and were well prepared for the large Viterra Australia intake. The crop size and delayed Australian harvest is also expected to positively impact results in the first quarter of 2017.

Agricultural Products

Financial information

US\$ million	2016	2015	Change %
Revenue	18,678	20,617	(9)
Adjusted EBITDA	454	584	(22)
Adjusted EBIT	418	461	(9)

Selected marketing volumes sold

Million tonnes	2016	2015	Change %
Grain	43.8	43.7	–
Oil/Oilseeds	26.7	23.3	15
Cotton	0.4	0.4	–
Sugar	0.5	1.1	(55)

Operating highlights

Processing/production (100% basis) of 14.5 million tonnes reflected a year-on-year increase of 2.9 million tonnes (25%), mainly relating to the acquisitions, in late 2015 and early 2016, of the Becancour and Warden crush plants in Canada and the US, respectively, and higher capacity utilisation in Argentina.

At Becancour, margins were poor early in the year as sales of meal proved challenging, but increased in the second half. In Argentina, where the fiscal environment has improved, margins were reasonable in the post-harvest period, but contracted somewhat with farmer retention later in the year. Softseed crushing and biodiesel in Europe struggled with the smaller rapeseed crop and resulting over-capacity.

Sugar milling volumes increased as we attracted ample third-party cane and the business benefited from higher sugar and ethanol prices. Wheat milling in Brazil was challenging in early 2016 as demand contracted due to poor domestic economic conditions, however this business recovered well in the second half.

Financial information

US\$ million	2016	2015	Change %
Revenue	3,292	2,529	30
Adjusted EBITDA	138	150	(8)
Adjusted EBIT	104	63	65
<i>Adjusted EBITDA margin</i>	4%	6%	
Sustaining capital expenditure	22	58	
Expansionary capital expenditure	22	40	
Total capital expenditure	44	98	

Processing / production data¹

		2016	2015	Change %
Farming	kt	792	704	13
Crushing	kt	7,680	6,069	27
Long term toll agreement	kt	804	284	183
Biodiesel	kt	687	556	24
Rice milling	kt	274	206	33
Wheat milling	kt	989	976	1
Sugarcane processing	kt	3,259	2,751	18
Total agricultural products	kt	14,485	11,546	25

¹ Reported on a 100% basis.

Consolidated statement of income/(loss)

For the year ended 31 December 2016

US\$ million	Notes	2016	2015 Restated ¹
Revenue		152,948	147,351
Cost of goods sold		(149,763)	(144,533)
Selling and administrative expenses		(1,102)	(1,096)
Share of income from associates and joint ventures	9	11	99
Gains/(losses) on disposals and investments	3	452	(994)
Other expense – net	4	(1,589)	(7,928)
Dividend income		27	25
Interest income		155	179
Interest expense		(1,688)	(1,482)
Loss before income taxes		(549)	(8,379)
Income tax (expense)/credit	6	(638)	9
Loss for the year from continuing operations		(1,187)	(8,370)
Income from discontinued operations, net of tax	23	2,123	256
Income/(Loss) for the year		936	(8,114)
Attributable to:			
Non-controlling interests		(443)	(3,150)
Equity holders of the Parent		1,379	(4,964)
Loss per share – continuing operations:			
Basic (US\$)	15	(0.05)	(0.39)
Diluted (US\$)	15	(0.05)	(0.39)
Earnings/(Loss) per share – continuing and discontinued operations:			
Basic (US\$)	15	0.10	(0.37)
Diluted (US\$)	15	0.10	(0.37)

¹ Certain amounts shown here reflect the adjustment made relating to discontinued operations (see note 23), and therefore do not correspond to the consolidated statement of income/(loss) for the year ended 31 December 2015.

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of comprehensive income/(loss)

For the year ended 31 December 2016

US\$ million	Notes	2016	2015 Restated ¹
Income/(loss) for the year		936	(8,114)
Other comprehensive income/(loss)			
Items not to be reclassified to the statement of income in subsequent periods:			
Defined benefit plan actuarial (losses)/gains, net of tax of \$14 million (2015: \$29 million)	21	(41)	76
Discontinued operations – Actuarial (losses)/gains net of tax of \$1 million (2015: \$5 million)	21	(4)	16
Net items not to be reclassified to the statement of income in subsequent periods:		(45)	92
Items that are or may be reclassified to the statement of income in subsequent periods:			
Exchange gain/(loss) on translation of foreign operations		472	(1,531)
Gains/(losses) on cash flow hedges, net of tax of \$5 million (2015: \$42 million)		99	(85)
Share of comprehensive loss from associates and joint ventures	9	–	(22)
Unrealised gain/(loss) on available for sale financial instruments	9	365	(488)
Discontinued operations ²		43	(272)
Items recycled to the statement of income upon disposal of subsidiaries	3/23	602	311
Net items that are or may be reclassified to the statement of income in subsequent periods:		1,581	(2,087)
Other comprehensive income/(loss)		1,536	(1,995)
Total comprehensive income/(loss)		2,472	(10,109)
Attributable to:			
Non-controlling interests		(411)	(3,217)
Equity holders of the Parent		2,883	(6,892)

¹ Certain amounts shown here reflect the adjustment made relating to discontinued operations (see note 23), and therefore do not correspond to the consolidated statement of comprehensive income/(loss) for the year ended 31 December 2015.

² Includes exchange gain on translation of foreign operations of \$22 million (2015: loss of \$264 million), gain on cash flow hedges net of tax of \$21 million (2015: loss of \$4 million) and share of comprehensive loss from associates and joint ventures of \$Nil million (2015: \$4 million).

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of financial position

As at 31 December 2016

US\$ million	Notes	2016	2015
Assets			
Non-current assets			
Property, plant and equipment	7	53,826	60,774
Intangible assets	8	6,716	7,516
Investments in associates and joint ventures	9	13,086	11,337
Other investments	9	1,753	1,305
Advances and loans	10	3,483	3,005
Inventories	11	564	504
Deferred tax assets	6	1,760	1,846
		81,188	86,287
Current assets			
Inventories	11	18,347	18,303
Accounts receivable	12	20,066	17,001
Other financial assets	26	2,212	3,701
Prepaid expenses and other assets		269	447
Marketable securities		10	39
Cash and cash equivalents	13	2,508	2,707
		43,412	42,198
Total assets		124,600	128,485
Equity and liabilities			
Capital and reserves – attributable to equity holders			
Share capital	14	146	146
Reserves and retained earnings		44,097	41,108
		44,243	41,254
Non-controlling interests	31	(462)	89
Total equity		43,781	41,343
Non-current liabilities			
Borrowings	18	23,188	32,932
Deferred income	19	2,266	1,452
Deferred tax liabilities	6	5,664	5,777
Other financial liabilities	26	403	186
Provisions	20	5,931	5,923
		37,452	46,270
Current liabilities			
Borrowings	18	10,030	11,117
Accounts payable	22	26,176	24,088
Deferred income	19	138	87
Provisions	20	458	474
Other financial liabilities	26	6,386	4,931
Income tax payable		179	175
		43,367	40,872
Total equity and liabilities		124,600	128,485

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of cash flows

For the year ended 31 December 2016

US\$ million	Notes	2016 ¹	2015 ¹
Operating activities			
Loss before income taxes from continuing operations		(549)	(8,379)
Income before income taxes from discontinued operations	23	2,254	363
Adjustments for:			
Depreciation and amortisation		5,632	5,835
Share of income from associates and joint ventures	9	(26)	(101)
Decrease in employee benefit liabilities		(17)	(202)
(Gains)/losses on disposals and investments	3/23	(2,384)	994
Unrealised mark-to-market movements on other investments	4	121	262
Impairments	5	1,268	7,120
Other non-cash items – net ²		(34)	168
Interest expense – net		1,603	1,394
Cash generated by operating activities before working capital changes		7,868	7,454
Working capital changes			
(Increase)/decrease in accounts receivable ³		(5,005)	4,975
(Increase)/decrease in inventories		(2,707)	5,410
Increase/(decrease) in accounts payable ⁴		5,540	(3,572)
Proceeds from gold and silver streaming	19	971	900
Total working capital changes		(1,201)	7,713
Income taxes paid		(584)	(865)
Interest received		111	119
Interest paid		(1,376)	(1,203)
Net cash generated by operating activities		4,818	13,218
Investing activities			
Net cash received/(used) in acquisition of subsidiaries	23	176	(318)
Net cash received from disposal of subsidiaries	23	5,535	212
Purchase of investments	9	(15)	(236)
Proceeds from sale of investments		3	41
Purchase of property, plant and equipment	7/8	(3,048)	(5,372)
Payments for exploration and evaluation	7	–	(147)
Proceeds from sale of property, plant and equipment		128	115
Dividends received from associates and joint ventures	9	833	428
Net cash generated/(used) by investing activities		3,612	(5,277)

1 Includes results from discontinued operations.

2 Includes certain non-cash items as disclosed in note 4.

3 Includes movements in other financial assets, prepaid expenses, long-term advances and loans and other assets.

4 Includes movements in other financial liabilities, provisions and deferred income.

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of cash flows

For the year ended 31 December 2016

US\$ million	Notes	2016 ¹	2015 ¹
Financing activities²			
Proceeds from issuance of capital market notes ³	18	1,366	4,901
Repayment of capital market notes		(4,748)	(4,459)
Repurchase of capital market notes	18	(2,629)	(529)
Repayment of other non-current borrowings		(2,848)	(5,176)
Margin payments in respect of financing related hedging activities		(695)	(618)
Proceeds from/(repayment of) current borrowings		1,020	(1,926)
Acquisition of additional interests in subsidiaries		(7)	–
Return of capital/distributions to non-controlling interests		(91)	(95)
Disposal/(repurchase) of own shares		3	(272)
Share issuance ³		–	2,444
Distributions paid to equity holders of the Parent	16	–	(2,328)
Net cash used by financing activities		(8,629)	(8,058)
Decrease in cash and cash equivalents		(199)	(117)
Cash and cash equivalents, beginning of year		2,707	2,824
Cash and cash equivalents, end of year		2,508	2,707

¹ Includes results from discontinued operations.

² Presented net of directly attributable issuance costs where applicable.

³ Net of issuance costs relating to capital market notes and shares of \$9 million (2015: \$16 million) and \$Nil million (2015: \$64 million) respectively.

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of changes of equity

For the year ended 31 December 2016

US\$ million	(Deficit)/ retained earnings	Share premium	Other reserves (Note 14)	Own shares	Total reserves and (deficit)/ retained earnings	Share capital	Total equity attributable to equity holders	Non- controlling interests (Note 31)	Total equity
1 January 2015	(222)	52,533	(2,409)	(1,493)	48,409	133	48,542	2,938	51,480
Loss for the year	(4,964)	–	–	–	(4,964)	–	(4,964)	(3,150)	(8,114)
Other comprehensive loss	66	–	(1,994)	–	(1,928)	–	(1,928)	(67)	(1,995)
Total comprehensive loss	(4,898)	–	(1,994)	–	(6,892)	–	(6,892)	(3,217)	(10,109)
Shares issued ¹	–	2,431	–	–	2,431	13	2,444	–	2,444
Own share purchases ¹	–	–	–	(281)	(281)	–	(281)	–	(281)
Own share disposal ¹	(45)	–	–	62	17	–	17	–	17
Equity-settled share- based expenses ²	66	–	–	–	66	–	66	–	66
Change in ownership interest in subsidiaries	–	–	(16)	–	(16)	–	(16)	35	19
Disposal of business ³	–	–	–	–	–	–	–	(257)	(257)
Cancellation of put option ⁴	–	–	–	–	–	–	–	685	685
Distributions paid ⁵	–	(2,626)	–	–	(2,626)	–	(2,626)	(95)	(2,721)
At 31 December 2015	(5,099)	52,338	(4,419)	(1,712)	41,108	146	41,254	89	41,343
1 January 2016	(5,099)	52,338	(4,419)	(1,712)	41,108	146	41,254	89	41,343
Income for the year	1,379	–	–	–	1,379	–	1,379	(443)	936
Other comprehensive (loss)/income	(45)	–	1,549	–	1,504	–	1,504	32	1,536
Total comprehensive income/(loss)	1,334	–	1,549	–	2,883	–	2,883	(411)	2,472
Own share disposal ¹	(9)	–	–	12	3	–	3	–	3
Equity-settled share- based expenses ²	75	–	–	–	75	–	75	–	75
Change in ownership interest in subsidiaries	–	–	68	–	68	–	68	17	85
Disposal of business ³	(40)	–	–	–	(40)	–	(40)	(66)	(106)
Distributions paid ⁵	–	–	–	–	–	–	–	(91)	(91)
At 31 December 2016	(3,739)	52,338	(2,802)	(1,700)	44,097	146	44,243	(462)	43,781

1 See note 14.

2 See note 17.

3 See note 23.

4 See note 26.

5 See note 16.

The accompanying notes are an integral part of the consolidated financial statements.

1. ACCOUNTING POLICIES

Corporate information

Glencore plc (the "Company", "Parent", the "Group" or "Glencore"), is a leading integrated producer and marketer of natural resources, with worldwide activities in the production, refinement, processing, storage, transport and marketing of metals and minerals, energy products and agricultural products. Glencore operates on a global scale, marketing and distributing physical commodities sourced from third party producers and own production to industrial consumers, such as those in the automotive, steel, power generation, oil and food processing industries. Glencore also provides financing, logistics and other services to producers and consumers of commodities. In this regard, Glencore seeks to capture value throughout the commodity supply chain. Glencore's long experience as a commodity producer and merchant has allowed it to develop and build upon its expertise in the commodities which it markets and cultivate long-term relationships with a broad supplier and customer base across diverse industries and in multiple geographic regions.

Glencore plc is a publicly traded limited company incorporated in Jersey and domiciled in Switzerland. Its ordinary shares are traded on the London, Hong Kong and Johannesburg stock exchanges.

This preliminary announcement was authorised for issue in accordance with a Directors' resolution on 22 February 2017.

The unaudited financial information for the year ended 31 December 2016 and audited financial information for the year ended 31 December 2015 contained in this document do not constitute statutory accounts as defined in Article 105 of Companies (Jersey) Law 1991. The financial information for the year ended 31 December 2016 has been extracted from the financial statements of Glencore which will be delivered to the Registrar in due course. The audit report for 31 December 2016 is yet to be signed by the auditors.

Statement of compliance

The accounting policies adopted in this preliminary announcement are based on the Company's financial statements which are prepared in accordance with:

- International Financial Reporting Standards ("IFRS") and interpretations as adopted by the European Union ("EU") effective as of 31 December 2016; and
- IFRS and interpretations as issued by the International Accounting Standards Board ("IASB") effective as of 31 December 2016.

Critical accounting judgements and key sources of estimation

The preparation of the consolidated financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities as well as the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable and relevant under the circumstances, independent estimates, quoted market prices and common, industry standard modelling techniques. Actual outcomes could result in a material adjustment to the carrying amount of assets or liabilities affected in future periods.

Glencore has identified the following areas as being critical to understanding Glencore's financial position as they require management to make complex and/or subjective judgements, estimates and assumptions about matters that are inherently uncertain:

Key judgements

In the process of applying Glencore's accounting policies, management has made the following judgements based on the relevant facts and circumstances including macro-economic circumstances and, where applicable, interpretation of underlying agreements, which have the most significant effect on the amounts recognised in the consolidated financial statements.

1. ACCOUNTING POLICIES (continued)

Determination of control of subsidiaries and joint arrangements

Judgement is required to determine when Glencore has control of subsidiaries or joint control of joint arrangements. This requires an assessment of the relevant activities (those relating to the operating and capital decisions of the arrangement, such as: the approval of the capital expenditure programme for each year, and appointing, remunerating and terminating the key management personnel or service providers of the operations) and when the decisions in relation to those activities are under the control of Glencore or require unanimous consent.

Judgement is also required in determining the classification of a joint arrangement between a joint venture or a joint operation through an evaluation of the rights and obligations arising from the arrangement and in particular, if the joint arrangement has been structured through a separate vehicle, further consideration is required of whether:

- (1) the legal form of the separate vehicle gives the parties rights to the assets and obligations for the liabilities;
- (2) the contractual terms and conditions give the parties rights to the assets and obligations for the liabilities; and
- (3) other facts and circumstances give the parties rights to the assets and obligations for the liabilities.

Joint arrangements in which the primary activity is the provision of output to the shareholders, typically convey substantially all the economic benefits of the assets to the parties and judgement is required in assessing whether the terms of the offtake agreements and any other obligations for liabilities of the arrangement result in the parties being substantially the only source of cash flows contributing to the continuity of the operations of the arrangement.

Certain joint arrangements that are structured through separate vehicles including Collahuasi and Glencore Agri are accounted for as joint ventures. The Collahuasi arrangement is primarily designed for the provision of output to the shareholders sharing joint control, the offtake terms of which are at prevailing market prices and the parties are not obligated to cover any potential funding shortfalls. In management's judgement, Glencore is not the only possible source of funding and does not have a direct or indirect obligation to the liabilities of the arrangement, but rather shares in its net assets and, therefore, such arrangements have been accounted for as joint ventures.

Differing conclusions around these judgements, may materially impact how these businesses are presented in the consolidated financial statements – under the full consolidation method, equity method or recognition of Glencore's share of assets, liabilities, revenue and expenses, including any assets or liabilities held jointly.

Credit and performance risk (note 24)

The Group's global marketing operations expose it to credit and performance (the risk that counterparties fail to sell or purchase physical commodities on agreed terms) risks; these arise particularly in markets demonstrating significant price volatility with limited liquidity and terminal markets and when global and/or regional macro-economic conditions are weak.

Continuously, but particularly during such times, judgement is required to determine whether receivables, loans and advances are recoverable and if contracted product deliveries will be received. Judgements about recoverability and contractual performance may materially impact both non-current and current assets as recognised in the statement of financial position.

Recognition of deferred tax assets (note 6)

Deferred tax assets are recognised only to the extent it is considered probable that those assets will be recoverable. This involves an assessment of when those deferred tax assets are likely to reverse, and a judgement as to whether there will be sufficient taxable income available to offset the tax assets when they do reverse. These judgements are subject to risk and uncertainty and therefore, to the extent assumptions regarding future profitability change, there can be a material increase or decrease in the amounts recognised in the consolidated statement of income in the period in which the change occurs. The recoverability of deferred tax assets including the estimates and assumptions contained therein are reviewed regularly by management.

Classification of transactions which contain a financing element (notes 18, 19 and 22)

Transactions for the sale or purchase of commodities may contain a financing element such as extended payment term agreements. Judgement is required to determine the most appropriate classification and presentation of these transactions within the statements of cash flows and financial position. In determining the appropriate classification, management considers the underlying economic substance of the transaction and the significance of the financing element to the transaction. Typically the economic substance of the transaction is determined to be operating in nature, i.e. predominantly related to the sale or purchase of commodities as the financing element is insignificant and the entire cash flow will therefore be presented as operating in the statement of cash flow with a corresponding trade receivable or payable in the statement of financial position.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Key estimates and assumptions

In the process of applying Glencore's accounting policies, management has made key estimates and assumptions concerning the future and other key sources of estimation uncertainty. The key assumptions and estimates at the reporting date that have a significant impact on the financial position and the results of operations, are described below. Actual results may differ from these estimates under different assumptions and conditions and may materially affect financial results or the financial position reported in future periods.

Valuation of derivative instruments (note 26)

Derivative instruments are carried at fair value and Glencore evaluates the quality and reliability of the assumptions and data used to measure fair value in the three hierarchy levels, Level 1, 2 and 3, as prescribed by IFRS 13 *Fair Value Measurement*. Fair values are determined in the following ways: externally verified via comparison to quoted market prices in active markets (Level 1); by using models with externally verifiable inputs (Level 2); or by using alternative procedures such as comparison to comparable instruments and/or using models with unobservable market inputs requiring Glencore to make market-based assumptions (Level 3). Level 3 inputs therefore include the highest level of estimation uncertainty.

Depreciation and amortisation of mineral and petroleum rights, deferred mining costs and plant and equipment (note 7)

Mineral and petroleum rights, deferred mining costs and certain plant and equipment are depreciated/amortised using the Units of Production basis ("UOP"). The calculation of the UOP rate of depreciation/amortisation, and therefore the annual charge to operations, can fluctuate from initial estimates. This could generally result when there are significant changes in any of the factors or assumptions used in estimating mineral or petroleum reserves and resources, notably changes in the geology of the reserves and resources and assumptions used in determining the economic feasibility of the reserves. Such changes in reserves and resources could similarly impact the useful lives of assets depreciated on a straight-line basis, where those lives are limited to the life of the project, which in turn is limited to the life of the underlying reserves and resources. Estimates of proven and probable reserves and resources are prepared by experts in extraction, geology and reserve determination. Assessments of UOP rates against the estimated reserve and resource base and the operating and development plan are performed regularly.

Impairments (notes 3, 5, 7, 8 and 9)

Investments in associates and joint ventures, other investments, advances and loans, property, plant and equipment and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be fully recoverable or at least annually for goodwill and other indefinite life intangible assets. If an asset's recoverable amount is less than the asset's carrying amount, an impairment loss is recognised in the consolidated statement of income. Future cash flow estimates which are used to calculate the asset's fair value are discounted using asset specific discount rates and are based on expectations about future operations, primarily comprising estimates about production and sales volumes, commodity prices (considering current and historical prices, price trends and related factors), reserves and resources, operating, rehabilitation and restoration costs and capital expenditures. Estimates are reviewed regularly by management. Changes in such estimates and in particular, deterioration in the pricing outlook, could impact the recoverable values of these assets, whereby some or all of the carrying amount may be impaired or the impairment charge reduced (if pricing outlook improves significantly) with the impact recorded in the statement of income.

Restoration, rehabilitation and decommissioning costs (note 20)

A provision for future restoration, rehabilitation and decommissioning costs requires estimates and assumptions to be made around the relevant regulatory framework, the magnitude of the possible disturbance, the timing, extent and costs of the required closure and rehabilitation activities. Most of these rehabilitation and decommissioning events are expected to take place many years in the future and the currently estimated requirements and costs that will have to be met when the restoration event occurs are inherently uncertain and could materially change over time.

In calculating the appropriate provision for the expected restoration, rehabilitation or decommissioning obligations, static cost estimates of the future potential cash outflows based on, current studies of the expected rehabilitation activities and timing, assuming third party contractor rates and existing lives of operations are prepared. These static/deterministic forecasts are then discounted to their present value using a rate specific to the liability which is comprised of an estimate of the country specific risk free rate and adjustments based on management's judgements and experience for potential prolongation of the underlying timing assumptions and an anticipated benefit of eventually realising costs lower than those estimated.

Any changes in the expected future costs are initially reflected in both the provision and the asset and subsequently in the consolidated statement of income over the remaining economic life of the asset. As the actual future costs can differ from the estimates due to changes in laws, regulations, technology, costs and timing, the provisions including the estimates and assumptions contained therein are reviewed regularly by management.

1. ACCOUNTING POLICIES (continued)

Fair value measurements (notes 9, 11, 24, 25 and 26)

In addition to recognising derivative instruments at fair value, as discussed above, an assessment of the fair value of assets and liabilities is also required in accounting for other transactions, most notably, business combinations and marketing inventories and disclosures related to fair values of financial assets and liabilities. In such instances, fair value measurements are estimated based on the amounts for which the assets and liabilities could be exchanged at the relevant transaction date or reporting period end, and are therefore not necessarily reflective of the likely cash flow upon actual settlements. Where fair value measurements cannot be derived from publicly available information, they are estimated using models and other valuation methods. To the extent possible, the assumptions and inputs used take into account externally verifiable inputs. However, such information is by nature subject to uncertainty, particularly where comparable market-based transactions often do not exist.

New and revised standards not yet effective

At the date of authorisation of these consolidated financial statements, the following new and revised IFRS standards, which are applicable to Glencore, were issued but are not yet effective:

Amendments to IAS 12 – Recognition of deferred tax assets for unrealised losses – effective for year ends beginning on or after 1 January 2017

The amendments to IAS 12 clarify the requirement on recognition of deferred tax assets related to debt instruments measured at fair value. The Group is assessing the potential impact of the change on its consolidated financial statements and so far, it does not expect any significant impact.

Amendments to IFRS 2 – Classification and measurement of share-based payment transactions – effective for year ends beginning on or after 1 January 2018

The amendments to IFRS 2 *Share-based payments* clarify the classification and measurement of share-based payment transactions with respect to accounting for cash-settled share-based payment transactions that include a performance obligation, the classification of share-based payment transactions with net settlement features and the accounting for modifications of share-based payment transactions from cash-settled to equity-settled. The Group is assessing the potential impact of the change on its consolidated financial statements and so far, it does not expect any significant impact.

IFRS 9 – Financial Instruments – effective for year ends beginning on or after 1 January 2018

IFRS 9 modifies the classification and measurement of certain classes of financial assets and liabilities. The most significant change is to rationalise from four to two primary categories of financial assets reflecting the business model in which assets are managed and their cash flow characteristics. The Group's implementation activities to date have principally focussed on gaining an understanding of the likely effects of IFRS 9 given the nature of financial instruments currently held by the Group. The Group is assessing the potential impact of the change on its consolidated financial statements and so far, it does not expect any significant impact.

IFRS 15 – Revenue from Contracts with Customers – effective for year ends beginning on or after 1 January 2018

IFRS 15 applies to revenue from contracts with customers and replaces all of the revenue standards and interpretations in IFRS. The standard outlines the principles an entity must apply to measure and recognise revenue and the related cash flows. The Group is currently in the process of completing its review of the potential impact of adopting IFRS 15 with the primary focus being to understand whether the timing and amount of revenue recognised could differ under IFRS 15. As the majority of the Group's revenue is derived from arrangements in which the transfer of risks and rewards coincides with the fulfilment of performance obligations, no material changes in respect of timing and amount of revenue currently recognised by the Group are expected.

IFRS 16 – Leases – effective for year ends beginning on or after 1 January 2019

IFRS 16 provides a comprehensive model for identification of lease arrangements and their treatment (on-balance sheet) in the financial statements of both lessees and lessors. It supersedes IAS 17 *Leases* and its associated interpretative guidance. Under the new standard, a lessee is required to recognise all lease assets and liabilities (including those currently classified as operating leases) on the statement of financial position at the present value of the unavoidable lease payments and an amortisation charge on the leased assets and an interest charge on the leased liabilities. Although the Group is still evaluating the potential impact of IFRS 16 on the financial statements and performance measures, including an assessment of whether any arrangements the Group enters into will be considered a lease under IFRS 16, it is expected IFRS 16 will increase the Group's recognised assets and liabilities and affect the presentation and timing of related depreciation and interest charges in the consolidated statement of income/loss. Upon adoption of IFRS 16, the most significant impact is likely to be the present value of the operating lease commitments currently disclosed in note 28 being shown as a liability on the statement of financial position together with an asset representing the right of use.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Basis of preparation

The financial statements are prepared under the historical cost convention except for the revaluation of certain financial assets, liabilities and marketing inventories that are measured at revalued amounts or fair values at the end of each reporting period as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services. The principal accounting policies adopted are set out below.

The Directors have assessed that they have, at the time of approving the financial statements, a reasonable expectation that the Group has adequate resources to continue in operational existence for the 12 months from such approval. Therefore they continue to adopt the going concern basis of accounting in preparing these financial statements. Further information on Glencore's objectives, policies and processes for managing its capital and financial risks are detailed in note 24.

All amounts are expressed in millions of United States Dollars, unless otherwise stated, consistent with the predominant functional currency of Glencore's operations.

Comparative information

Certain comparative information for the year ended 31 December 2015 has been restated for the effects of the application of IFRS 5 *Non-current assets held for sale and discontinued operations*, see note 23. The nature of each change reflected in the restated financial statements is as follows:

- All income and expense items relating to the Agricultural products business segment ("Glencore Agri") have been removed from the individual line items in the statement of income and the statement of other comprehensive income. The net income of Glencore Agri, until close of transaction on 1 December 2016, is presented as a single amount in the line item – 'Income from discontinued operations – net of tax'.

The statement of financial position, statement of changes in equity and cash flow have not been restated as there is no requirement to do so.

Inventory with a net carrying value of \$504 million disclosed under deferred mining cost within property, plant and equipment in 2015 were reclassified to non-current inventories to better reflect the nature of these items.

Principles of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries.

Control is achieved when Glencore is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, Glencore controls an investee if, and only if, Glencore has all of the following:

- power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- exposure, or rights, to variable returns from its involvement with the investee; and
- the ability to use its power over the investee to affect its returns.

When Glencore has less than a majority of the voting rights of an investee or similar rights of an investee, it considers all relevant facts and circumstances in assessing whether it has power over the investee including:

- the size of Glencore's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by Glencore, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that Glencore has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above. Consolidation of a subsidiary begins when Glencore obtains control over the subsidiary and ceases when Glencore loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of income and other comprehensive income from the date Glencore gains control until the date when Glencore ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Changes in Glencore's interests in subsidiaries that do not result in a loss of control are accounted for as equity transactions with any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received being recognised directly in equity and attributed to equity holders of Glencore.

When Glencore loses control of a subsidiary, a gain or loss is recognised in the consolidated statement of income and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if Glencore had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39, when applicable, or the cost on the initial recognition of an investment in an associate or a joint venture.

