

Rio Tinto announces cash generation of \$8.5 billion and \$3.6 billion of shareholder returns

8 February 2017

Rio Tinto chief executive J-S Jacques said: “Today’s results show we have kept our commitment to maximise cash and productivity from our world-class assets, delivering \$3.6 billion in shareholder returns while maintaining a robust balance sheet. At the same time, we strengthened the portfolio and advanced our high-value growth projects as we look to the future.

“We enter 2017 in good shape. Our team will deliver \$5 billion of extra free cash flow over the next five years from our productivity programme. Our value over volume approach, coupled with a robust balance sheet and world-class assets, places us in a strong position to deliver superior shareholder returns through the cycle.”

2016 highlights

- Generated strong operating cash flow of \$8.5 billion and underlying earnings of \$5.1 billion.
- Achieved \$1.6 billion of pre-tax sustainable operating cash cost improvements.¹
- Investing in three major growth projects in bauxite, copper and iron ore.
- Optimising the portfolio with disposals of \$1.3 billion announced or completed in 2016 and up to \$2.45 billion announced to date in 2017.
- Strengthened the balance sheet further with net debt reduced to \$9.6 billion.
- Returning cash to shareholders with \$3.6 billion announced with respect to 2016:
 - full year dividend of 170 US cents per share, equivalent to \$3.1 billion.
 - share buy-back of \$0.5 billion in Rio Tinto plc shares over the course of 2017.
 - in total, represents 70 per cent of 2016 underlying earnings.

Year to 31 December	2016	2015	Change
Net cash generated from operating activities (US\$ millions)	8,465	9,383	-10%
Underlying earnings ² (US\$ millions)	5,100	4,540	+12%
Net earnings / (loss) (US\$ millions)	4,617	(866)	n/a
Capital expenditure ³ (US\$ millions)	(3,012)	(4,685)	-36%
Underlying earnings per share (US cents)	283.8	248.8	+14%
Basic earnings / (loss) per share (US cents)	256.9	(47.5)	n/a
Ordinary dividend per share (US cents)	170.0	215.0	-21%

At 31 December	2016	2015	Change
Net debt ^{4, 6} (US\$ millions)	9,587	13,783	-30%
Gearing ratio ^{5, 6}	17%	24%	

The financial results are prepared in accordance with IFRS and are unaudited.

¹ Operating cash cost improvements represent the difference between the current and prior year full cash cost of sales per unit based on the prior year volume sold.

² Underlying earnings is a key financial performance indicator which management uses internally to assess performance. It is presented here to provide greater understanding of the underlying business performance of the Group’s operations. Net and underlying earnings relate to profit attributable to the owners of Rio Tinto. Underlying earnings is defined and reconciled to net earnings on page 46.

³ Capital expenditure is presented gross, before taking into account any disposals of property, plant and equipment.

⁴ Net debt is defined and reconciled to the balance sheet on page 40.

⁵ Gearing ratio is defined as net debt divided by the sum of net debt and total equity at each period end.

⁶ These financial performance indicators are those which management use internally to assess performance, and therefore are considered relevant to users of the accounts.

Continued focus on generating cash

Revenues and earnings

- Consolidated sales revenues of \$33.8 billion, \$1.0 billion lower than last year, primarily due to lower average commodity prices, and lower market premia for aluminium.
- EBITDA¹ margin of 38 per cent in 2016, compared with 34 per cent in 2015, reflecting the positive impact of the cash cost improvements.
- Underlying earnings of \$5.1 billion, \$0.6 billion higher than 2015, with cash cost improvements of \$1.2 billion (post-tax) more than offsetting the \$0.5 billion (post-tax) impact of lower prices.
- Underlying earnings per share of 283.8 US cents compared with 248.8 US cents in 2015.
- Net earnings of \$4.6 billion were \$0.5 billion lower than underlying earnings reflecting net gains on disposals of businesses of \$0.4 billion, non-cash exchange rate and derivative gains of \$0.5 billion, offset by impairments of \$0.2 billion, additional closure provisions for legacy operations of \$0.3 billion, an onerous contract provision of \$0.3 billion, a tax provision of \$0.4 billion and restructuring costs of \$0.2 billion.

Cash flow and balance sheet

- Generated net cash from operating activities of \$8.5 billion, ten per cent lower year-on-year, primarily due to working capital movements and an increase in interest paid to \$1.3 billion, of which \$0.5 billion related to early redemption costs associated with the bond purchase programmes.
- Paid taxes and royalties of \$4 billion in 2016 of which approximately \$3 billion was paid in Australia.
- Capital expenditure of \$3.0 billion, of which \$1.7 billion was sustaining capex.
- Generated free cash flow² of \$5.8 billion which included \$0.3 billion of sales of property, plant and equipment. In addition, the Group received \$0.8 billion in net proceeds from disposals in 2016, with up to \$2.6 billion expected in 2017, including the Coal & Allied transaction for up to \$2.45 billion.
- Further strengthened the balance sheet with a 30 per cent reduction in net debt to \$9.6 billion and gearing ratio of 17 per cent.

Growth projects

- Silvergrass iron ore development in the Pilbara announced on 2 August 2016 for \$338 million, to maintain the Pilbara blend and lower unit costs, adding 10 million tonnes of annual capacity with commissioning in the second half of 2017.
- Oyu Tolgoi underground copper mine development in Mongolia announced on 6 May 2016 for \$5.3 billion: first tonnes expected in 2020, with average production of 560 thousand tonnes between 2025 and 2030³.
- Amrun bauxite project in Queensland, announced on 27 November 2015 for \$1.9 billion, remains on track, with production and shipping expected to commence in the first half of 2019, increasing bauxite exports by around 10 Mt/a⁴.

¹ EBITDA margin is defined as Group underlying EBITDA divided by Product Group total revenues as per the Financial Information by Business Unit on page 11 where it is reconciled to profit on ordinary activities before finance items and taxation and consolidated sales revenue. This financial metric is used by management internally to assess performance, and therefore is considered relevant to users of the accounts.

² Free cash flow is defined as Net cash generated from operating activities less Purchases of property, plant and equipment (PP&E) plus Sales of PP&E. It is a key financial indicator which management uses internally to assess performance.

³ This production target was disclosed in a release to the market on 6 May 2016. All material assumptions underpinning that target continue to apply and have not materially changed.

⁴ This production target was disclosed in a release to the market on 27 November 2015. All material assumptions underpinning that target continue to apply and have not materially changed.

Capital returns

- Paid dividends of \$2.7 billion in 2016, comprising 2015 final dividend of \$1.9 billion and 2016 interim dividend of \$0.8 billion.
- Announced total dividends for 2016 of 170 US cents per share, equivalent to \$3.1 billion, well in excess of the previously indicated 110 US cents per share minimum: of this total, the interim dividend of 45 US cents per share (\$0.8 billion) was paid in September 2016 and the final dividend of 125 US cents per share (\$2.3 billion) will be paid in April 2017.
- Announced share buy-back totalling \$0.5 billion in Rio Tinto plc shares, bringing total shareholder returns for 2016 to \$3.6 billion, representing 70 per cent of underlying earnings.

Guidance

- Operating cash cost improvements (including exploration and evaluation savings) of \$2.0 billion (pre-tax) over 2016 and 2017, in line with previous guidance.
- Additional free cash flow of \$5.0 billion by the end of 2021 from productivity improvements.
- Capital expenditure expected to be around \$5.0 billion in 2017 and around \$5.5 billion in each of 2018 and 2019. Each year includes around \$2.0 billion of sustaining capex.
- Gearing ratio of 20 to 30 per cent through the cycle.
- Effective tax rate on underlying earnings of approximately 27 to 30 per cent expected in 2017.
- Production guidance is unchanged from the Fourth Quarter Operations Review.

Underlying EBITDA and underlying earnings by product group

	2016 US\$m	2015 ² US\$m	Change US\$m	Change %
Underlying EBITDA¹				
Iron Ore	8,526	7,675	851	+11%
Aluminium	2,472	2,742	(270)	-10%
Copper & Diamonds	1,387	1,833	(446)	-24%
Energy & Minerals	1,803	1,235	568	+46%
Other operations	(92)	(81)	(11)	-14%
Product Group Total	14,096	13,404	692	+5%
Other central items	(411)	(546)	135	+25%
Exploration and evaluation	(175)	(237)	62	+26%
	13,510	12,621	889	+7%
Underlying earnings				
Iron Ore	4,611	3,940	671	+17%
Aluminium	947	1,118	(171)	-15%
Copper & Diamonds	(18)	370	(388)	-105%
Energy & Minerals	610	175	435	+249%
Other operations	(86)	(88)	2	+2%
Product Group Total	6,064	5,515	549	+10%
Other central items	(241)	(375)	134	+36%
Exploration and evaluation	(147)	(211)	64	+30%
Net interest ³	(576)	(389)	(187)	-48%
	5,100	4,540	560	+12%

¹ Underlying EBITDA is a key financial indicator which management uses internally to assess performance. It excludes the same items that are excluded in arriving at underlying earnings. See page 11 for further detail and a reconciliation to profit on ordinary activities before finance items and tax.

² 2015 numbers have been recast to reflect the new product group structure.

³ 2016 net interest includes \$237 million (post-tax) of early redemption costs associated with the three bond purchase programmes.

Net earnings and underlying earnings

In order to provide additional insight into the performance of its business, Rio Tinto reports underlying earnings. The differences between underlying earnings and net earnings are set out in the following table (all numbers are after tax and exclude non-controlling interests).

Year ended 31 December	2016 US\$m	2015 US\$m
Underlying earnings	5,100	4,540
<i>Items excluded from underlying earnings</i>		
Impairment charges	(183)	(1,802)
Net gains on disposal of interests in businesses	382	48
Exchange and derivative gains / (losses) on US dollar net debt and intragroup balances and derivatives not qualifying for hedge accounting	536	(3,282)
Onerous port and rail contracts	(329)	-
Restructuring costs including global headcount reduction	(177)	(258)
Increased closure provision for legacy operations	(282)	(233)
Tax provision	(380)	-
Recognition of deferred tax assets relating to planned divestments	-	234
Other excluded items	(50)	(113)
Net earnings / (loss)	4,617	(866)

Explanation of excluded items is given on pages 7 to 8. A detailed reconciliation from underlying earnings to net earnings, which includes pre-tax amounts plus additional explanatory notes, are given on pages 46 and 47.

Commentary on the Group financial results

The principal factors explaining the movements in underlying and net earnings are set out in the table below (all numbers are after tax and non-controlling interests).

	Underlying earnings US\$m	Net earnings US\$m
2015	4,540	(866)
Prices	(460)	
Exchange rates	49	
Volumes	19	
General inflation	(158)	
Energy	25	
Lower cash costs (pre-tax \$1,539 million)	1,124	
Lower exploration and evaluation costs	97	
Tax / non-cash / interest / other	(136)	
Total changes in underlying earnings	560	560
Decrease in net impairment charges		1,619
Movement in gains on consolidation and disposal of interests in businesses		334
Movement in exchange differences and gains/losses on debt		3,818
Onerous port and rail contracts		(329)
Lower restructuring costs including global headcount reductions		81
Increase in closure provision for legacy operations		(49)
Tax provision		(380)
Absence of recognition of deferred tax assets		(234)
Other movements		63
2016	5,100	4,617

Prices

Most commodity prices increased for the first time in a number years in the second half of 2016, despite numerous political and macro shocks to the global economy.

The Platts price for 62 per cent iron Pilbara fines was six per cent higher on average compared with 2015. Iron ore prices started 2016 at \$43 per dry metric tonne cost and freight (CFR) and ended the year around \$80 per tonne. Contestable iron ore demand increased by 60 million tonnes to 1.8 billion, helping absorb new supply. This was underpinned by Chinese steel demand as China's government expanded lending, eased monetary policy and supported the property sector. China also eliminated inefficient steelmaking capacity, supporting steel prices and profitability.

Hard coking coal benchmark prices were 12 per cent higher on average compared with 2015 and thermal coal spot prices averaged seven per cent higher. Hard coking coal prices almost quadrupled to \$310 per tonne from January to November 2016. Strong Chinese steel demand contributed to the spike, but the main driver was China's supply curtailment through the implementation of the "276 Directive", restricting coal mines to operating 276 days of the year. The thermal coal market was also affected, with prices doubling to \$110 per tonne free on board (FOB) Newcastle. The directive was relaxed in the second half of 2016 and prices have since moderated.