Investments in associates and joint ventures

Associates and joint ventures (together Associates) in which Glencore exercises significant influence or joint control are accounted for using the equity method. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies. Significant influence is presumed if Glencore holds between 20% and 50% of the voting rights, unless evidence exists to the contrary. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control over an arrangement, which exists only when decisions about relevant strategic and/or key operating decisions require unanimous consent of the parties sharing control.

Equity accounting involves Glencore recording its share of the Associate's net income and equity. Glencore's interest in an Associate is initially recorded at cost and is subsequently adjusted for Glencore's share of changes in net assets of the Associate, less any impairment in the value of individual investments. Where Glencore transacts with an Associate, unrealised profits and losses are eliminated to the extent of Glencore's interest in that Associate.

Changes in Glencore's interests in Associates are accounted for as a gain or loss on disposal with any difference between the amount by which the carrying value of the Associate is adjusted and the fair value of the consideration received being recognised directly in the consolidated statement of income.

Joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement.

When Glencore undertakes its activities under joint operations, Glencore recognises in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the IFRSs applicable to the particular assets, liabilities, revenues and expenses.

Where Glencore transacts with a joint operation, unrealised profits and losses are eliminated to the extent of Glencore's interest in that joint operation.

1. ACCOUNTING POLICIES (continued)

Business combinations and goodwill

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method of accounting. The cost of the acquisition is measured at fair value, which is calculated as the sum of the acquisition date fair values of the assets transferred, liabilities incurred to the former owners of the acquiree and the equity interests issued in exchange for control of the acquiree. The identifiable assets, liabilities and contingent liabilities ("identifiable net assets") are recognised at their fair value at the date of acquisition. Acquisition related costs are recognised in the consolidated statement of income as incurred.

Where a business combination is achieved in stages, Glencore's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (i.e. the date Glencore attains control) and the resulting gain or loss, if any, is recognised in the consolidated statement of income.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to the cash-generating units ("CGU") that are expected to benefit from the synergies of the combination. CGUs to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata based on the carrying amount of each asset in the unit. Any impairment loss is recognised directly in profit or loss. An impairment loss recognised for goodwill is not able to be reversed in subsequent periods.

On disposal of the relevant CGU, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, Glencore reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted for additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

Similar procedures are applied in accounting for the purchases of interests in Associates and joint operations. Any goodwill arising from such purchases is included within the carrying amount of the investment in Associates, but not amortised thereafter. Any excess of Glencore's share of the net fair value of the Associate's identifiable net assets over the cost of the investment is included in the consolidated statement of income in the period of the purchase.

Revenue recognition

Revenue is recognised when Glencore has transferred to the buyer all significant risks and rewards of ownership of the assets sold. Revenue excludes any applicable sales taxes and is recognised at the fair value of the consideration received or receivable to the extent that it is probable that economic benefits will flow to Glencore and the revenues and costs can be reliably measured. In most instances sales revenue is recognised when the product is delivered to the destination specified by the customer, which is typically the vessel on which it is shipped, the destination port or the customer's premises.

For certain commodities, the sales price is determined on a provisional basis at the date of sale as the final selling price is subject to movements in market prices up to the date of final pricing, normally ranging from 30 to 90 days after initial booking. Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the character of a commodity derivative. Accordingly, the fair value of the final sales price adjustment is re-estimated continuously and changes in fair value are recognised as an adjustment to revenue. In all cases, fair value is estimated by reference to forward market prices.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Royalty, interest and dividend income is recognised when the right to receive payment has been established, it is probable that the economic benefits will flow to Glencore and the amount of income can be measured reliably. Royalty revenue is recognised on an accrual basis in accordance with the substance of the relevant agreement. Interest income is accrued on a time basis, by reference to the principal outstanding and the applicable effective interest rate.

Foreign currency translation

Glencore's reporting currency and the functional currency of the majority of its operations is the US dollar as this is assessed to be the principal currency of the economic environment in which it operates.

Foreign currency transactions

Transactions in foreign currencies are converted into the functional currency of each entity using the exchange rate prevailing at the transaction date. Monetary assets and liabilities outstanding at year-end are converted at year-end rates. The resulting exchange differences are recorded in the consolidated statement of income.

Translation of financial statements

For the purposes of consolidation, assets and liabilities of group companies whose functional currency is in a currency other than the US dollar are translated into US dollars using year-end exchange rates, while their statements of income are translated using average rates of exchange for the year.

Goodwill and fair value adjustments arising from the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and are translated at the closing rate. Translation adjustments are included as a separate component of shareholders' equity and have no consolidated statement of income impact to the extent that no disposal of the foreign operation has occurred.

Borrowing costs

Borrowing costs are expensed as incurred except where they relate to the financing of construction or development of qualifying assets in which case they are capitalised up to the date when the qualifying asset is ready for its intended use.

Retirement benefits

Glencore operates various pension schemes in accordance with local requirements and practices of the respective countries. The annual costs for defined contribution plans that are funded by payments to separate trustee administered funds or insurance companies equal the contributions that are required under the plans and accounted for as an expense.

Glencore uses the Projected Unit Credit Actuarial method to determine the present value of its defined benefit obligations and the related current service cost and, where applicable, past service cost. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset.

The cost of providing pensions is charged to the consolidated statement of income so as to recognise current and past service costs, interest cost on defined benefit obligations, and the effect of any curtailments or settlements, net of expected returns on plan assets. Actuarial gains and losses are recognised directly in other comprehensive income and will not be reclassified to the consolidated statement of income. The retirement benefit obligation/asset recognised in the consolidated statement of financial position represents the actual deficit or surplus in Glencore's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

Glencore also provides post-retirement healthcare benefits to certain employees in Canada, South Africa and the United States. These are accounted for in a similar manner to the defined benefit pension plans, however are unfunded.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Share-based payments

Equity-settled share-based payments

Equity-settled share-based payments are measured at the fair value of the awards based on the market value of the shares at the grant date. Fair value excludes the effect of non-market-based vesting conditions. The fair value is charged to the consolidated statement of income and credited to retained earnings on a straight-line basis over the period the estimated awards are expected to vest.

At each balance sheet date, the Company revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions. The impact of the revision of the original estimates, if any, is recognised in the consolidated statement of income such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to retained earnings.

Cash-settled share-based payments

For cash-settled share-based payments, a liability is initially recognised at fair value based on the estimated number of awards that are expected to vest, adjusting for market and non-market-based performance conditions. Subsequently, at each reporting period until the liability is settled, it is remeasured to fair value with any changes in fair value recognised in the consolidated statement of income.

Income taxes

Income taxes consist of current and deferred income taxes. Current taxes represent income taxes expected to be payable based on enacted or substantively enacted tax rates at the period end on expected current taxable income, and any adjustment to tax payable in respect of previous years. Deferred taxes are recognised for temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable income, using enacted or substantively enacted income tax rates which are expected to be effective at the time of reversal of the underlying temporary difference. Deferred tax assets and unused tax losses are only recognised to the extent that their recoverability is probable. Deferred tax assets are reviewed at reporting period end and amended to the extent that it is no longer probable that the related benefit will be realised. To the extent that a deferred tax asset not previously recognised but which subsequently fulfils the criteria for recognition, an asset is then recognised.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same authority and Glencore has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis. The tax effect of certain temporary differences is not recognised principally with respect to the initial recognition of an asset or liability (other than those arising in a business combination or in a manner that initially impacted accounting or taxable profit) and temporary differences relating to investments in subsidiaries and Associates to the extent that Glencore can control the timing of the reversal of the temporary difference and it is probable the temporary difference will not reverse in the foreseeable future. Deferred tax is provided in respect of fair value adjustments on acquisitions. These adjustments may relate to assets such as extraction rights that, in general, are not eligible for income tax allowances.

Current and deferred tax are recognised as an expense or income in the consolidated statement of income, except when they relate to items that are recognised outside the consolidated statement of income (whether in other comprehensive income or directly in equity) or where they arise from the initial accounting for a business combination.

Royalties, extraction taxes and other levies/taxes are treated as taxation arrangements when they have the characteristics of an income tax including being imposed and determined in accordance with regulations established by the respective government's taxation authority and the amount payable is based on taxable income – rather than physical quantities produced or as a percentage of revenues – after adjustment for temporary differences. For such arrangements, current and deferred tax is provided on the same basis as described above for other forms of taxation. Obligations arising from royalty arrangements that do not satisfy these criteria are recognised as current provisions and included in cost of goods sold.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Property, plant and equipment

Property, plant and equipment are stated at cost, being the fair value of the consideration given to acquire or construct the asset, including directly attributable costs required to bring the asset to the location or to a condition necessary for operation and the direct cost of dismantling and removing the asset, less accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment are depreciated to their estimated residual value over the estimated useful life of the specific asset concerned, or the estimated remaining life of the associated mine ("LOM"), field or lease.

Depreciation commences when the asset is available for use. The major categories of property, plant and equipment are depreciated/amortised on a UOP and/or straight-line basis as follows:

Buildings	10 - 45 years
Freehold land	not depreciated
Plant and equipment	3 - 30 years/UOP
Mineral and petroleum rights	UOP
Deferred mining costs	UOP

Assets under finance leases, where substantially all the risks and rewards of ownership transfer to the Group as lessee, are capitalised and amortised over their expected useful lives on the same basis as owned assets or, where shorter, the term of the relevant lease. All other leases are classified as operating leases, the expenditures for which are charged against income over the accounting periods covered by the lease term.

Mineral and petroleum rights

Mineral and petroleum reserves, resources and rights (together Mineral and petroleum rights) which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Mineral and petroleum rights for which values cannot be reasonably determined are not recognised. Exploitable Mineral and petroleum rights are amortised using the UOP basis over the commercially recoverable reserves and, in certain circumstances, other mineral resources. Mineral resources are included in amortisation calculations where there is a high degree of confidence that they will be extracted in an economic manner.

Exploration and evaluation expenditure

Exploration and evaluation expenditure relates to costs incurred in the exploration and evaluation of potential mineral and petroleum resources and includes costs such as exploration and production licences, researching and analysing historical exploration data, exploratory drilling, trenching, sampling and the costs of pre-feasibility studies. Exploration and evaluation expenditure for each area of interest, other than that acquired from another entity, is charged to the consolidated statement of income as incurred except when the expenditure is expected to be recouped from future exploitation or sale of the area of interest and it is planned to continue with active and significant operations in relation to the area, or at the reporting period end, the activity has not reached a stage which permits a reasonable assessment of the existence of commercially recoverable reserves, in which case the expenditure is capitalised. As the intangible component (i.e. licences) represents an insignificant and indistinguishable portion of the overall expected tangible amount to be incurred and recouped from future exploitation, these costs along with other capitalised exploration and evaluation expenditure are recorded as a component of property, plant and equipment. Purchased exploration and evaluation assets are recognised at their fair value at acquisition.

As the capitalised exploration and evaluation expenditure asset is not available for use, it is not depreciated. All capitalised exploration and evaluation expenditure is monitored for indications of impairment. Where a potential impairment is indicated, an assessment is performed for each area of interest or at the CGU level. To the extent that capitalised expenditure is not expected to be recovered it is charged to the consolidated statement of income.

Administration costs that are not directly attributable to a specific exploration area are charged to the consolidated statement of income. Licence costs paid in connection with a right to explore in an existing exploration area are capitalised and amortised over the term of the permit.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Development expenditure

When commercially recoverable reserves are determined and such proposed development receives the appropriate approvals, capitalised exploration and evaluation expenditure is transferred to construction in progress, a component within the plant and equipment asset sub-category. All subsequent development expenditure is similarly capitalised, provided commercial viability conditions continue to be satisfied. Proceeds from the sale of product extracted during the development phase are netted against development expenditure. Upon completion of development and commencement of production, capitalised development costs are further transferred, as required, to the appropriate plant and equipment asset category and depreciated using the unit of production method (UOP) or straight-line basis.

Deferred mining costs

Mainly comprises certain capitalised costs related to underground mining as well as pre-production and in-production stripping activities as outlined below. Deferred mining costs are amortised using the UOP basis over the life of the ore body to which those costs relate.

Deferred stripping costs

Stripping costs incurred in the development of a mine (or pit) before production commences are capitalised as part of the cost of constructing the mine (or pit) and subsequently amortised over the life of the mine (or pit) on a UOP basis.

In-production stripping costs related to accessing an identifiable component of the ore body to realise benefits in the form of improved access to ore to be mined in the future (stripping activity asset), are capitalised within deferred mining costs provided all the following conditions are met:

- (a) it is probable that the future economic benefit associated with the stripping activity will be realised;
- (b) the component of the ore body for which access has been improved can be identified; and
- (c) the costs relating to the stripping activity associated with the improved access can be reliably measured.

If all of the criteria are not met, the production stripping costs are charged to the consolidated statement of income as they are incurred.

The stripping activity asset is subsequently depreciated on a UOP basis over the life of the identified component of the ore body that became more accessible as a result of the stripping activity and is then stated at cost less accumulated depreciation and any accumulated impairment losses.

Biological assets

Biological assets are carried at their fair value less estimated selling costs. Any changes in fair value less estimated selling costs are included in the consolidated statement of income in the period in which they arise.

Restoration, rehabilitation and decommissioning

Restoration, rehabilitation and decommissioning costs arising from the installation of plant and other site preparation work, discounted using a risk adjusted discount rate to their net present value, are provided for and capitalised at the time such an obligation arises. The costs are charged to the consolidated statement of income over the life of the operation through depreciation of the asset and the unwinding of the discount on the provision.

Costs for restoration of subsequent site disturbance, which is created on an ongoing basis during production, are provided for at their net present values and charged to the consolidated statement of income as extraction progresses.

Changes in the estimated timing of the rehabilitation or changes to the estimated future costs are accounted for prospectively by recognising an adjustment to the rehabilitation liability and a corresponding adjustment to the asset to which it relates, provided the reduction in the provision is not greater than the depreciated capitalised cost of the related asset, in which case the capitalised cost is reduced to Nil and the remaining adjustment recognised in the consolidated statement of income. In the case of closed sites, changes to estimated costs are recognised immediately in the consolidated statement of income.

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value at the date of acquisition. Following initial recognition intangible assets are carried at cost less any accumulated amortisation (calculated on a straight-line basis over their useful lives) and accumulated impairment losses, if any.

Internally generated intangibles are not capitalised. Instead, the related expenditure is recognised in the consolidated statement of income and other comprehensive income in the period in which the expenditure is incurred.

Identifiable intangible assets with a finite life are amortised on a straight-line basis over their expected useful life. The amortisation method and period are reviewed annually and impairment testing is undertaken when circumstances indicate the carrying amount may not be recoverable. Other than goodwill which is not depreciated, Glencore has no identifiable intangible assets with an indefinite life.

The major categories of intangibles are amortised on a straight-line basis as follows:

Port allocation rights	30 - 40 years
Licences, trademarks and software	3 - 20 years
Royalty arrangements	30 - 40 years
Acquired offtake arrangements	5 - 10 years

Other investments

Equity investments, other than investments in Associates, are recorded at fair value unless such fair value is not reliably determinable in which case they are carried at cost. Changes in fair value are recorded in the consolidated statement of income unless they are classified as available for sale, in which case fair value movements are recognised in other comprehensive income and are subsequently recognised in the consolidated statement of income when realised by sale or redemption, or when a reduction in fair value is judged to be a significant or prolonged decline.

Impairment

Glencore conducts, at least annually, an internal review of asset values which is used as a source of information to assess for any indications of impairment. Formal impairment tests are carried out, at least annually, for cash-generating units containing goodwill and for all other non-current assets when events or changes in circumstances indicate the carrying value may not be recoverable.

A formal impairment test involves determining whether the carrying amounts are in excess of their recoverable amounts. An asset's recoverable amount is determined as the higher of its fair value less costs of disposal and its value in use. Such reviews are undertaken on an asset-by-asset basis, except where assets do not generate cash flows independent of other assets, in which case the review is undertaken at the CGU level.

If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recorded in the consolidated statement of income to reflect the asset at the lower amount.

An impairment loss is reversed in the consolidated statement of income if there is a change in the estimates used to determine the recoverable amount since the prior impairment loss was recognised. The carrying amount is increased to the recoverable amount but not beyond the carrying amount net of depreciation or amortisation which would have arisen if the prior impairment loss had not been recognised. Goodwill impairments and impairments of available for sale equity investments cannot be subsequently reversed.

Provisions

Provisions are recognised when Glencore has a present obligation (legal or constructive), as a result of past events, and it is probable that an outflow of resources embodying economic benefits that can be reliably estimated will be required to settle the liability.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation, including interpretation of specific laws and likelihood of settlement. Where a provision is measured using the cash flow estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

Notes to financial statements

1. ACCOUNTING POLICIES (continued)

Onerous contracts

An onerous contract is considered to exist where Glencore has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract. Present obligations arising under onerous contracts are recognised and measured as provisions.

Unfavourable contracts

An unfavourable contract is considered to exist when Glencore, in a business combination, acquires a contract under which the terms of the contract require Glencore to sell products or purchase services on terms which are economically unfavourable compared to current market terms at the time of the business combination. Unfavourable contracts are recognised at the present value of the economic loss and amortised into income over the term of the contract.

Inventories

The vast majority of inventories held by the marketing activities ("marketing inventories") are valued at fair value less costs of disposal with the remainder valued at the lower of cost or net realisable value. Unrealised gains and losses from changes in fair value are reported in cost of goods sold.

Inventories held by the industrial activities ("production inventories") are valued at the lower of cost or net realisable value. Cost is determined using the first-in-first-out ("FIFO") or the weighted average method and comprises material costs, labour costs and allocated production related overhead costs. Financing and storage costs related to inventory are expensed as incurred.

Cash and cash equivalents

Cash and cash equivalents comprise cash held at bank, cash in hand and short-term bank deposits with an original maturity of three months or less. The carrying amount of these assets approximates their fair value.

Financial instruments

Financial assets are classified as either financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments or available for sale financial assets depending upon the purpose for which the financial assets were acquired. Financial assets are initially recognised at fair value on the trade date, including, in the case of instruments not recorded at fair value through profit or loss, directly attributable transaction costs. Subsequently, financial assets are carried at fair value (other investments, derivatives and marketable securities) or amortised cost less impairment (accounts receivable and advances and loans). Financial liabilities other than derivatives are initially recognised at fair value of consideration received net of transaction costs as appropriate and subsequently carried at amortised cost.

Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For financial assets carried at amortised cost, the amount of the impairment loss recognised is the difference between the asset's carrying amount and the present value of estimated future cash flows. The amount of the loss is recognised in the statement of income.

For financial assets that are carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

Derecognition of financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognised in other comprehensive income and accumulated in equity is recognised in profit or loss.

1. ACCOUNTING POLICIES (continued)

Own shares

The cost of purchases of own shares is deducted from equity. Where they are purchased, issued to employees or sold, no gain or loss is recognised in the consolidated statement of income. Such gains and losses are recognised directly in equity. Any proceeds received on disposal of the shares or transfers to employees are recognised in equity.

Derivatives and hedging activities

Derivative instruments, which include physical contracts to sell or purchase commodities that do not meet the own use exemption, are initially recognised at fair value when Glencore becomes a party to the contractual provisions of the instrument and are subsequently remeasured to fair value at the end of each reporting period. Fair values are determined using quoted market prices, dealer price quotations or using models and other valuation techniques, the key inputs for which include current market and contractual prices for the underlying instrument, time to expiry, yield curves, volatility of the underlying instrument and counterparty risk.

Gains and losses on derivative instruments for which hedge accounting is not applied, other than the revenue adjustment mechanism embedded within provisionally priced sales, are recognised in cost of goods sold.

Those derivatives qualifying and designated as hedges are either (i) a Fair Value Hedge of the change in fair value of a recognised asset or liability or an unrecognised firm commitment, or (ii) a Cash Flow Hedge of the change in cash flows to be received or paid relating to a recognised asset or liability or a highly probable transaction.

A change in the fair value of derivatives designated as a Fair Value Hedge is reflected together with the change in the fair value of the hedged item in the consolidated statement of income.

A change in the fair value of derivatives designated as a Cash Flow Hedge is initially recognised as a cash flow hedge reserve in shareholders' equity. The deferred amount is then released to the consolidated statement of income in the same periods during which the hedged transaction affects the consolidated statement of income. Hedge ineffectiveness is recorded in the consolidated statement of income when it occurs.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in shareholders' equity and is recognised in the consolidated statement of income when the committed or forecast transaction is ultimately recognised in the consolidated statement of income. However, if a forecast or committed transaction is no longer expected to occur, the cumulative gain or loss that was recognised in equity is immediately transferred to the consolidated statement of income.

A derivative may be embedded in a "host contract". Such combinations are known as hybrid instruments and at the date of issuance, the embedded derivative is separated from the host contract and accounted for as a standalone derivative if the criteria for separation are met. The host contract is accounted for in accordance with its relevant accounting policy.

2. SEGMENT INFORMATION

Glencore is organised and operates on a worldwide basis in three core business segments – metals and minerals, energy products and agricultural products, with each business segment responsible for the marketing, sourcing, hedging, logistics and industrial investment activities of their respective products and reflecting the structure used by Glencore's management to assess the performance of Glencore.

The business segments' contributions to the Group are primarily derived from the net margin or premium earned from physical marketing activities (net sale and purchase of physical commodities), provision of marketing and related value-add services and the margin earned from industrial asset activities (net resulting from the sale of physical commodities over the cost of production and/or cost of sales) and comprise the following underlying key commodities:

- Metals and minerals: Zinc, copper, lead, alumina, aluminium, ferroalloys, nickel, cobalt and iron ore, including smelting, refining, mining, processing and storage related operations of the relevant commodities;
- Energy products: Crude oil, oil products, steam coal and metallurgical coal, including investments in coal mining and oil production operations, ports, vessels and storage facilities; and
- Agriculture products: Wheat, corn, canola, barley, rice, oil seeds, meals, edible oils, biofuels, cotton and sugar supported by investments in farming, storage, handling, processing and port facilities.

Corporate and other: consolidated statement of income amount represents unallocated Group related expenses (including variable pool bonus charges). Statement of financial position amounts represent Group related balances.

The financial performance of the segments is principally evaluated with reference to Adjusted EBIT/EBITDA which is the net result of revenue less cost of goods sold and selling and administrative expenses, plus share of income from other associates and joint ventures, dividend income and the attributable share of underlying Adjusted EBIT/EBITDA of certain associates and joint ventures which are accounted for internally by means of proportionate consolidation, excluding significant items. In addition, the segment information includes Glencore Agri, which has been disclosed as a discontinued operation until close of transaction on 1 December 2016, see note 23.

The accounting policies of the operating segments are the same as those described in note 1 with the exception of certain associates and joint ventures. Under IFRS 11, Glencore's investments in the Antamina copper/zinc mine (34% owned) and the Cerrejón coal mine (33% owned) are considered to be associates as they are not subject to joint control and the Collahuasi copper mine (44% owned) and Glencore Agri (50% owned) are considered to be joint ventures. Associates and joint ventures are required to be accounted for in Glencore's financial statements under the equity method. For internal reporting and analysis, Glencore evaluates the performance of these investments under the proportionate consolidation method reflecting Glencore's proportionate share of the revenues, expenses, assets and liabilities of the investments. Under IFRS 5, the Agricultural business segment is required to be presented as a discontinued operation following the agreed sale of a 50% interest in Glencore Agri, which completed on 1 December 2016 (see note 23). Prior to completion of the sale, Glencore evaluated the performance of this segment under the full consolidation method, consistent with prior periods. The balances presented for internal reporting purposes are reconciled to Glencore's statutory disclosures as outlined in the following tables.

Notes to financial statements

2. SEGMENT INFORMATION (continued)

Glencore accounts for intra-segment sales and transfers where applicable as if the sales or transfers were to third parties, i.e. at arm's length commercial terms.

2016 US\$ million	Metals and minerals	Energy products	Agricultural products ¹	Corporate and other	Total
Revenue – Marketing activities ²	42,142	81,872	18,678	–	142,692
Revenue – Industrial activities	24,196	7,149	3,292	22	34,659
Revenue	66,338	89,021	21,970	22	177,351
Marketing activities					
Adjusted EBITDA	1,586	959	454	(74)	2,925
Depreciation and amortisation	(24)	(50)	(36)	–	(110)
Adjusted EBIT	1,562	909	418	(74)	2,815
Industrial activities					
Adjusted EBITDA	6,030	1,503	138	(328)	7,343
Depreciation and amortisation ³	(3,848)	(2,345)	(34)	(1)	(6,228)
Adjusted EBIT	2,182	(842)	104	(329)	1,115
Total Adjusted EBITDA					
	7,616	2,462	592	(402)	10,268
Depreciation and amortisation	(3,872)	(2,395)	(70)	(1)	(6,338)
Total Adjusted EBIT	3,744	67	522	(403)	3,930

Share of associates' significant items^{4,5} (477)

Unrealised intergroup profit elimination adjustments^{4,6} (374)

Mark-to-market valuation on certain coal hedging contracts^{4,7} (225)

Gains on disposals and investments⁸ 2,333

Other expense – net⁹ (1,615)

Interest expense – net¹⁰ (1,619)

Income tax expense¹¹ (1,017)

Income for the year from continuing and discontinued operations 936

1 Includes Glencore's proportionate share of the Agricultural products business (50%) since the disposal of Glencore Agri on 1 December 2016, see note 23.

2 Balance is net of intra-segment sales arising from transactions between the Industrial and Marketing activities. Metals and minerals segment: \$16,602 million, Energy products segment \$2,263 million and Agricultural products \$2,253 million.

3 Includes an adjustment of \$705 million to depreciation and amortisation expenses related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: \$517 million, Energy products segment \$178 million and Agricultural products \$10 million, see reconciliation table below.

4 Refer to Glossary for definition of significant items.

5 Share of associates' significant items comprise Glencore's share of significant charges booked directly by various associates, primarily impairment charges recognised within coal shipping investments and \$345 million of impairment related to Cerrejón, see reconciliation table below.

6 Represents the required adjustment to eliminate unrealised profit or losses arising on intergroup transactions. For Glencore, such adjustments arise on the sale of product, in the ordinary course of business, from its Industrial to marketing operations. Management assesses segment performance prior to any such adjustments, as if the sales were to third parties.

7 Represents an accounting measurement mismatch between the fair value of coal derivative positions in respect of portfolio risk management/hedging activities initiated in Q2 2016 and the anticipated future revenue to be generated from the sale of future unsold coal production. The derivative positions manage forward sales price exposure relating to some 11 million tonnes of future attributable coal production, which is expected to be settled before 31 December 2017. The derivative positions include pre-existing trading contracts, for which mark-to-market movements, up until the time of them being ring-fenced for hedging activities, were included in trading results. These transactions were not able to be designated as hedging instruments under IFRS, which would have allowed for the deferment of any income statement effect until performance of the underlying future sale transactions. The fair value movements in the derivative portfolio will be offset against future revenue in the segment information as the related sales (of production) are realised.

8 Gains on disposals and investments of \$452 million as disclosed in note 3, \$33 million gains on disposals and investments as reported by discontinued operations and \$1,848 million gain on disposal of discontinued operations, see note 23.

9 Other expense – net of \$1,589 million as disclosed in note 4 and \$26 million of other expenses related to discontinued operations, see note 23.

10 Includes an adjustment for net finance costs of \$70 million related to discontinued operations, see note 23, and \$16 million related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: net finance costs of \$12 million, Energy products segment net finance costs of \$5 million and Agricultural products net finance income of \$1 million, see reconciliation table below.

11 Includes an adjustment for income tax expenses of \$131 million related to discontinued operations, see note 23, and \$248 million related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: \$216 million, Energy products segment \$16 million and Agricultural products \$16 million, see reconciliation table below.

Notes to financial statements

2. SEGMENT INFORMATION (continued)

2015 US\$ million	Metals and minerals	Energy products	Agricultural products (Discontinued)	Corporate and other	Total
Revenue – Marketing activities ¹	41,151	75,206	20,617	–	136,974
Revenue – Industrial activities	24,782	8,406	2,529	4	35,721
Revenue	65,933	83,612	23,146	4	172,695
Marketing activities					
Adjusted EBITDA	1,280	826	584	(30)	2,660
Depreciation and amortisation	(25)	(48)	(123)	–	(196)
Adjusted EBIT	1,255	778	461	(30)	2,464
Industrial activities					
Adjusted EBITDA	4,030	2,269	150	(415)	6,034
Depreciation and amortisation ²	(3,882)	(2,357)	(87)	–	(6,326)
Adjusted EBIT	148	(88)	63	(415)	(292)
Total Adjusted EBITDA	5,310	3,095	734	(445)	8,694
Depreciation and amortisation	(3,907)	(2,405)	(210)	–	(6,522)
Total Adjusted EBIT	1,403	690	524	(445)	2,172

Share of associates' significant items ^{3,4}	(88)
Unrealised intergroup loss elimination adjustments ^{3,5}	445
Losses on disposals and investments ⁶	(994)
Other expense – net ⁷	(7,998)
Interest expense – net ⁸	(1,391)
Income tax expense ⁹	(260)
Loss for the year from continuing and discontinued operations	(8,114)

1 Balance is net of intra-segment sales arising from transactions between the Industrial and Marketing activities. Metals and minerals segment: \$17,843 million, Energy products segment \$2,318 million and Agricultural products \$1,847 million.

2 Includes an adjustment of \$687 million to depreciation and amortisation expenses related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: \$501 million and Energy products segment \$186 million, see reconciliation table below.

3 Refer to Glossary for definition of significant items.

4 Share of associates' significant items comprise Glencore's share of significant charges booked directly by various associates, predominantly Century.

5 Represents the required adjustment to eliminate unrealised profit or losses arising on intergroup transactions. For Glencore, such adjustments arise on the sale of product, in the ordinary course of business, from its Industrial to marketing operations. Management assesses segment performance prior to any such adjustments, as if the sales were to third parties.

6 See note 3.

7 Other expense – net items of \$7,928 million as disclosed in note 4 and \$70 million of other expenses related to discontinued operations, see note 23.

8 Includes an adjustment for net finance costs of \$91 million related to discontinued operations, see note 23, and net finance income of \$3 million related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: net finance income of \$9 million and Energy products segment net finance costs of \$6 million, see reconciliation table below.

9 Includes an adjustment for income tax expenses of \$107 million related to discontinued operations, see note 23, and \$162 million to income tax expenses related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: \$103 million and Energy products segment \$59 million, see reconciliation table below.

Notes to financial statements

2. SEGMENT INFORMATION (continued)

2016 US\$ million	Metals and minerals	Energy products	Agricultural products	Corporate and other	Total
Current assets	23,904	17,456	–	(466)	40,894
Current liabilities	(13,853)	(18,902)	–	(582)	(33,337)
Allocatable current capital employed	10,051	(1,446)	–	(1,048)	7,557
Property, plant and equipment	32,635	20,795	–	396	53,826
Intangible assets	3,671	3,028	–	17	6,716
Investments in associates and other investments	7,963	3,721	3,155	–	14,839
Non-current advances and loans	1,737	1,737	–	9	3,483
Inventory	564	–	–	–	564
Allocatable non-current capital employed	46,570	29,281	3,155	422	79,428
Other assets ¹			–	4,278	4,278
Other liabilities ²			–	(47,482)	(47,482)
Total net assets	56,621	27,835	3,155	(43,830)	43,781
Capital expenditure – Marketing activities	14	27	96	1	138
Capital expenditure – Industrial activities ³	2,695	571	44	49	3,359
Capital expenditure	2,709	598	140	50	3,497

1 Other assets include deferred tax assets, marketable securities and cash and cash equivalents.

2 Other liabilities include borrowings, non-current deferred income, deferred tax liabilities, non-current provisions and non-current financial liabilities.

3 Includes an adjustment to capital expenditure of \$407 million related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: \$359 million Energy products segment \$33 million and Agricultural products \$15 million, see reconciliation table below.

2015 US\$ million	Metals and minerals	Energy products	Agricultural products	Corporate and other	Total
Current assets	21,707	12,131	5,720	(106)	39,452
Current liabilities	(10,848)	(15,913)	(2,685)	(309)	(29,755)
Allocatable current capital employed	10,859	(3,782)	3,035	(415)	9,697
Property, plant and equipment	34,161	23,443	2,836	334	60,774
Intangible assets	3,695	2,915	889	17	7,516
Investments in associates and other investments	8,088	3,926	628	–	12,642
Non-current advances and loans	1,414	1,369	114	108	3,005
Inventory	504	–	–	–	504
Allocatable non-current capital employed	47,862	31,653	4,467	459	84,441
Other assets ¹				4,592	4,592
Other liabilities ²				(57,387)	(57,387)
Total net assets	58,721	27,871	7,502	(52,751)	41,343
Capital expenditure – Marketing activities	81	17	146	–	244
Capital expenditure – Industrial activities ³	4,149	1,303	98	163	5,713
Capital expenditure	4,230	1,320	244	163	5,957

1 Other assets include deferred tax assets, marketable securities and cash and cash equivalents.

2 Other liabilities include borrowings, non-current deferred income, deferred tax liabilities, non-current provisions and non-current financial liabilities.

3 Includes an adjustment to capital expenditure of \$244 million related to discontinued operations and \$328 million related to presenting certain associates and joint ventures on a proportionate consolidation basis. Metals and minerals segment: \$292 million, Energy products segment \$36 million and Agricultural products: \$244 million, see reconciliation table below.

Notes to financial statements

2. SEGMENT INFORMATION (continued)

The reconciliation of revenue, certain associates' and joint ventures' Adjusted EBIT to 'Share of net income from associates and joint ventures' and capital expenditure for the years ended 31 December 2016 and 2015 is as follows:

2016 US\$ million	Metals and minerals	Energy products	Agricultural products	Corporate and other	Total
Revenue					
Revenue	66,338	89,021	21,970	22	177,351
Impact of:					
Presenting certain associates and joint ventures on a proportionate consolidation basis	(1,826)	(607)	(1,085)	–	(3,518)
Discontinued operations	–	–	(20,885)	–	(20,885)
Revenue – reported measure	64,512	88,414	–	22	152,948
Share of income from certain associates and joint ventures					
Associates' and joint ventures' Adjusted EBITDA	1,144	240	63	–	1,447
Depreciation and amortisation	(517)	(178)	(10)	–	(705)
Associates' and joint ventures' Adjusted EBIT	627	62	53	–	742
Impairment, net of tax ¹	–	(345)	–	–	(345)
Net finance costs	(12)	(5)	1	–	(16)
Income tax expense	(216)	(16)	(16)	–	(248)
	(228)	(366)	(15)	–	(609)
Share of income/(loss) from certain associates and joint ventures	399	(304)	38	–	133
Share of loss from other associates	(113)	(9)	–	–	(122)
Share of income/(loss) from associates and joint ventures²	286	(313)	38	–	11
Capital expenditure					
Capital expenditure	2,709	598	140	50	3,497
Impact of:					
Presenting certain associates and joint ventures on a proportionate consolidation basis	(359)	(33)	(15)	–	(407)
Capital expenditure – reported measure	2,350	565	125	50	3,090

1 Energy products segment comprises an impairment of \$345 million, net of taxes of \$176 million relating to Cerrejón, resulting from reduced near term production estimates due to increased risk related to the possibility of delays in sourcing approvals as a result of the continued social and environmental challenges to current mine plans.

2 Comprises share in earnings of \$12 million from marketing activities and losses of \$1 million from industrial activities.

Notes to financial statements

2. SEGMENT INFORMATION (continued)

2015 US\$ million	Metals and minerals	Energy products	Agricultural products (Discontinued)	Corporate and other	Total Restated ¹
Revenue					
Revenue	65,933	83,612	23,146	4	172,695
Impact of:					
Presenting certain associates and joint ventures on a proportionate consolidation basis	(1,578)	(620)	–	–	(2,198)
Discontinued operations	–	–	(23,146)	–	(23,146)
Revenue – reported measure	64,355	82,992	–	4	147,351
Share of income from certain associates and joint ventures					
Associates' and joint ventures' Adjusted EBITDA	806	189	–	–	995
Depreciation and amortisation	(501)	(186)	–	–	(687)
Associates' and joint ventures' Adjusted EBIT	305	3	–	–	308
Net finance costs	9	(6)	–	–	3
Income tax expense	(103)	(59)	–	–	(162)
	(94)	(65)	–	–	(159)
Share of income/(loss) from certain associates and joint ventures	211	(62)	–	–	149
Share of (loss)/income from other associates	(35)	(15)	2	–	(48)
Discontinued operations	–	–	(2)	–	(2)
Share of income/(loss) from associates and joint ventures²	176	(77)	–	–	99
Capital expenditure					
Capital expenditure	4,230	1,320	244	163	5,957
Impact of:					
Presenting certain associates and joint ventures on a proportionate consolidation basis	(292)	(36)	–	–	(328)
Discontinued operations	–	–	(244)	–	(244)
Capital expenditure – reported measure	3,938	1,284	–	163	5,385

¹ Certain amounts shown here reflect the adjustments made relating to discontinued operations (see note 23).

² Comprises share in earnings of \$80 million from industrial activities and \$19 million from marketing activities.

Notes to financial statements

2. SEGMENT INFORMATION (continued)

Adjusted EBIT is revenue less cost of goods sold and selling and administrative expenses plus share of income from associates and joint ventures, dividend income and the attributable share of underlying Adjusted EBIT of certain associates and joint ventures and the discontinued Agricultural products segment, excluding significant items. Adjusted EBITDA consists of Adjusted EBIT plus depreciation and amortisation. The reconciliation of Adjusted EBIT/EBITDA to the reported measures is as follows:

US\$ million	2016	2015 Restated ¹
Reported measures		
Revenue	152,948	147,351
Cost of goods sold	(149,763)	(144,533)
Selling and administrative expenses	(1,102)	(1,096)
Share of income from associates and joint ventures	11	99
Dividend income	27	25
	2,121	1,846
Adjustments to reported measures		
Share of associates' significant items	477	88
Unrealised intergroup profit/(loss) elimination	374	(445)
Mark-to-market valuation on certain coal hedging contracts	225	–
Net finance and income tax expense impact of presenting certain associates and joint ventures on a proportionate consolidation basis	264	159
Adjusted EBIT from discontinued operations	469	524
Adjusted EBIT from continuing and discontinued operations	3,930	2,172
Depreciation and amortisation from continuing operations	5,573	5,625
Depreciation impact of presenting certain associates and joint ventures on a proportionate consolidation basis	705	687
Depreciation from discontinued operations	60	210
Adjusted EBITDA from continuing and discontinued operations	10,268	8,694

¹ Certain amounts shown here reflect the adjustments made relating to discontinued operations (see note 23).

2. SEGMENT INFORMATION (continued)

Geographical information

US\$ million	2016	2015 Restated ¹
Revenue from third parties²		
The Americas	22,401	29,422
Europe	55,021	46,758
Asia	61,060	55,879
Africa	3,934	4,824
Oceania	10,532	10,468
	152,948	147,351
Non-current assets³		
The Americas	18,713	22,663
Europe	10,434	8,447
Asia	4,895	5,416
Africa	19,596	19,841
Oceania	20,554	23,764
	74,192	80,131

1 Certain amounts shown here reflect the adjustments made relating to discontinued operations (see note 23).

2 Revenue by geographical destination is based on the country of incorporation of the sales counterparty however this may not necessarily be the country of the counterpart's ultimate parent and/or final destination of product.

3 Non-current assets are non-current assets excluding other investments, advances and loans and deferred tax assets.

3. GAINS/(LOSSES) ON DISPOSALS AND INVESTMENTS

US\$ million	2016	2015
Gain on sale of GRail	430	–
Loss on cessation of control of Optimum	–	(1,034)
Loss on distribution of interest in Lonmin	–	(256)
Gain on sale of other operations	22	296
Total	452	(994)

GRail

In December 2016, Glencore disposed its New South Wales' coal rail haulage business, resulting in a gain of \$430 million (see note 23).

Optimum

In August 2015, the directors of Optimum Coal placed the company under the control and supervision of business rescue practitioners, resulting in the Group ceasing to have control over Optimum. In December 2015, the business rescue practitioners reached agreement to sell the business, which closed in 2016. Due to cessation of control of Optimum, the net assets were deconsolidated, with the fair value of such determined to be \$Nil, being the amount to be received. As a result, a loss of \$1,034 million was recognised, which includes \$311 million of foreign currency translation losses previously recognised in equity and \$152 million of related impairments (see note 23).

Lonmin

On 9 June 2015, following approval by shareholders at the Annual General Meeting, Glencore completed the in specie distribution of its 23.9% stake in Lonmin plc. Based on the closing Lonmin share price (a Level 1 valuation technique) at the time of distribution, its fair value was determined to be \$298 million and as a result, a \$256 million loss on disposal of the investment was recognised (see notes 9 and 16).

Other

In 2015, the gain on sale of other operations arose primarily from the disposals of the Tampakan and Falcondo operations in August 2015, which resulted in a net gain of \$192 million and \$87 million respectively (see note 23).

Notes to financial statements

4. OTHER EXPENSE – NET

US\$ million	Notes	2016	2015 Restated ¹
Impairments	5	(1,268)	(7,104)
Net changes in mark-to-market valuations on investments held for trading		(121)	(265)
Net foreign exchange losses		(70)	(128)
Legal settlement		(92)	(89)
Loss on metal leak		–	(235)
Gain on bond buy-backs		–	35
Other expense – net ²		(38)	(142)
Total		(1,589)	(7,928)

¹ Certain amounts shown here reflect the adjustment made relating to discontinued operations (see note 23).

² 'Other expense - net' for the year ended 31 December 2016 comprised of \$37 million gain on disposal of property, plant and equipment offset by restructuring and closure costs of \$47 million and a settlement of a financial guarantee in relation to Optimum of \$28 million. 'Other expense - net' for the year ended 31 December 2015 mainly comprises restructuring and closure costs.

Together with foreign exchange movements and mark-to-market movements on investments held for trading, other expense – net includes other significant items of income and expense which due to their non-operational nature or expected infrequency of the events giving rise to them are reported separately from operating segment results. Other expense – net includes, but is not limited to, impairment charges and restructuring and closure costs.

Changes in mark-to-market valuations on investments held for trading – net

Primarily relates to movements on interests in investments classified as held for trading (see note 9) and the ARM Coal non-discretionary dividend obligation (see note 26) carried at fair value. In 2016, positive fair value movements in Glencore's interest in Volcan Compania Minera S.A.A. and Century Aluminum cash-settled equity swaps were offset by the movement in the ARM Coal derivative (see note 26), accounting for the majority of the net expense.

Legal settlement

In September 2016, a subsidiary of the Group reached a settlement with U.S. agencies to pay a penalty of \$27 million and retire around \$65 million of credits in relation to compliance with a U.S. biofuels program in the years 2011/12.

In April 2015, OMV Petrom was awarded \$89 million related to a dispute over oil deliveries in the early 1990s.

Loss from metal leak

In December 2014, a metal leak in Line 1 of the metallurgical plant at Koniambo was detected and the related production suspended. Following an extensive investigation during H1 2015, it was determined that the furnace would need to be rebuilt/repared at a cost of approximately \$60 million and incremental net operating costs of an additional \$175 million were incurred in relation to this incident.

Gain on bond buy-backs

In 2015, Glencore acquired \$564 million of outstanding bonds, at a discount to their carrying values, realising a gain of \$35 million (see note 18).

5. IMPAIRMENTS

US\$ million	Notes	2016	2015 Restated ¹
Property, plant and equipment and intangible assets	7/8	(1,268)	(6,028)
Investments	9	–	(193)
Advances and loans - non current		–	(455)
Trade advances and deposits	12	–	(359)
Non-current inventory and other ²		–	(69)
Total impairments³		(1,268)	(7,104)

1 Certain amounts shown here reflect the adjustment made relating to discontinued operations (see note 23).

2 These items, if classified by function of expense would be recognised in cost of goods sold.

3 Impairments recognised during the year are allocated to Glencore's operating segments as follows: Metals and minerals \$50 million (2015: \$5,135 million) and Energy products \$1,218 million (2015: \$1,969 million).

As part of a regular portfolio review, Glencore carries out an assessment of whether there is an indication of asset impairment or whether a previously recorded impairment may no longer be required.

The recoverable amounts of the property, plant and equipment and intangible assets were measured based on fair value less costs of disposal ("FVLCD"), determined by discounted cash flow techniques based on the most recent approved financial budgets and three-year business plans, which are underpinned and supported by life of mine plans of the respective operations. The valuation models use the most recent reserve and resource estimates, relevant cost assumptions generally based on past experience and where possible, market forecasts of commodity price and foreign exchange rate assumptions discounted using operation specific discount rates ranging from 7% – 11% (2015: 6% – 12%). The valuations remain sensitive to price and further deterioration/improvements in the pricing outlook may result in additional impairments/reversals. The determination of FVLCD uses Level 3 valuation techniques for both years.

As a result of the regular impairment assessment, the following significant impairment charges resulted:

2016

Property, plant and equipment and intangible assets

- Due to changes in estimated reserve life and revised mining plans, the estimated mine life of Tahmoor in Australia (Energy products segment) was reduced from 2020 to 2017. As a result, the carrying value of this operation was impaired by \$168 million, to its estimated recoverable amount of \$100 million, which is expected to be depleted over the following year as the mine approaches its completion.
- As a result of a write down of appraisal expenditure and certain operational challenges at the Equatorial Guinea oil operations (Energy products segment), an impairment charge of \$311 million has been recognised resulting in a remaining recoverable value of \$194 million. The valuation remains sensitive to price and further deterioration in the pricing outlook may result in additional impairment. The short to long-term Brent crude oil price assumptions used in the valuation were between \$50 – \$75 per barrel and should these fall by 10%, a further \$46 million of impairment would be recognised.
- During 2016, Glencore's long-term oil price assumptions were revised downwards, which together with delayed work programmes, resulted in a \$622 million impairment of the onshore Chad oil operations (Energy products segment), to their estimated recoverable amount of \$1,480 million. The valuation remains sensitive to price and further deterioration in the pricing outlook may result in additional impairment. The short to long-term Brent crude oil price assumptions used in the valuation were between \$50 – \$75 per barrel and should these fall by 10%, a further \$695 million of impairment would be recognised.
- The balance of property, plant and equipment related impairment charges (none of which were individually material) arose due to changes in production and development plans and resulted in impairments of \$50 million and \$117 million being recognised in our Metals and minerals and Energy segments respectively.

5. IMPAIRMENTS (continued)

2015

Property, plant and equipment and intangible assets

- Following the sharp decline in oil prices in 2015, significant amendments were made to Chad's work programme, with the objective of preserving value for the long term, while reducing cash outlays in the near term. This included changes to the fields' capex and production profiles and significantly reducing the number of drilling rigs in operation. As a result, the carrying value of these fields/blocks (Energy products segment) was impaired by \$1,031 million, to their estimated recoverable amount of \$2,012 million. The valuation remains sensitive to price and further deterioration in the pricing outlook may result in additional impairment. The short- to long-term oil price assumptions used in the valuation were between \$40 – \$80 per barrel.
- Upon further review and evaluation of the exploration activities on the Tilapia licence in Cameroon (Energy product segment) it was determined that the technical risk of continuing to evaluate/develop the field was unacceptably high and as a result, the full carrying value of \$27 million was impaired.
- As a result of the current subdued coking coal market and resulting weak shorter-term price outlook, the Oaky Creek coking coal operations (Energy products segment) were determined to be impaired by \$240 million, to their estimated recoverable amount of \$959 million, given the relatively short life of one of the relevant mines. The valuation remains sensitive to coking coal prices and further deterioration in the pricing outlook may result in additional impairment. The short- to long-term coking coal price assumptions used in the valuation were between \$81 – \$135 per metric tonne.
- In Q4 2015, it was determined, for the foreseeable future, to defer the Blakefield North coal project and place the Ravensworth underground coal operations (Energy products segment) on care and maintenance. As a result, the full carrying value of these projects (\$82 million) was impaired.
- Due to continued subdued current and long-term nickel prices and the ongoing operational and technical challenges at the Koniambo processing plant, it was determined, post significant line one furnace redesign/repair work, to operate only one processing line (of two) for an extended period of time until it proves itself to be technically robust. As a result of this updated plan and reflecting the lower nickel price environment, Koniambo (Metal and minerals segment) was written down to its recoverable value of \$917 million, resulting in a \$3,989 million impairment. The valuation remains sensitive to price and further deterioration in the pricing outlook may result in additional impairment. The short- to long-term nickel prices used in the valuation were between \$12,500 – \$16,000 per metric tonne.
- Sherwin Alumina (Metal and minerals segment) is an alumina production facility located in Corpus Christi, USA. Adverse market conditions resulted in a decrease in its valuation to an estimated recoverable value of \$Nil and, as a result, an impairment of \$128 million was recognised. Since January 2016, Sherwin has been under United States Chapter 11 proceedings.
- Kabanga (Metal and minerals segment) is an undeveloped nickel deposit in Tanzania, in which Glencore has a 50% interest. During 2015, a sales process was undertaken to find a potential buyer. No acceptable bids were received and as a result the project was written down to \$Nil, reflective of the lower nickel price environment noted above, resulting in an impairment of \$115 million.
- Following a strategic review of the Komarovskoe (within Kazzinc) gold mining deposit (Metal and minerals segment) it was determined to cease further development and, as a result, the full carrying value of \$70 million was impaired.
- Following the placing of Eland Platinum (Metal and minerals segment) on care and maintenance in October 2015 and a further deterioration in platinum prices, it was determined that its recoverable value was \$Nil and, as a result, an impairment of \$77 million was recognised.
- The London Metal Exchange ("LME") proposed changes to its warehousing regulations in a further attempt to reduce metal queues via increasing load-out rates and capping longer-term rental income streams. As a result, the goodwill of \$169 million relating to the Pacorini metals warehousing business (Metals and minerals segment) was impaired by \$119 million to a recoverable value of \$50 million (see notes 8 and 9).
- The balance of the property, plant and equipment related impairment charges (none of which were individually material) arose due to changes in production and development plans and resulted in impairments of \$85 million and \$65 million being recognised in our Metals and minerals and Energy products segments respectively.

5. IMPAIRMENTS (continued)

Investments

Based on lower mid- to long-term aluminium price assumptions, it was determined that the recoverable value of our investment in Century Aluminum Company was \$592 million with a resulting impairment of \$162 million. The recoverable amount was determined using similar valuation techniques and inputs described above. The valuation remains sensitive to price and further deterioration in the pricing outlook may result in additional impairment. The short- to long-term aluminium prices used in the valuation were between \$1,550 – \$1,790 per metric tonne.

Advances and loans – non current

- In November 2015, Glencore and Russneft effected a debt to equity conversion which resulted in Glencore exchanging its loan balance of \$984 million and investments in operating subsidiaries carried at \$Nil for a 46% interest in Russneft. The fair value of the equity received was determined to be \$685 million, resulting in a \$300 million impairment recognised upon settlement of the loan.
- In December 2015, an impairment of \$155 million was recognised reflecting non-performance of contractual terms and rescheduling of the timing in product supply and a recoverable value provision in respect of other advances and loans.

Notes to financial statements

6. INCOME TAXES

Income taxes consist of the following:

US\$ million	2016	2015 Restated ¹
Current income tax expense	(765)	(365)
Adjustments in respect of prior year income tax	3	30
Deferred income tax credit	117	354
Adjustments in respect of prior year deferred income tax	7	(10)
Total tax (expense)/credit reported in the statement of income/(loss)	(638)	9
Current income tax (expense)/credit recognised directly in other comprehensive income	–	–
Deferred income tax credit/(expense) recognised directly in other comprehensive income	24	(77)
Total tax credit/(expense) recognised directly in other comprehensive income	24	(77)

The effective Group tax rate is different from the statutory Swiss income tax rate applicable to the Company for the following reasons:

US\$ million	2016	2015 Restated ¹
Loss before income taxes and attribution from continuing operations	(549)	(8,379)
Income before income taxes and attribution from discontinued operations	2,254	363
Income/(loss) before income taxes and attribution from continuing and discontinued operations	1,705	(8,016)
Less: Share of income from associates and joint ventures from continuing operations	(11)	(99)
Less: Share of income from associates and joint ventures from discontinued operations	(15)	(2)
Parent Company's and subsidiaries' income/(loss) before income tax and attribution from continuing and discontinued operations	1,679	(8,117)
Income tax (expense)/credit calculated at the Swiss income tax rate of 15% (2015: 15%)	(252)	1,218
Tax effects of:		
Different tax rates from the standard Swiss income tax rate	205	(154)
Tax exempt income (\$160 million (2015: \$326 million) from recurring items and \$283 million (2015: \$15 million) from non-recurring items)	443	341
Items not tax deductible (\$365 million (2015: \$618 million) from recurring items and \$269 million (2015: \$424 million) from non-recurring items)	(634)	(1,042)
Foreign exchange fluctuations	(19)	(307)
Changes in tax rates	3	24
Utilisation and changes in recognition of tax losses and temporary differences	(41)	(24)
Tax losses not recognised	(483)	(175)
Adjustments in respect of prior years	10	20
Other	(1)	1
Income tax expense	(769)	(98)
Income tax (expense)/credit reported in the statement of income/(loss)	(638)	9
Income tax expense attributable to discontinued operations	(131)	(107)

¹ Certain amounts shown here reflect the adjustments made relating to discontinued operations (see note 23).

Notes to financial statements

6. INCOME TAXES (continued)

The non-tax deductible items of \$634 million (2015: \$1,042 million) primarily relate to non-deductible exploration charges, financing costs, impairments and various other expenses. The impact of tax exempt income of \$443 million (2015: \$341 million) primarily relates to non-taxable intra-group dividends, income that is not effectively connected to the taxable jurisdiction, and various other items.

The tax impact of foreign exchange fluctuations relates to the foreign currency movements on deferred tax balances where the underlying tax balances are denominated in a currency different to the functional currency determined for accounting purposes. In 2016, in relation to our Australian tax group, an election was finalised to change the tax functional currency to align with the accounting functional currency.

Deferred taxes as at 31 December 2016 and 2015 are attributable to the items in the table below:

US\$ million	Notes	2016	2015
Deferred tax assets¹			
Tax losses carried forward		1,653	1,680
Other		107	166
Total		1,760	1,846
Deferred tax liabilities¹			
Depreciation and amortisation		(5,546)	(5,483)
Mark-to-market valuations		(76)	(238)
Other		(42)	(56)
Total		(5,664)	(5,777)
Total Deferred tax – net		(3,904)	(3,931)
Reconciliation of deferred tax – net			
1 January		(3,931)	(4,768)
Recognised in income for the year from continuing and discontinued operations		52	345
Recognised in other comprehensive income from continuing and discontinued operations		24	(77)
Business combination	23	–	17
Disposal of subsidiaries	23	100	205
Effect of foreign currency exchange movements		(130)	349
Other		(19)	(2)
31 December		(3,904)	(3,931)

1 Asset and liability positions in the same category reflect the impact of tax assets and liabilities arising in local tax jurisdictions that cannot be offset against tax assets and liabilities arising in other tax jurisdictions.

Deferred tax assets are recognised for tax losses carried forward only to the extent that realisation of the related tax benefit is probable. As at 31 December 2016, \$2,898 million (2015: \$3,736 million) of deferred tax assets related to available loss carry forwards have been brought to account, of which \$1,653 million (2015: \$1,680 million) are disclosed as deferred tax assets with the remaining balance being offset against deferred tax liabilities arising in the same respective entity. \$1,241 million (2015: \$1,149 million) of net deferred tax assets arise in entities, primarily domiciled in Switzerland and the DRC that have been loss making for tax purposes in either 2016 or 2015. In evaluating whether it is probable that taxable profits will be earned in future accounting periods prior to any tax loss expiry as may be the case, all available evidence was considered, including approved budgets, forecasts and business plans and, in certain cases, analysis of historical operating results. These forecasts are consistent with those prepared and used internally for business planning and impairment testing purposes. Following this evaluation, it was determined there would be sufficient taxable income generated to realise the benefit of the deferred tax assets and that no reasonably possible change in any of the key assumptions would result in a material reduction in forecast headroom of tax profits so that the recognised deferred tax asset would not be realised.

The recognised losses carried forward in Switzerland primarily relate to non-recurring events in 2011 and 2012. Based on the core business activities conducted in Switzerland, sufficient taxable profits are expected to fully utilise the recognised tax losses prior to expiration.

The losses carried forward in the DRC have an unlimited carry forward period, subject to an annual utilisation limitation. The DRC entity has temporarily ceased operations to complete facility improvements.

Notes to financial statements

6. INCOME TAXES (continued)

Available gross tax losses carried forward and deductible temporary differences, for which no deferred tax assets have been recognised in the consolidated financial statements, are detailed below and will expire as follows:

US\$ million	2016	2015
1 year	34	153
2 years	320	69
3 years	2,408	534
Thereafter	13,507	16,266
Unlimited	2,149	1,444
Total	18,418	18,466

As at 31 December 2016, unremitted earnings of \$40,088 million (2015: \$41,285 million) have been retained by subsidiaries for reinvestment. No provision is made for income taxes that would be payable upon the distribution of such earnings.