These commodity price gains were more than offset by lower average prices for copper and aluminium which were down 11 and three per cent respectively year-on-year, and a significant drop in market premia for aluminium in all regions, which fell from their record highs in early 2015.

Copper prices dipped below \$2 per pound in early 2016 before rising 25 per cent by year-end. Over one million tonnes of new mine supply entered the market, and was accommodated through demand growth, lower scrap availability and mine curtailments.

Aluminium prices started 2016 below \$1,500 per tonne and ended the year 20 per cent higher. Margins remained under pressure, however, as energy and alumina costs offset the price increase. The alumina

price rallied from less than \$200 per tonne to \$350 per tonne as refinery curtailments caught up with the ten per cent cutback of global smelting capacity announced in 2015. Bauxite prices did not match these increases, with the average Chinese import price falling moderately to just under \$50 per tonne as new supply from Guinea, Australia and Brazil replaced volumes lost to Malaysia's export ban.

The effect of all price movements on the Group's commodities in 2016 was to decrease underlying earnings by \$460 million compared with 2015. A table of prices and exchange rates is included on page 45.

Exchange rates

Compared with 2015, the US dollar, on average, strengthened by three per cent against the Canadian dollar, by one per cent against the Australian dollar and by 14 per cent against the South African rand. The effect of all currency movements was to increase underlying earnings relative to 2015 by \$49 million.

Volumes

Movements in sales volumes increased earnings by \$19 million compared with 2015. There were volume gains in iron ore, following the increase in capacity at the Pilbara ports and mines, in bauxite, from increased production at all four mines, and in aluminium following record production at ten smelters. These were mostly outweighed by lower sales volumes in copper, gold and molybdenum.

Energy

Lower input energy prices during the year improved underlying earnings by \$25 million compared with 2015 in part related to oil, where the price fell approximately 16 per cent year-on-year, averaging \$44 per barrel during 2016.

Cash costs, exploration and evaluation

Rio Tinto continued to realise considerable savings from its cost reduction programme, delivering \$1.6 billion pre-tax (\$1.2 billion post tax) in operating cash cost savings and reductions in exploration and evaluation expenditure in 2016. The Group has now achieved \$7.8 billion pre-tax (\$5.5 billion post-tax) in total operating cash cost improvements and reductions in exploration and evaluation expenditure compared with the 2012 base.

The Group continued to optimise its expenditure on exploration and evaluation, progressing the highest value projects. In 2016, approximately 41 per cent of this expenditure was incurred by central exploration, 25 per cent by Copper & Diamonds, 25 per cent by Energy & Minerals and the remainder by Aluminium and Iron Ore.

Tax / non-cash / interest / other

The 2016 effective corporate income tax rate on underlying earnings, excluding equity accounted units, was 22 per cent compared with 27 per cent in 2015. The lower effective tax rate in 2016 was due to the recognition of a deferred tax asset in Mongolia. Excluding this item, the effective tax rate in 2016 was 26 per cent. The effective tax rate in Australia remained at 30 per cent. The Group expects an effective tax rate on underlying earnings of approximately 27 to 30 per cent in 2017.

The Group interest charge (net of tax) of \$576 million increased by \$187 million compared with 2015, following completion of some major capital projects in 2015 (interest is capitalised during the construction period of a project) and \$237 million of early redemption costs from bond purchases in 2016. In 2016, \$111 million of interest was capitalised, compared with \$254 million in 2015. In 2016, the Group successfully completed three bond purchase programmes totalling \$7.5 billion and repaid \$1.5 billion of maturing bonds, reducing gross debt by \$9.0 billion (nominal value).

Items excluded from underlying earnings

Impairment charges in 2016 of \$183 million primarily related to the Argyle diamond mine in Western Australia.

Net gains on disposal of \$382 million mainly related to the sale of Rio Tinto's 40 per cent interest in the Bengalla coal Joint Venture and the sale of the Lochaber aluminium assets.

Non-cash exchange and derivative gains in 2016 of \$536 million arose primarily on US dollar debt in non-US dollar functional currency Group companies, intragroup balances, and on the revaluation of certain

derivatives which do not qualify for hedge accounting. These exchange gains in 2016 were in contrast to net exchange losses in 2015 of \$3,282 million, giving rise to a positive period-on-period movement of \$3,818 million. The exchange gains are largely offset by currency translation losses recognised in equity and the quantum of US dollar debt, which will be repaid from US dollar sales receipts and US dollar divestment proceeds, is therefore largely unaffected.

A review of the infrastructure capacity requirements in Queensland, Australia, confirmed that it is no longer likely that Rio Tinto will utilise the Abbot Point Coal Terminal and associated rail infrastructure capacity contracted under take-or-pay arrangements. On 31 October 2016, agreement was reached with Adani, the owner of the port, to relinquish that capacity. Accordingly, an onerous contract provision has been recognised based on the net present value of expected future cash flows discounted at a post-tax real rate of two per cent, resulting in a post-tax onerous contract charge of \$329 million.

In 2016, the Group incurred \$177 million of restructuring costs associated with its cost reduction programme, compared with \$258 million in 2015.

The \$282 million increase in the closure provision related to the Gove alumina refinery in Northern Territory, Australia where operations were curtailed in May 2014.

The tax provision includes amounts provided for tax matters for which the timing of resolution and potential economic outflow are uncertain. Specifically, the Group is currently in discussions with the Australian Taxation Office (ATO) in relation to certain transactions between Rio Tinto entities based in Australia and the Group's commercial centre in Singapore for the period since 2009. From 2010 to 2016, Rio Tinto paid \$37 billion in taxes and royalties in Australia. These matters were raised by Rio Tinto with the ATO through advance ruling requests or are under discussions pursuant to our co-operative compliance agreement.

In 2015, impairment charges of \$1,802 million (post-tax) were recognised, including a \$1,118 million (post-tax) impairment of the Simandou iron ore project in Guinea, \$262 million relating to Energy Resources of Australia (ERA) and \$199 million relating to the Roughrider uranium project in Canada.

In 2015, the Group recorded a post-tax charge of \$233 million for the remediation of legacy properties, including the Holden mine in Washington State.

Cash flow

Net cash generated from operating activities of \$8.5 billion was ten per cent lower than 2015. 2015 cash flows benefited from a significant working capital reduction. 2016 saw a rebound in receivables, driven by higher prices. In addition, there was an increase in interest paid to \$1.3 billion, of which \$0.5 billion related to early redemption costs associated with the bond purchase programmes. These were partly offset by cash cost improvements and lower tax payments, in line with lower underlying profits.

Purchases of property, plant and equipment and intangible assets were \$3.0 billion in 2016, a decline of 36 per cent compared with 2015. Some major capital projects were completed in 2015, including expansion of the Pilbara iron ore infrastructure and the modernisation and expansion of the Kitimat aluminium smelter. Major capital projects in 2016 included the development of the Oyu Tolgoi copper/gold underground mine in Mongolia, construction of key infrastructure at the Amrun bauxite project in Queensland and development of the Silvergrass iron ore mine in the Pilbara.

Dividends paid in 2016 of \$2.7 billion reflected the final 2015 dividend paid in April 2016 and the 2016 interim dividend paid in September 2016.

In 2016, net proceeds from the disposal of subsidiaries, joint ventures and associates of \$0.8 billion related primarily to amounts received following the disposal of the Group's 40 per cent interest in the Bengalla coal Joint Venture and the first tranche from the sale of the Lochaber aluminium assets. In addition, the Group realised \$0.3 billion from the sale of property, plant and equipment, which included the Mount Pleasant thermal coal assets in New South Wales, undeveloped land in Utah and some office buildings in North America.

Balance sheet

Net debt (see page 40) decreased from \$13.8 billion at 31 December 2015 to \$9.6 billion at 31 December 2016. Net debt to total capital (gearing ratio) declined to 17 per cent at 31 December 2016 (31 December 2015: 24 per cent) and interest cover was seven times, unchanged from 2015.

Adjusted total borrowings at 31 December 2016 were \$18.0 billion (refer to page 40). At 31 December 2016, approximately 80 per cent of Rio Tinto's total borrowings were at floating interest rates, the weighted average cost of total borrowings was approximately 4.0 per cent and the weighted average maturity was around ten years. The maximum amount, within non-current borrowings, maturing in any one calendar year was \$1.7 billion, which matures in 2025.

In 2016, the Group repaid \$9.4 billion of borrowings, including \$9.0 billion of bonds, and drew down \$4.4 billion of funds, mainly from the Oyu Tolgoi project financing. Cash and cash equivalents plus other short-term cash investments at 31 December 2016 were \$8.4 billion (31 December 2015: \$9.4 billion).

Profit / loss for the year

Net earnings and underlying earnings refer to amounts attributable to the owners of Rio Tinto. The net profit attributable to the owners of Rio Tinto in 2016 totalled \$4,617 million (2015: net loss of \$866 million). The Group recorded a profit in 2016 of \$4,776 million (2015: loss of \$1,719 million) of which a profit of \$159 million (2015: loss of \$853 million) was attributable to non-controlling interests.

Dividends

In February 2016, the board announced a new dividend policy. At the end of each financial period, the board will determine an appropriate total level of ordinary dividend per share, taking into account the results for the financial year, the outlook for our major commodities, the board's view of the long-term growth prospects of the business and the Company's objective of maintaining a strong balance sheet. The intention is that the balance between the interim and final dividend is weighted to the final dividend.

The board expects total cash returns to shareholders over the longer term to be in a range of 40 to 60 per cent of underlying earnings in aggregate through the cycle.

The board is committed to maintaining an appropriate balance between cash returns to shareholders and investment in the business, with the intention of maximising shareholder value.

Acknowledging the cyclical nature of the industry, in periods of strong earnings and cash generation, it is the board's intention to supplement the ordinary dividends with additional returns to shareholders.

Dividends are determined in US dollars. Rio Tinto plc dividends are declared and paid in pounds sterling and Rio Tinto Limited dividends are declared and paid in Australian dollars, converted at exchange rates applicable on 7 February 2017 (the latest practicable date prior to the declaration of the dividend).

Ordinary dividend per share	2016	2015
Rio Tinto Group		
Interim (US cents)	45.00	107.50
Final (US cents)	125.00	107.50
Total dividend (US cents)	170.00	215.00
Rio Tinto plc		
Interim (UK pence)	33.80	68.92
Final (UK pence)	100.56	74.21
Total dividend (UK pence)	134.36	143.13
Rio Tinto Limited		
Interim (Australian cents)	59.13	144.91
Final (Australian cents)	163.62	151.89
Total dividend (Australian cents)	222.75	296.80

Rio Tinto Limited shareholders will be paid dividends which are fully franked. The board expects Rio Tinto Limited to be in a position to pay fully franked dividends for the foreseeable future.

Dividends will be paid on 6 April 2017 to holders of ordinary shares and ADRs on the register at the close of business on 24 February 2017. The ex-dividend date for Rio Tinto Limited and Rio Tinto plc holders will be 23 February 2017 and the ex-dividend date for Rio Tinto plc ADR shareholders will be 22 February 2017.

Rio Tinto plc shareholders may elect to receive their dividend in Australian dollars, and Rio Tinto Limited shareholders may elect to receive their dividend in pounds sterling. Currency conversions will be determined by reference to the exchange rates applicable to pounds sterling and Australian dollars five business days prior to the dividend payment date. Currency elections must be registered by 16 March 2017 for Rio Tinto plc and Rio Tinto Limited shareholders.

ADR holders receive dividends in US dollars, which will be converted from pounds sterling by reference to the exchange rate applicable on 30 March 2017. This is likely to differ from the US dollar determining rate due to currency fluctuations.

As usual, Rio Tinto will operate its Dividend Reinvestment Plans, details of which can be obtained from the Rio Tinto website (www.riotinto.com). The last date for receipt of the election notice for the Dividend Reinvestment Plans for Rio Tinto plc and Rio Tinto Limited shareholders is 16 March 2017. Purchases under the Dividend Reinvestment Plan are made on or as soon as practicable after the dividend payment date and at prevailing market prices. There is no discount available.

Regulatory matters

On 9 November 2016, Rio Tinto announced that, following an investigation supported by external counsel, it had notified the relevant authorities in the United States, United Kingdom and Australia and provided them with information concerning contractual payments totalling \$10.5 million made to a consultant providing advisory services on the Simandou project in Guinea. Rio Tinto is fully cooperating with each of the relevant authorities.