7. PROPERTY, PLANT AND EQUIPMENT

US\$ million	Notes	Freehold land and buildings	Plant and equipment	Mineral and petroleum rights	Exploration and evaluation	Deferred mining costs	Total
Gross carrying amount:							
1 January 2016		5,326	56,037	20,579	2,337	2,393	86,672
Business combination	23	22	37	–	–	–	59
Disposal of subsidiaries	23	(694)	(4,012)	(712)	–	(95)	(5,513)
Additions		62	2,606	110	–	296	3,074
Disposals		(85)	(409)	(14)	–	(14)	(522)
Effect of foreign currency exchange movements		28	401	303	–	1	733
Other movements		149	(38)	66	6	(219)	(36)
31 December 2016		4,808	54,622	20,332	2,343	2,362	84,467
Accumulated depreciation and impairment:							
1 January 2016		995	19,067	4,324	784	728	25,898
Disposal of subsidiaries	23	(137)	(1,284)	(224)	–	(80)	(1,725)
Depreciation		263	4,063	978	–	233	5,537
Disposals		(44)	(404)	(3)	–	(2)	(453)
Impairments	5	–	807	105	351	–	1,263
Effect of foreign currency exchange movements		3	85	50	–	–	138
Other movements		(19)	58	(11)	3	(48)	(17)
31 December 2016		1,061	22,392	5,219	1,138	831	30,641
Net book value 31 December 2016		3,747	32,230	15,113	1,205	1,531	53,826

7. PROPERTY, PLANT AND EQUIPMENT (continued)

US\$ million	Notes	Freehold land and buildings	Plant and equipment	Mineral and petroleum rights	Exploration and evaluation	Deferred mining costs	Total
Gross carrying amount:							
1 January 2015		5,568	52,840	22,505	2,196	2,330	85,439
Business combination	23	85	201	–	–	–	286
Disposal and cessation of control of subsidiaries	23	(125)	(597)	(541)	–	–	(1,263)
Additions		121	4,534	428	147	355	5,585
Disposals		(34)	(476)	(14)	–	(4)	(528)
Effect of foreign currency exchange movements		(131)	(1,300)	(843)	–	–	(2,274)
Reclassification to non-current inventory ¹		–	–	–	–	(607)	(607)
Other movements		(158)	835	(956)	(6)	319	34
31 December 2015		5,326	56,037	20,579	2,337	2,393	86,672
Accumulated depreciation and impairment:							
1 January 2015		775	10,405	2,887	681	581	15,329
Depreciation		251	4,168	1,028	–	259	5,706
Disposal and cessation of control of subsidiaries	23	(22)	(166)	(89)	–	–	(277)
Disposals		(6)	(416)	(5)	–	–	(427)
Impairments	5	18	5,147	641	74	–	5,880
Effect of foreign currency exchange movements		(16)	(227)	(102)	–	–	(345)
Reclassification to non-current inventory ¹		–	–	–	–	(103)	(103)
Other movements		(5)	156	(36)	29	(9)	135
31 December 2015		995	19,067	4,324	784	728	25,898
Net book value 31 December 2015		4,331	36,970	16,255	1,553	1,665	60,774

¹ Represents a net reclassification of \$504 million, including net realisable value adjustments of \$103 million, from deferred mining costs to non-current inventory to better reflect the nature of these items (see note 11).

Plant and equipment includes expenditure for construction in progress of \$4,599 million (2015: \$5,011 million) and a net book value of \$592 million (2015: \$596 million) of obligations recognised under finance lease agreements. Mineral and petroleum rights include biological assets of \$21 million (2015: \$71 million). Depreciation expenses included in cost of goods sold are \$5,457 million (2015: \$5,683 million), in selling and administrative expenses \$20 million (2015: \$23 million) and in discontinued operation \$60 million (2015: \$Nil).

During 2016, \$49 million (2015: \$163 million) of interest was capitalised. With the exception of project specific borrowings, the rate used to determine the amount of borrowing costs eligible for capitalisation was 3% (2015: 2.9%).

As at 31 December 2016, no property, plant or equipment was pledged as security for borrowings (2015: \$Nil).

8. INTANGIBLE ASSETS

US\$ million	Notes	Goodwill	Port allocation rights	Licences, trademarks and software	Royalty and acquired offtake arrangements	Total
Cost:						
1 January 2016		14,122	1,252	394	318	16,086
Disposal of subsidiaries	23	(829)	(15)	(8)	(98)	(950)
Additions		–	–	13	3	16
Disposals		–	(1)	(15)	–	(16)
Effect of foreign currency exchange movements		–	166	2	2	170
Other movements		–	6	(1)	33	38
31 December 2016		13,293	1,408	385	258	15,344
Accumulated amortisation and impairment:						
1 January 2016		8,243	67	156	104	8,570
Disposal of subsidiaries	23	–	(9)	(5)	(20)	(34)
Amortisation expense ¹		–	28	31	36	95
Impairments	5	–	–	5	–	5
Disposals		–	–	(15)	–	(15)
Effect of foreign currency exchange movements		–	14	1	–	15
Other movements		–	–	(10)	2	(8)
31 December 2016		8,243	100	163	122	8,628
Net carrying amount 31 December 2016		5,050	1,308	222	136	6,716

¹ Recognised in cost of goods sold.

8. INTANGIBLE ASSETS (continued)

US\$ million	Notes	Goodwill	Port allocation rights	Licences, trademarks and software	Royalty and acquired offtake arrangements	Total
Cost:						
1 January 2015		14,122	2,369	365	485	17,341
Disposal and cessation of control of subsidiaries	23	–	(670)	–	(116)	(786)
Additions		–	–	26	18	44
Disposals		–	–	(2)	(73)	(75)
Effect of foreign currency exchange movements		–	(479)	(10)	(9)	(498)
Other movements		–	32	15	13	60
31 December 2015		14,122	1,252	394	318	16,086
Accumulated amortisation and impairment:						
1 January 2015		8,124	94	111	146	8,475
Disposal and cessation of control of subsidiaries	23	–	(46)	–	(28)	(74)
Amortisation expense ¹		–	42	29	58	129
Impairments	5	119	–	29	–	148
Disposals		–	–	(2)	(70)	(72)
Effect of foreign currency exchange movements		–	(23)	(7)	(5)	(35)
Other movements		–	–	(4)	3	(1)
31 December 2015		8,243	67	156	104	8,570
Net carrying amount 31 December 2015		5,879	1,185	238	214	7,516

¹ Recognised in cost of goods sold.

8. INTANGIBLE ASSETS (continued)

Goodwill

The carrying amount of goodwill has been allocated to cash-generating units (CGUs), or groups of CGUs as follows:

US\$ million	2016	2015
Grain marketing business	–	829
Metals and minerals marketing businesses	3,326	3,326
Coal marketing business	1,674	1,674
Metals warehousing business	50	50
Total	5,050	5,879

Grain marketing business

Goodwill of \$829 million was recognised in previous business combinations attributable to synergies associated with the grain marketing division CGU, which was derecognised as a result of the disposal of Glencore Agri (see note 23).

Metals and minerals and coal marketing businesses

Goodwill of \$3,326 million and \$1,674 million was recognised in connection with previous business combinations and was allocated to the metals and minerals marketing and coal marketing CGUs respectively, based on the annual synergies expected to accrue to the respective marketing departments as a result of increased volumes, blending opportunities and freight and logistics arbitrage opportunities.

Metals warehousing business

Goodwill of \$50 million (2015: \$50 million) relates to the Pacorini warehousing business CGU.

Port allocation rights

Port allocation rights represent contractual entitlements to export certain amounts of coal on an annual basis from Richard Bay Coal Terminal in South Africa recognised as part of previous business combinations. The rights are amortised on a straight-line basis over the estimated economic life of the port of 40 years.

Licences, trademarks and software

Intangibles related to internally developed technology and patents were recognised in previous business combinations and are amortised over the estimated economic life of the technology which ranges between 10 – 15 years.

Royalty and acquired offtake arrangements

The fair value of a royalty income stream related to output from the Antamina copper mine was recognised as part of a previous business combination. This amount is amortised on a unit of production basis through to 2027, the expected mine life.

Acquired offtake arrangements represent contractual entitlements acquired from third parties to provide marketing services and receive certain products produced from a mining or processing operation over a finite period of time. These rights are amortised on a straight-line basis over the contractual term which currently ranges between 10 – 15 years.

Goodwill impairment testing

For the purpose of impairment testing, goodwill has been allocated to the CGUs, or groups of CGUs, that are expected to benefit from the synergies of the business combination and which represent the level at which management monitor and manage the goodwill. In assessing whether an impairment is required, the carrying value of the CGU is compared with its recoverable amount. The recoverable amount is the higher of its fair value less costs of disposal ("FVLCD") and its value in use ("VIU"). If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro-rata basis of the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognised directly in the consolidated statement of income. An impairment loss recognised for goodwill is not reversed in subsequent periods.

Notes to financial statements

8. INTANGIBLE ASSETS (continued)

Given the nature of each CGU's activities, information on its fair value is usually difficult to obtain unless negotiations with potential purchasers or similar transactions are taking place. Consequently,

- the recoverable amount for each of the marketing CGUs is determined by reference to the FVLCD (compared against a VIU cash flow projection) which utilises a price to earnings multiple approach based on the 2016 approved financial budget which includes factors such as marketing volumes handled and operating, interest and income tax charges, generally based on past experience. The price to earnings multiple of 13.5 times (2015: 11.0 times) is derived from observable market data for broadly comparable businesses; and
- Glencore believes that no reasonably possible change in any of the above key assumptions would cause the recoverable amount to fall below the carrying value of the CGU. The determination of FVLCD for each of the marketing CGUs uses Level 3 valuation techniques in both years.

9. INVESTMENTS IN ASSOCIATES, JOINT VENTURES AND OTHER INVESTMENTS

Investments in associates and joint ventures

US\$ million	Notes	2016	2015 Restated ¹
1 January		11,337	12,274
Additions		15	236
Disposals		(9)	(612)
Share of income from associates and joint ventures		11	99
Share of income from associates and joint ventures from discontinued operations	23	15	2
Share of other comprehensive income from associates and joint ventures		–	(26)
Fair value of retained interest in Glencore Agri	23	3,125	–
Disposal of equity accounted investments within Glencore Agri	23	(624)	–
Dividends received		(833)	(428)
Impairments	5	–	(193)
Discontinued operations share of impairments	5	–	(16)
Reclassification		46	46
Other movements		3	(45)
31 December		13,086	11,337
Of which:			
Investments in associates		6,910	8,166
Investments in joint ventures		6,176	3,171

¹ Certain amounts shown here reflect the adjustments made relating to discontinued operations (see note 23).

As at 31 December 2016, the fair value of listed associates and joint ventures, which have a carrying value of \$555 million (2015: \$681 million), using published price quotations (a Level 1 fair value measurement) was \$424 million (2015: \$255 million). The 2016 and 2015 balance mainly comprises Century Aluminum which has a carrying value of \$460 million (2015: \$592 million).

Additions

In June 2015, Glencore completed the acquisition of a 50% stake in the Barcarena grain terminal in northern Brazil for \$115 million. With this acquisition, Glencore now owns two key ports in the Northern corridor of Brazil which is expected to give access to fast growing origination areas like Mato Grosso and Matopiba, enabling the Group to increase its marketing of corn and soya beans.

Disposals

2015 disposals mainly relate to the in specie distribution of the stake in Lonmin plc (see notes 3 and 16).

9. INVESTMENTS IN ASSOCIATES, JOINT VENTURES AND OTHER INVESTMENTS (continued)

Details of material associates and joint ventures

Summarised financial information in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associate's and joint venture's relevant figures, is set out below.

US\$ million	Cerrejón	Antamina	Total material associates	Collahuasi	Glencore Agri	Total material joint ventures	Total material associates and joint ventures
2016							
Non-current assets	2,487	4,313	6,800	4,504	4,461	8,965	15,765
Current assets	670	952	1,622	1,164	6,354	7,518	9,140
Non-current liabilities	(604)	(1,064)	(1,668)	(1,032)	(841)	(1,873)	(3,541)
Current liabilities	(291)	(470)	(761)	(442)	(6,286)	(6,728)	(7,489)
<i>The above assets and liabilities include the following:</i>							
Cash and cash equivalents	108	90	198	127	147	274	472
Current financial liabilities ¹	(1)	(77)	(78)	(2)	(3,420)	(3,422)	(3,500)
Non-current financial liabilities ¹	–	(135)	(135)	(77)	(603)	(680)	(815)
Net assets 31 December 2016	2,262	3,731	5,993	4,194	3,688	7,882	13,875
Glencore's ownership interest	33.3%	33.8%		44.0%	50.0%		
Acquisition fair value and other adjustments	1,028	2,021	3,049	1,176	1,311	2,487	5,536
Carrying value	1,781	3,282	5,063	3,021	3,155	6,176	11,239

¹ Financial liabilities exclude trade, other payables and provisions.

Summarised profit and loss in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associate's and joint venture's relevant figures for the year ended 31 December 2016, including group adjustments relating to alignment of accounting policies or fair value adjustments, is set out below.

US\$ million	Cerrejón	Antamina	Total of material associates	Collahuasi	Glencore Agri	Total of material joint ventures	Total of material associates and joint ventures
2016							
Revenue	1,822	2,429	4,251	2,285	2,170	4,455	8,706
(Loss)/Income for the year	(913)	584	(329)	459	76	535	206
Other comprehensive (loss)/income	–	–	–	(11)	10	(1)	(1)
Total comprehensive (loss)/income	(913)	584	(329)	448	86	534	205
Glencore's share of dividends paid	105	338	443	352	–	352	795
<i>The above profit for the year includes the following:</i>							
Depreciation and amortisation	(534)	(774)	(1,308)	(581)	(20)	(601)	(1,909)
Interest income ¹	–	28	28	1	12	13	41
Interest expense ²	(14)	(31)	(45)	(25)	(11)	(36)	(81)
Impairment, net of tax ³	(1,036)	–	(1,036)	–	–	–	(1,036)
Income tax expense	(49)	(420)	(469)	(168)	(32)	(200)	(669)

¹ Includes foreign exchange gains and other income of \$37 million.

² Includes foreign exchange losses of \$49 million.

³ Glencore's attributable share of impairments relating to Cerrejón amounts to \$345 million, net of taxes of \$176 million, resulting from reduced near term production estimates due to increased risks related to delays in securing approvals as a result of continued social and environmental challenges to current mine plans. The valuation remains sensitive to price and a 10% decrease of the price assumptions would result in a further impairment of \$293 million.

Notes to financial statements

9. INVESTMENTS IN ASSOCIATES, JOINT VENTURES AND OTHER INVESTMENTS (continued)

US\$ million	Cerrejón	Antamina	Total material associates	Collahuasi	Total material joint ventures	Total material associates and joint ventures
2015						
Non-current assets	2,744	4,279	7,023	4,609	4,609	11,632
Current assets	595	951	1,546	1,144	1,144	2,690
Non-current liabilities	(859)	(948)	(1,807)	(986)	(986)	(2,793)
Current liabilities	(202)	(286)	(488)	(273)	(273)	(761)
<i>The above assets and liabilities include the following:</i>						
Cash and cash equivalents	150	133	283	166	166	449
Current financial liabilities ¹	(5)	(61)	(66)	(3)	(3)	(69)
Non-current financial liabilities ¹	–	(167)	(167)	(75)	(75)	(242)
Net assets 31 December 2015	2,278	3,996	6,274	4,494	4,494	10,768
Glencore's ownership interest	33.3%	33.8%		44.0%		
Acquisition fair value and other adjustments	1,431	2,073	3,504	1,194	1,194	4,698
Carrying value	2,190	3,422	5,612	3,171	3,171	8,783

¹ Financial liabilities exclude trade, other payables and provisions.

Summarised profit and loss in respect of Glencore's associates and joint ventures, reflecting 100% of the underlying associate's and joint venture's relevant figures for the year ended 31 December 2015, is set out below.

US\$ million	Cerrejón	Antamina	Total of material associates	Collahuasi	Total of material joint ventures	Total of material associates and joint ventures
2015						
Revenue	1,859	2,080	3,939	1,991	1,991	5,930
(Loss)/Income for the year	(187)	411	224	166	166	390
Other comprehensive income	–	–	–	(9)	(9)	(9)
Total comprehensive (loss)/income	(187)	411	224	157	157	381
Glencore's share of dividends paid	53	206	259	110	110	369
<i>The above profit for the year includes the following:</i>						
Depreciation and amortisation	(557)	(721)	(1,278)	(586)	(586)	(1,864)
Interest income ¹	–	2	2	36	36	38
Interest expense ²	(18)	(9)	(27)	(10)	(10)	(37)
Income tax expense	(178)	(233)	(411)	(54)	(54)	(465)

¹ Includes foreign exchange gains and other income of \$37 million.

² Includes foreign exchange losses of \$7 million.

Aggregate information of associates that are not individually material:

US\$ million	2016	2015
The Group's share of loss	(122)	(48)
The Group's share of other comprehensive income/(loss)	–	(22)
The Group's share of total comprehensive income/(loss)	(122)	(70)
Aggregate carrying value of the Group's interests	1,847	2,554

Notes to financial statements

9. INVESTMENTS IN ASSOCIATES, JOINT VENTURES AND OTHER INVESTMENTS (continued)

Glencore's share of total comprehensive income did not include joint ventures other than the material joint ventures discussed above.

The amount of corporate guarantees in favour of associates and joint ventures as at 31 December 2016 was \$470 million (2015: \$337 million). In addition, there still exist guarantees amounting to \$7,339 million in favour of Glencore Agri and, following release of its 2016 consolidated financial results (expected by end of Q1 2017), as part of post-completion matters, Glencore expects to terminate these, with the exception of \$400 million related to legacy Viterra 2020 bonds outstanding. No amounts have been claimed or provided as at 31 December 2016. Glencore's share of joint ventures' capital commitments amounts to \$154 million (2015: \$176 million).

Other investments

US\$ million	2016	2015
Available for sale		
United Company Rusal plc	562	407
OAo NK Russneft	895	685
	1,457	1,092
Fair value through profit and loss		
Volcan Compania Minera S.A.A.	124	95
Century Aluminum Company cash-settled equity swaps	78	40
Other	94	78
	296	213
Total	1,753	1,305

Available for sale investments

Glencore accounts for its interests in United Company Rusal plc and OAo NK Russneft ("Russneft") as available for sale investments at fair value with mark-to-market movements recognised in other comprehensive income. Although Glencore holds a 25% interest in Russneft, it does not exercise significant influence over the financial and operating policy decisions of Russneft.

10. ADVANCES AND LOANS

US\$ million	2016	2015
Loans to associates ¹	526	436
Rehabilitation trust fund	193	152
Other non-current receivables and loans ²	2,764	2,417
Total	3,483	3,005

¹ Loans to associates generally bear interest at applicable floating market rates plus a premium.

² Includes advances, net of \$2,284 million (2015: \$1,427 million) provided by various banks.

Rehabilitation trust fund

Glencore makes contributions to controlled funds that were established to meet the costs of its restoration and rehabilitation liabilities, primarily in South Africa. These funds are not available for the general purposes of the Group, and there is no present obligation to make any further contributions.

Other non-current receivables and loans comprise the following:

US\$ million	2016	2015
Counterparty		
Secured marketing related financing arrangements ¹	1,043	1,004
Société Nationale d'Electricité (SNEL) power advances	295	266
Chad State National Oil Company	389	544
Société Nationale des Pétroles du Congo	292	165
Iron ore prepayment	89	–
Other	656	438
Total	2,764	2,417

¹ Various marketing related financing facilities, generally secured against certain assets and/or payable from the future sale of production of the counterparty. The advances and loans are interest-bearing and on average are to be repaid over a three-year period.

10. ADVANCES AND LOANS (continued)

SNEL power advances

In early 2012, a joint agreement with Société Nationale d'Électricité ("SNEL"), the Democratic Republic of the Congo's ("DRC") national electricity utility, was signed whereby Glencore's operations will contribute \$386 million to a major electricity infrastructure refurbishment programme, including transmission and distribution systems. This is expected to facilitate a progressive increase in power availability to 450 megawatts by the end of 2017. Funding commenced in the second quarter of 2012 and will continue until the end of 2017. The loans are being repaid via discounts on electricity purchases, which will accelerate upon completion of the refurbishment programme.

Chad State National Oil Company

Glencore has provided a net \$418 million (2015: \$544 million) to the Chad State National Oil Company ("SHT") to be repaid through future oil deliveries over seven years. As at 31 December 2016, the advance is net of \$972 million (2015: \$905 million) provided by a syndicate of banks, the repayment terms of which are contingent upon and connected to the receipt of oil due from SHT under the prepayment. Of the net amount advanced, \$389 million (2015: \$544 million) is receivable after 12 months and is presented within Other non-current receivables and loans and \$29 million (2015: \$Nil) is due within 12 months, such amounts included within Accounts receivable.

Société Nationale des Pétroles du Congo ("SNPC")

In 2016, Glencore advanced an additional \$118 million to SNPC, repayable through future oil deliveries over five years. As at 31 December 2016, the total advance of \$336 million (2015: \$218 million) is recorded net of \$512 million (2015: \$522 million) provided by the bank market, the repayment terms of which are contingent upon and connected to the future receipt of oil contractually due from SNPC. Of the net amount advanced, \$292 million (2015: \$165 million) is due after 12 months and is presented within Other long-term receivables and loans and \$44 million (2015: \$53 million) is due within 12 months and included within Accounts receivable.

Iron ore prepayment

In 2016, Glencore advanced \$160 million to iron ore suppliers to be repaid through future iron ore deliveries over 2 years. As at 31 December 2016, the total advance of \$1,571 million is recorded net of \$1,414 million provided by the bank market, the repayment terms of which are contingent upon and connected to the future receipt of iron ore contractually due from the counterpart. Of the net amount advanced, \$89 million is due after 12 months and presented within Other long-term receivables and loans and \$68 million is due within 12 months and included within Accounts receivable.

11. INVENTORIES

Current inventory

Inventories of \$18,347 million (2015: \$18,303 million) comprise \$11,323 million (2015: \$10,928 million) of inventories carried at fair value less costs of disposal and \$7,024 million (2015: \$7,375 million) valued at the lower of cost or net realisable value. The amount of inventories and related ancillary costs recognised as an expense during the year approximates the cost of goods sold balance.

Fair value of inventories is a Level 2 fair value measurement (see note 26) using observable market prices obtained from exchanges, traded reference indices or market survey services adjusted for relevant location and quality differentials. There are no significant unobservable inputs in the fair value measurement of such inventories.

Glencore has a number of dedicated financing facilities, which finance a portion of its inventories. In each case, the inventory has not been derecognised as the Group retains the principal risks and rewards of ownership. The proceeds received are recognised as current borrowings (see note 18). As at 31 December 2016, the total amount of inventory secured under such facilities was \$1,632 million (2015: \$1,649 million). The proceeds received and recognised as current borrowings were \$1,320 million (2015: \$1,607 million) and \$61 million (2015: \$Nil) were recognised as non-current borrowings.

Non-current inventory

\$564 million (2015: \$504 million) of inventories valued at the lower of cost or net realisable value are not expected to be utilised or sold within 12 months and are therefore classified as non-current inventory.

Notes to financial statements

12. ACCOUNTS RECEIVABLE

US\$ million	2016	2015
Trade receivables ¹	10,482	10,175
Trade advances and deposits ^{1,2,3}	7,053	4,206
Associated companies ¹	444	414
Income tax receivable	201	306
Other receivables	1,886	1,900
Total	20,066	17,001

1 Collectively referred to as receivables presented net of allowance for doubtful debts.

2 Includes advances, net of \$614 million (2015: \$180 million) provided by banks, the repayment terms of which are contingent upon and connected to the future delivery of contractual production over the next 12 months.

3 In December 2015, impairments of \$359 million were recognised reflecting non-performance of contractual terms and a recoverable value provision in respect of trade advances and deposits (see note 5).

The average credit period on sales of goods is 25 days (2015: 27 days).

As at 31 December 2016, 7% (2015: 6%) of receivables were between 1 to 60 days overdue, and 4% (2015: 5%) were greater than 60 days overdue. Such receivables, although contractually past their due dates, are not considered impaired as there has not been a significant change in credit quality of the relevant counterparty, and the amounts are still considered recoverable taking into account customary payment patterns and in many cases, offsetting accounts payable balances.

The movement in allowance for doubtful accounts is detailed below:

US\$ million	2016	2015
1 January	269	293
Released during the year	(58)	(62)
Charged during the year	232	80
Utilised during the year	(46)	(42)
Disposal of subsidiaries	(102)	–
31 December	295	269

Glencore has a number of dedicated financing facilities, which finance a portion of its receivables. The receivables have not been derecognised, as the Group retains the principal risks and rewards of ownership. The proceeds received are recognised as current borrowings (see note 18). As at 31 December 2016, the total amount of trade receivables secured was \$1,917 million (2015: \$2,205 million) and proceeds received and classified as current borrowings amounted to \$1,670 million (2015: \$1,937 million).

13. CASH AND CASH EQUIVALENTS

US\$ million	2016	2015
Bank and cash on hand	2,050	2,059
Deposits and treasury bills	458	648
Total	2,508	2,707

As at 31 December 2016, \$22 million (2015: \$22 million) was restricted.

14. SHARE CAPITAL AND RESERVES

	Number of shares (thousand)	Share capital (US\$ million)	Share premium (US\$ million)
Authorised:			
31 December 2016 and 2015 Ordinary shares with a par value of \$0.01 each	50,000,000	–	–
Issued and fully paid up:			
1 January 2015	13,278,405	133	52,533
Share issuance	1,307,795	13	2,431
Distributions paid (see note 16)	–	–	(2,626)
31 December 2015 – Ordinary shares	14,586,200	146	52,338
31 December 2016 – Ordinary shares	14,586,200	146	52,338

In September 2015, a total of 1,307,794,600 new ordinary shares in Glencore were placed at a price of 125 pence per share, raising gross proceeds of approximately \$2.5 billion. The new shares issued represented approximately 10% of the Company's issued ordinary share capital prior to the placing.

	Treasury Shares		Trust Shares		Number of shares (thousand)	Total Share premium (US\$ million)
	Number of shares (thousand)	Share premium (US\$ million)	Number of shares (thousand)	Share premium (US\$ million)		
Own shares:						
1 January 2015	143,278	(758)	150,462	(735)	293,740	(1,493)
Own shares purchased during the year	58,050	(240)	28,843	(41)	86,893	(281)
Own shares transferred to satisfy employee share awards	(9,869)	50	9,869	(50)	–	–
Own shares disposed during the year	–	–	(14,770)	62	(14,770)	62
31 December 2015	191,459	(948)	174,404	(764)	365,863	(1,712)
1 January 2016	191,459	(948)	174,404	(764)	365,863	(1,712)
Own shares purchased during the year	–	–	–	–	–	–
Own shares transferred to satisfy employee share awards	–	–	–	–	–	–
Own shares disposed during the year	–	–	(7,474)	12	(7,474)	12
31 December 2016	191,459	(948)	166,930	(752)	358,389	(1,700)

Own shares

Own shares comprise shares acquired under the Company's previous share buy-back programme and shares of Glencore plc held by Group employee benefit trusts ("the Trusts") to satisfy the potential future settlement of the Group's employee stock plans, primarily assumed as part of previous business combinations.

The Trusts also coordinate the funding and manage the delivery of ordinary shares and free share awards under certain of Glencore's share plans. The shares have been acquired by either stock market purchases or share issues from the Company. The Trusts are permitted to sell the shares and may hold up to 5% of the issued share capital of the Company at any one time. The Trusts have waived the right to receive distributions from the shares that they hold. Costs relating to the administration of the Trust are expensed in the period in which they are incurred.

As at 31 December 2016, 358,389,443 shares (2015: 365,863,517 shares), equivalent to 2.5% (2015: 2.5%) of the issued share capital were held at a cost of \$1,700 million (2015: \$1,712 million) and market value of \$1,227 million (2015: \$488 million).

Notes to financial statements

14. SHARE CAPITAL AND RESERVES (continued)

Other reserves

US\$ million	Translation adjustment	Cash flow hedge reserve	Net unrealised gain/(loss)	Net ownership changes in subsidiaries	Other reserves	Total
1 January 2015	(2,163)	58	501	(815)	10	(2,409)
Exchange loss on translation of foreign operations	(1,727)	–	–	–	–	(1,727)
Loss on cash flow hedges, net of tax	–	(89)	–	–	–	(89)
Loss on available for sale financial instruments	–	–	(489)	–	–	(489)
Change in ownership interest in subsidiaries	–	–	–	(16)	–	(16)
Foreign currency translation losses recycled to the statement of income	311	–	–	–	–	311
31 December 2015	(3,579)	(31)	12	(831)	10	(4,419)
1 January 2016	(3,579)	(31)	12	(831)	10	(4,419)
Exchange gain on translation of foreign operations	440	–	–	–	–	440
Gain on cash flow hedges, net of tax	–	99	–	–	–	99
Gain on available for sale financial instruments	–	–	365	–	–	365
Reclassifications	(31)	30	–	1	–	–
Change in ownership interest in subsidiaries	–	–	–	68	–	68
Discontinued operations	22	21	–	–	–	43
Items recycled to the statement of income upon disposal of subsidiaries (see note 23)	595	(3)	–	10	–	602
31 December 2016	(2,553)	116	377	(752)	10	(2,802)

Notes to financial statements

15. EARNINGS PER SHARE

US\$ million	2016	2015 Restated ¹
Profit/(Loss) attributable to equity holders of the Parent		
Continuing operations	(744)	(5,220)
Discontinued operations	2,123	256
Profit/(Loss) attributable to equity holders of the Parent for basic earnings per share	1,379	(4,964)
Weighted average number of shares for the purposes of basic earnings per share (thousand)	14,224,100	13,317,970
Effect of dilution:		
Equity-settled share-based payments (thousand) ²	134,179	–
Weighted average number of shares for the purposes of diluted earnings per share (thousand) ²	14,358,279	–
Basic earnings/(loss) per share (US\$)		
Continuing operations	(0.05)	(0.39)
Discontinued operations	0.15	0.02
Total basic earnings/(loss) per share	0.10	(0.37)
Diluted earnings/(loss) per share (US\$)²		
Continuing operations	(0.05)	(0.39)
Discontinued operations	0.15	0.02
Total diluted earnings/(loss) per share	0.10	(0.37)

¹ Certain amounts shown here reflect the adjustments made relating to discontinued operations (see note 23).

² As both the result attributable to equity holders and to Headline results is a loss in 2015, the effect has not been presented as this would be anti-dilutive.

Headline earnings:

Headline earnings is a Johannesburg Stock Exchange (“JSE”) defined performance measure. The calculation of basic and diluted earnings per share, based on headline earnings as determined by the requirements of the Circular 2/2015 as issued by the South African Institute of Chartered Accountants (“SAICA”), is reconciled using the following data:

US\$ million	2016	2015
Profit/(Loss) attributable to equity holders of the Parent from continuing and discontinued operations for basic earnings per share	1,379	(4,964)
Net (gain)/loss on disposals ²	(2,370)	1,061
Net loss on disposals – non-controlling interest	–	(31)
Net loss/(gain) on disposals – tax	148	(263)
Impairments ³	1,789	6,692
Impairments – non-controlling interest	(16)	(2,611)
Impairments – tax	(573)	(316)
Headline and diluted earnings/(loss) for the year	357	(432)
Headline earnings/(loss) per share (US\$)		
	0.03	(0.03)
Diluted headline earnings/(loss) per share (US\$)¹		
	0.03	(0.03)

¹ In 2016 equity-settled share-based payments are only dilutive with respect to Headline earnings per share calculation. As both the result attributable to equity holders and to Headline results is a loss in 2015, the effect has not been presented as this would be anti-dilutive.

² 2016 comprises gain on disposals and investments of \$452 million, gain on disposals of property, plant and equipment of \$37 million, gain on disposal of Glencore Agri of \$1,848 million and gain on disposals and investments as reported in discontinued operations of \$33 million (see notes 3, 4 and 23). 2015 comprises losses on disposals and investments of \$994 million, loss from metal leak of \$60 million and loss on vessel charter contract and net other expenses of \$7 million (see notes 3 and 4).

³ Comprises impairments of property, plant and equipment and intangible assets (see note 5) and impairments related to Cerrejón of \$521 million.

Notes to financial statements

16. DISTRIBUTIONS

US\$ million	2016	2015
Paid during the year:		
Final distribution for 2015 – \$Nil per ordinary share (2014: \$0.12 per ordinary share)	–	1,551
Interim distribution for 2016 – \$Nil per ordinary share (2015: \$0.06 per ordinary share)	–	777
In specie distribution of Group's 23.9% in Lonmin plc	–	298
Total	–	2,626

As announced on 7 September 2015, the final distribution for 2015 and the interim distribution for 2016 were suspended.

The proposed distribution of \$7 cents per ordinary share amounting to \$996 million is subject to approval by shareholders at the Annual General Meeting and has not been included as a liability in these financial statements. Distributions declared in respect of the year ended 31 December 2016 are expected to be paid equally (\$3.5 cents each) in May 2017 and September 2017.

17. SHARE-BASED PAYMENTS

	Number of awards granted (thousand)	Fair value at grant date (US\$ million)	Number of awards outstanding 2016 (thousand)	Number of awards outstanding 2015 (thousand)	Expense recognised 2016 (US\$ million)	Expense recognised 2015 (US\$ million)
Deferred Bonus Plan						
2014 Series	3,633	20	–	2,455	–	–
2015 Series	15,634	35	14,315	15,634	–	35
2016 Series	14,177	34	14,177	–	34	–
	33,444		28,492	18,089	34	35
Performance Share Plan						
2013 Series	12,048	65	–	4,075	6	20
2014 Series	20,908	115	10,485	11,035	21	46
2015 Series	77,062	106	75,316	44,475	48	–
2016 Series	6,835	24	6,835	–	–	–
	116,853		92,636	59,585	75	66
Total	150,297		121,128	77,674	109	101

Deferred Bonus Plan

Under the Glencore Deferred Bonus Plan (“DBP”), the payment of a portion of a participant’s annual bonus is deferred for a period of one to two years as an award of either ordinary shares (a “Bonus Share Award”) or cash (a “Bonus Cash Award”). The awards are vested at grant date with no further service conditions, however they are subject to forfeiture for malus events. The Bonus Share Awards may be satisfied, at Glencore’s option, in shares by the issue of new ordinary shares, by the transfer of ordinary shares held in treasury or by the transfer of ordinary shares purchased in the market or in cash, with a value equal to the market value of the award at settlement, including distributions paid between award and settling. Glencore currently intends to settle these awards in shares. The associated expense is recorded in the statement of income/loss as part of the expense for performance bonuses.

Performance share plan

Under the Glencore Performance Share Plan (“PSP”), participants are awarded PSP awards which vest in annual tranches over a specified period, subject to continued employment and forfeiture for malus events. At grant date, each PSP award is equivalent to one ordinary share of Glencore. The awards vest in three or five equal tranches on 30 June, 31 December or 31 January of the years following the year of grant, as may be the case. The fair value of the awards is determined by reference to the market price of Glencore’s ordinary shares at grant date. The PSP awards may be satisfied, at Glencore’s option, in shares by the issue of new ordinary shares, by the transfer of ordinary shares held in treasury or by the transfer of ordinary shares purchased in the market or in cash, with a value equal to the market value of the award at vesting, including distributions paid between award and vesting. Glencore currently intends to settle these awards in shares.

17. SHARE-BASED PAYMENTS (continued)

Share based awards assumed in previous business combinations

	Total options outstanding (thousands)	Weighted average exercise price (GBP)
1 January 2015	148,562	3.83
Forfeited	–	–
Lapsed	–	–
Exercised ¹	(1,960)	1.69
31 December 2015	146,602	
1 January 2016	146,602	3.89
Dilution due to share issue	322	–
Forfeited	–	–
Lapsed	(5,424)	2.85
Exercised ¹	(228)	1.10
31 December 2016	141,272	

¹ The weighted average share price at date of exercise of the share based awards was GBP2.80 (2015: GBP2.89).

As at December 31, 2016, a total of 141,271,783 options (2015: 146,601,834 options) were outstanding and exercisable, having a range of exercise prices from GBP1.095 to GBP6.87 (2015: GBP1.098 to GBP6.880) and a weighted average exercise price of GBP3.8941 (2015: GBP3.853). These outstanding awards have expiry dates ranging from March 2017 to February 2022 (2015: March 2016 to February 2022) and a weighted average contractual life of 3.6 years (2015: 2.8 years). The awards may be satisfied at Glencore's option, by the issue of new ordinary shares, by the transfer of ordinary shares held in treasury or by the transfer of ordinary shares purchased in the market. Glencore currently intends to settle these awards, when exercised, by the transfer of ordinary shares held in treasury.

18. BORROWINGS

US\$ million	Notes	2016	2015
Non-current borrowings			
Capital market notes		21,968	28,938
Committed syndicated revolving credit facilities		476	2,994
Finance lease obligations	28	326	376
Other bank loans		418	624
Total non-current borrowings		23,188	32,932
Current borrowings			
Secured inventory/receivables facilities	11/12	2,990	3,544
U.S. commercial paper		–	15
Capital market notes		4,388	4,474
Finance lease obligations	28	75	88
Other bank loans ¹		2,577	2,996
Total current borrowings		10,030	11,117

¹ Comprises various uncommitted bilateral bank credit facilities and other financings.

Committed syndicated revolving credit facilities

In February 2016, fully syndicated and effective from May 2016, Glencore signed a new one-year revolving credit facility for a total amount of \$7.7 billion. This facility refinanced the \$8.45 billion one-year revolving credit facility signed in May 2015. Funds drawn under the facilities bear interest at US\$LIBOR plus a margin of 50/60 basis points per annum.

As at 31 December 2016, the active facilities comprise:

- a \$7.7 billion short-term revolving credit facility with a 12 month borrower's term-out option (to May 2018) and 12 month extension option; and
- a \$6.8 billion medium-term revolving credit facility (to May 2020) with one 12 month extension option or 24 month extension option.

Notes to financial statements

18. BORROWINGS (continued)

Capital Market Notes

US\$ million	Maturity	2016	2015
AUD 500 million 4.500% coupon bonds	Sep 2019	370	374
Euro 1,250 million 5.250% coupon bonds	Mar 2017	–	1,281
Euro 500 million 5.250% coupon bonds	Jun 2017	–	556
Euro 1,250 million 4.625% coupon bonds	Apr 2018	1,296	1,337
Euro 1,000 million 2.625% coupon bonds	Nov 2018	1,055	1,086
Euro 750 million 3.375% coupon bonds	Sep 2020	781	801
Euro 1,250 million 1.250% coupon bonds	Mar 2021	1,294	1,330
Euro 600 million 2.750% coupon bonds	Apr 2021	617	633
Euro 700 million 1.625% coupon bonds	Jan 2022	733	753
Euro 1,000 million 1.875% coupon bonds	Sep 2023	1,048	–
Euro 400 million 3.700% coupon bonds	Oct 2023	420	432
Euro 750 million 1.750% coupon bonds	Mar 2025	784	804
Euro 500 million 3.750% coupon bonds	Apr 2026	524	539
Eurobonds		8,552	9,552
JPY 10 billion 1.075% coupon bonds	May 2022	86	83
GBP 650 million 6.500% coupon bonds	Feb 2019	798	948
GBP 500 million 7.375% coupon bonds	May 2020	689	821
GBP 500 million 6.000% coupon bonds	Apr 2022	621	747
Sterling bonds		2,108	2,516
CHF 450 million 2.625% coupon bonds	Dec 2018	443	449
CHF 175 million 2.125% coupon bonds	Dec 2019	172	174
CHF 500 million 1.250% coupon bonds	Dec 2020	492	498
CHF 250 million 2.250% coupon bonds	May 2021	246	–
Swiss Franc bonds		1,353	1,121
US\$ 700 million 3.600% coupon bonds	Jan 2017	–	707
US\$ 250 million 5.500% coupon bonds	Jun 2017	–	262
US\$ 1,750 million 2.700% coupon bonds	Oct 2017	–	1,753
US\$ 250 million LIBOR plus 1.06% coupon bonds	Apr 2018	48	233
US\$ 500 million 2.125% coupon bonds	Apr 2018	159	463
US\$ 200 million LIBOR plus 1.200% coupon bonds	May 2018	200	200
US\$ 500 million LIBOR plus 1.360% coupon bonds	Jan 2019	279	499
US\$ 1,500 million 2.500% coupon bonds	Jan 2019	690	1,474
US\$ 1,000 million 3.125% coupon bonds	Apr 2019	451	1,006
US\$ 1,000 million 2.875% coupon bonds	Apr 2020	416	990
US\$ 400 million 5.950% coupon bonds	Aug 2020	–	400
US\$ 1,000 million 4.950% coupon bonds	Nov 2021	1,056	1,066
US\$ 250 million LIBOR plus 1.650% coupon bonds	May 2022	250	250
US\$ 1,000 million 4.250% coupon bonds	Oct 2022	1,013	1,016
US\$ 1,500 million 4.125% coupon bonds	May 2023	1,536	1,553
US\$ 1,000 million 4.625% coupon bonds	Apr 2024	1,034	1,046
US\$ 500 million 4.000% coupon bonds	Apr 2025	484	485
US\$ 250 million 6.200% coupon bonds	Jun 2035	273	274
US\$ 500 million 6.900% coupon bonds	Nov 2037	597	600
US\$ 500 million 6.000% coupon bonds	Nov 2041	540	541
US\$ 500 million 5.550% coupon bonds	Oct 2042	473	474
US\$ bonds		9,499	15,292
Total non-current bonds		21,968	28,938

Notes to financial statements

18. BORROWINGS (continued)

US\$ million	Maturity	2016	2015
Euro 1,250 million 1.750% coupon bonds	May 2016	–	1,228
Euro 1,250 million 5.250% coupon bonds	Mar 2017	1,244	–
Euro 500 million 5.250% coupon bonds	Jun 2017	514	–
Eurobonds		1,758	1,228
US\$ 500 million LIBOR plus 1.16% coupon bonds	May 2016	–	489
US\$ 1,000 million 1.700% coupon bonds	May 2016	–	1,000
US\$ 1,000 million 5.800% coupon bonds	Nov 2016	–	934
US\$ 700 million 3.600% coupon bonds	Jan 2017	660	–
US\$ 250 million 5.500% coupon bonds	Jun 2017	254	–
US\$ 1,750 million 2.700% coupon bonds	Oct 2017	1,716	–
US\$ bonds		2,630	2,423
CHF 825 million 3.625% coupon bonds	Apr 2016	–	823
Total current bonds		4,388	4,474

2016 Bond activities

- In May, issued a 5 year CHF 250 million, 2.25% coupon bond.
- In September, issued a 7 year Euro 1,000 million, 1.875% coupon bond.
- In October, repurchased bonds with a nominal value of \$1,492 million, comprising primarily 2018 and 2019 maturities.
- In December, repurchased bonds with a nominal value of \$1,137 million, comprising primarily 2019 and 2020 maturities.

Secured facilities

US\$ million	Maturity	Borrowing base	Interest	2016	2015
Syndicated committed metals inventory/receivables facilities	Mar 2017	100	US\$ LIBOR + 160 bps	100	350
Syndicated uncommitted metals inventory/receivables facilities	Jan ¹ /Mar/Apr/Oct 2017	2,936	US\$ LIBOR + 50/95/110/160 bps	2,340	2,161
Syndicated uncommitted oil receivables facilities	Oct 2017	550	US\$ LIBOR + 95 bps	550	550
Syndicated uncommitted agricultural products inventory/receivables facilities	Jan/Oct 2016	–	US\$ LIBOR + 70 bps	–	483
Total		3,586		2,990	3,544

¹ Since year-end, in the ordinary course of business, these maturities have been rolled/extended as required.

Notes to financial statements

19. DEFERRED INCOME

US\$ million	Notes	Unfavourable contracts	Prepayments	Total
1 January 2015		1,138	135	1,273
Additions		–	900	900
Utilised in the year		(146)	(149)	(295)
Disposals and loss of control of subsidiaries	23	(212)	–	(212)
Effect of foreign currency exchange difference		(127)	–	(127)
31 December 2015		653	886	1,539
Current		53	34	87
Non-current		600	852	1,452
1 January 2016		653	886	1,539
Additions		–	971	971
Utilised in the year		(74)	(70)	(144)
Effect of foreign currency exchange difference		38	–	38
31 December 2016		617	1,787	2,404
Current		56	82	138
Non-current		561	1,705	2,266

Unfavourable contracts

In previous business combinations, Glencore recognised liabilities related to various assumed contractual agreements to deliver tonnes of coal and zinc concentrates over periods ending between 2017 and 2034 at fixed prices lower than the prevailing market prices on the respective acquisition dates.

These amounts are released to revenue as the underlying commodities are delivered to the buyers over the life of the contracts at rates consistent with the implied forward price curves at the time of the acquisitions.

Prepayments

Antapaccay

In February 2016, Glencore entered into a long-term streaming agreement with Franco-Nevada, for the delivery of gold and silver calculated by reference to copper produced by the Antapaccay mine in Peru. Glencore will deliver 300 ounces of gold per 1,000 tonnes of copper in concentrate until 630,000 ounces of gold have been delivered and 30% of gold production thereafter, and 4,700 ounces of silver per 1,000 tonnes of copper in concentrate until 10,000,000 ounces of silver have been delivered and 30% of silver production thereafter. In consideration, Franco-Nevada made an advance payment of \$500 million and pays an ongoing amount of 20% of the spot gold and silver price per ounce delivered, increasing to 30% of the respective spot prices after 750,000 ounces of gold and 12,800,000 ounces of silver have been delivered under the streaming agreement. The arrangement has been accounted for as an executory contract whereby the advance payment has been recorded as deferred revenue. The revenue from the advance payment is being recognised as the silver and gold is delivered to Franco-Nevada at an amount consistent with the implied forward price curve at the time of the transaction along with the ongoing cash payments. An accretion expense, representing the time value of the upfront deposit on the deferred revenue balance, is also being recognised.

Ernest Henry

In October 2016, Glencore entered into an agreement with Evolution Mining Limited (“Evolution”), whereby Glencore received \$669 million cash in return for a 30% economic interest in the Ernest Henry Mine mining operation (“EHM”) and an entitlement to 100% of the gold produced from Glencore’s remaining 70% interest in EHM. The consideration received was allocated between the two elements of the transaction (sale of the 30% interest and the 70% gold prepaid streaming arrangement) by estimating the fair value of the gold stream by reference to the net present value of the anticipated gold to be delivered over the life of mine (\$471 million) with the residual amount representing the consideration for the 30% interest (\$198 million, see note 23). The gold streaming element of the arrangement has been accounted for as an executory contract whereby the advance payment (\$471 million) has been recorded as deferred revenue. The revenue from the advance payment is being recognised as the gold is delivered to Evolution at an amount consistent with the implied forward price curve at the time of the transaction. An accretion expense, representing the time value of the upfront deposit on the deferred revenue balance, is also being recognised.

Notes to financial statements

19. DEFERRED INCOME (continued)

Antamina

In December 2015, effective 1 October 2015, Glencore entered into a long-term streaming agreement with Silver Wheaton Corporation ("Silver Wheaton"), for the delivery of the equivalent of 33.75% of the silver produced by the Antamina mine ("Antamina") until 140 million ounces of silver is delivered, at which time, the designated percentage reduces to 22.50% of the silver production from Antamina over the remaining life of mine. In consideration, Silver Wheaton made an up-front advance payment of \$900 million and pays an ongoing amount of 20% of the spot silver price for each ounce of silver delivered under the streaming agreement. The arrangement has been accounted for as an executory contract whereby the advance payment has been recorded as deferred revenue. The revenue from the advance payment is being recognised as the silver is delivered to Silver Wheaton at an amount consistent with the implied forward price curve at the time of the transaction along with the ongoing cash payments. An accretion expense, representing the time value of the upfront deposit on the deferred revenue balance, is also being recognised.

20. PROVISIONS

US\$ million	Post-retirement employee benefits	Other employee entitlements	Rehabilitation costs	Onerous contracts	Other	Total
1 January 2015	1,070	308	3,836	1,730	1,187	8,131
Provision utilised in the year	(249)	(137)	(448)	(447)	(457)	(1,738)
Accretion in the year	–	–	178	6	–	184
Assumed in business combination ¹	–	–	–	–	21	21
Disposals and cessation of control of subsidiaries ¹	(2)	–	(241)	–	(18)	(261)
Additional provision in the year	102	52	(302)	189	268	309
Effect of foreign currency exchange difference	(118)	(2)	(118)	–	(11)	(249)
31 December 2015	803	221	2,905	1,478	990	6,397
Current	–	–	89	155	230	474
Non-current	803	221	2,816	1,323	760	5,923
1 January 2016	803	221	2,905	1,478	990	6,397
Provision utilised in the year	(92)	(34)	(140)	(381)	(555)	(1,202)
Accretion in the year	–	–	181	2	–	183
Assumed in business combination ¹	–	5	154	84	4	247
Disposals of subsidiaries ¹	(6)	(6)	(107)	–	(78)	(197)
Additional provision in the year	160	32	164	122	448	926
Effect of foreign currency exchange difference	(5)	–	37	–	3	35
31 December 2016	860	218	3,194	1,305	812	6,389
Current	–	–	144	178	136	458
Non-current	860	218	3,050	1,127	676	5,931

¹ See note 23.

Post-retirement employee benefits

The provision for post-retirement employee benefits includes pension plan liabilities of \$428 million (2015: \$346 million) and post-retirement medical plan liabilities of \$432 million (2015: \$457 million), see note 21.

20. PROVISIONS (continued)

Other employee entitlements

The employee entitlement provision represents the value of governed employee entitlements due to employees upon their termination of employment. The associated expenditure will occur in a pattern consistent with when employees choose to exercise their entitlements.

Rehabilitation costs

Rehabilitation provision represents the accrued cost required to provide adequate restoration and rehabilitation upon the completion of production activities. These amounts will be settled when rehabilitation is undertaken, generally at the end of a project's life, which ranges from two to in excess of 50 years with an average for all sites, weighted by closure provision, of some 16 years. As outlined in note 1, significant estimates are required in determining the rehabilitation provisions, one of which is the determination of appropriate discount rates. Decreasing the rates used for active mining and processing operations by 2% would result in an increase in the overall rehabilitation provision by \$288 million, with a resulting equal movement in property, plant and equipment. In the following year, the depreciation expense would increase by some \$23 million, with an opposite direction interest expense adjustment of \$8 million. The resulting net impact in the statement of income would be a decrease of \$15 million, eventually netting to \$Nil over the weighted average settlement date of the provision.

Onerous contracts

Onerous contracts represent liabilities related to contractual take or pay commitments for securing coal logistics capacity at fixed prices and quantities higher than the acquisition date forecasted usage and prevailing market price. The provision is released to costs of goods sold as the underlying commitments are incurred.

Other

Other comprises provisions for possible demurrage, mine concession, tax and construction related claims.

Tax disputes

Glencore assesses its liabilities and contingencies for all tax years open to audit based upon the latest information available. Inherent uncertainties exist in estimates of tax contingencies due to complexities of interpretation and changes in tax laws. For those matters where it is probable that an adjustment will be made, the Group records its best estimate of these tax liabilities, including related interest charges. The current open tax matters are spread across numerous jurisdictions and consist primarily of legacy transfer pricing matters that have been open for a number of years and may take several more years to resolve, none of which are individually material. Accordingly, management does not anticipate a significant risk of material change in estimates within the next financial year.

21. PERSONNEL COSTS AND EMPLOYEE BENEFITS

Total personnel costs, which include salaries, wages, social security, other personnel costs and share-based payments, incurred for the years ended 31 December 2016 and 2015, were \$4,245 million and \$5,287 million, respectively. Personnel costs related to consolidated industrial subsidiaries of \$3,355 million (2015: \$4,344 million) are included in cost of goods sold. Other personnel costs, including the deferred bonus and performance share plans, are included in selling and administrative expenses.

The Company and certain subsidiaries sponsor various pension schemes in accordance with local regulations and practices. Eligibility for participation in the various plans is either based on completion of a specified period of continuous service, or date of hire. Among these schemes are defined contribution plans as well as defined benefit plans.

Defined contribution plans

Glencore's contributions under these plans amounted to \$118 million in 2016 (2015: \$199 million).

Post-retirement medical plans

The Company participates in a number of post-retirement medical plans, principally in Canada, which provide coverage for prescription drugs, medical, dental, hospital and life insurance to eligible retirees. Almost all of the post-retirement medical plans in the Group are unfunded.

Defined benefit pension plans

The Company operates defined benefit plans in various countries, the main locations being Canada, Switzerland, UK and the US. Approximately 72% of the present value of obligations accrued to date relates to the defined benefit plans in Canada, which are pension plans that provide benefits to members in the form of a guaranteed level of pension payable for life. Contributions to the Canadian plans are made to meet or exceed minimum funding requirements based on provincial statutory requirements and associated federal taxation rules.

The majority of benefit payments are from trustee-administered funds; however, there are also a number of unfunded plans where Glencore meets the benefit payments as they fall due. Plan assets held in trusts are governed by local regulations and practices in each country. Responsibility for governance of the plans – overseeing all aspects of the plans including investment decisions and contribution schedules – lies with Glencore. Glencore has set up committees to assist in the management of the plans and has also appointed experienced, independent professional experts such as investment managers, actuaries, custodians, and trustees.

Notes to financial statements

21. PERSONNEL COSTS AND EMPLOYEE BENEFITS (continued)

The movement in the defined benefit pension and post-retirement medical plans over the year is as follows:

US\$ million	Defined benefit pension plans			
	Post-retirement medical plans	Present value of defined benefit obligation	Fair value of plan assets	Net liability for defined benefit pension plans
1 January 2016	457	3,405	(3,059)	346
Current service cost	7	67	–	67
Past service cost – plan amendments	1	(3)	–	(3)
Settlement	–	(94)	90	(4)
Termination benefit	–	4	–	4
Interest expense/(income)	18	126	(116)	10
Total expense recognised in consolidated statement of income	26	100	(26)	74
Gain on plan assets, excluding amounts included in interest expense – net	–	–	(59)	(59)
Gain from change in demographic assumptions	–	(13)	–	(13)
Loss from change in financial assumptions	5	137	–	137
Gain from actuarial experience	(3)	(3)	–	(3)
Change in asset ceiling, excluding amounts included in interest expense	–	(4)	–	(4)
Actuarial losses/(gains) recognised in consolidated statement of comprehensive income	2	117	(59)	58
Employer contributions	–	–	(72)	(72)
Employee contributions	–	1	(1)	–
Benefits paid directly by the Company	(20)	(9)	9	–
Benefits paid from plan assets	–	(192)	192	–
Net cash (outflow)/inflow	(20)	(200)	128	(72)
Disposal of subsidiaries ¹	(48)	(487)	529	42
Exchange differences	15	11	(31)	(20)
Other	(33)	(476)	498	22
31 December 2016	432	2,946	(2,518)	428

¹ See note 23.

The Group expects to make a contribution of \$101 million to the defined benefit pension and post-retirement medical plans during the next financial year.

21. PERSONNEL COSTS AND EMPLOYEE BENEFITS (continued)

US\$ million	Post-retirement medical plans	Defined benefit pension plans		Net liability for defined benefit pension plans
		Present value of defined benefit obligation	Fair value of plan assets	
1 January 2015	539	4,185	(3,654)	531
Current service cost	9	72	–	72
Past service cost – plan amendments	(1)	1	–	1
Settlement	–	(183)	177	(6)
Termination benefit	–	–	–	–
Interest expense/(income)	20	139	(123)	16
Total expense recognised in consolidated statement of income	28	29	54	83
Gain on plan assets, excluding amounts included in interest expense – net	–	–	(86)	(86)
Loss from change in demographic assumptions	(1)	(3)	–	(3)
Loss/(gain) from change in financial assumptions	2	(39)	–	(39)
(Gain)/loss from actuarial experience	(5)	10	–	10
Change in asset ceiling, excluding amounts included in interest expense	–	(4)	–	(4)
Actuarial gains recognised in consolidated statement of comprehensive income	(4)	(36)	(86)	(122)
Employer contributions	–	–	(108)	(108)
Employee contributions	–	2	(2)	–
Benefits paid directly by the Company	(24)	(10)	10	–
Benefits paid from plan assets	–	(217)	217	–
Net cash (outflow)/inflow	(24)	(225)	117	(108)
Disposal of subsidiaries ¹	–	(3)	1	(2)
Exchange differences	(82)	(545)	509	(36)
Other	(82)	(548)	510	(38)
31 December 2015	457	3,405	(3,059)	346

¹ See note 23.

Notes to financial statements

21. PERSONNEL COSTS AND EMPLOYEE BENEFITS (continued)

The defined benefit obligation accrued in Canada represents the majority for the Company. The breakdown below provides details of the Canadian plans for both the statement of financial position and the weighted average duration of the defined benefit obligation as at 31 December 2016 and 2015. The defined benefit obligation of any other of the Group's defined benefit plans as at 31 December 2016 does not exceed \$227 million (2015: \$195 million).

2016	Canada	Other	Total
US\$ million			
Post-retirement medical plans			
Present value of defined benefit obligation	402	30	432
of which: amounts owing to active members	123	4	127
of which: amounts owing to pensioners	279	26	305
Defined benefit pension plans			
Present value of defined benefit obligation	2,112	834	2,946
of which: amounts owing to active members	545	383	928
of which: amounts owing to non-active members	44	241	285
of which: amounts owing to pensioners	1,523	210	1,733
Fair value of plan assets	(1,981)	(537)	(2,518)
Net defined benefit liability at 31 December 2016	131	297	428
Weighted average duration of defined benefit obligation - years	12	18	14
2015			
US\$ million			
Post-retirement medical plans			
Present value of defined benefit obligation	395	62	457
of which: amounts owing to active members	121	21	142
of which: amounts owing to pensioners	274	41	315
Defined benefit pension plans			
Present value of defined benefit obligation	2,534	871	3,405
of which: amounts owing to active members	571	457	1,028
of which: amounts owing to non-active members	102	197	299
of which: amounts owing to pensioners	1,861	217	2,078
Fair value of plan assets	(2,454)	(605)	(3,059)
Net defined benefit liability at 31 December 2015	80	266	346
Weighted average duration of defined benefit obligation - years	13	18	14

The actual return on plan assets in respect of defined benefit pension plans amounted to a gain of \$206 million (2015: loss of \$300 million).

21. PERSONNEL COSTS AND EMPLOYEE BENEFITS (continued)

The plan assets consist of the following:

US\$ million	2016	2015
Cash and short-term investments	105	88
Fixed income	1,210	1,605
Equities	1,076	1,180
Other ¹	127	186
Total	2,518	3,059

¹ Includes securities in non-active markets in the amount of \$18 million (2015: \$58 million).

The fair value of plan assets includes none of Glencore's own financial instruments and no property occupied by or other assets used by Glencore. For many of the plans, representing a large portion of the global plan assets, asset-liability matching strategies are in place, where the fixed-income assets are invested broadly in alignment with the duration of the plan liabilities, and the proportion allocated to fixed-income assets is raised when the plan funding level increases.

Through its defined benefit plans, Glencore is exposed to a number of risks, the most significant of which are detailed below:

Asset volatility: The plan liabilities are calculated using a discount rate set with reference to corporate bond yields; if plan assets underperform this yield, this will create a deficit. The funded plans hold a significant proportion of equities, which are expected to outperform bonds in the long term while contributing volatility and risk in the short-term. Glencore believes that due to the long-term nature of the plan liabilities, a level of continuing equity investment is an appropriate element of Glencore's long-term strategy to manage the plans efficiently.