On 1 December 2016, Rio Tinto confirmed that it was cooperating with relevant authorities (including the U.S. Securities and Exchange Commission) in connection with an investigation into the impairment included in the Company's accounts in 2012 in respect of Rio Tinto Coal Mozambique.

The outcome on the Group of these regulatory investigations, and any associated litigation, is subject to a number of significant uncertainties at the present time. They could ultimately expose the Group to material financial cost. The Rio Tinto Board has established a dedicated Board Committee to keep these matters under review as they progress.

Rio Tinto financial information by business unit

	Rio Tinto interest %	Gross revenue (a)		EBITDA (b)		Net earnings (c)	
		for the year ended 31 December		for the year ended 31 December		for the year ended 31 December	
		2016 US\$m	2015 US\$m	2016 US\$m	2015 US\$m	2016 US\$m	2015 US\$m
Iron Ore							
Pilbara	(d)	14,530	13,886	8,558	7,730	4,662	4,013
Evaluation projects/other		75	66	(32)	(55)	(51)	(73)
Total Iron Ore		14,605	13,952	8,526	7,675	4,611	3,940
Aluminium							
	(e)						
Bauxite		1,913	2,057	848	937	493	542
Alumina		2,118	2,145	27	(47)	(121)	(187)
Intrasegment		(786)	(849)	-	-	-	-
Bauxite & Alumina		3,245	3,353	875	890	372	355
Primary Metal		4,913	4,931	1,258	1,245	402	446
Pacific Aluminium		1,971	2,254	264	408	62	147
Intersegment & Other		(1,822)	(1,876)	(50)	132	(13)	92
Integrated Operations		8,307	8,662	2,347	2,675	823	1,040
Other Product Group Items		1,075	1,374	(42)	(76)	(30)	(50)
Product group operations		9,382	10,036	2,305	2,599	793	990
Evaluation projects/other		76	81	167	143	154	128
Total Aluminium		9,458	10,117	2,472	2,742	947	1,118
Copper & Diamonds							
Rio Tinto Kennecott	100.0	1,243	1,403	126	437	(228)	44
Escondida	30.0	1,465	1,855	793	760	270	281
Grasberg joint venture	(f)	-	-	(17)	(17)	(64)	(34)
Oyu Tolgoi & Turquoise Hill	(g)	1,203	1,636	436	501	52	57
Diamonds	(h)	613	698	239	293	47	79
Product group operations		4,524	5,592	1,577	1,974	77	427
Evaluation projects/other		-	-	(190)	(141)	(95)	(57)
Total Copper & Diamonds		4,524	5,592	1,387	1,833	(18)	370
Energy & Minerals							
Rio Tinto Coal Australia	(i)	2,634	2,757	893	497	382	48
Iron Ore Company of Canada	58.7	1,324	1,353	335	197	64	12
Rio Tinto Iron & Titanium	(j)	1,419	1,571	370	435	86	116
Rio Tinto Minerals	100.0	620	624	213	178	117	103
Dampier Salt	68.4	259	306	74	71	25	24
Uranium	(k)	456	474	54	1	10	(42)
Product group operations		6,712	7,085	1,939	1,379	684	261
Simandou iron ore project	(l)	-	-	(102)	(87)	(47)	(41)
Evaluation projects/other	(m)	22	55	(34)	(57)	(27)	(45)
Total Energy & Minerals		6,734	7,140	1,803	1,235	610	175
Other Operations							
	(n)	-	13	(92)	(81)	(86)	(88)
Intersegment transactions		(3)	(29)	-	-	-	-
Product Group Total		35,318	36,785	14,096	13,404	6,064	5,515
Other items				(411)	(546)	(241)	(375)
Exploration and evaluation				(175)	(237)	(147)	(211)
Net interest						(576)	(389)
Underlying EBITDA/earnings				13,510	12,621	5,100	4,540
Items excluded from underlying EBITDA/earnings		18	(1)	(687)	(563)	(483)	(5,406)
EBITDA/net earnings				12,823	12,058	4,617	(866)
Reconciliation to Group income statement							
Share of equity accounted unit sales and intra-subsi- diary/equity accounted units sales		(1,555)	(1,955)				
Depreciation & amortisation in subsidiaries excluding capitalised depreciation				(4,691)	(4,553)		
Impairment charges				(249)	(2,791)		
Depreciation & amortisation in equity accounted units				(526)	(462)		
Taxation and finance items in equity accounted units				(241)	(276)		
Consolidated sales revenue / Profit on ordinary activities before finance items and taxation		33,781	34,829	7,116	3,976		

Rio Tinto financial information by business unit (continued)

	Rio Tinto interest %	Capital expenditure (o) for the year ended 31 December		Depreciation & amortisation for the year ended 31 December		Operating assets (p) as at 31 December	
		2016 US\$m	2015 US\$m	2016 US\$m	2015 US\$m	2016 US\$m	2015 US\$m
Iron Ore							
Pilbara	(d)	868	1,608	1,645	1,744	16,337	16,848
Evaluation projects/other		-	-	-	-	2	2
Total Iron Ore		868	1,608	1,645	1,744	16,339	16,850
Aluminium							
	(e)						
Bauxite		343	159	110	112	1,278	1,050
Alumina		87	158	206	207	2,588	2,698
Bauxite & Alumina		430	317	316	319	3,866	3,748
Primary Metal		394	1,249	716	629	10,701	10,326
Pacific Aluminium		91	126	193	212	1,044	1,198
Intersegment & Other		1	(10)	25	12	171	677
Total Aluminium		916	1,682	1,250	1,172	15,782	15,949
Copper & Diamonds							
Rio Tinto Kennecott	100.0	333	408	530	344	2,190	2,442
Escondida	30.0	517	770	364	293	3,565	3,485
Grasberg joint venture	(f)	174	179	89	43	1,151	1,016
Oyu Tolgoi & Turquoise Hill	(g)	322	92	450	416	3,804	3,597
Diamonds	(h)	97	124	164	159	655	857
Product group operations		1,443	1,573	1,597	1,255	11,365	11,397
Evaluation projects/other		(2)	3	4	6	166	155
Total Copper & Diamonds		1,441	1,576	1,601	1,261	11,531	11,552
Energy & Minerals							
Rio Tinto Coal Australia	(i)/(q)	(107)	108	297	336	1,807	2,137
Iron Ore Company of Canada	58.7	75	118	151	162	1,018	1,155
Rio Tinto Iron & Titanium	(j)	97	150	189	194	3,662	3,554
Rio Tinto Minerals	100.0	31	28	53	45	508	585
Dampier Salt	68.4	11	14	23	22	146	140
Uranium	(k)	30	39	25	65	(143)	(216)
Product group operations		137	457	738	824	6,998	7,355
Simandou iron ore project	(l)	-	91	-	1	13	(10)
Evaluation projects/other	(m)	4	4	1	5	272	276
Total Energy & Minerals		141	552	739	830	7,283	7,621
Other Operations	(n)	(11)	(36)	34	32	227	(14)
Product Group Total		3,355	5,382	5,269	5,039	51,162	51,958
Intersegment transactions						142	242
Net assets of disposal groups held for sale	(r)					(7)	182
Other items		(46)	65	51	68	(2,420)	(1,250)
Less: equity accounted units (EAU)		(651)	(859)	(526)	(462)		
Total		2,658	4,588	4,794	4,645	48,877	51,132
Add back: Proceeds from sale of property, plant and equipment and intangibles		354	97				
Total capital expenditure per cash flow statement		3,012	4,685				
Less: Net debt						(9,587)	(13,783)
Equity attributable to owners of Rio Tinto						39,290	37,349

Notes to financial information by business unit

Business units are classified according to the Group's management structure. The financial information by business unit has been recast in accordance with the organisational restructure announced on 21 June 2016. The main impacts are as follows: Iron Ore Company of Canada has moved from the Iron Ore Product Group to the Energy & Minerals Product Group; Coal businesses have moved from the previous Copper & Coal Product Group to the Energy & Minerals Product Group; and Diamonds businesses have moved from the previous Diamonds & Minerals Product Group to the Copper & Diamonds Product Group.

- a) Gross sales revenue includes the sales revenue of equity accounted units on a proportionately consolidated basis (after adjusting for sales to subsidiaries) in addition to consolidated sales. Consolidated sales revenue includes subsidiary sales to equity accounted units which are not included in gross sales revenue.
- b) EBITDA of subsidiaries and the Group's share of EBITDA relating to equity accounted units represents profit before: tax, net finance items, depreciation and amortisation charged to the income statement in the period. Underlying EBITDA excludes the same items that are excluded from underlying earnings.
- c) Represents profit after tax for the period attributable to the owners of the Rio Tinto Group. Business unit earnings are stated before finance items but after the amortisation of discount related to provisions. Earnings attributed to business units do not include amounts that are excluded in arriving at underlying earnings.
- d) Pilbara represents the Group's 100 per cent holding in Hamersley, 50 per cent holding of Hope Downs Joint Venture and 65 per cent holding of Robe River Iron Associates. The Group's net beneficial interest in Robe River Iron Associates is 53 per cent as 30 per cent is held through a 60 per cent owned subsidiary and 35 per cent is held through a 100 per cent owned subsidiary.
- e) Presented on an integrated operations basis splitting activities between Bauxite & Alumina, Primary Metal, Pacific Aluminium and Other integrated operations (which in total reflect the results of the integrated production of aluminium) and Other product group items which relate to other commercial activities.
- f) Through a joint venture agreement with Freeport-McMoRan Inc. (Freeport), Rio Tinto is entitled to 40 per cent of material mined above an agreed threshold as a consequence of expansions and developments of the Grasberg facilities since 1998.
- g) Rio Tinto's interest in Oyu Tolgoi is held indirectly through its 50.8 per cent investment in Turquoise Hill Resources Ltd (TRQ), where TRQ's principal asset is its 66 per cent investment in Oyu Tolgoi LLC, which owns the Oyu Tolgoi copper-gold mine.
- h) Includes Rio Tinto's interests in Argyle (100 per cent) and Diavik (60 per cent). Murowa (77.8 per cent) was included until its disposal to RZ Murowa Holdings Limited on 17 June 2015.
- i) As at 31 December 2016, includes Rio Tinto's 100 per cent shareholding in Coal & Allied Industries Limited and its wholly-owned subsidiaries. Rio Tinto as a 100 per cent owner of Coal & Allied holds a 67.6 per cent, 80 per cent and 55.6 per cent respectively, with management rights, in Hunter Valley Operations, Mount Thorley and Warkworth.

As at 31 December 2015, this represented Rio Tinto's 80 per cent interest in Coal & Allied, through which Rio Tinto held its beneficial interests in Bengalla, Mount Thorley and Warkworth of 32 per cent, 64 per cent and 44.5 per cent respectively.

Mitsubishi has moved from holding a 20 per cent stake in Coal & Allied (as at 31 December 2015) to holding a direct 32.4 per cent stake in the Hunter Valley Operations.

On 1 March 2016, Coal & Allied disposed of its 40 per cent interest in Bengalla Joint Venture and on 5 August 2016, Coal & Allied disposed of its 100 per cent interest in the Mount Pleasant project. Both were included up until their respective disposal dates.

On 24 January 2017, Rio Tinto announced it had reached a binding agreement for the sale of its 100 per cent shareholding in Coal & Allied Industries Limited to Yancoal Australia Limited.

The transaction is subject to certain conditions precedent being satisfied, including approvals from the Australian Government, Chinese regulatory agencies and the New South Wales Government.

Notes to financial information by business unit (continued)

As a result of the shareholding levels of various Chinese state-owned entities in each of Yankuang, Yanzhou and Chinalco (Aluminium Corporation of China), and Chinalco being a 10.1 per cent shareholder in the Rio Tinto Group, Yancoal Australia is considered to be a related party of Rio Tinto for the purposes of the UK Listing Rules and the ASX Listing Rules. Accordingly, approval is also required from a majority of independent Rio Tinto shareholders (that is, not including Chinalco and any other entities considered to be associates of Chinalco under the UK Listing Rules).

Subject to all approvals and other conditions precedent being satisfied, it is expected that the transaction will complete in the second half of 2017.

- j) Includes Rio Tinto's interests in Rio Tinto Fer et Titane (100 per cent), QIT Madagascar Minerals (QMM, 80 per cent) and Richards Bay Minerals (attributable interest of 74 per cent).
- k) Includes Rio Tinto's interests in Energy Resources of Australia (68.4 per cent) and Rössing Uranium Limited (68.6 per cent).
- l) Simfer Jersey Limited, a company incorporated in Jersey in which the Group has a 53 per cent interest, has an 80.75 per cent interest in Simfer S.A. the company that operates the Simandou mining project in Guinea. The Group therefore has a 42.8 per cent indirect interest in Simfer S.A. These entities are consolidated as subsidiaries and together referred to as the Simandou iron ore project.
- m) On 2 September 2016, Rio Tinto disposed of its interest in Zululand Anthracite Colliery (ZAC), which was previously reported within Coal Evaluation projects/other.
- n) Other Operations include Rio Tinto's 100 per cent interest in the Gove alumina refinery and Rio Tinto Marine.
- o) Capital expenditure comprises the net cash outflow on purchases less disposals of property, plant and equipment, capitalised evaluation costs and purchases less disposals of other intangible assets. The details provided include 100 per cent of subsidiaries' capital expenditure and Rio Tinto's share of the capital expenditure of joint operations and equity accounted units.
- p) Operating assets of subsidiaries comprise net assets excluding post-retirement assets and liabilities, net of tax, and are before deducting net debt. Operating assets are stated after deduction of non-controlling interests, which are calculated by reference to the net assets of the relevant companies (i.e. inclusive of such companies' debt and amounts due to or from Rio Tinto Group companies).
- q) Capital expenditure in 2016 for Rio Tinto Coal Australia includes net proceeds of US\$192 million for the disposal of 100 per cent interest in the Mount Pleasant thermal coal project to MACH Energy Australia Pty Ltd on 5 August 2016.
- r) Assets and liabilities held for sale at 31 December 2016 comprise Rio Tinto's interests in the Blair Athol coal project and certain assets related to cancelled projects at Rio Tinto Kennecott.

Assets and liabilities held for sale at 31 December 2015 comprised Rio Tinto's interests in the Blair Athol coal project, Carbone Savoie (disposed of on 31 March 2016), Bengalla (disposed of on 1 March 2016), and Molybdenum Autoclave Process assets.

Review of operations

Iron Ore

	2016	2015	Change
Pilbara production (million tonnes – Rio Tinto share)	270.7	252.7	+7%
Pilbara production (million tonnes – 100%)	329.5	309.9	+6%
Pilbara shipments (million tonnes – Rio Tinto share)	268.9	260.3	+3%
Pilbara shipments (million tonnes – 100%)	327.6	318.5	+3%
Gross sales revenue (US\$ millions)	14,605	13,952	+5%
Underlying EBITDA (US\$ millions)	8,526	7,675	+11%
Underlying earnings (US\$ millions)	4,611	3,940	+17%
Net cash generated from operating activities (US\$ millions)	5,644	5,844	-3%
Capital expenditure (US\$ millions)	(868)	(1,608)	-46%
Free cash flow (US\$ millions)	4,776	4,236	+13%

Iron Ore Company of Canada and Simandou are reported within Energy & Minerals, reflecting management responsibility.

Performance

The Iron Ore group's underlying earnings of \$4,611 million in 2016 were 17 per cent or \$671 million higher than 2015. The group benefited from higher prices, reflected in the six per cent rise, on average, in the Platts 62 per cent index, higher sales volumes, the realisation of further cost savings and lower non-cash costs.

Pre-tax cash cost improvements in the Iron Ore group were \$315 million in 2016 and have now delivered \$1.4 billion of cumulative savings compared with the 2012 base. This is reflected in a reduction in Pilbara unit cash costs to \$13.7 per tonne in 2016 (2015: \$14.9 per tonne). Higher volumes, reduced fuel prices, lower selling costs and increased productivity also contributed to the positive trend. Pilbara operations delivered a free on board (FOB) EBITDA margin of 63 per cent in 2016, compared with 60 per cent in 2015.

Gross sales revenues for Pilbara operations in 2016 of \$14,605 million included freight revenue of \$886 million (2015: \$918 million).

Net cash generated from operating activities of \$5,644 million benefited from strong shipments from the Pilbara, combined with lower operating costs through realised cost savings initiatives and improved productivity.

Free cash flow of \$4,776 million was \$540 million higher than 2015, attributable to the improvement in operating cash flow from higher prices and enhanced cost savings, coupled with the 46 per cent decline in capital expenditure following completion of the Pilbara infrastructure expansion in 2015.

Markets

Sales of 327.6 million tonnes (Rio Tinto share 268.9 million tonnes) in 2016 were three per cent higher than 2015, attributable to the newly expanded infrastructure and minimal disruption from weather events.

Approximately 64 per cent of sales in 2016 were priced with reference to the current month average, 20 per cent with reference to the prior quarter's average index lagged by one month, five per cent with reference to the current quarter average and 11 per cent were sold on the spot market. Approximately 62 per cent of 2016 sales were made on a cost and freight (CFR) basis, with the remainder sold free on board (FOB).

Achieved average pricing in 2016 was \$49.3 per wet metric tonne on an FOB basis (2015: \$48.4 per wet metric tonne). This equates to \$53.6 per dry metric tonne (2015: \$52.6 per dry metric tonne), which compares with the average FOB Platts price of \$53.6 per dry metric tonne for 62 per cent iron Pilbara fines (2015: \$50.4 per dry metric tonne).

Operations

Pilbara operations produced 329.5 million tonnes (Rio Tinto share 270.7 million tonnes) in 2016, six per cent higher than in 2015, attributable to the ramp-up of expanded mines, operational productivity improvements and minimal disruption from weather events.

New projects and growth options

On 2 August 2016, the Group approved \$338 million to complete the development of Silvergrass, to maintain the Pilbara blend and reduce unit costs. The initial phase of the Nammuldi Incremental Tonnes project, NIT1, (with a five million tonne per annum capacity) commenced production in the fourth quarter of 2015 and the second phase, NIT2, (taking annual mine capacity from five to ten million tonnes) was delivered in October 2016. With the \$338 million approval, the road haulage used in the NIT projects will be replaced by a conveyor, which is expected to take annual mine capacity from 10 to 20 million tonnes from the second half of 2017, with full production expected in 2018.

The AutoHaul® project will continue to progress during 2017 with extensive running of trains in automated mode, but with a driver remaining on board until all safety and reliability systems are thoroughly demonstrated.

2017 shipments guidance

Rio Tinto's Pilbara shipments in 2017 are expected to be between 330 and 340 million tonnes (100 per cent basis), subject to weather conditions.

Aluminium

	2016	2015	Change
<i>Production (Rio Tinto share)</i>			
Bauxite (000 tonnes)	47,703	43,677	+9%
Alumina (000 tonnes)	8,192	7,788	+5%
Aluminium (000 tonnes)	3,646	3,322	+10%
Gross sales revenue (US\$ millions)	9,458	10,117	-7%
Underlying EBITDA (US\$ millions)	2,472	2,742	-10%
Underlying earnings (US\$ millions)	947	1,118	-15%
Net cash generated from operating activities (US\$ millions)	2,074	2,413	-14%
Capital expenditure – excluding EAUs (US\$ millions)	(795)	(1,601)	-50%
Free cash flow (US\$ millions)	1,267	817	+55%

The Gove alumina refinery is curtailed and reported separately from Aluminium within Other Operations.

Performance

The Aluminium group had a strong operational performance, with higher production achieved in all three products compared with 2015. Annual production records were set at several sites, including Weipa and Gove for bauxite, Yarwun, Jonquière and São Luis for alumina, and ten smelters, including Kitimat, for aluminium.

The group's underlying earnings of \$947 million decreased 15 per cent compared with 2015, primarily driven by a decline in prices and in particular market premia, which, together, lowered earnings by \$507 million. However, through higher than targeted cash cost reductions, productivity improvements and volume increases the group was able to partly offset this impact and generated an EBITDA margin from integrated operations of 28 per cent (2015: 31 per cent).

Free cash flow generation increased by 55 per cent to \$1,267 million. This was due to resilient EBITDA performance despite the weak market environment, together with further working capital improvements and reduced capital expenditure, following the completion of the Kitimat smelter expansion in 2015.

Pre-tax cash cost improvements in the Aluminium group were \$481 million in 2016, exceeding the \$300 million target by more than 50 per cent. The group has now delivered \$1.6 billion of cumulative savings compared with the 2012 base.

Markets

The 2016 cash LME aluminium price averaged \$1,605 per tonne, a decrease of three per cent on 2015. Market premia in all regions fell from their record highs in early 2015. In the US, the Mid-West market premium averaged \$162 per tonne in 2016, compared with an average \$271 per tonne in 2015, a 40 per cent decrease.

Overall, the group achieved an average realised aluminium price of \$1,849 per tonne in 2016 (2015: \$2,058 per tonne). This includes premia for value-added products (VAP), which represented 54 per cent of primary metal produced in 2016 and generated attractive product premia averaging \$223 per tonne of VAP sold (2015: \$251 per tonne) on top of the physical market premia.

The strong production performance and healthy demand from China enabled the group to increase its share of third party bauxite shipments by ten per cent to 29.3 million tonnes (2015: 26.6 million tonnes). Bauxite prices decreased during the year in line with the weaker aluminium market environment.

Operations

Bauxite production of 47.7 million tonnes was nine per cent higher than 2015. Annual production records were achieved at both Weipa and Gove, with both operations benefiting from increased plant throughput through productivity initiatives. These higher volumes, together with a continued focus on cash cost reductions, absorbed 74 per cent of the bauxite price decline and led to a 50 per cent FOB EBITDA margin for the bauxite business in 2016, broadly unchanged from 2015. Bauxite underlying earnings declined nine per cent to \$493 million in 2016.

Gross sales revenues for bauxite in 2016 decreased seven per cent to \$1,913 million and included freight revenues of \$202 million (2015: \$205 million).

Alumina production increased five per cent compared with 2015, primarily due to operational improvements driving record production at the Yarwun refinery, with the Jonquière and São Luis refineries also achieving annual records. The transformation of the Alumina business gathered momentum during 2016, and resulted in the Alumina business significantly reducing its cash costs and delivering positive EBITDA and free cash flow despite the price decrease. Overall, the Alumina business recorded a loss of \$121 million, compared with a loss of \$187 million in 2015.

Aluminium production was ten per cent higher than 2015, due largely to Kitimat, which produced at nameplate capacity for a third consecutive quarter. Record annual production was achieved at ten smelters. The Primary Metal business (Canada, Europe, Middle East) managed to entirely offset the price decrease incurred during 2016 through enhanced volumes and reduced cash costs. Primary Metal earnings declined by ten per cent to \$402 million, while earnings from Pacific Aluminium (Australia, New Zealand) decreased by 58 per cent to \$62 million.

On 23 November 2016, Rio Tinto announced it had reached an agreement to sell its assets at Lochaber, Scotland to SIMEC for consideration totalling \$410 million (£330 million). The sale was finalised on 16 December 2016.

New projects and growth options

The expanded Kitimat smelter reached nameplate capacity of 420 thousand tonnes per annum in April 2016, driving its production costs down into the first decile of the industry cost curve.

The \$1.9 billion Amrun bauxite project on the Cape York Peninsula in north Queensland is progressing to schedule in both engineering and construction. All major contracts have been committed as planned. Site establishment continues with the construction accommodation village operational to 470 beds. The 40 kilometre main access road was completed in December 2016, with the river terminals expected to be operational in the first quarter of 2017. The planned initial annual output of 22.8 million tonnes a year¹ is expected to replace production from the depleting East Weipa mine and increase annual bauxite exports from Cape York by around 10 million tonnes. Production and shipping are expected to commence in the first half of 2019.

The \$0.7 billion² bauxite project to expand the production of the Compagnie des Bauxites de Guinée (CBG) to 18.5 million tonnes per annum² met all approval conditions for execution in November 2016. The first shipment from the expansion project is expected in June 2018. The expansion is currently in the early phases of execution.

2017 production guidance

Rio Tinto's expected share of production is 48 to 50 million tonnes of bauxite, 8.0 to 8.2 million tonnes of alumina and 3.5 to 3.7 million tonnes of aluminium.

¹ Refer to the statements related to this production target on page 2.

² 100 per cent basis. Rio Tinto's share of capex is 45 per cent.