Change in bond yields: A decrease in bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.

Inflation risk: Some of the plans' benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities, although, in most cases, caps on the level of inflationary increases are in place to protect the plan against extreme inflation.

Life expectancy: The majority of the plans' obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plans' liability.

Salary increases: Some of the plans' benefit obligations related to active members are linked to their salaries. Higher salary increases will therefore tend to lead to higher plan liabilities.

21. PERSONNEL COSTS AND EMPLOYEE BENEFITS (continued)

The principal weighted-average actuarial assumptions used were as follows:

	Post-retirement medical plans		Defined benefit pension plans	
	2016	2015	2016	2015
Discount rate	4.1%	4.2%	3.5%	3.7%
Future salary increases	2.8%	2.8%	2.8%	2.7%
Future pension increases	—	—	0.3%	0.4%
Ultimate medical cost trend rate	4.2%	4.3%	—	—

Mortality assumptions are based on the latest available standard mortality tables for the individual countries concerned. As at 31 December 2016, these tables imply expected future life expectancy, for employees aged 65, 19 to 24 years for males (2015: 19 to 24) and 22 to 25 years for females (2015: 23 to 26). The assumptions for each country are reviewed each year and are adjusted where necessary to reflect changes in fund experience and actuarial recommendations.

The sensitivity of the defined benefit obligation to changes in principal assumptions as at 31 December 2016 is set out below, assuming that all other assumptions are held constant and the effect of interrelationships is excluded.

US\$ million	Increase/(decrease) in pension obligation		Total
	Post-retirement medical plans	Defined benefit pension plans	
Discount rate			
Increase by 100 basis points	(58)	(352)	(410)
Decrease by 100 basis points	66	422	488
Rate of future salary increase			
Increase by 100 basis points	—	41	41
Decrease by 100 basis points	—	(38)	(38)
Rate of future pension benefit increase			
Increase by 100 basis points	—	33	33
Decrease by 100 basis points	—	(29)	(29)
Medical cost trend rate			
Increase by 100 basis points	56	—	56
Decrease by 100 basis points	(45)	—	(45)
Life expectancy			
Increase in longevity by 1 year	13	68	81

22. ACCOUNTS PAYABLE

US\$ million	2016	2015
Trade payables	22,438	19,424
Trade advances from buyers	1,071	1,684
Associated companies	635	467
Other payables and accrued liabilities	2,032	2,513
Total	26,176	24,088

Trade payables are obligations to pay for goods and services. Trade payables typically have maturities up to 90 days depending on the type of material and the geographic area in which the purchase transaction occurs and the agreed terms. The carrying value of trade payables approximates fair value.

23. ACQUISITION AND DISPOSAL OF SUBSIDIARIES

2016 Acquisitions

In 2016, Glencore acquired controlling interests in Newlands Collinsville Abbot Point Joint Venture (“NCA”). The net cash received in the acquisition of subsidiaries and the provisional fair value of assets acquired and liabilities assumed on the acquisition date are detailed below:

US\$ million	NCA	Other	Total
Non-current assets			
Property, plant and equipment	39	20	59
Advances and loans	2	–	2
	41	20	61
Current assets			
Inventories	41	7	48
Accounts receivable ¹	24	6	30
Cash and cash equivalents	11	–	11
	76	13	89
Non-current liabilities			
Provisions	(242)	(4)	(246)
	(242)	(4)	(246)
Current liabilities			
Borrowings	–	(10)	(10)
Accounts payable	(33)	(17)	(50)
Provisions	(1)	–	(1)
Other financial liabilities	(8)	–	(8)
	(42)	(27)	(69)
Total fair value of net (liabilities)/assets acquired	(167)	2	(165)
Less: cash and cash equivalents acquired	(11)	–	(11)
Net cash (received)/used in acquisition of subsidiaries	(178)	2	(176)

¹ There is no material difference between the gross contractual amounts for loans and advances and accounts receivable and their fair value.

NCA

In September 2016, Glencore completed the acquisition of the remaining 45% interest in NCA, for cash consideration received of \$167 million. This increased Glencore’s ownership from 55% to 100%, providing the ability to exercise control over NCA.

If the acquisition had taken place effective 1 January 2016, the operation would have contributed additional revenue of \$173 million and an additional attributable loss of \$21 million. From the date of acquisition, the operation contributed \$72 million and \$25 million of revenue and attributable income, respectively.

23. ACQUISITION AND DISPOSAL OF SUBSIDIARIES (continued)

2015 Acquisitions

In 2015, Glencore acquired controlling interests in Prokon Pflanzenöl GmbH, subsequently renamed Glencore Magdeburg GmbH ("Magdeburg") and Twin Rivers Technologies Enterprises De Transformation De Graines Oléagineuses Du Québec Inc. ("TRT"). These operations are part of the Glencore Agri Group, which was disposed on 1 December 2016, see below. The net cash used in the acquisition of subsidiaries and the provisional fair value of assets acquired and liabilities assumed on the acquisition dates are detailed below:

US\$ million	Magdeburg	TRT	Total
Non-current assets			
Property, plant and equipment	178	108	286
Deferred tax assets	–	39	39
	178	147	325
Current assets			
Inventories	5	44	49
Accounts receivable ¹	6	22	28
Other financial assets	1	3	4
Cash and cash equivalents	4	5	9
	16	74	90
Non-current liabilities			
Deferred tax liabilities	(22)	–	(22)
Provisions	(21)	–	(21)
	(43)	–	(43)
Current liabilities			
Accounts payable	(14)	(23)	(37)
Other financial liabilities	(3)	(5)	(8)
	(17)	(28)	(45)
Total fair value of net assets acquired	134	193	327
Less: cash and cash equivalents acquired	(4)	(5)	(9)
Net cash used in acquisition of subsidiaries	130	188	318

¹ There is no material difference between the gross contractual amounts for loans and advances and accounts receivable and their fair value.

Magdeburg

In March 2015, Glencore completed the acquisition of a 100% interest in Magdeburg for a cash consideration of \$134 million. The acquisition of Magdeburg, an integrated oilseeds crushing and biodiesel plant located in Germany, adds further value to and enlarges our crushing portfolio in Europe, allowing Glencore to further optimise around this business sector.

If the acquisition had taken place effective 1 January 2015, the operation would have contributed additional revenue of \$15 million and an additional attributable loss of \$2 million. From the date of acquisition the operation contributed \$161 million and \$10 million of revenue and attributable loss, respectively.

TRT

In November 2015, Glencore completed the acquisition of a 100% interest in TRT for a cash consideration of \$193 million. TRT owns the largest oilseed crushing and refining plant in Quebec, Canada with a capacity of 1.05 million tonnes per year.

If the acquisition had taken place effective 1 January 2015, the operation would have contributed additional revenue of \$237 million and an additional attributable loss of \$20 million. From the date of acquisition the operation contributed \$65 million and \$1 million of revenue and attributable income, respectively.

The acquisition accounting for Magdeburg and TRT have now been finalised, with no adjustments to the previously reported provisional fair values.

23. ACQUISITION AND DISPOSAL OF SUBSIDIARIES (continued)

2016 Disposals

In 2016, Glencore disposed of its controlling interest in the Glencore Agricultural Products business (“Glencore Agri”), Ernest Henry mining operation (“EHM”) and its New South Wales’ coal rail haulage business (“GRail”).

The carrying value of the assets and liabilities over which control was lost and the net cash received from these disposals are detailed below:

US\$ million	Glencore Agri	EHM	GRail	Others	Total
Non-current assets					
Property, plant and equipment	2,919	244	413	212	3,788
Intangible assets	892	–	–	24	916
Investments in associates	624	–	–	–	624
Advances and loans	116	–	–	13	129
Deferred tax assets	103	–	–	1	104
	4,654	244	413	250	5,561
Current assets					
Inventories	2,725	6	–	57	2,788
Accounts receivable	2,774	1	2	77	2,854
Other financial assets	746	–	–	2	748
Cash and cash equivalents	469	–	–	27	496
	6,714	7	2	163	6,886
Non-controlling interest					
	(37)	–	–	(29)	(66)
Non-current liabilities					
Borrowings	(602)	–	–	(1)	(603)
Deferred tax liabilities	(138)	(36)	–	(30)	(204)
Provisions	(111)	(9)	–	(40)	(160)
	(851)	(45)	–	(71)	(967)
Current liabilities					
Borrowings	(3,751)	–	–	(35)	(3,786)
Accounts payable	(2,315)	(7)	(5)	(54)	(2,381)
Provisions	(36)	(1)	–	–	(37)
Other financial liabilities	(629)	–	–	(2)	(631)
	(6,731)	(8)	(5)	(91)	(6,835)
Carrying value of net assets disposed					
	3,749	198	410	222	4,579
Cash and cash equivalents received	(3,125)	(198)	(840)	(198)	(4,361)
Future consideration	–	–	–	(46)	(46)
Items recycled to the statement of income	602	–	–	–	602
Reclassified to investment in joint venture ¹	(3,125)	–	–	–	(3,125)
Transaction fees	51	–	–	–	51
Net gain on disposal	(1,848)	–	(430)	(22)	(2,300)
Cash and cash equivalents received	3,125	198	840	198	4,361
Less: Cash and cash equivalents disposed	(469)	–	–	(27)	(496)
Settlement of debt due from Glencore Agri	1,670	–	–	–	1,670
Net cash received from disposal	4,326	198	840	171	5,535

¹ Includes a gain of \$1,252 million attributable to the remeasurement of the retained Glencore Agri investment to its fair value upon change in control.

23. ACQUISITION AND DISPOSAL OF SUBSIDIARIES (continued)

Glencore Agri

On 6 April 2016, Glencore announced that it had entered into an agreement with the Canada Pension Plan Investment Board for the sale of a 40% equity interest in Glencore Agri and on 9 June 2016, entered into an agreement with British Columbia Investment Management Corporation for the sale of a 10% equity interest in Glencore Agri. The aggregate equity consideration for the combined 50% interest, including the indirect assumption of certain levels of net working capital and debt, amounted to \$3.125 billion, payable in cash upon closing.

Glencore Agri represents the entire Agricultural products operating segment and was determined to be a discontinued operation prior to the close of transaction on 1 December 2016, and has been disclosed as such. Upon closing of the sale, Glencore is no longer able to unilaterally direct the key strategic, operating and capital decisions of Glencore Agri and was deemed to dispose of its controlling interest at fair value. The difference to the net carrying value was recognised through the statement of income, with Glencore subsequently accounting for its share of the resulting joint venture using the equity method in accordance with IFRS 11 and IAS 28 (see note 9).

The results of Glencore Agri included in the consolidated statement of income until loss of control are detailed below:

US\$ million	2016	2015
Revenue	20,885	23,146
Cost of goods sold	(20,256)	(22,449)
Selling and administrative expenses	(175)	(175)
Share of income from associates	15	2
Gain on disposals and investments	33	–
Other expense – net	(26)	(70)
Interest income	9	12
Interest expense	(79)	(103)
Income before income taxes from discontinued operations	406	363
Income tax expense	(131)	(107)
	275	256
Gain on disposal of Glencore Agri, including items recycled to the statement of income of \$602 million	1,848	–
Income for the year from discontinued operations	2,123	256
Attributable to:		
Non-controlling interests	–	–
Equity holders of the Parent	2,123	256
Earnings per share – discontinued operations:		
Basic (US\$)	0.15	0.02
Diluted (US\$)	0.15	0.02

The net cash flows incurred by Glencore Agri are as follows:

US\$ million	2016	2015
Net cash (used)/generated from operating activities, after working capital changes	(855)	1,276
Net cash used in investing activities	(11)	(677)
Net cash generated/(used) in financing activities	671	(579)
Net cash (used)/generated in discontinued operations	(195)	20

23. ACQUISITION AND DISPOSAL OF SUBSIDIARIES (continued)

EHM

In October 2016, Glencore entered into an agreement with Evolution Mining Limited ("Evolution"), whereby Glencore received \$669 million cash in return for a 30% economic interest in the Ernest Henry Mine mining operation ("EHM") and an entitlement to 100% of the gold produced from Glencore's remaining 70% interest in EHM. The consideration received was allocated between the two elements of the transaction (sale of the 30% interest and the 70% gold prepaid streaming arrangement) by estimating the fair value of the gold stream by reference to the net present value of the anticipated gold to be delivered over the life of mine (\$471 million) with the residual amount representing the consideration for the 30% interest (\$198 million). Also see note 19. As part of the transaction, Glencore and Evolution entered into a 70/30 joint venture agreement governing the operations of EHM. As Glencore is no longer able to unilaterally direct the key strategic, operating and capital decisions of EHM, it is deemed to have lost control of EHM and, together with Evolution, jointly controls it. As the new arrangement is an unincorporated joint venture, Glencore derecognised 30% of the identified assets and liabilities of EHM against the proceeds received as noted above.

GRail

In December 2016, Glencore disposed of its New South Wales' coal rail haulage business to Genesee & Wyoming for cash consideration of \$840 million (A\$1.1 billion).

23. ACQUISITION AND DISPOSAL OF SUBSIDIARIES (continued)

2015 Disposals

In 2015, Glencore disposed of its controlling interest in Tampakan and Falcondo. Furthermore, upon Optimum Coal commencing business rescue proceedings, Glencore ceased having control over Optimum in August 2015. As a result of such loss of control, Optimum was no longer accounted for as a subsidiary and has been deconsolidated (see note 3).

The carrying value of the assets and liabilities over which control was lost and net cash received from these disposals are detailed below:

US\$ million	Tampakan	Falcondo	Optimum ¹	Other	Total
Non-current assets					
Property, plant and equipment	161	11	809	5	986
Intangible assets	–	–	712	–	712
Loans and advances	1	–	256	–	257
	162	11	1,777	5	1,955
Current assets					
Inventories	–	45	39	12	96
Accounts receivable	21	12	34	12	79
Cash and cash equivalents	–	1	15	22	38
	21	58	88	46	213
Non-controlling interest					
	(14)	–	(243)	–	(257)
Non-current liabilities					
Borrowings	(142)	–	(277)	–	(419)
Deferred income	–	–	(150)	–	(150)
Deferred tax liabilities	–	(1)	(203)	(1)	(205)
Provisions	(8)	(110)	(137)	–	(255)
	(150)	(111)	(767)	(1)	(1,029)
Current liabilities					
Accounts payable	(3)	(5)	(64)	(42)	(114)
Deferred income	–	–	(62)	–	(62)
Provisions	–	–	(6)	–	(6)
	(3)	(5)	(132)	(42)	(182)
Carrying value of net assets/(liabilities) disposed					
	16	(47)	723	8	700
Less: Cash and cash equivalents received	(208)	(40)	–	(2)	(250)
Add: Foreign currency translation losses recycled to the statement of income	–	–	311	–	311
Net (gain)/loss on disposal	(192)	(87)	1,034	6	761
Cash and cash equivalents received					
	208	40	–	2	250
Less: Cash and cash equivalents disposed	–	(1)	(15)	(22)	(38)
Net cash received from disposal	208	39	(15)	(20)	212

¹ Includes associated impairments of \$152 million (see note 3).

24. FINANCIAL AND CAPITAL RISK MANAGEMENT

Financial risks arising in the normal course of business from Glencore's operations comprise market risk (including commodity price risk, interest rate risk and currency risk), credit risk (including performance risk) and liquidity risk. It is Glencore's policy and practice to identify and, where appropriate and practical, actively manage such risks (for management of "margin" risk within Glencore's extensive and diversified industrial portfolio, refer net present value at risk below) to support its objectives in managing its capital and future financial security and flexibility. Glencore's overall risk management programme focuses on the unpredictability of financial markets and seeks to protect its financial security and flexibility by using derivative financial instruments where possible to substantially hedge these financial risks. Glencore's finance and risk professionals, working in coordination with the commodity departments, monitor, manage and report regularly to senior management and the Board of Directors on the approach and effectiveness in managing financial risks along with the financial exposures facing the Group.

Glencore's objectives in managing its "capital attributable to equity holders" include preserving its overall financial health and strength for the benefit of all stakeholders, maintaining an optimal capital structure in order to provide a high degree of financial flexibility at an attractive cost of capital and safeguarding its ability to continue as a going concern, while generating sustainable long-term profitability. Central to meeting these objectives is maintaining an investment grade credit rating status. Glencore's current credit ratings are Baa3 (stable) from Moody's and BBB- (positive outlook) from S&P.

Distribution policy and other capital management initiatives

In September 2015, the Board determined that no cash distributions would be made in 2016, in an effort to preserve capital and investment grade credit ratings. In December 2016, Glencore announced the reinstatement of distributions to shareholders. Initially Glencore will return approximately \$1 billion to shareholders in two equal tranches in 2017, to be paid following preliminary full-year results and half-year results. In 2018, the new cash distribution policy, in respect of 2017 cash flows, comprises the fixed \$1 billion component and a variable element representing a minimum 25% of free cash flow attributable to our industrial assets. The actual variable distribution component (minimum 25% pay-out guidance) will reflect prevailing market conditions and outlook and be confirmed annually in respect of prior period's cash flows. Distributions are expected to be formally declared by the Board semi-annually (with the preliminary full-year results and half-year results). Distributions, when declared, will be paid in US dollars, although shareholders will be able to elect to receive their distribution payments in Pounds Sterling, Euros or Swiss Francs based on the exchange rates in effect around the date of payment. Shareholders on the Hong Kong branch register will receive their distributions in Hong Kong dollars, while shareholders on the JSE will receive their distributions in South African Rand.

Commodity price risk

Glencore is exposed to price movements for the inventory it holds and the products it produces which are not held to meet priced forward contract obligations and forward priced purchase or sale contracts. Glencore manages a significant portion of this exposure through futures and options transactions on worldwide commodity exchanges or in over the counter ("OTC") markets, to the extent available. Commodity price risk management activities are considered an integral part of Glencore's physical commodity marketing activities and the related assets and liabilities are included in other financial assets from and other financial liabilities to derivative counterparties, including clearing brokers and exchanges. Whilst it is Glencore's policy to substantially hedge its commodity price risks, there remains the possibility that the hedging instruments chosen may not always provide effective mitigation of the underlying price risk. The hedging instruments available to the marketing businesses may differ in specific characteristics to the risk exposure to be hedged, resulting in an ongoing and unavoidable basis risk exposure. Residual basis risk exposures represent a key focus point for Glencore's commodity department teams who actively engage in the management of such.

Value at risk

One of the tools used by Glencore to monitor and limit its primary market risk exposure, principally commodity price risk related to its physical marketing activities, is of a value at risk ("VaR") computation. VaR is a risk measurement technique which estimates a threshold for potential loss that could occur on risk positions as a result of movements in risk factors over a specified time horizon, given a specific level of confidence and based on a specific price history. The VaR methodology is a statistically defined, probability based approach that takes into account market volatilities, as well as risk diversification by recognising offsetting positions and correlations between commodities and markets. In this way, risks can be measured consistently across markets and commodities and risk measures can be aggregated to derive a single risk value. Glencore's Board has set a consolidated VaR limit (one day 95% confidence level) of \$100 million representing less than 0.5% of total equity, which the Board reviews annually. In Q2 2016, this limit was technically breached for 1 day by \$1 million as the VaR calculation did not account for the future physical coal production that was economically hedged with the corresponding captured and reported on coal derivatives. If such underlying hedged exposure had been included in the VaR calculation, the actual VaR number would have been substantially lower, with no resulting technical breach. Much of this hedge book has now been realised.

24. FINANCIAL AND CAPITAL RISK MANAGEMENT (continued)

Glencore uses a VaR approach based on Monte Carlo simulations computed at a 95% confidence level and utilising a weighted data history for a one-day time horizon.

Position sheets are regularly distributed and monitored and daily Monte Carlo simulations are applied to the various business groups' net marketing positions to determine potential losses.

Market risk VaR (one day 95% confidence level) ranges and year-end positions were as follows:

US\$ million	2016	2015
Year-end position	31	18
Average during the year	42	35
High during the year	101	52
Low during the year	16	17

VaR does not purport to represent actual gains or losses in fair value on earnings to be incurred by Glencore, nor does Glencore claim that these VaR results are indicative of future market movements or representative of any actual impact on its future results. VaR should always be viewed in the context of its limitations; notably, the use of historical data as a proxy for estimating future events, market illiquidity risks and tail risks. Glencore recognises these limitations, and thus complements and continuously refines its VaR analysis by analysing forward looking stress scenarios, benchmarking against an alternative VaR computation based on historical simulations and back testing calculated VaR against the hypothetical portfolio returns arising in the next business day.

Glencore's VaR computation currently covers its business in the key base metals (including aluminium, nickel, zinc, copper and lead), coal, iron ore and oil/natural gas and assesses the open priced positions which are subject to price risk, including inventories of these commodities. Due to the lack of a liquid terminal market, Glencore does not include a VaR calculation for products such as alumina, molybdenum, cobalt, freight and some risk associated with concentrates as it does not consider the nature of these markets to be suited to this type of analysis. Alternative measures are used to monitor exposures related to these products.

Net present value at risk

Glencore's future cash flows related to its forecast energy, metals and minerals and agricultural production activities are also exposed to commodity price movements. Glencore manages this exposure through a combination of portfolio diversification, occasional shorter-term hedging via futures and options transactions, insurance products and continuous internal monitoring, reporting and quantification of the underlying operations' estimated cash flows and valuations.

Interest rate risk

Glencore is exposed to various risks associated with the effects of fluctuations in the prevailing levels of market interest rates on its assets and liabilities and cash flows. Matching of assets and liabilities is utilised as the dominant method to hedge interest rate risks; other methods include the use of interest rate swaps and similar derivative instruments. Floating rate debt which is predominantly used to fund fast turning working capital (interest is internally charged on the funding of this working capital) is primarily based on US\$ LIBOR plus an appropriate premium. Accordingly, prevailing market interest rates are continuously factored into transactional pricing and terms.

Assuming the amount of floating rate liabilities at the reporting period end were outstanding for the whole year, interest rates were 50 basis points higher/lower and all other variables held constant, Glencore's income and equity for the year ended 31 December 2016 would decrease/increase by \$100 million (2015: \$134 million).

24. FINANCIAL AND CAPITAL RISK MANAGEMENT (continued)

Currency risk

The US dollar is the predominant functional currency of the Group. Currency risk is the risk of loss from movements in exchange rates related to transactions and balances in currencies other than the US dollar. Such transactions include operating expenditure, capital expenditure and to a lesser extent purchases and sales in currencies other than the functional currency. Purchases or sales of commodities concluded in currencies other than the functional currency, apart from certain limited domestic sales at industrial operations which act as a hedge against local operating costs, are ordinarily hedged through forward exchange contracts. Consequently, foreign exchange movements against the US dollar on recognised transactions would have an immaterial financial impact. Glencore enters into currency hedging transactions with leading financial institutions.

Glencore's debt related payments (both principal and interest) are overwhelmingly denominated in or swapped using hedging instruments into US dollars. Glencore's operating expenses, being a small portion of its revenue base, are incurred in a mix of currencies of which the US dollar, Swiss Franc, Pound Sterling, Canadian dollar, Australian dollar, Euro, Kazakhstan Tenge, Colombian Peso and South African Rand are the predominant currencies.

Glencore has issued Euro, Swiss Franc, Sterling, Yen and Australian dollar denominated bonds (see note 18). Cross currency swaps were concluded to hedge the currency risk on the principal and related interest payments of these bonds. These contracts were designated as cash flow hedges of the foreign currency risks associated with the bonds. The fair value of these derivatives is as follows:

US\$ million	Notional amounts		Recognised fair values		Average maturity ¹
	Buy	Sell	Assets	Liabilities	
Cross currency swap agreements – 2016	–	14,179	26	2,873	2020
Cross currency swap agreements – 2015	–	15,905	34	2,418	2020

¹ Refer to note 18 for details.

24. FINANCIAL AND CAPITAL RISK MANAGEMENT (continued)

Credit risk

Credit risk arises from the possibility that counterparties may not be able to settle obligations due to Glencore within their agreed payment terms. Financial assets which potentially expose Glencore to credit risk consist principally of cash and cash equivalents, receivables and advances, derivative instruments and non-current advances and loans. Glencore's credit management process includes the assessment, monitoring and reporting of counterparty exposure on a regular basis. Glencore's cash and cash equivalents are placed overnight with a diverse group of highly credit rated financial institutions. Credit risk with respect to receivables and advances is mitigated by the large number of customers comprising Glencore's customer base, their diversity across various industries and geographical areas, as well as Glencore's policy to mitigate these risks through letters of credit, netting, collateral and insurance arrangements where appropriate. Additionally, it is Glencore's policy that transactions and activities in trade related financial instruments be concluded under master netting agreements or long form confirmations to enable offsetting of balances due to/from a common counterparty in the event of default by the counterparty. Glencore actively and continuously monitors the credit quality of its counterparties through internal reviews and a credit scoring process, which includes, where available, public credit ratings. Balances with counterparties not having a public investment grade or equivalent internal rating are typically enhanced to investment grade through the extensive use of credit enhancement products, such as letters of credit or insurance products. Glencore has a diverse customer base, with no customer representing more than 2.9% (2015: 1.9%) of its trade receivables (on a gross basis taking into account credit enhancements) or accounting for more than 3.9% of its revenues over the year ended 31 December 2016 (2015: 4.7%).

The maximum exposure to credit risk (including performance risk – see below), without considering netting agreements or without taking account of any collateral held or other credit enhancements, is equal to the carrying amount of Glencore's financial assets (see note 25).

Performance risk

Performance risk (part of the broader credit risk subject matter, discussed above) is inherent in contracts, with agreements in the future, to physically purchase or sell commodities with fixed price attributes, and arises from the possibility that counterparties may not be willing or able to meet their future contractual physical sale or purchase obligations to/from Glencore. Glencore undertakes the assessment, monitoring and reporting of performance risk within its overall credit management process. Glencore's market breadth, diversified supplier and customer base as well as the standard pricing mechanism in the vast majority of Glencore's commodity portfolio which does not fix prices beyond three months, with the main exception being coal, where longer-term fixed price contracts are common, ensure that performance risk is adequately mitigated. The commodity industry has trended towards shorter term fixed price contract periods, in part to mitigate against such potential performance risk, but also due to the development of more transparent and liquid spot markets, e.g. coal and iron ore and associated derivative products and indexes.

Liquidity risk

Liquidity risk is the risk that Glencore is unable to meet its payment obligations when due, or that it is unable, on an ongoing basis, to borrow funds in the market on an unsecured or secured basis at an acceptable price to fund actual or proposed commitments. Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents and availability of adequate committed funding facilities. Glencore has set itself an internal minimum liquidity target to maintain at all times, including via available committed undrawn credit facilities of \$3 billion (2015: \$3 billion), which has purposely been substantially exceeded in recent years, accounting for the more volatile market backdrop. Glencore's credit profile, diversified funding sources and committed credit facilities, ensure that sufficient liquid funds are maintained to meet its liquidity requirements. As part of its liquidity management, Glencore closely monitors and plans for its future capital expenditure and proposed investments, as well as credit facility refinancing/extension requirements, well ahead of time.

24. FINANCIAL AND CAPITAL RISK MANAGEMENT (continued)

As at 31 December 2016, Glencore had available committed undrawn credit facilities, cash and marketable securities amounting to \$16,740 million (2015: \$15,155 million). The maturity profile of Glencore's financial liabilities based on the contractual terms is as follows:

US\$ million 2016	After 5 years	Due 3–5 years	Due 2–3 years	Due 1–2 years	Due 0–1 year	Total
Borrowings	10,687	5,726	2,937	3,838	10,030	33,218
Expected future interest payments	3,318	1,018	616	650	635	6,237
Accounts payable	–	–	–	–	26,176	26,176
Other financial liabilities	403	–	–	–	6,386	6,789
Total	14,408	6,744	3,553	4,488	43,227	72,420
Current assets					43,412	43,412

US\$ million 2015	After 5 years	Due 3–5 years	Due 2–3 years	Due 1–2 years	Due 0–1 year	Total
Borrowings	11,401	10,949	2,823	7,759	11,117	44,049
Expected future interest payments	3,965	1,515	796	814	935	8,025
Accounts payable	–	–	–	–	24,088	24,088
Other financial liabilities	186	–	–	–	4,931	5,117
Total	15,552	12,464	3,619	8,573	41,071	81,279
Current assets					42,198	42,198

25. FINANCIAL INSTRUMENTS

Fair value of financial instruments

The following tables present the carrying values and fair values of Glencore's financial instruments. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (most advantageous) market at the measurement date under current market conditions. Where available, market values have been used to determine fair values. When market values are not available, fair values have been calculated by discounting expected cash flows at prevailing market interest and exchange rates. The estimated fair values have been determined using market information and appropriate valuation methodologies, but are not necessarily indicative of the amounts that Glencore could realise in the normal course of business.

The financial assets and liabilities are presented by class in the tables below at their carrying values, which generally approximate the fair values with the exception of \$33,218 million (2015: \$44,049 million) of borrowings, the fair value of which at 31 December 2016 was \$33,673 million (2015: \$39,406 million) based on observable market prices applied to the borrowing portfolio (a Level 2 fair value measurement).