Copper & Diamonds

	2016	2015	Change
<i>Production (Rio Tinto share)</i>			
Mined copper (000 tonnes)	523.3	504.4	+4%
Refined copper (000 tonnes)	250.1	213.0	+17%
Diamonds (000 carats)	17,953	17,316	+4%
Gross sales revenue (US\$ millions)	4,524	5,592	-19%
Underlying EBITDA (US\$ millions)	1,387	1,833	-24%
Underlying (loss) / earnings (US\$ millions)	(18)	370	-105%
Net cash generated from operating activities (US\$ millions) ¹	987	1,575	-37%
Capital expenditure – excluding EAUs (US\$ millions)	(924)	(806)	+15%
Free cash flow (US\$ millions)	78	791	-90%

To allow production numbers to be compared on a like-for-like basis, production from asset divestments completed in 2015 have been excluded from the Rio Tinto share of production data but assets sold in 2016 remain in the comparative.

¹ *Net cash generated from operating activities excludes the operating cash flows from equity accounted units (mainly Escondida) but includes dividends from equity accounted units.*

Performance

The Copper & Diamonds group recorded an underlying loss of \$18 million and delivered free cash flow of \$78 million, with all managed operations making a positive free cash flow contribution. This was net of investment in development capital and exploration and evaluation spend of more than \$900 million across the business and proceeds from asset sales of around \$100 million, including the sale of undeveloped land in the community of Daybreak near the Kennecott mine which completed in July 2016.

The decline in earnings compared with 2015 was principally driven by lower prices and includes \$114 million of one-off non-cash asset write-downs which concludes the asset portfolio review at Rio Tinto Kennecott. Operationally, there were lower sales volumes of copper, gold and molybdenum, which were partially offset by further cost savings at Kennecott, Oyu Tolgoi and improved operational performance in Diamonds.

The group achieved \$278 million of pre-tax cash cost improvements during 2016, bringing total savings delivered across the Copper & Diamonds group since 2012 to \$1.3 billion.

Markets

Average LME copper prices declined 11 per cent to 221 cents per pound and gold increased eight per cent to \$1,250 per ounce.

Overall demand for rough diamonds recovered in 2016 from a cyclical downturn in the previous year, varying significantly across product segments.

The total impact of price changes on the Copper & Diamonds group, including the effects of provisional pricing movements, resulted in a decrease in underlying earnings of \$79 million compared with 2015.

At 31 December 2016, the Group had an estimated 235 million pounds of copper sales that were provisionally priced at 250 cents per pound. The final price of these sales will be determined during the first half of 2017. This compares with 252 million pounds of open shipments at 31 December 2015, provisionally priced at 217 cents per pound.

Operations - Copper

Mined copper production was four per cent higher than in 2015, primarily attributable to an increase at Kennecott, as mining progressed through an area of higher grades. This was partly offset by lower volume at Escondida, due to lower grades and slightly reduced mill throughput. Mined copper production at Oyu Tolgoi was in line with 2015, as the impact of lower grades was offset by higher throughput, a new record for the mill. Copper production at Grasberg was below the agreed threshold and accordingly, Rio Tinto's share of joint venture production for 2016 was revised in the fourth quarter to zero.

Kennecott continues to toll third party concentrate to optimise smelter utilisation, with 315 thousand tonnes received for processing in 2016. Tolloed copper concentrate, which is smelted and returned to customers, is excluded from reported production figures.

Operations – Diamonds

Diamonds production was four per cent higher than in 2015 at both mines. Argyle benefited from the ramp-up of the underground mine, with higher ore throughput partially offset by a lower recovered grade. Higher carats were produced at Diavik due to higher ore throughput which offset lower grades.

Copper & Diamonds portfolio

The simplification of the Copper & Diamonds portfolio and disposal of non-core assets progressed in 2016.

On 30 June 2016, Rio Tinto announced that it had transferred its 53.8 per cent shareholding in Bougainville Copper Limited to independent trustee Equity Trustees Limited, which was subsequently distributed between the Autonomous Bougainville Government for the benefit of all the Panguna landowners and the people of Bougainville, and the Independent State of Papua New Guinea.

During the second half of 2016, subsidiary Turquoise Hill Resources progressively disposed of its remaining interest in SouthGobi Resources Ltd.

In August 2016, following a strategic review, Rio Tinto announced it would not proceed with the development of the Bunder diamond project in India. On 7 February 2017, Rio Tinto announced it had decided to gift Bunder to the Government of Madhya Pradesh. Under a Government of Madhya Pradesh order signed in January 2017, the Government will accept ownership and take on responsibility for the Bunder assets.

New projects and growth options

On 6 May 2016, Rio Tinto, the Government of Mongolia and Turquoise Hill Resources announced the approval of the \$5.3 billion development of the Oyu Tolgoi underground mine. Following this approval, over \$4 billion of project financing was drawn down, one of the largest project financing facilities in the industry. Contractor mobilisation ramped up during the second half of 2016, with over 2,000 personnel mobilised, 87 per cent of whom are Mongolian nationals. Works on underground mine development, the accommodation camp, conveyor to surface decline, sinking of shaft #2 and shaft #5 and critical facilities continued to progress. The focus is on completing the underground crusher and de-watering system to enable increased lateral development rates.

At Escondida, the new concentrator (OGP1, a 152 thousand tonne per day concentrator) was commissioned and ramped up to nameplate capacity during the second half of 2016. On 30 June 2016, the Escondida Owners Council approved the Los Colorados Extension project for \$180 million (100 per cent basis). First production is expected late in the first half of 2017, adding incremental annual capacity of approximately 200 thousand tonnes of copper in the near term.

2017 production guidance

Rio Tinto's expected share of production is 525 to 665 thousand tonnes of mined copper, 185 to 225 thousand tonnes of refined copper and 19 to 24 million carats of diamonds.

The 2017 production guidance includes an expected share from the Grasberg joint venture, which is operated by PT-Freeport Indonesia (PT-FI), a subsidiary of Freeport-McMoRan Inc. On 12 January 2017, the Government of Indonesia issued new mining regulations to address exports of unrefined metals, including copper concentrates, and other matters related to the mining sector. These regulations impact PT-FI's operating rights, including its right to continue to export concentrate without restriction, and may have a significant impact on Rio Tinto's share of production in 2017. Rio Tinto's participation beyond 2021 may also be affected due to the application of force majeure provisions in the joint venture agreement between Rio Tinto and PT-FI.

PT-FI continues to engage with Indonesian government officials and has advised that if it is prohibited from exporting copper concentrate it would be required to reduce production to match domestic smelting capacity, resulting in near-term actions to reduce its workforce, significantly reduce costs and suspend future investments on its underground development projects and new smelter. PT-FI has indicated that it will consider legal action to enforce its contractual rights should it fail to reach a mutually satisfactory agreement with the Indonesian government.

Energy & Minerals

	2016	2015	Change
<i>Production (Rio Tinto share)</i>			
Hard coking coal (000 tonnes)	8,141	7,859	+4%
Semi-soft coking coal (000 tonnes)	4,102	3,647	+12%
Thermal coal (000 tonnes)	17,254	18,638	-7%
Iron ore pellets and concentrates (000 tonnes)	10,661	10,388	+3%
Titanium dioxide (000 tonnes)	1,048	1,089	-4%
Borates (000 tonnes)	503	476	+6%
Salt (000 tonnes)	5,180	5,539	-6%
Uranium (000 lbs)	6,342	4,907	+29%
Gross sales revenue (US\$ millions)	6,734	7,140	-6%
Underlying EBITDA (US\$ millions)	1,803	1,235	+46%
Underlying earnings (US\$ millions)	610	175	+249%
Net cash generated from operating activities (US\$ millions)	1,431	1,482	-3%
Capital expenditure (US\$ millions)	(141)	(552)	-74%
Free cash flow (US\$ millions)	1,294	925	+40%

Iron Ore Company of Canada and Simandou are reported within Energy & Minerals, reflecting management responsibility.

Performance

Underlying earnings for the Energy & Minerals group were \$610 million, two and a half times higher than 2015, as it benefited from higher volumes, continued momentum in the cost improvement programme and weaker exchange rates. The group experienced a mixed pricing environment for its products in 2016, with average price rises in iron ore and, in particular, coal offsetting weaker pricing for titanium dioxide feedstocks, zircon, borates and uranium.

Pre-tax cash cost improvements in the Energy & Minerals group were \$342 million in 2016: the product group has now delivered \$1.4 billion of cumulative savings compared with the 2012 base.

Gross sales revenues for the product group in 2016 of \$6,734 million included freight revenue of \$320 million (2015: \$481 million).

Net cash generated from operating activities of \$1,431 million was three per cent lower than 2015 as the benefit of the cost improvements was offset by the absence of the one-off reduction in working capital achieved in 2015. The decline in capital expenditure reflected continued capital discipline across the product group and the net proceeds from the sale of the Mount Pleasant thermal coal assets of \$192 million.

Free cash flow was \$1,294 million, 40 per cent higher than 2015, reflecting the Mount Pleasant proceeds and the reduction in ongoing capital expenditure.

Markets

Coal prices rebounded in the second half of 2016, with benchmark coking coal prices averaging \$114 per tonne and spot thermal coal prices averaging \$66 per tonne.

Gross sales revenues for Rio Tinto Coal Australia in 2016 of \$2,634 million (2015: \$2,757 million) included freight revenue of \$43 million (2015: \$62 million). The group achieved coking coal prices of \$152 per tonne, on average, in the second half of 2016 on an FOB basis compared with \$79 per tonne in the first half of 2016. Average prices realised for thermal coal were \$69 per tonne on an FOB basis in the second half of 2016 compared with \$51 per tonne in the first half of 2016.

Thermal coal revenues of \$1,101 million in 2016 (2015: \$1,456 million) represented 3.1 per cent of the Rio Tinto Group total (2015: 4.0 per cent).

Titanium dioxide feedstock demand remained subdued throughout 2016 as the industry continued to absorb excess inventories, although there are signs of underlying demand improvement for both sulphate

and chloride feedstock. The market for zircon has recently stabilised following an initial period of weak demand in China.

Demand for borates has remained stable globally, with robust demand in the Americas and India partly offset by weaker growth in China and weather-related demand constraints in south-east Asia.

Uranium prices fell through the latter half of 2016, due to lacklustre demand growth and oversupply. The demand outlook was muted as Japan made slow progress restarting its off-line reactors, additional reactor closures were announced in the US and no new Chinese reactors were approved in 2016. Strong uranium production and surplus secondary material have exacerbated the price weakness and it will likely take some time for the market to rebalance and prices to recover

Operations - Energy

Hard coking coal production was four per cent higher in 2016, primarily due to longwall and plant outperformance at Kestrel.

Semi-soft coking coal production was 12 per cent higher than 2015 due to mine production sequencing at Hunter Valley Operations and Mt Thorley Warkworth.

Thermal coal production was seven per cent lower than 2015, with increased tonnage from Hail Creek, Kestrel and Mt Thorley Warkworth partially offsetting lower attributable volumes following the restructure of Coal & Allied and the divestment of Bengalla in early 2016.

On 1 March 2016, Rio Tinto completed the sale of its interest in the Bengalla Joint Venture to New Hope Corporation Limited for \$599 million (net of working capital adjustments, transaction costs and cash disposed of in the Joint Venture).

On 5 August 2016, Rio Tinto completed the sale of its Mount Pleasant thermal coal assets to MACH Energy Australia Pty Ltd for \$221 million plus royalties, of which \$192 million (net of transaction costs) was received during the year.

On 2 September 2016, Rio Tinto completed the sale of its 74 per cent interest in Zululand Anthracite Colliery to Menar Holding.

On 24 January 2017, Rio Tinto announced that it had reached a binding agreement for the sale of its wholly-owned subsidiary Coal & Allied Industries Limited to Yancoal Australia Limited for up to \$2.45 billion. As set out in note (i) on page 14, the transaction is subject to certain conditions precedent being satisfied, including approvals from the Australian Government, Chinese regulatory agencies and the New South Wales Government. Subject to all approvals and other conditions precedent being satisfied, it is expected that the transaction will complete in the second half of 2017.

Operations – Iron Ore Company of Canada (IOC)

IOC pellet production of 9.8 million tonnes (Rio Tinto share 5.8 million tonnes) was five per cent higher than 2015, while saleable concentrate production of 8.4 million tonnes (Rio Tinto share 4.9 million tonnes) was in line with 2015 production. The three per cent improvement in total saleable production also resulted in a two per cent rise in sales to 18.3 million tonnes (Rio Tinto share 10.8 million tonnes).

Operations - Minerals

Titanium dioxide slag production was four per cent lower as Rio Tinto Iron & Titanium continues to optimise production to align to demand and draw down remaining inventories. Two of nine furnaces at Rio Tinto Fer et Titane and one of four furnaces at Richards Bay Minerals (RBM) are currently idled, reflecting lower demand for high grade feedstocks.

The respective movements in the production of borates and salt were driven by market demand.

New projects and growth options

Work continues on the feasibility study for the Zulti South development at RBM, which is one of the best undeveloped assets in the mineral sands industry.

The Jadar project in Serbia is a potentially world-class lithium-borate deposit discovered by Rio Tinto in 2004. Findings so far are encouraging and pre-feasibility assessments are ongoing to confirm the economic business case.

On 28 October 2016, Rio Tinto and Chinalco signed a non-binding agreement to sell Rio Tinto's entire stake in the Simandou project in Guinea to Chinalco.

2017 production guidance

In 2017, Rio Tinto's share of production is expected to be 17 to 18 million tonnes of thermal coal, 3.3 to 3.9 million tonnes of semi-soft coking coal, 7.8 to 8.4 million tonnes of hard coking coal, 11.4 to 12.4 million tonnes of saleable production of iron ore pellets and concentrates, 1.1 to 1.2 million tonnes of titanium dioxide slag, 0.5 million tonnes of boric oxide equivalent and 6.5 to 7.5 million pounds of uranium. Guidance for coal will be updated following completion of the sale of Coal & Allied to Yancoal which is expected to take place in the second half of 2017.

Other Operations

	2016	2015
Gross sales revenue (US\$ millions)	-	13
Underlying EBITDA (US\$ millions)	(92)	(81)
Underlying loss (US\$ millions)	(86)	(88)
Capital expenditure (US\$ millions)	11	36

Other operations relates to legacy sites including the Gove alumina refinery, where production was curtailed on 28 May 2014. In 2016, the closure provision relating to the Gove refinery increased by \$282 million: these costs were excluded from underlying earnings.

Other items

	2016	2015
Underlying EBITDA (US\$ millions)	(411)	(546)
Underlying loss (US\$ millions)	(241)	(375)
Capital expenditure (US\$ millions)	46	(65)

Central office costs, central Growth & Innovation costs and other central items are reported in Other items. The decline in the underlying loss in 2016 compared with 2015 was largely due to lower Growth & Innovation costs following the reorganisation in 2016. In 2016, the Group divested some corporate office buildings which, net of corporate capital expenditure, gave rise to a cash inflow of \$46 million.

Exploration & evaluation

	2016	2015
Post-tax charge (US\$ millions)	(147)	(211)

Central exploration & evaluation expenditure in 2016 (post divestments and tax) resulted in a charge to underlying earnings of \$147 million. The decline in the 2016 charge compared with 2015 was largely due to lower costs at the La Granja project in Peru.

Price & exchange rate sensitivities

The following sensitivities give the estimated effect on underlying earnings assuming that each individual price or exchange rate moved in isolation. The relationship between currencies and commodity prices is a complex one and movements in exchange rates can affect movements in commodity prices and vice versa. The exchange rate sensitivities quoted below include the effect on operating costs of movements in exchange rates but exclude the effect of the revaluation of foreign currency working capital. They should therefore be used with care.

	Average published price/exchange rate for 2016	\$ million impact on full year 2016 underlying earnings of a 10% change in prices/exchange rates
Aluminium	\$1,605/t	469
Copper	221c/lb	238
Gold	\$1,250/oz	36
Iron ore (62% Fe FOB)	\$53.6/dmt	879
Hard coking coal (benchmark)	\$114/t	49
Thermal coal (average spot)	\$66/t	81
Australian dollar against the US dollar	0.74	604
Canadian dollar against the US dollar	0.76	229
Oil	\$44/bbl	53

Capital projects

Rio Tinto has a programme of high-quality projects delivering industry-leading returns across a broad range of commodities.

Project (Rio Tinto 100% owned unless otherwise stated)	Total approved capital cost (100%)	Approved capital remaining to be spent from 1 January 2017	Status/Milestones
In production			
Investment in Nammuldi Incremental Tonnes (NIT) projects in the Pilbara, to maintain the Pilbara blend.	\$0.2bn	-	NIT1, with a five million tonne annual capacity, commenced production in the fourth quarter of 2015. NIT2, which took annual mine capacity from five to ten million tonnes, was delivered in October 2016, six weeks ahead of schedule.
Ongoing and approved			
Copper & Diamonds			
Construction of a desalination facility to ensure continued water supply and sustain operations at Escondida (Rio Tinto 30%), Chile.	\$1.0bn (RT share)	\$0.1bn (RT share)	Approved in July 2013, the project is designed to provide a long-term sustainable supply of water for the operations. It remains on schedule and on budget and is 99 per cent complete, with commissioning scheduled in 2017.
Grasberg project funding to 2017.	\$0.2bn (RT share)	\$0.1bn (RT share)	Investment to continue the pre-production construction of the Grasberg Block Cave, the Deep Mill Level Zone underground mines, and the associated common infrastructure. Rio Tinto's final share of capital expenditure will be influenced in part by its share of production over the period of investment.
Remediation of the east wall at Rio Tinto Kennecott, US.	\$0.3bn	-	Following the pit wall slide in 2013, mine operations have focused on remediation from the slide and the east wall of Bingham Canyon, including significant de-weighting and de-watering activities. There is a small amount of dewatering activity scheduled to be completed in 2017.
Investment to extend mine life at Rio Tinto Kennecott, US beyond 2019.	\$0.7bn	\$0.6bn	Funding for the continuation of open pit mining via the push back of the south wall has been approved and will largely consist of simple mine stripping activities.
Development of A21 pipe at the Diavik Diamond Mine in Canada (Rio Tinto 60%).	\$0.2bn (RT share)	\$0.1bn (RT share)	Approved in November 2014, the development of the A21 pipe is expected to ensure the continuation of existing production levels. First carats are planned for mid-2018.

Project (Rio Tinto 100% owned unless otherwise stated)	Total approved capital cost (100%)	Approved capital remaining to be spent from 1 January 2017	Status/Milestones
Development of the Oyu Tolgoi underground mine in Mongolia (Rio Tinto 34%), where average copper grades of 1.66 per cent are more than three times higher than the open pit.	\$5.3bn	\$5.1bn	Approved in May 2016, first production from the underground is expected in 2020. Contractor mobilisation commenced in the third quarter of 2016. Work on the underground mine development, accommodation camp, conveyor to surface decline, sinking of shaft #2 and shaft #5 and critical facilities are continuing to progress. The focus is on completing the underground crusher and de-watering system to enable increased lateral development rates.
Aluminium			
Investment in the Amrun bauxite mine on the Cape York Peninsula in north Queensland with a planned initial output of 22.8 million tonnes a year. ¹	\$1.9bn	\$1.7bn	Approved in December 2015, output includes an expected 10 million tonne increase in annual exports with production commencing in the first half of 2019.
Investment in the Compagnie des Bauxites de Guinée (CBG) bauxite mine to expand from 14.5 to 18.5 million tonnes a year. Rio Tinto's share of capex is \$0.3bn.	\$0.7bn (100%)	\$0.6bn (100%)	Approved in 2016. Financing completed in November 2016. First incremental shipment expected in June 2018.
Iron ore			
Development of the Silvergrass iron ore mine in the Pilbara, to maintain the Pilbara blend.	\$0.3bn	\$0.3bn	The \$338m approval in August 2016 expected to add 10 million tonnes of annual capacity with commissioning anticipated for the second half of 2017.

¹ Refer to the statements related to this production target on page 2.

Forward-looking statements

This announcement includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts included in this announcement, including, without limitation, those regarding Rio Tinto's financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to Rio Tinto's products, production forecasts and reserve and resource positions), are forward-looking statements. The words "intend", "aim", "project", "anticipate", "estimate", "plan", "believes", "expects", "may", "should", "will", "target", "set to" or similar expressions, commonly identify such forward-looking statements.

Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Rio Tinto, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding Rio Tinto's present and future business strategies and the environment in which Rio Tinto will operate in the future. Among the important factors that could cause Rio Tinto's actual results, performance or achievements to differ materially from those in the forward-looking statements are levels of actual production during any period, levels of demand and market prices, the ability to produce and transport products profitably, the impact of foreign currency exchange rates on market prices and operating costs, operational problems, political uncertainty and economic conditions in relevant areas of the world, the actions of competitors, activities by governmental authorities such as changes in taxation or regulation and such other risk factors identified in Rio Tinto's most recent Annual Report and Accounts in Australia and the United Kingdom and the most recent Annual Report on Form 20-F filed with the United States Securities and Exchange Commission (the "SEC") or Form 6-Ks furnished to, or filed with, the SEC. Forward-looking statements should, therefore, be construed in light of such risk factors and undue reliance should not be placed on forward-looking statements. These forward-looking statements speak only as of the date of this announcement. Rio Tinto expressly disclaims any obligation or undertaking (except as required by applicable law, the UK Listing Rules, the Disclosure and Transparency Rules of the Financial Conduct Authority and the Listing Rules of the Australian Securities Exchange) to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in Rio Tinto's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Nothing in this announcement should be interpreted to mean that future earnings per share of Rio Tinto plc or Rio Tinto Limited will necessarily match or exceed its historical published earnings per share.

Contacts

media.enquiries@riotinto.com

www.riotinto.com



Follow @riotinto on Twitter

Media Relations, EMEA/Americas

Illtud Harri

T +44 20 7781 1152

M +44 7920 503 600

David Outhwaite

T +44 20 7781 1623

M +44 7787 597 493

David Luff

T + 44 20 7781 1177

M + 44 7780 226 422

Investor Relations, EMEA/Americas

John Smelt

T +44 20 7781 1654

M +44 7879 642 675

David Ovington

T +44 20 7781 2051

M +44 7920 010 978

Nick Parkinson

T +44 20 7781 1552

M +44 7810 657 556

Media Relations, Australia/Asia

Ben Mitchell

T +61 3 9283 3620

M +61 419 850 212

Bruce Tobin

T +61 3 9283 3612

M +61 419 103 454

Matt Klar

T + 61 7 3625 4244

M + 61 457 525 578

Investor Relations, Australia/Asia

Natalie Worley

T +61 3 9283 3063

M +61 409 210 462

Rachel Storrs

T +61 3 9283 3628

M +61 417 401 018

Rio Tinto plc

6 St James's Square
London SW1Y 4AD
United Kingdom

T +44 20 7781 2000

Registered in England

No. 719885

Rio Tinto Limited

120 Collins Street
Melbourne 3000
Australia

T +61 3 9283 3333

Registered in Australia

ABN 96 004 458 404

Group income statement

Years ended 31 December

	2016 US\$m	2015 US\$m
Consolidated operations		
Consolidated sales revenue	33,781	34,829
Net operating costs (excluding items shown separately)	(26,799)	(27,919)
Impairment charges (a)	(249)	(2,791)
Net gains on disposal of interests in businesses (b)	515	64
Exploration and evaluation costs	(497)	(576)
Profit relating to interests in undeveloped projects	44	8
Operating profit	6,795	3,615
Share of profit after tax of equity accounted units	321	361
Profit before finance items and taxation	7,116	3,976
Finance items		
Net exchange gains/(losses) on external debt and intragroup balances	611	(3,538)
Net losses on derivatives not qualifying for hedge accounting	(24)	(88)
Finance income	89	52
Finance costs (c)	(1,111)	(750)
Amortisation of discount	(338)	(378)
	(773)	(4,702)
Profit/(loss) before taxation	6,343	(726)
Taxation	(1,567)	(993)
Profit/(loss) after tax for the year	4,776	(1,719)
- attributable to owners of Rio Tinto	4,617	(866)
- attributable to non-controlling interests	159	(853)
Basic earnings/(loss) per share (d)	256.9c	(47.5)c
Diluted earnings/(loss) per share (d)	255.3c	(47.5)c

Status of financial information

This preliminary announcement does not constitute the Group's full financial statements for 2016. This report is based on accounts which are in the process of being audited and will be approved by the Board and subsequently filed with the Registrar of Companies in the United Kingdom and the Australian Securities and Investments Commission. Accordingly, the financial information for 2016 is unaudited and is not statutory accounts within the meaning of Section 434 of the United Kingdom Companies Act 2006.