Notes to financial statements

25. FINANCIAL INSTRUMENTS (continued)

US\$ million 2016	Carrying value ¹	Available for sale	FVtPL ²	Total
Assets				
Other investments ³	–	1,457	296	1,753
Advances and loans	3,483	–	–	3,483
Accounts receivable	20,066	–	–	20,066
Other financial assets (see note 26)	–	–	2,212	2,212
Cash and cash equivalents and marketable securities ⁴	–	–	2,518	2,518
Total financial assets	23,549	1,457	5,026	30,032
Liabilities				
Borrowings	33,218	–	–	33,218
Non-current other financial liabilities (see note 26)	–	–	403	403
Accounts payable	26,176	–	–	26,176
Other financial liabilities (see note 26)	–	–	6,386	6,386
Total financial liabilities	59,394	–	6,789	66,183

1 Carrying value comprises investments, loans, accounts receivable, accounts payable and other liabilities measured at amortised cost.

2 FVtPL – Fair value through profit and loss – held for trading.

3 Other investments of \$1,715 million are classified as Level 1 measured using quoted market prices with the remaining balance of \$38 million being investments in private companies whose fair value cannot be reliably measured and therefore carried at cost. The movement in Level 1 measured investments compared to prior year (see below), mainly relates to the Group's share in Russneft, which after the listing on the Moscow stock exchange in November 2016, is measured at fair value.

4 Classified as Level 1, measured using quoted exchange rates and/or market prices.

US\$ million 2015	Carrying value ¹	Available for sale	FVtPL ²	Total
Assets				
Other investments ³	–	1,092	213	1,305
Advances and loans	3,005	–	–	3,005
Accounts receivable	17,001	–	–	17,001
Other financial assets (see note 26)	–	–	3,701	3,701
Cash and cash equivalents and marketable securities ⁴	–	–	2,746	2,746
Total financial assets	20,006	1,092	6,660	27,758
Liabilities				
Borrowings	44,049	–	–	44,049
Non-current other financial liabilities (see note 26)	–	–	186	186
Accounts payable	24,088	–	–	24,088
Other financial liabilities (see note 26)	–	–	4,931	4,931
Total financial liabilities	68,137	–	5,117	73,254

1 Carrying value comprises investments, loans, accounts receivable, accounts payable and other liabilities measured at amortised cost.

2 FVtPL – Fair value through profit and loss – held for trading.

3 Other investments of \$568 million are classified as Level 1 measured using quoted market prices with the remaining balance of \$737 million being investments in private companies whose fair value cannot be reliably measured and therefore carried at cost.

4 Classified as Level 1, measured using quoted exchange rates and/or market prices.

Notes to financial statements

25. FINANCIAL INSTRUMENTS (continued)

Offsetting of financial assets and liabilities

In accordance with IAS 32 the Group reports financial assets and liabilities on a net basis in the consolidated statement of financial position only if there is a legally enforceable right to set off the recognised amounts and there is intention to settle on a net basis, or to realise the asset and settle the liability simultaneously. The financial assets and liabilities subject to offsetting, enforceable master netting and similar agreements as at 31 December 2016 and 2015 were as follows:

2016	Amounts eligible for set off under netting agreements			Related amounts not set off under netting agreements			Amounts not subject to netting agreements	Total as presented in the consolidated statement of financial position
	Gross amount	Amounts offset	Net amount	Financial instruments	Financial collateral	Net amount		
Derivative assets ¹	10,679	(9,834)	845	(288)	(171)	386	1,367	2,212
Derivative liabilities ¹	(14,288)	9,834	(4,454)	288	3,784	(382)	(1,932)	(6,386)

¹ Presented within current other financial assets and current other financial liabilities.

2015	Amounts eligible for set off under netting agreements			Related amounts not set off under netting agreements			Amounts not subject to netting agreements	Total as presented in the consolidated statement of financial position
	Gross amount	Amounts offset	Net amount	Financial instruments	Financial collateral	Net amount		
Derivative assets ¹	6,164	(4,282)	1,882	(406)	(494)	982	1,819	3,701
Derivative liabilities ¹	(6,799)	4,282	(2,517)	406	1,674	(437)	(2,414)	(4,931)

¹ Presented within current other financial assets and current other financial liabilities.

For the financial assets and liabilities subject to enforceable master netting or similar arrangements above, each agreement between the Group and the counterparty allows for net settlement of the relevant financial assets and liabilities when both elect to settle on a net basis. In the absence of such an election, financial assets and liabilities may be settled on a gross basis, however, each party to the master netting or similar agreement will have the option to settle all such amounts on a net basis in the event of default of the other party. Per the terms of each agreement, an event of default includes failure by a party to make payment when due, failure by a party to perform any obligation required by the agreement (other than payment) if such failure is not remedied within periods of 30 to 60 days after notice of such failure is given to the party or bankruptcy.

26. FAIR VALUE MEASUREMENTS

Fair values are primarily determined using quoted market prices or standard pricing models using observable market inputs where available and are presented to reflect the expected gross future cash in/outflows. Glencore classifies the fair values of its financial instruments into a three level hierarchy based on the degree of the source and observability of the inputs that are used to derive the fair value of the financial asset or liability as follows:

Level 1 Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that Glencore can assess at the measurement date; or

Level 2 Inputs other than quoted inputs included in Level 1 that are observable for the assets or liabilities, either directly or indirectly; or

Level 3 Unobservable inputs for the assets or liabilities, requiring Glencore to make market-based assumptions.

Level 1 classifications primarily include futures with a tenor of less than one year and options that are exchange traded, whereas Level 2 classifications primarily include futures with a tenor greater than one year, over the counter options, swaps and physical forward transactions which derive their fair value primarily from exchange quotes and readily observable broker quotes. Level 3 classifications primarily include physical forward transactions which derive their fair value predominantly from models that use broker quotes and applicable market-based estimates surrounding location, quality and credit differentials and financial liabilities linked to the fair value of certain mining operations. In circumstances where Glencore cannot verify fair value with observable market inputs (Level 3 fair values), it is possible that a different valuation model could produce a materially different estimate of fair value.

It is Glencore's policy that transactions and activities in trade related financial instruments be concluded under master netting agreements or long form confirmations to enable balances due to/from a common counterparty to be offset in the event of default, insolvency or bankruptcy by the counterparty.

The following tables show the fair values of the derivative financial instruments including trade related financial and physical forward purchase and sale commitments by type of contract and non-current other financial liabilities as at 31 December 2016 and 2015. Other assets and liabilities which are measured at fair value on a recurring basis are marketing inventories, other investments, cash and cash equivalents and marketable securities. Refer to notes 11 and 25 for disclosures in connection with these fair value measurements. There are no non-recurring fair value measurements.

Other financial assets

US\$ million 2016	Level 1	Level 2	Level 3	Total
Commodity related contracts				
Futures	207	154	–	361
Options	31	37	–	68
Swaps	166	146	–	312
Physical forwards	–	763	558	1,321
Financial contracts				
Cross currency swaps	–	26	–	26
Foreign currency and interest rate contracts	–	124	–	124
Total	404	1,250	558	2,212
<hr/>				
US\$ million 2015	Level 1	Level 2	Level 3	Total
Commodity related contracts				
Futures	889	246	–	1,135
Options	30	15	–	45
Swaps	112	556	–	668
Physical forwards	–	1,299	224	1,523
Financial contracts				
Cross currency swaps	–	34	–	34
Foreign currency and interest rate contracts	–	296	–	296
Total	1,031	2,446	224	3,701

Notes to financial statements

26. FAIR VALUE MEASUREMENTS (continued)

Other financial liabilities

US\$ million 2016	Level 1	Level 2	Level 3	Total
Commodity related contracts				
Futures	1,068	150	–	1,218
Options	5	12	6	23
Swaps	846	321	–	1,167
Physical forwards	–	859	203	1,062
Financial contracts				
Cross currency swaps	–	2,873	–	2,873
Foreign currency and interest rate contracts	–	43	–	43
Current other financial liabilities	1,919	4,258	209	6,386
Non-current other financial liabilities				
Non-discretionary dividend obligation ¹	–	–	403	403
Non-current other financial liabilities	–	–	403	403
Total	1,919	4,258	612	6,789

US\$ million 2015	Level 1	Level 2	Level 3	Total
Commodity related contracts				
Futures	414	33	–	447
Options	40	4	1	45
Swaps	197	323	–	520
Physical forwards	–	1,156	205	1,361
Financial contracts				
Cross currency swaps	–	2,418	–	2,418
Foreign currency and interest rate contracts	3	137	–	137
Current other financial liabilities	654	4,071	206	4,931
Non-current other financial liabilities				
Non-discretionary dividend obligation ¹	–	–	186	186
Non-current other financial liabilities	–	–	186	186
Total	654	4,071	392	5,117

¹ A ZAR denominated derivative liability payable to ARM Coal, one of the Group's principal coal joint operations based in South Africa. The liability arises from ARM Coal's rights as an investor to a share of agreed free cash flows from certain coal operations in South Africa and is valued based on those cash flows using a risk adjusted discount rate. The derivative liability is settled over the life of those operations (modelled mine life of 20 years as at 31 December 2016) and has no fixed repayment date and is not cancellable within 12 months.

26. FAIR VALUE MEASUREMENTS (continued)

The following table shows the net changes in fair value of Level 3 other financial assets and other financial liabilities:

US\$ million	Physical forwards	Options	Other	Total Level 3
1 January 2015	75	(724)	(295)	(944)
Total gain/(loss) recognised in cost of goods sold	36	(1)	–	35
Cancellation of put option over non-controlling interest	–	685	–	685
Non-discretionary dividend obligation	–	–	109	109
Realised	(92)	39	–	(53)
31 December 2015	19	(1)	(186)	(168)
1 January 2016	19	(1)	(186)	(168)
Total gain/(loss) recognised in cost of goods sold	258	(6)	–	252
Non-discretionary dividend obligation	–	–	(217)	(217)
Realised	78	1	–	79
31 December 2016	355	(6)	(403)	(54)

During the year no amounts were transferred between Level 1 and Level 2 of the fair value hierarchy and no amounts were transferred into or out of Level 3 of the fair value hierarchy for either other financial assets or other financial liabilities.

Notes to financial statements

26. FAIR VALUE MEASUREMENTS (continued)

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period. The following table provides information about how the fair values of these financial assets and financial liabilities are determined, in particular, the valuation techniques and inputs used.

Fair value of financial assets/financial liabilities		2016	2015
US\$ million			
Futures – Level 1	Assets	207	889
	Liabilities	(1,068)	(414)
Valuation techniques and key inputs:	Quoted bid prices in an active market		
Significant unobservable inputs:	None		
Futures – Level 2	Assets	154	246
	Liabilities	(150)	(33)
Valuation techniques and key inputs:	Discounted cash flow model Inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, as required.		
Significant unobservable inputs:	None		
Options – Level 1	Assets	31	30
	Liabilities	(5)	(40)
Valuation techniques and key inputs:	Quoted bid prices in an active market		
Significant unobservable inputs:	None		
Options – Level 2	Assets	37	15
	Liabilities	(12)	(4)
Valuation techniques and key inputs:	Discounted cash flow model Inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, as required.		
Significant unobservable inputs:	None		
Options – Level 3	Assets	–	–
	Liabilities	(6)	(1)
Valuation techniques and key inputs:	Standard option pricing model		
Significant unobservable inputs:	Prices are adjusted by volatility differentials. This significant unobservable input generally represents 2% - 20% of the overall value of the instruments. A change to a reasonably possible alternative assumption would not result in a material change in the underlying value.		
Swaps – Level 1	Assets	166	112
	Liabilities	(846)	(197)
Valuation techniques and key inputs:	Quoted bid prices in an active market		
Significant unobservable inputs:	None		

Notes to financial statements

26. FAIR VALUE MEASUREMENTS (continued)

Fair value of financial assets/financial liabilities		2016	2015
US\$ million			
Swaps – Level 2			
	Assets	146	556
	Liabilities	(321)	(323)
Valuation techniques and key inputs:	Discounted cash flow model Inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, as required.		
Significant unobservable inputs:	None		
Physical Forwards – Level 2			
	Assets	763	1,299
	Liabilities	(859)	(1,156)
Valuation techniques and key inputs:	Discounted cash flow model Inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, such as history of non-performance, collateral held and current market developments, as required.		
Significant unobservable inputs:	None		
Physical Forwards – Level 3			
	Assets	558	224
	Liabilities	(203)	(205)
Valuation techniques and key inputs:	Discounted cash flow model Valuation of the Group's commodity physical forward contracts categorised within this level is based on observable market prices that are adjusted by unobservable differentials, as required, including: <ul style="list-style-type: none"> - Quality; - Geographic location; - Local supply & demand; - Customer requirements; and - Counterparty credit considerations. <p>These significant unobservable inputs generally represent 2% - 30% of the overall value of the instruments. These differentials are generally symmetrical with an increase/decrease in one input resulting in an opposite movement in another input, resulting in no material change in the underlying value.</p>		
Cross currency swaps – Level 2			
	Assets	26	34
	Liabilities	(2,873)	(2,418)
Valuation techniques and key inputs:	Discounted cash flow model Inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, as required.		
Significant unobservable inputs:	None		
Foreign currency and interest rate contracts – Level 1			
	Assets	–	–
	Liabilities	–	(3)
Valuation techniques and key inputs:	Quoted bid prices in an active market		
Significant unobservable inputs:	None		

Notes to financial statements

26. FAIR VALUE MEASUREMENTS (continued)

Fair value of financial assets/financial liabilities		2016	2015
US\$ million			
Foreign currency and interest rate contracts – Level 2			
	Assets	124	296
	Liabilities	(43)	(137)
Valuation techniques and key inputs:	Discounted cash flow model Inputs include observable quoted prices sourced from exchanges or traded reference indices in active markets for identical assets or liabilities. Prices are adjusted by a discount rate which captures the time value of money and counterparty credit considerations, as required.		
Significant unobservable inputs:	None		
Non-discretionary dividend obligation – Level 3			
	Assets	–	–
	Liabilities	(403)	(186)
Valuation techniques:	Discounted cash flow model		
Significant unobservable inputs	<ul style="list-style-type: none"> - Forecast commodity prices; - Discount rates using weighted average cost of capital methodology; - Production models; - Operating costs; and - Capital expenditures. <p>The resultant liability is essentially a discounted cash flow valuation of the underlying mining operation. Increases/decreases in forecast commodity prices will result in an increase/decrease to the value of the liability though this will be partially offset by associated increases/decreases in the assumed production levels, operating costs and capital expenditures which are inherently linked to forecast commodity prices. The valuation remains sensitive to price and a 10% increase/decrease in commodity price assumptions would result in an \$127 million adjustment to the current carrying value.</p>		

27. AUDITORS' REMUNERATION

US\$ million	2016	2015
Remuneration in respect of the audit of Glencore's consolidated financial statements	3	3
Other audit fees, primarily in respect of audits of accounts of subsidiaries	17	19
Audit-related assurance services ¹	2	3
Total audit and related assurance fees	22	25
Transaction services	3	–
Taxation compliance services	3	3
Other taxation advisory services	2	2
Other assurance services	1	1
Total non-audit fees	9	6
Total professional fees	31	31

¹ Audit-related assurance services primarily related to interim reviews of the Group's half year accounts and quarterly accounts of the Group's publicly listed subsidiaries.

28. FUTURE COMMITMENTS

Capital expenditure for the acquisition of property, plant and equipment is generally funded through the cash flow generated by the respective industrial entities. As at 31 December 2016, \$776 million (2015: \$1,088 million), of which 81% (2015: 77%) relates to expenditure to be incurred over the next year, was contractually committed for the acquisition of property, plant and equipment.

Certain of Glencore's exploration tenements and licences require it to spend a minimum amount per year on development activities, a significant portion of which would have been incurred in the ordinary course of operations. As at 31 December 2016, \$177 million (2015: \$144 million) of such development expenditures are to be incurred, of which 20% (2015: 29%) are for commitments to be settled over the next year.

Glencore procures seagoing vessels/chartering services to meet its overall marketing objectives and commitments. As at 31 December 2016, Glencore has committed to future hire costs to meet future physical delivery and sale obligations and expectations of \$217 million (2015: \$894 million), of which \$105 million (2015: \$145 million) are with associated companies. 46% (2015: 60%) of the total charters are for services to be received over the next two years.

As part of Glencore's ordinary sourcing and procurement of physical commodities and other ordinary marketing obligations, the selling party may request that a financial institution act as either a) the paying party upon the delivery of product and qualifying documents through the issuance of a letter of credit or b) the guarantor by way of issuing a bank guarantee accepting responsibility for Glencore's contractual obligations. Similarly, Glencore is required to post rehabilitation and pension guarantees in respect of some of these future, primarily industrial, long-term obligations. As at 31 December 2016, \$17,358 million (2015: \$15,385 million) of procurement and \$2,972 million (2015: \$2,642 million) of rehabilitation and pension commitments have been issued on behalf of Glencore, which will generally be settled simultaneously with the payment for such commodity and rehabilitation and pension obligations.

Glencore has entered into various operating leases mainly as lessee for office and warehouse/storage facilities. Rental expenses for these leases totalled respectively \$157 million and \$237 million for the years ended 31 December 2016 and 2015. Future net minimum lease payments under non-cancellable operating leases are as follows:

US\$ million	2016	2015
Within 1 year	106	143
Between 2 and 5 years	245	346
After 5 years	97	170
Total	448	659

Notes to financial statements

28. FUTURE COMMITMENTS (continued)

Glencore has entered into finance leases for various plant and equipment items, primarily vessels and machinery. Future net minimum lease payments under finance leases together with the future finance charges are as follows:

US\$ million	Undiscounted minimum lease payments		Present value of minimum lease payments	
	2016	2015	2016	2015
Within 1 year	99	116	75	88
Between 1 and 5 years	259	267	172	193
After 5 years	222	277	154	183
Total minimum lease payments	580	660	401	464
Less: amounts representing finance lease charges	179	196	–	–
Present value of minimum lease payments	401	464	401	464

29. CONTINGENT LIABILITIES

The amount of corporate guarantees in favour of third parties as at 31 December 2016 was \$Nil (2015: \$Nil). Also see note 9.

The Group is subject to various claims which arise in the ordinary course of business as detailed below. These contingent liabilities are reviewed on a regular basis and where practical an estimate is made of the potential financial impact on the Group. As at 31 December 2016 and 2015 it was not practical to make such an assessment.

Litigation

Certain legal actions, other claims and unresolved disputes are pending against Glencore. Whilst Glencore cannot predict the results of any litigation, it believes that it has meritorious defences against those actions or claims. Glencore believes the likelihood of any material liability arising from these claims to be remote and that the liability, if any, therefore resulting from any litigation will not have a material adverse effect on its consolidated income, financial position or cash flows.

Environmental contingencies

Glencore's operations are subject to various environmental laws and regulations. Glencore is in material compliance with those laws and regulations. Glencore accrues for environmental contingencies when such contingencies are probable and reasonably estimable. Such accruals are adjusted as new information develops or circumstances change. Recoveries of environmental remediation costs from insurance companies and other parties are recorded as assets when the recoveries are virtually certain. At this time, Glencore is unaware of any material environmental incidents at its locations. Any potential liability arising from these allegations is not expected to have a material adverse effect on its consolidated income, financial position or cash flows.

30. RELATED PARTY TRANSACTIONS

In the normal course of business, Glencore enters into various arm's length transactions with related parties, including fixed price commitments to sell and to purchase commodities, forward sale and purchase contracts, agency agreements and management service agreements. Outstanding balances at period end are unsecured and settlement occurs in cash (see notes 10, 12, and 22). There have been no guarantees provided or received for any related party receivables or payables.

All transactions between Glencore and its subsidiaries are eliminated on consolidation along with any unrealised profits and losses between its subsidiaries, associates and joint ventures. In 2016, sales and purchases with associates and joint ventures amounted to \$1,570 million (2015: \$1,196 million) and \$3,194 million (2015: \$3,562 million) respectively.

31. PRINCIPAL SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS

Non-controlling interest is comprised of the following:

US\$ million	2016	2015
Kazzinc	1,396	1,316
Koniambo	(2,653)	(2,460)
Katanga	(511)	(196)
Mutanda	767	713
Alumbrera	118	126
Other ¹	421	590
Total	(462)	89

¹ Other comprises various subsidiaries in which no individual balance attributable to non-controlling interests is material.

Summarised financial information in respect of Glencore's subsidiaries that have material non-controlling interest as at 31 December 2016, reflecting 100% of the underlying subsidiary's relevant figures, is set out below.

US\$ million	Kazzinc	Koniambo	Katanga	Mutanda
31 December 2016				
Non-current assets	4,703	1,226	4,424	4,763
Current assets	1,014	294	652	549
Total assets	5,717	1,520	5,076	5,312
Non-current liabilities	719	9,494	3,380	1,885
Current liabilities	391	101	1,848	281
Total liabilities	1,110	9,595	5,228	2,166
Net assets	4,607	(8,075)	(152)	3,146
Equity attributable to owners of the Company	3,211	(5,422)	359	2,379
Non-controlling interests	1,396	(2,653)	(511) ¹	767
Non-controlling interests in %	30.3%	51.0%	24.7%	31.0%
2016				
Revenue	2,602	152	–	1,322
Expenses	(2,211)	(529)	(625)	(1,147)
Net profit/(loss) for the year	391	(377)	(625)	175
Profit attributable to owners of the Company	273	(184)	(310)	121
Profit attributable to non-controlling interests	118	(193)	(315) ¹	54
Other comprehensive income attributable to owners of the Company	–	–	–	–
Other comprehensive income attributable to non-controlling interests	–	–	–	–
Total comprehensive income/(loss) for the year	391	(377)	(625)	175
Dividends paid to non-controlling interests	(38)	–	–	–
Net cash inflow/(outflow) from operating activities	856	–	(161)	428
Net cash outflow from investing activities	(122)	(263)	(213)	(234)
Net cash (outflow)/inflow from financing activities	(567)	210	338	(195)
Total net cash inflow/(outflow)	167	(53)	(36)	(1)

¹ Glencore has a 75.3% interest in Katanga Mining Limited, which in turn has a 75% interest in Kamoto Copper Company ("KCC") the entity engaged in copper mining activities. The 'non-controlling interests' balance includes negative \$629 million and the 'profit attributable to non-controlling interests' balance includes negative \$214 million related to non-controlling interests arising at the KCC level.

31. PRINCIPAL SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS (continued)

US\$ million	Kazzinc	Koniambo	Katanga	Mutanda
31 December 2015				
Non-current assets	4,796	958	4,468	4,814
Current assets	872	337	639	440
Total assets	5,668	1,295	5,107	5,254
Non-current liabilities	975	8,878	3,072	2,028
Current liabilities	344	114	1,562	255
Total liabilities	1,319	8,992	4,634	2,283
Net assets	4,349	(7,697)	473	2,971
Equity attributable to owners of the Company	3,033	(5,237)	669	2,258
Non-controlling interests	1,316	(2,460)	(196) ¹	713
Non-controlling interests in %	30.3%	51.0%	24.7%	31.0%
2015				
Revenue	2,244	–	691	1,315
Expenses	(2,494)	(4,824)	(1,357)	(1,232)
Net (loss)/profit for the year	(250)	(4,824)	(666)	83
Profit attributable to owners of the Company	(174)	(2,364)	(347)	57
Profit attributable to non-controlling interests	(76)	(2,460)	(319) ¹	26
Other comprehensive income attributable to owners of the Company	–	–	–	–
Other comprehensive income attributable to non-controlling interests	–	–	–	–
Total comprehensive (loss)/income for the year	(250)	(4,824)	(666)	83
Dividends paid to non-controlling interests	(10)	–	–	–
Net cash inflow/(outflow) from operating activities	591	–	(600)	330
Net cash outflow from investing activities	(262)	(360)	(542)	(261)
Net cash (outflow)/inflow from financing activities	(319)	404	1,190	(170)
Total net cash inflow/(outflow)	10	44	48	(101)

¹ Glencore has a 75.3% interest in Katanga Mining Limited, which in turn has a 75% interest in Kamoto Copper Company (“KCC”) the entity engaged in copper mining activities. The ‘non-controlling interests’ balance includes negative \$416 million and the ‘profit attributable to non-controlling interests’ balance includes negative \$205 million related to non-controlling interests arising at the KCC level.

32. SUBSEQUENT EVENTS

- Further to the announcements in December 2016, Glencore and Qatar Investment Authority (“QIA”) entered into various agreements establishing a 50:50 consortium that would acquire 19.5% of OSJC Rosneft Oil (“Rosneft”), enter into a 5 year offtake agreement with Rosneft on market terms and collectively evaluate and potentially enter into additional opportunities related to infrastructure, logistics and global trading. As at 31 December 2016, only the establishment of the 50:50 consortium and payment of Glencore’s funding commitment of EUR 300 million were finalised. The balance of the funding and purchase of the 19.5% interest in Rosneft by the 50:50 consortium and completion of the 5 year offtake agreement was finalised on 3 January 2017.
- In February 2017, Glencore announced that it had acquired the remaining 31% stake in Mutanda Mining Sarl (“Mutanda”), which it did not previously own, and an additional 10.25% stake in Katanga Mining Limited (“Katanga”) for a cash outlay of \$534 million, including settlement of loan balances. Following the acquisition, Glencore owns 100% of the shares in Mutanda and approximately 86.3% of the shares in Katanga.

Glossary

Available committed liquidity¹

US\$ million	2016	2015
Cash and cash equivalents and marketable securities - reported	2,518	2,746
Cash and cash equivalents of certain associates and joint ventures	198	168
Headline committed syndicated revolving credit facilities	14,500	15,250
Amount drawn under syndicated revolving credit facilities	(476)	(2,994)
Amounts drawn under U.S. commercial paper programme	–	(15)
Total	16,740	15,155

¹ Presented on an adjusted measured basis.

Adjusted EBIT/EBITDA

Adjusted EBIT/EBITDA, as defined in note 2 of the financial statements, provide insight into our overall business performance (a combination of cost management, seizing market opportunities and growth), and are the corresponding flow drivers towards our objective of achieving industry-leading returns. Adjusted EBIT is the net result of revenue less cost of goods sold and selling and administrative expenses, plus share of income from associates and joint ventures, dividend income and the attributable share of underlying Adjusted EBIT of certain associates and joint ventures, which are accounted for internally by means of proportionate consolidation, excluding significant items. In addition, the segment information includes Glencore Agri, which has been disclosed as a discontinued operation until close of transaction on 1 December 2016, see note 23 of the financial statements.

Adjusted EBITDA consists of Adjusted EBIT plus depreciation and amortisation, including the related adjustment for Proportionate Consolidation. In addition, the relationships Net debt to Adjusted EBITDA and Adjusted EBITDA to net interest (interest expense less interest income disclosed on the face of the consolidated statement of income/(loss)) are an indication of our financial flexibility and ability to service debt.

Adjustment for Proportionate Consolidation

For internal reporting and analysis, management evaluates the performance of Antamina copper/zinc mine (34% owned), Cerrejón coal mine (33% owned), Collahuasi copper mine (44% owned) and Glencore Agri (50% owned) under the proportionate consolidation method reflecting Glencore's proportionate share of the revenues, expenses, assets and liabilities of these investments.

Current capital employed ("CCE")

Current capital employed is current assets less accounts payable, current deferred income, current provisions, current other financial liabilities and income tax payable.

Funds from operations ("FFO")

FFO is a measure that reflects our ability to generate cash for investment, debt servicing and distributions to shareholders. It comprises cash provided by operating activities before working capital changes, less tax and net interest payments plus dividends received, related adjustments for Proportionate Consolidation and certain other one-off (Significant items) identified expenses, comprising unrealised coal related hedging costs and a legal settlement in 2016 and a legal settlement and net incremental metal leak costs incurred in 2015. See reconciliation table below.

Net funding/debt and FFO to net debt

Net funding/debt demonstrates how our debt is being managed and is an important factor in insuring we maintain an investment grade rating status and an attractive cost of capital. In addition, the relationship of FFO to net debt is an indication of our financial flexibility and strength. Net debt is defined as total current and non-current borrowings less cash and cash equivalents, marketable securities, readily marketable inventories and related adjustments for Proportionate Consolidation. See reconciliation table below.

Net income attributable to equity shareholder pre-significant items

Net income attributable to equity shareholders pre-significant items is a measure of our ability to generate shareholder returns. For 2016, calculation of tax items to be excluded from Net income, includes tax significant items and the tax effect of non-tax significant items themselves. Previously, the calculation was driven by estimated notional effective tax rates; refer to the reconciliation of tax expense below.

Glossary

Readily marketable inventories (“RMI”)

RMI comprising the core inventories which underpin and facilitate Glencore’s marketing activities, represent inventories, that in Glencore’s assessment, are readily convertible into cash in the short term due to their liquid nature, widely available markets and the fact that price risk is covered either by a forward physical sale or hedge transaction. Glencore regularly assesses the composition of these inventories and their applicability, relevance and availability to the marketing activities. As at 31 December 2016, \$17,093 million (2015: \$15,356 million) of inventories were considered readily marketable. This comprises \$12,707 million (2015: \$10,928 million) of inventories carried at fair value less costs of disposal and \$4,386 million (2015: \$4,428 million) carried at the lower of cost or net realisable value. Total readily marketable inventories includes \$1,718 million related to certain associates and joint ventures (see note 2) accounted under the proportionate consolidation method, comprising \$1,384 million of inventory carried at fair value less cost of disposal and \$334 million carried at lower of cost or net realisable value. Given the highly liquid nature of these inventories, which represent a significant share of current assets, the Group believes it is appropriate to consider them together with cash equivalents in analysing Group net debt levels and computing certain debt coverage ratios and credit trends.