Financial information for the year to 31 December 2015 has been extracted from the full financial statements for that year prepared under the historical cost convention, as modified by the revaluation of certain derivative contracts and financial assets, the impact of fair value hedge accounting on the hedged items and the accounting for post-retirement assets and obligations, as filed with the Registrar of Companies.

The Auditors' report on the full financial statements for the year to 31 December 2015 was unqualified and did not contain a statement under section 498 (2) (regarding adequacy of accounting records and returns), or under section 498 (3) (regarding provision of necessary information and explanations) of the United Kingdom Companies Act 2006.

Notes to the Group income statement

- (a) Impairment charges during the year ended 31 December 2016 primarily relate to the Argyle diamond mine in Western Australia. An impairment trigger assessment at the Argyle cash-generating unit resulted in the identification of impairment indicators as a result of lower production volumes compared with forecast and lower prices achieved for bulk diamonds. The reduction in the recoverable amount resulted in a pre-tax impairment charge of US\$241 million to property, plant and equipment and intangible assets.

Impairment charges during the year ended 31 December 2015 primarily related to the Simandou project in Guinea. Market conditions and uncertainty over infrastructure ownership and funding affected the Group's view of the carrying value of the project and a pre-tax impairment charge of US\$2.0 billion was recorded.

Other impairment charges in 2015 were in certain uranium, aluminium, copper and coal businesses.

- (b) Net gains on disposal of interests in businesses in 2016 related mainly to the sale of Rio Tinto's 40 per cent interest in the Bengalla Joint venture on 1 March 2016 and the sale of the Lochaber assets in Scotland on 23 November 2016. This was partially offset by a loss on disposal of the 100 per cent interest in Carbone Savoie on 31 March 2016.

In 2015, the balance related mainly to the reduction in shareholding of SouthGobi Resources Ltd, the sale of the Group's interest in Murowa Diamonds and Sengwa Colliery on 17 June 2015 and the Aluminium product group divestments of ECL on 9 July 2015 and Alesa on 24 November 2015. Refer to 'Acquisitions and disposals' on page 42.

- (c) Finance costs in the income statement are net of amounts capitalised of US\$111 million (2015: US\$254 million).

- (d) For the purposes of calculating basic earnings per share, the weighted average number of Rio Tinto plc and Rio Tinto Limited shares outstanding during the year was 1,797.3 million (2015: 1,824.7 million), being the weighted average number of Rio Tinto plc shares outstanding of 1,373.7 million (2015: 1,398.1 million) and the weighted average number of Rio Tinto Limited shares of 423.6 million (2015: 426.6 million). In 2016, no Rio Tinto Limited shares were held by Rio Tinto plc (2015: nil). The profit and loss figures used in the calculation of basic and diluted earnings per share are based on the profits and losses for the year attributable to owners of Rio Tinto.

For the purposes of calculating diluted earnings per share, the effect of dilutive securities is added to the weighted average number of shares. This effect is calculated using the treasury stock method. In accordance with IAS 33 'Earnings per share', the anti-dilutive effects of potential ordinary shares have not been included when calculating diluted loss per share for the year ended 31 December 2015.

Group statement of comprehensive income

Years ended 31 December

	2016 US\$m	2015 US\$m
Profit/(loss) after tax for the year	4,776	(1,719)
Other comprehensive income/(loss):		
Items that will not be reclassified to profit or loss:		
Actuarial (losses)/gains on post-retirement benefit plans	(90)	619
Tax relating to these components of other comprehensive income	29	(175)
	(61)	444
Items that have been/may be subsequently reclassified to profit or loss:		
Currency translation adjustment (a)	(157)	(2,395)
Currency translation on companies disposed of, transferred to the income statement	99	(2)
Fair value movements:		
- Cash flow hedge losses	(88)	(41)
- Cash flow hedge losses transferred to the income statement	116	32
- Gains/(losses) on revaluation of available for sale securities	13	(19)
- Losses on revaluation of available for sale securities transferred to the income statement	-	11
Tax relating to these components of other comprehensive income	4	(3)
Share of other comprehensive income/(loss) of equity accounted units, net of tax	11	(57)
Other comprehensive loss for the year, net of tax	(63)	(2,030)
Total comprehensive income/(loss) for the year	4,713	(3,749)
- attributable to owners of Rio Tinto	4,504	(2,443)
- attributable to non-controlling interests	209	(1,306)

- (a) Excludes a currency translation charge of US\$35 million (31 December 2015: US\$503 million) arising on Rio Tinto Limited's share capital for the year ended 31 December 2016, which is recognised in the Group statement of changes in equity. Refer to Group statement of changes in equity on page 38.

Group cash flow statement

Years ended 31 December

	2016 US\$m	2015 US\$m
Cash flows from consolidated operations (a)	11,368	12,102
Dividends from equity accounted units	253	210
Cash flows from operations	11,621	12,312
Net interest paid (b)	(1,294)	(827)
Dividends paid to holders of non-controlling interests in subsidiaries	(341)	(310)
Tax paid	(1,521)	(1,792)
Net cash generated from operating activities	8,465	9,383
Cash flows from investing activities		
Purchases of property, plant and equipment and intangible assets (c)	(3,012)	(4,685)
Disposals of subsidiaries, joint ventures and associates (d)	761	(38)
Purchases of financial assets (e)	(789)	(49)
Sales of financial assets (e)	582	65
Sales of property, plant and equipment and intangible assets (f)	354	97
Net funding of equity accounted units	(12)	11
Acquisitions of subsidiaries, joint ventures and associates	-	(3)
Other investing cash flows	12	2
Net cash used in investing activities	(2,104)	(4,600)
Cash flows before financing activities	6,361	4,783
Cash flows from financing activities		
Equity dividends paid to owners of Rio Tinto	(2,725)	(4,076)
Proceeds from additional borrowings	4,413	1,837
Repayment of borrowings	(9,361)	(3,518)
Proceeds from issue of equity to non-controlling interests	101	103
Own shares purchased from owners of Rio Tinto	-	(2,028)
Purchase of non-controlling interests	(23)	-
Other financing cash flows (b)	104	12
Net cash flow used in financing activities	(7,491)	(7,670)
Effects of exchange rates on cash and cash equivalents	(35)	(159)
Net decrease in cash and cash equivalents	(1,165)	(3,046)
Opening cash and cash equivalents less overdrafts	9,354	12,400
Closing cash and cash equivalents less overdrafts (g)	8,189	9,354
(a) Cash flows from consolidated operations		
Profit/(loss) after tax for the year	4,776	(1,719)
Adjustments for:		
Taxation	1,567	993
Finance items	773	4,702
Share of profit after tax of equity accounted units	(321)	(361)
Net gains on disposal and consolidation of interests in businesses	(515)	(64)
Impairment charges net of reversals	249	2,791
Depreciation and amortisation	4,794	4,645
Provisions (including exchange differences on provisions)	1,417	726
Utilisation of provisions	(627)	(585)
Utilisation of provision for post-retirement benefits	(370)	(230)
Change in inventories	292	526
Change in trade and other receivables	(794)	1,404
Change in trade and other payables	229	(431)
Other items (h)	(102)	(295)
	11,368	12,102

Group cash flow statement (continued)

- (b) During the year Rio Tinto completed three bond purchase programmes totalling \$7.5 billion (nominal values). These transactions resulted in net interest paid of US\$493 million, which represents the payment of the premiums and the accelerated interest associated with these bond redemptions. In addition, US\$88 million was received relating to the close out of interest rate swaps and was recognised in other financing cash flows.

There was no early redemption of bonds in the year ended 31 December 2015.

- (c) Capital expenditure includes US\$232 million (31 December 2015: US\$346 million) capitalised in accordance with IFRIC 20 'Stripping costs in the production phase of a surface mine'; a significant proportion of stripping costs capitalised relate to the Group's Copper operations.
- (d) Disposals of subsidiaries, joint ventures and associates in 2016 related primarily to Rio Tinto's disposal of its 40 per cent interest in the Bengalla Joint Venture for US\$599 million (net of working capital adjustments, transaction costs and cash disposed of in the Joint Venture) and US\$224 million related to the disposal of its Lochaber assets for total consideration of US\$410 million (before finalisation of closing adjustments and transaction costs). The remaining balance of \$186 million related to the Lochaber disposal is due in the first half of 2017.

Disposals in 2015 related to the sale by Turquoise Hill Resources Ltd of shares in SouthGobi Resources Ltd, disposal by Rio Tinto of ECL, Alesa and its 77.8 per cent interest in Murowa Diamonds and 50 per cent interest in Sengwa Colliery Ltd.

Disposals in the cash flow statement are presented net of cash on disposal and after adjusting for working capital and other items as specified under the relevant sales agreements.

- (e) In July 2016, the Group engaged a third party fund manager to invest in a separately managed portfolio of fixed income instruments with the objective of diversifying investment holdings whilst maintaining near-term liquidity. These investments are classified as assets held for trading in the balance sheet and as such, purchases and sales of eligible securities will be reported on a gross cash flow basis. The net investment cash flows for 2016 were an outflow of US\$250 million.
- (f) Sales of property, plant and equipment and intangible assets include US\$192 million for the disposal of 100 per cent interest in the Mount Pleasant thermal coal project to MACH Energy Australia Pty Ltd on 5 August 2016.
- (g) Closing cash and cash equivalents less overdrafts at 31 December 2016 differ from cash and cash equivalents on the balance sheet as they include overdrafts of US\$12 million (31 December 2015: US\$12 million) reported within 'Borrowings and other financial liabilities'.
- (h) Includes a cash outflow of US\$29 million (2015: outflow of US\$227 million) mainly relating to derivative contracts transacted for operational purposes and not designated in a hedge relationship.

Group balance sheet

At 31 December

	2016 US\$m	2015 US\$m
Non-current assets		
Goodwill	951	892
Intangible assets	3,279	3,336
Property, plant and equipment	58,855	61,057
Investments in equity accounted units	5,019	4,941
Inventories	143	253
Deferred tax assets	3,728	3,309
Trade and other receivables	1,342	1,356
Tax recoverable	38	78
Other financial assets (including loans to equity accounted units)	822	788
	74,177	76,010
Current assets		
Inventories	2,937	3,168
Trade and other receivables	3,460	2,386
Tax recoverable	98	118
Other financial assets (including loans to equity accounted units)	359	223
Cash and cash equivalents	8,201	9,366
	15,055	15,261
Assets of disposal groups held for sale (a)	31	293
Total assets	89,263	91,564
Current liabilities		
Borrowings and other financial liabilities	(922)	(2,484)
Trade and other payables	(6,361)	(6,237)
Tax payable	(764)	(135)
Provisions including post-retirement benefits	(1,315)	(1,190)
	(9,362)	(10,046)
Non-current liabilities		
Borrowings and other financial liabilities	(17,470)	(21,140)
Trade and other payables	(789)	(682)
Tax payable	(274)	(295)
Deferred tax liabilities	(3,121)	(3,286)
Provisions including post-retirement benefits	(12,479)	(11,876)
	(34,133)	(37,279)
Liabilities of disposal groups held for sale (a)	(38)	(111)
Total liabilities	(43,533)	(47,436)
Net assets	45,730	44,128
Capital and reserves		
Share capital (b)		
- Rio Tinto plc	224	224
- Rio Tinto Limited	3,915	3,950
Share premium account	4,304	4,300
Other reserves	9,216	9,139
Retained earnings	21,631	19,736
Equity attributable to owners of Rio Tinto	39,290	37,349
Attributable to non-controlling interests	6,440	6,779
Total equity	45,730	44,128

Group balance sheet (continued)

- (a) Assets and liabilities held for sale at 31 December 2016 comprise Rio Tinto's interests in the Blair Athol coal project and certain assets related to cancelled projects at Rio Tinto Kennecott.

Assets and liabilities held for sale as at 31 December 2015 comprised Rio Tinto's interests in the Blair Athol coal project, Carbone Savoie (disposed of on 31 March 2016), Bengalla (disposed of on 1 March 2016) and Molybdenum Autoclave Process.