Significant items

Significant items of income and expense which, due to their financial impact and nature or the expected infrequency of the events giving rise to them, are separated for internal reporting and analysis of Glencore’s results to provide a better understanding and comparative basis of the underlying financial performance.

Glossary

Reconciliation of selected reported financial information to those applying the proportionate consolidation method to certain associates and joint ventures

Cash flow related adjustments 2016

US\$ million	Reported measure	Adjustment for proportionate consolidation	Adjusted measure
Cash generated by operating activities before working capital changes	7,868	–	7,868
Addback EBITDA of certain associates and joint ventures	–	1,447	1,447
Cash generated by operating activities before working capital changes	7,868	1,447	9,315
Coal related hedging and legal costs included above (via statement of income – refer to note 2)	368	–	368
Income taxes paid	(584)	(96)	(680)
Interest received	111	–	111
Interest paid	(1,376)	(6)	(1,382)
Dividend received from associates and joint ventures	833	(795)	38
Funds from operations (“FFO”)	7,220	550	7,770
Working capital changes (excluding gold and silver streaming proceeds)	(2,172)	(214)	(2,386)
Gold and silver streaming proceeds	971	–	971
Net cash received in acquisitions of subsidiaries	176	–	176
Net cash received from disposal of subsidiaries	5,535	233	5,768
Purchase of investments	(15)	(1)	(16)
Proceeds from sale of investments	3	–	3
Purchase of property, plant and equipment	(3,048)	(394)	(3,442)
Proceeds from sale of property, plant and equipment	128	8	136
Margin calls in respect of financing related hedging activities	(695)	–	(695)
Acquisition of additional interests in subsidiaries	(7)	–	(7)
Return of capital/distributions to non-controlling interests	(91)	–	(91)
Proceeds from own shares	3	–	3
Coal related hedging and legal costs (refer above)	(368)	–	(368)
Cash movement in net funding	7,640	182	7,822

Glossary

Cash flow related adjustments 2015

US\$ million	Reported measure	Adjustment for proportionate consolidation	Adjusted measure
Cash generated by operating activities before working capital changes	7,454	–	7,454
Addback EBITDA of certain associates and joint ventures	–	995	995
Cash generated by operating activities before working capital changes	7,454	995	8,449
Legal settlement and incremental metal leak costs included above (via statement of income – refer to note 4)	264	–	264
Income taxes paid	(865)	(207)	(1,072)
Interest received	119	–	119
Interest paid	(1,203)	(1)	(1,204)
Dividend received from associates and joint ventures	428	(369)	59
Funds from operations (“FFO”)	6,197	418	6,615
Net working capital changes (excluding silver streaming proceeds)	6,813	(127)	6,686
Silver streaming proceeds	900	–	900
Net cash used in acquisition of subsidiaries	(318)	–	(318)
Net cash received from disposal of subsidiaries	212	–	212
Purchase of investments	(236)	–	(236)
Proceeds from sale of investments	41	–	41
Purchase of property, plant and equipment	(5,372)	(298)	(5,670)
Payments for exploration and evaluation	(147)	–	(147)
Proceeds from sale of property, plant and equipment	115	14	129
Margin calls in respect of financing related hedging activities	(618)	–	(618)
Return of capital/distributions to non-controlling interests	(95)	–	(95)
Purchases of own shares	(272)	–	(272)
Share issuance	2,444	–	2,444
Distributions paid to equity holders of the parent	(2,328)	–	(2,328)
Legal settlement and incremental metal leak costs (refer above)	(264)	–	(264)
Cash movement in net funding	7,072	7	7,079

Glossary

Net funding/debt at 31 December 2016

US\$ million	Reported measure	Adjustment for proportionate consolidation	Adjusted measure
Non-current borrowings	23,188	380	23,568
Current borrowings	10,030	1,737	11,767
Total borrowings	33,218	2,117	35,335
Less: cash and cash equivalents and marketable securities	(2,518)	(198)	(2,716)
Net funding	30,700	1,919	32,619
Less: Readily marketable inventories	(15,375)	(1,718)	(17,093)
Net debt	15,325	201	15,526

Net funding/debt at 31 December 2015

US\$ million	Reported measure	Adjustment for proportionate consolidation	Adjusted measure
Non-current borrowings	32,932	89	33,021
Current borrowings	11,117	21	11,138
Total borrowings	44,049	110	44,159
Less: cash and cash equivalents and marketable securities	(2,746)	(168)	(2,914)
Net funding	41,303	(58)	41,245
Less: Readily marketable inventories	(15,356)	–	(15,356)
Net debt	25,947	(58)	25,889

Reconciliation of tax expense 2016

US\$ million	Total
Adjusted EBIT, pre-significant items ¹	3,930
Net finance costs	(1,533)
Adjustments for:	
Net finance costs from certain associates and joint ventures ¹	(16)
Net finance costs from discontinued operations ²	(70)
Share of income from other associates pre-significant items ¹	(10)
Share of income from associates from discontinued operations ²	(15)
Profit on a proportionate consolidation basis before tax and pre-significant items	2,286
Income tax expense, pre-significant items	(362)
Adjustments for:	
Tax expense from certain associates and joint ventures ¹	(248)
Tax expense from discontinued operations ²	(131)
Tax expense on a proportionate consolidation basis	(741)
Applicable tax rate	32.4%

¹ See note 2 of the financial statements.

² See note 23 of the financial statements.

	Pre-significant tax expense	Significant items tax	Total tax expense
Tax expense on a proportionate consolidation basis	741	276	1,017
Adjustment in respect of certain associates and joint ventures tax	(248)	–	(248)
Adjustment in respect of discontinued operations	(131)	–	(131)
Tax expense on the basis of the income statement	362	276	638

Glossary

Reconciliation of tax expense 2015

US\$ million	Marketing activities	Industrial activities	Total
Adjusted EBIT, pre-significant items	2,464	(292)	2,172
Interest expense allocation	(153)	(1,432)	(1,585)
Adjustments for:			
Certain associates and joint ventures' net finance costs	–	(3)	(3)
Share of income in associates and dividend income	(110)	45	(65)
Allocated profit before tax for the basis of tax calculation	2,201	(1,682)	519
Applicable tax rate	10.0%	25.0%	(38.5%)
Pre-significant tax expense/(credit)	220	(420)	(200)
	Pre-significant tax expense	Significant items tax	Total tax expense
Tax (credit)/expense on a proportionate consolidation basis	(200)	460	260
Adjustment in respect of certain associates and joint ventures' tax	(162)	–	(162)
Adjustment in respect of discontinued operations	(107)	–	(107)
Tax (credit)/expense on the basis of the income statement	(469)	460	(9)

Reconciliation of net significant items 2016

US\$ million	Gross significant charges	Non-controlling interests' share	Equity holders' share
Share of Associates' significant items ¹	(477)	–	(477)
Mark-to-market valuation on certain coal hedging contracts ¹	(225)	–	(225)
Unrealised intergroup profit elimination ¹	(374)	–	(374)
Gains on disposals and investments ²	452	–	452
Other expense - net ³	(1,589)	21	(1,568)
Other expense - net related to discontinued operations ⁴	7	–	7
Gain on disposal of discontinued operations ⁴	1,848	–	1,848
Income tax expense	(276)	–	(276)
Total significant items	(634)	21	(613)

1 See note 2 of the financial statements.

2 See note 3 of the financial statements.

3 See notes 4 and 5 of the financial statements.

4 See note 23 of the financial statements.

Reconciliation of net significant items 2015

US\$ million	Gross significant charges	Non-controlling interests' share	Equity holders' share
Share of Associates' significant items ¹	(88)	–	(88)
Unrealised intergroup loss elimination ¹	445	–	445
Losses on disposals and investments ²	(994)	–	(994)
Other expense - net ³	(7,928)	2,789	(5,139)
Other expense - net related to discontinued operations ⁴	(70)	–	(70)
Income tax expense	(460)	–	(460)
Total significant items	(9,095)	2,789	(6,306)

1 See note 2 of the financial statements.

2 See note 3 of the financial statements.

3 See notes 4 and 5 of the financial statements.

4 See note 23 of the financial statements.

Appendix: Production by Quarter – Q4 2015 to Q4 2016

Metals and Minerals

Production from own sources – Total¹

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Copper	kt	374.7	335.0	368.0	358.2	364.6	1,425.8	1,502.2	(5)	(3)
Zinc	kt	317.7	257.1	249.4	282.7	304.9	1,094.1	1,444.8	(24)	(4)
Lead	kt	69.2	71.0	74.3	74.3	74.6	294.2	297.7	(1)	8
Nickel	kt	27.5	27.6	29.5	25.3	32.7	115.1	96.2	20	19
Gold	koz	275	215	257	273	282	1,027	964	7	3
Silver	koz	9,979	9,009	9,804	10,177	10,079	39,069	36,592	7	1
Cobalt	kt	6.2	5.8	6.9	8.3	7.3	28.3	23.0	23	18
Ferrochrome	kt	390	400	362	344	417	1,523	1,462	4	7
Platinum	koz	33	35	46	35	32	148	158	(6)	(3)
Palladium	koz	45	47	73	44	45	209	202	3	-
Rhodium	koz	3	4	4	5	3	16	18	(11)	-
Vanadium Pentoxide	mlb	5.5	5.6	4.5	5.5	5.5	21.1	20.9	1	-

Production from own sources – Copper assets¹

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %	
African Copper (Katanga, Mutanda, Mopani)											
Katanga	Copper metal ²	kt	-	-	-	-	-	113.7	(100)	n.m.	
	Cobalt	kt	-	-	-	-	-	2.9	(100)	n.m.	
Mutanda	Copper metal ²	kt	55.1	54.7	54.2	53.4	213.3	216.1	(1)	(7)	
	Cobalt ³	kt	5.3	4.9	6.0	7.3	24.5	16.5	48	19	
Mopani	Copper metal	kt	12.8	10.7	10.6	9.3	41.1	92.1	(55)	(18)	
<i>African Copper - total production including third party feed</i>											
Mopani	Copper metal	kt	30.9	26.7	27.8	27.1	28.4	110.0	184.8	(40)	(8)
	Total Copper metal²	kt	67.9	65.4	64.8	62.7	61.5	254.4	421.9	(40)	(9)
	Total Cobalt³	kt	5.3	4.9	6.0	7.3	6.3	24.5	19.4	26	19
Collahuasi ⁴	Copper metal	kt	1.4	0.8	0.7	0.3	0.3	2.1	9.8	(79)	(79)
	Copper in concentrates	kt	60.2	50.3	55.5	56.7	58.3	220.8	190.6	16	(3)
	Silver in concentrates	koz	1,086	774	876	865	761	3,276	2,828	16	(30)
Antamina ⁵	Copper in concentrates	kt	38.6	36.8	40.1	35.4	33.2	145.5	131.8	10	(14)
	Zinc in concentrates	kt	19.6	14.1	7.7	18.3	26.7	66.8	79.3	(16)	36
	Silver in concentrates	koz	1,818	1,945	1,732	1,494	1,607	6,778	5,987	13	(12)
Other South America (Alumbrera, Lomas Bayas, Antapaccay, Punitaqui)											
Alumbrera	Copper in concentrates	kt	25.8	20.1	17.2	20.1	24.5	81.9	61.8	33	(5)
	Gold in concentrates and in doré	koz	68	68	53	64	71	256	196	31	4
	Silver in concentrates and in doré	koz	190	161	154	165	268	748	498	50	41
Lomas Bayas	Copper metal	kt	19.5	18.4	20.9	19.7	21.0	80.0	71.1	13	8
Antapaccay	Copper in concentrates	kt	49.9	48.0	57.3	59.0	55.6	219.9	202.1	9	11
	Gold in concentrates	koz	36	19	27	32	37	115	122	(6)	3
	Silver in concentrates	koz	357	334	381	419	402	1,536	1,315	17	13

Appendix: Production by Quarter – Q4 2015 to Q4 2016

			Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Punitaqui	Copper in concentrates	kt	2.0	1.9	1.6	1.7	1.8	7.0	8.1	(14)	(10)
	Gold in concentrates	koz	-	1	3	3	4	11	-	n.m.	n.m.
	Silver in concentrates	koz	25	24	13	21	24	82	105	(22)	(4)
<i>Punitaqui - total production including third party feed</i>											
	Copper in concentrates	kt	2.6	2.9	2.5	2.7	2.4	10.5	10.3	2	(8)
	Gold in concentrates	koz	-	2	3	3	4	12	-	n.m.	n.m.
	Silver in concentrates	koz	28	34	23	29	32	118	123	(4)	14
	Total Copper metal	kt	19.5	18.4	20.9	19.7	21.0	80.0	71.1	13	8
	Total Copper in concentrates	kt	77.7	70.0	76.1	80.8	81.9	308.8	272.0	14	5
	Total Gold in concentrates and in doré	koz	104	88	83	99	112	382	318	20	8
	Total Silver in concentrates and in doré	koz	572	519	548	605	694	2,366	1,918	23	21
Australia (Mount Isa, Ernest Henry, Townsville, Cobar)											
Mount Isa, Ernest Henry, Townsville	Copper metal	kt	55.0	41.0	57.3	50.7	56.1	205.1	205.6	-	2
	Gold	koz	24	17	19	25	25	86	90	(4)	4
	Silver	koz	412	181	309	418	343	1,251	1,227	2	(17)
<i>Mount Isa, Ernest Henry, Townsville - total production including third party feed</i>											
	Copper metal	kt	72.5	70.2	71.2	69.5	64.6	275.5	288.7	(5)	(11)
	Gold	koz	37	28	31	42	34	135	147	(8)	(8)
	Silver	koz	455	556	657	533	525	2,271	2,140	6	15
Cobar	Copper in concentrates	kt	13.7	11.9	14.4	12.2	15.4	53.9	50.8	6	12
	Silver in concentrates	koz	133	114	145	130	154	543	496	9	16
	Total Copper	kt	55.0	41.0	57.3	50.7	56.1	205.1	205.6	-	2
	Total Copper in concentrates	kt	13.7	11.9	14.4	12.2	15.4	53.9	50.8	6	12
	Total Gold	koz	24	17	19	25	25	86	90	(4)	4
	Total Silver	koz	545	295	454	548	497	1,794	1,723	4	(9)
Total Copper department											
	Copper	kt	334.0	294.6	329.8	318.5	327.7	1,270.6	1,353.6	(6)	(2)
	Cobalt	kt	5.3	4.9	6.0	7.3	6.3	24.5	19.4	26	19
	Zinc	kt	19.6	14.1	7.7	18.3	26.7	66.8	79.3	(16)	36
	Gold	koz	128	105	102	124	137	468	408	15	7
	Silver	koz	4,021	3,533	3,610	3,512	3,559	14,214	12,456	14	(11)

Appendix: Production by Quarter – Q4 2015 to Q4 2016

Production from own sources – Zinc assets¹

			Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Kazzinc											
	Zinc metal	kt	51.4	42.9	46.3	47.4	51.0	187.6	193.4	(3)	(1)
	Lead metal	kt	8.1	12.2	11.9	8.1	11.8	44.0	26.3	67	46
	Lead in concentrates	kt	-	-	7.8	5.9	1.5	15.2	-	n.m.	n.m.
	Copper metal ²	kt	14.6	12.7	12.4	16.4	12.4	53.9	51.9	4	(15)
	Gold	koz	138	101	142	141	137	521	520	-	(1)
	Silver	koz	1,046	886	1,212	1,135	1,277	4,510	3,653	23	22
	Silver in concentrates	koz	-	-	202	238	29	469	-	n.m.	n.m.
<i>Kazzinc - total production including third party feed</i>											
	Zinc metal	kt	77.3	76.0	76.1	76.0	77.4	305.5	304.5	-	-
	Lead metal	kt	34.6	33.1	35.0	33.2	32.3	133.6	119.8	12	(7)
	Lead in concentrates	kt	-	-	7.8	5.9	1.5	15.2	-	n.m.	n.m.
	Copper metal	kt	17.6	16.7	16.9	19.3	15.3	68.2	62.2	10	(13)
	Gold	koz	179	124	178	181	175	658	674	(2)	(2)
	Silver	koz	7,839	6,060	8,495	6,507	6,346	27,408	30,049	(9)	(19)
	Silver in concentrates	koz	-	-	202	238	29	469	-	n.m.	n.m.
Australia (Mount Isa, McArthur River)											
Mount Isa	Zinc in concentrates	kt	96.3	80.3	62.2	70.4	75.3	288.2	478.2	(40)	(22)
	Lead in concentrates	kt	34.6	35.9	30.9	37.0	39.5	143.3	163.0	(12)	14
	Silver in concentrates	koz	1,427	1,760	1,643	1,891	2,038	7,332	6,524	12	43
McArthur River	Zinc in concentrates	kt	54.0	43.7	45.5	48.1	62.9	200.2	272.7	(27)	16
	Lead in concentrates	kt	12.3	11.1	10.5	9.7	10.8	42.1	53.0	(21)	(12)
	Silver in concentrates	koz	428	395	374	347	293	1,409	1,724	(18)	(32)
	Total Zinc in concentrates	kt	150.3	124.0	107.7	118.5	138.2	488.4	750.9	(35)	(8)
	Total Lead in concentrates	kt	46.9	47.0	41.4	46.7	50.3	185.4	216.0	(14)	7
	Total Silver in concentrates	koz	1,855	2,155	2,017	2,238	2,331	8,741	8,248	6	26
North America (Matagami, Kidd, Brunswick, CEZ Refinery)											
Matagami	Zinc in concentrates	kt	14.4	14.2	11.8	14.6	11.0	51.6	52.0	(1)	(24)
	Copper in concentrates	kt	2.7	3.0	2.4	2.5	1.8	9.7	8.2	18	(33)
Kidd	Zinc in concentrates	kt	14.8	12.8	19.5	24.0	22.2	78.5	63.2	24	50
	Copper in concentrates	kt	11.9	10.2	8.4	9.8	9.9	38.3	40.1	(4)	(17)
	Silver in concentrates	koz	569	359	520	739	674	2,292	2,368	(3)	18
	Total Zinc in concentrates	kt	29.2	27.0	31.3	38.6	33.2	130.1	115.2	13	14
	Total Copper in concentrates	kt	14.6	13.2	10.8	12.3	11.7	48.0	48.3	(1)	(20)
	Total Silver in concentrates	koz	569	359	520	739	674	2,292	2,368	(3)	18
<i>North America - total production including third party feed</i>											
Brunswick Smelter	Lead metal	kt	20.9	19.8	13.7	19.6	16.4	69.5	70.8	(2)	(22)
	Silver metal	koz	5,157	5,122	4,299	6,295	5,048	20,764	21,354	(3)	(2)
CEZ Refinery ⁶	Zinc metal	kt	18.0	16.9	17.3	17.0	18.1	69.3	68.2	2	1

Appendix: Production by Quarter – Q4 2015 to Q4 2016

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Other Zinc (Aguilar, Los Quenuales, Sinchi Wayra, Rosh Pinah, Perkoa)										
Zinc metal	kt	5.7	-	-	-	-	-	26.1	(100)	(100)
Zinc in concentrates	kt	61.5	49.1	56.4	59.9	55.8	221.2	279.9	(21)	(9)
Lead metal	kt	3.5	2.8	3.3	3.1	3.5	12.7	12.7	-	-
Lead in concentrates	kt	10.7	9.0	9.9	10.5	7.5	36.9	42.7	(14)	(30)
Copper in concentrates	kt	0.6	0.4	0.5	0.7	0.5	2.1	2.4	(13)	(17)
Silver metal	koz	210	120	186	154	206	666	691	(4)	(2)
Silver in concentrates	koz	2,127	1,746	1,861	2,041	1,905	7,553	8,566	(12)	(10)
Total Zinc department										
Zinc	kt	298.1	243.0	241.7	264.4	278.2	1,027.3	1,365.5	(25)	(7)
Lead	kt	69.2	71.0	74.3	74.3	74.6	294.2	297.7	(1)	8
Copper	kt	29.8	26.3	23.7	29.4	24.6	104.0	102.6	1	(17)
Gold	koz	138	101	142	141	137	521	520	-	(1)
Silver	koz	5,807	5,266	5,998	6,545	6,422	24,231	23,526	3	11

Appendix: Production by Quarter – Q4 2015 to Q4 2016

Production from own sources – Nickel assets¹

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Integrated Nickel Operations (Sudbury, Raglan, Nikkelverk)										
Nickel metal	kt	15.5	15.7	17.8	13.8	18.3	65.6	49.1	34	18
Nickel in concentrates	kt	0.1	0.2	0.1	0.1	0.2	0.6	0.5	20	100
Copper metal	kt	3.9	4.8	3.6	3.6	4.6	16.6	14.9	11	18
Copper in concentrates	kt	7.0	9.3	10.9	6.7	7.7	34.6	31.1	11	10
Cobalt metal	kt	0.2	0.2	0.3	0.2	0.3	1.0	0.8	25	50
Gold	koz	9	9	12	8	8	37	35	6	(11)
Silver	koz	151	210	196	120	98	624	610	2	(35)
Platinum	koz	17	20	30	21	19	90	76	18	12
Palladium	koz	35	38	63	36	36	173	157	10	3
Rhodium	koz	1	1	2	2	1	6	5	20	-
<i>Integrated Nickel Operations - total production including third party feed</i>										
Nickel metal	kt	23.2	23.3	22.8	23.3	23.3	92.7	91.2	2	-
Nickel in concentrates	kt	0.1	0.2	0.2	0.1	0.2	0.7	0.6	17	100
Copper metal	kt	7.9	7.6	6.5	7.1	6.9	28.1	35.5	(21)	(13)
Copper in concentrates	kt	8.8	10.7	13.0	7.8	9.1	40.6	38.2	6	3
Cobalt metal	kt	0.9	0.9	0.9	0.7	1.0	3.5	3.1	13	11
Gold	koz	13	12	17	10	11	50	50	-	(15)
Silver	koz	253	336	322	195	141	994	1,046	(5)	(44)
Platinum	koz	26	27	43	28	25	123	106	16	(4)
Palladium	koz	59	55	95	52	52	254	242	5	(12)
Rhodium	koz	1	2	2	2	2	8	6	33	100
Murrin Murrin										
Total Nickel metal	kt	10.5	9.3	8.4	7.5	10.1	35.3	37.5	(6)	(4)
Total Cobalt metal	kt	0.7	0.7	0.6	0.8	0.7	2.8	2.8	-	-
<i>Murrin Murrin - total production including third party feed</i>										
Total Nickel metal	kt	12.8	12.0	10.9	9.9	13.2	46.0	46.7	(1)	3
Total Cobalt metal	kt	0.9	0.8	0.7	0.9	0.8	3.2	3.3	(3)	(11)
Koniambo										
Nickel in ferronickel	kt	1.4	2.4	3.2	3.9	4.1	13.6	9.1	49	193
Total Nickel department										
Nickel	kt	27.5	27.6	29.5	25.3	32.7	115.1	96.2	20	19
Copper	kt	10.9	14.1	14.5	10.3	12.3	51.2	46.0	11	13
Cobalt	kt	0.9	0.9	0.9	1.0	1.0	3.8	3.6	6	11
Gold	koz	9	9	12	8	8	37	35	6	(11)
Silver	koz	151	210	196	120	98	624	610	2	(35)
Platinum	koz	17	20	30	21	19	90	76	18	12
Palladium	koz	35	38	63	36	36	173	157	10	3
Rhodium	koz	1	1	2	2	1	6	5	20	-

Appendix: Production by Quarter – Q4 2015 to Q4 2016

Production from own sources – Ferroalloys assets¹

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Ferrochrome ⁷	kt	390	400	362	344	417	1,523	1,462	4	7
PGM ⁸										
	Platinum	koz	16	15	16	14	58	82	(29)	(19)
	Palladium	koz	10	9	10	8	36	45	(20)	(10)
	Rhodium	koz	2	3	2	3	10	13	(23)	-
	Gold	koz	-	-	1	-	1	1	-	n.m.
	4E	koz	28	27	29	25	105	141	(26)	(14)
Vanadium Pentoxide	mlb	5.5	5.6	4.5	5.5	5.5	21.1	20.9	1	-

Total production – Custom metallurgical assets¹

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Copper (Altonorte, Pasar, Horne, CCR)										
	Copper metal	kt	121.7	113.9	127.7	122.5	489.1	433.7	13	3
	Copper anode	kt	123.1	136.1	129.0	98.9	522.5	502.8	4	29
Zinc (Portovesme, San Juan de Nieva, Nordenham, Northfleet)										
	Zinc metal	kt	200.8	197.6	197.3	199.4	789.8	788.8	-	(3)
	Lead metal	kt	50.9	55.5	54.8	56.4	216.6	199.2	9	(2)
	Silver	koz	3,342	3,058	4,247	3,270	14,845	11,220	32	28
Ferroalloys										
	Ferromanganese	kt	44	45	28	30	136	146	(7)	(25)
	Silicon Manganese	kt	18	19	25	23	82	98	(16)	(17)

1 Controlled industrial assets and joint ventures only. Production is on a 100% basis, except as stated.

2 Copper metal includes copper contained in copper concentrates and blister.

3 Cobalt contained in concentrates and hydroxides.

4 The Group's pro-rata share of Collahuasi production (44%).

5 The Group's pro-rata share of Antamina production (33.75%).

6 The Group's pro-rata share of CEZ production (25%).

7 The Group's attributable 79.5% share of the Glencore-Merafe Chrome Venture.

8 Consolidated 50% of Mototolo and 100% of Eland (placed on care and maintenance from October 2015).

Appendix: Production by Quarter – Q4 2015 to Q4 2016

Energy Products

Production from own sources

Coal assets¹

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Australian coking coal	mt	1.7	1.2	0.8	1.6	1.7	5.3	5.9	(10)	-
Australian semi-soft coal	mt	0.9	1.0	1.2	0.9	1.1	4.2	3.6	17	22
Australian thermal coal (export)	mt	13.6	11.6	12.5	13.7	14.7	52.5	52.4	-	8
Australian thermal coal (domestic)	mt	1.0	1.7	1.5	1.4	1.0	5.6	3.9	44	-
South African thermal coal (export)	mt	3.5	4.1	4.3	4.5	4.3	17.2	19.7	(13)	23
South African thermal coal (domestic)	mt	1.7	3.2	2.5	3.3	3.1	12.1	17.3	(30)	82
Prodeco	mt	3.7	4.3	4.0	4.7	4.3	17.3	17.6	(2)	16
Cerrejón ²	mt	2.7	2.6	2.3	3.0	2.8	10.7	11.1	(4)	4
Total Coal department	mt	28.8	29.7	29.1	33.1	33.0	124.9	131.5	(5)	15

1 Controlled industrial assets and joint ventures only. Production is on a 100% basis except for joint ventures, where the Group's attributable share of production is included.

2 The Group's pro-rata share of Cerrejón production (33.3%).

Oil assets

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Glencore entitlement interest basis										
Equatorial Guinea	kbbl	1,238	1,147	953	821	708	3,629	4,937	(26)	(43)
Chad	kbbl	1,297	1,253	997	855	777	3,882	5,632	(31)	(40)
Total Oil department	kbbl	2,535	2,400	1,950	1,676	1,485	7,511	10,569	(29)	(41)
Gross basis										
Equatorial Guinea	kbbl	5,651	5,177	4,464	3,959	3,309	16,909	22,939	(26)	(41)
Chad	kbbl	1,773	1,713	1,363	1,169	1,063	5,308	7,699	(31)	(40)
Total Oil department	kbbl	7,424	6,890	5,827	5,128	4,372	22,217	30,638	(27)	(41)

Appendix: Production by Quarter – Q4 2015 to Q4 2016

Agricultural Products

Processing / production data

		Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	2016	2015	Change 2016 vs 2015 %	Change Q4 16 vs Q4 15 %
Farming	kt	124	6	183	461	142	792	704	13	15
Crushing	kt	1,627	1,826	1,935	1,586	2,333	7,680	6,069	27	43
Long term toll agreement	kt	62	141	214	436	13	804	284	183	(79)
Biodiesel	kt	144	119	158	200	210	687	556	24	46
Rice milling	kt	32	56	59	113	46	274	206	33	44
Wheat milling	kt	236	239	241	262	247	989	976	1	5
Sugarcane processing	kt	776	219	1,046	1,248	746	3,259	2,751	18	(4)
Total Agricultural products	kt	3,001	2,606	3,836	4,306	3,737	14,485	11,546	25	25

Production by Quarter

Full year 2017 production guidance

		Actual FY 2014	Actual FY 2015	Actual FY 2016	Guidance FY 2017
Copper	kt	1,546	1,502	1,426	1,355 ± 25
Zinc	kt	1,387	1,445	1,094	1,190 ± 25
Lead	kt	308	298	295	300 ± 10
Nickel	kt	101	96	115	120 ± 4
Ferrocchrome	kt	1,295	1,462	1,523	1,650 ± 25
Coal	mt	146	132	125	135 ± 3

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