- (b) At 31 December 2016, Rio Tinto plc had 1,374.8 million ordinary shares on issue and held by the public, and Rio Tinto Limited had 424.2 million shares on issue and held by the public. No shares in Rio Tinto Limited were held by Rio Tinto plc at 31 December 2016 (31 December 2015: nil). As required to be disclosed under the ASX Listing Rules, the net tangible assets per share amounted to US\$19.49 (31 December 2015: US\$18.42).

Group statement of changes in equity

Year ended 31 December 2016

	Attributable to owners of Rio Tinto					Non-controlling interests US\$m	Total equity US\$m
	Share capital US\$m	Share premium US\$m	Other reserves US\$m	Retained earnings US\$m	Total US\$m		
Opening balance	4,174	4,300	9,139	19,736	37,349	6,779	44,128
Total comprehensive income for the year (a)	–	–	(49)	4,553	4,504	209	4,713
Currency translation arising on Rio Tinto Limited's share capital	(35)	–	–	–	(35)	–	(35)
Dividends	–	–	–	(2,725)	(2,725)	(352)	(3,077)
Companies no longer consolidated	–	–	–	–	–	8	8
Own shares purchased from Rio Tinto shareholders to satisfy share options	–	–	(43)	(37)	(80)	–	(80)
Change in equity interest held by Rio Tinto (b)	–	–	108	40	148	(313)	(165)
Treasury shares reissued and other movements	–	4	–	–	4	–	4
Equity issued to holders of non-controlling interests	–	–	–	–	–	109	109
Employee share options and other IFRS 2 charges to the income statement	–	–	61	64	125	–	125
Closing balance	4,139	4,304	9,216	21,631	39,290	6,440	45,730

	Year to 31 December 2016 US\$	Year to 31 December 2015 US\$
Dividends per share: paid during the year	152.5c	226.5c
Dividends per share: proposed in the announcement of the results for the year	125.0c	107.5c

Year ended 31 December 2015

	Attributable to owners of Rio Tinto					Non-controlling interests US\$m	Total equity US\$m
	Share capital US\$m	Share premium US\$m	Other reserves US\$m	Retained earnings US\$m	Total US\$m		
Opening balance	4,765	4,288	11,122	26,110	46,285	8,309	54,594
Total comprehensive loss for the year (a)	–	–	(2,020)	(423)	(2,443)	(1,306)	(3,749)
Currency translation arising on Rio Tinto Limited's share capital	(503)	–	–	–	(503)	–	(503)
Dividends	–	–	–	(4,076)	(4,076)	(315)	(4,391)
Share buyback (c)	(88)	–	6	(1,946)	(2,028)	–	(2,028)
Companies no longer consolidated	–	–	–	–	–	5	5
Own shares purchased from Rio Tinto shareholders to satisfy share options	–	–	(25)	(28)	(53)	–	(53)
Change in equity interest held by Rio Tinto	–	–	–	20	20	(17)	3
Treasury shares reissued and other movements	–	12	–	1	13	–	13
Equity issued to holders of non-controlling interests	–	–	–	–	–	103	103
Employee share options and other IFRS 2 charges to the income statement	–	–	56	78	134	–	134
Closing balance	4,174	4,300	9,139	19,736	37,349	6,779	44,128

Group statement of changes in equity (continued)

- (a) Refer to the Group statement of comprehensive income for further details. Adjustments to other reserves include currency translation attributable to owners of Rio Tinto, other than that arising on Rio Tinto Limited share capital.
- (b) The restructure of Coal & Allied Industries Limited completed on 3 February 2016. The restructure involved the exchange of a 32.4 per cent interest in Hunter Valley Operations for an additional 20 per cent shareholding in Coal & Allied Industries Limited, increasing Rio Tinto's shareholding of Coal & Allied Industries Limited from 80 per cent to 100 per cent.
- (c) In 2015, the amount of US\$2,028 million was own shares purchased from owners of Rio Tinto as part of the share buy-back programme.

Reconciliation with Australian Accounting Standards

The financial information in this report has been prepared in accordance with IFRS as defined in the accounting policies' notes in this report, which differs in certain respects from the version of International Financial Reporting Standards that is applicable in Australia, referred to as Australian Accounting Standards (AAS).

Prior to 1 January 2004, the Group's financial statements were prepared in accordance with UK GAAP. Under IFRS, goodwill on acquisitions prior to 1998, which was eliminated directly against equity in the Group's UK GAAP financial statements, has not been reinstated. This was permitted under the rules governing the transition to IFRS set out in IFRS 1. The equivalent Australian Standard, AASB 1, does not provide for the netting of goodwill against equity. As a consequence, shareholders' funds under AAS include the residue of such goodwill, which amounted to US\$561 million at 31 December 2016 (2015: US\$560 million).

Save for the exception described above, the financial information in this report drawn up in accordance with IFRS is consistent with the requirements of AAS.

Consolidated net debt

At 31 December

	2016 US\$m	2015 US\$m
Analysis of changes in consolidated net debt (a)		
Opening balance	(13,783)	(12,495)
Adjustment on currency translation	(103)	1,586
Exchange gains/(losses) charged to the income statement	193	(1,630)
Cash movements excluding exchange movements	3,915	(1,109)
Other movements	191	(135)
Closing balance	(9,587)	(13,783)
Total borrowing in balance sheet (b)	(17,630)	(23,063)
Derivatives related to net debt (included in "Other financial assets/liabilities")	(408)	(86)
Adjusted total borrowings	(18,038)	(23,149)
Cash and cash equivalents	8,201	9,366
Other investments (c)	250	-
Consolidated net debt	(9,587)	(13,783)

- (a) Consolidated net debt is stated net of the impact of certain funding arrangements between equity accounted units and partially owned subsidiaries (equity accounted unit funded balances). This adjustment is required in order to avoid showing borrowings twice in the net debt disclosure, where funding has been provided to an equity accounted unit by the Group and subsequently on-lent by the equity accounted unit to a consolidated Group subsidiary.
- (b) Total borrowings are combined with other current financial liabilities of US\$205 million (31 December 2015: US\$231 million) and other non-current financial liabilities of US\$557 million (31 December 2015: US\$330 million) in the balance sheet.
- (c) Other investments comprise fixed income securities in separately managed investment funds, classified as held for trading.

Geographical analysis (by destination)

Years ended 31 December

	2016 %	Adjusted 2015 ^(b) %	2016 US\$m	Adjusted 2015 ^(b) US\$m
Consolidated sales revenue by destination (a)				
China	42.6	41.8	14,405	14,566
Other Asia	14.8	13.7	5,011	4,762
United States of America	14.1	15.5	4,762	5,400
Japan	10.9	11.2	3,681	3,907
Europe (excluding UK)	7.8	8.5	2,621	2,970
Canada	3.3	3.4	1,099	1,167
Australia	2.1	2.5	715	866
United Kingdom	1.0	1.0	352	339
Other	3.4	2.4	1,135	852
Consolidated sales revenue	100.0	100.0	33,781	34,829

- (a) Consolidated sales revenue by geographical destination is based on the ultimate country of destination of the product, if known. If the eventual destination of the product sold through traders is not known then revenue is allocated to the location of the product at the time when the risks and rewards of ownership are transferred. Rio Tinto is domiciled in both the UK and Australia.
- (b) 2015 comparative figures are adjusted to conform with the 2016 presentation of consolidated sales revenue, where previously gross sales revenue was presented. The 2015 comparatives above have been amended to correct the allocation of revenues by region. The impact is to decrease the amount allocated to Canada by \$321 million and to increase other regions in aggregate by the same amount.

Prima facie tax reconciliation

Years ended 31 December

	2016 US\$m	2015 US\$m
Profit/(loss) before taxation	6,343	(726)
Deduct: share of profit after tax of equity accounted units	(321)	(361)
Parent companies' and subsidiaries' profit/(loss) before tax	6,022	(1,087)
Prima facie tax payable/(receivable) at UK rate of 20 per cent (2015: 20 per cent)	1,204	(217)
Higher rate of taxation on Australian earnings	604	506
Impact of items excluded in arriving at underlying earnings (a):		
Impairment charges net of reversals	(16)	615
Gains and losses on disposal and consolidation of businesses	30	(11)
Foreign exchange on excluded finance items	(33)	481
Onerous port and rail contracts	(46)	-
Closure provision for legacy operations	(40)	-
Tax provision	380	-
Recognition of deferred tax assets relating to planned divestments	-	(250)
Other exclusions	(48)	(17)
Impact of changes in tax rates and laws	(9)	(3)
Other tax rates applicable outside the UK and Australia on underlying earnings	(283)	(68)
Resource depletion and other depreciation allowances	(15)	(15)
Research, development and other investment allowances	(15)	(21)
Recognition of previously unrecognised deferred tax assets	(154)	(40)
Unrecognised current year operating losses	25	45
Other items (b)	(17)	(12)
Total taxation charge (c)	1,567	993

Prima facie tax reconciliation (continued)

- (a) The impact for each item includes the effect of tax rates applicable outside the UK.
- (b) Other items include various adjustments to provisions for taxation of prior periods.
- (c) This tax reconciliation relates to the Group's parent companies, subsidiaries and joint operations. The Group's share of profit of equity accounted units is net of tax charges of US\$156 million (31 December 2015: US\$177 million).

Acquisitions and Disposals

2016 and 2015 Acquisitions

There were no material acquisitions during the years ended 31 December 2016 or 31 December 2015.

2016 Disposals

On 1 March 2016, Rio Tinto disposed of its 40 per cent interest in the Bengalla Joint Venture to New Hope Corporation Limited for US\$599 million (net of working capital adjustments, transaction costs and cash disposed of in the Joint Venture).

On 31 March 2016, Rio Tinto disposed of its 100 per cent interest in Carbone Savoie to Alandia Industries.

Rio Tinto transferred its 53.83 per cent shareholding in Bougainville Copper Limited ("BCL") to Equity Trustees Limited (independent trustee) on 30 June 2016 for nil consideration. Equity Trustees Limited subsequently distributed the shares in accordance with the trust deed to nominees of each of the Autonomous Bougainville Government (36.4 per cent) and the Independent State of Papua New Guinea (17.4 per cent) such that each party now controls an equal share of BCL (36.4 per cent). The Group did not previously consolidate BCL as it was determined that in accordance with IFRS, as defined under Accounting Policies, that the Group does not control the relevant activities, being the mining of copper at the Panguna mine, which was brought to a halt by militant activity in 1989. The carrying value has previously been fully impaired and therefore the transfer resulted in no financial impact for the year ended 31 December 2016.

On 2 September 2016, Rio Tinto disposed of its interest in Zululand Anthracite Colliery.

On 23 November 2016, Rio Tinto disposed of its 100 per cent interest in Lochaber to SIMEC for US\$410 million (before finalisation of closing adjustments and transaction costs) of which US\$224 million has been received and US\$186 million payment is due in the first half of 2017.

2015 Disposals

On 23 April 2015, Turquoise Hill Resources disposed of 25.7 per cent of its interest in SouthGobi Resources Ltd to Novel Sunrise Investments. As at 31 December 2015 Turquoise Hill Resource's interest in SouthGobi Resources Ltd was no longer consolidated as a subsidiary and was classified as an available for sale investment.

On 17 June 2015, Rio Tinto disposed of its 77.8 per cent interest in Murowa Diamonds and 50 per cent interest in Sengwa Colliery Ltd (Sengwa) to RZ Murowa Holdings Limited.

Rio Tinto completed the sale of ECL to Fives on 9 July 2015 and the sale of Alesa to Groupe Reel on 24 November 2015.

Events after the balance sheet date

On 24 January 2017, the Group announced it had reached a binding agreement for the sale of its wholly-owned Australian subsidiary Coal & Allied Industries Limited to Yancoal Australia Limited for up to \$2.45 billion comprising an initial \$1.95 billion cash payment, payable at completion; and \$500 million in aggregate deferred cash payments, payable as annual instalments of \$100 million over five years following completion.

Yancoal Australia is entitled to elect, prior to 24 February 2017, for an alternative purchase price structure of a single cash payment at completion of \$2.35 billion. Rio Tinto will use the consideration received for general corporate purposes.

Except as disclosed above, no significant events were identified after the balance sheet date.

Accounting policies

The financial information included in this report has been prepared in accordance with applicable UK law, applicable Australian law as amended by the Australian Securities and Investments Commission Order dated 14 December 2015, Article 4 of the European Union IAS regulation and with:

- International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and interpretations issued from time to time by the IFRS Interpretations Committee (IFRS IC) both as adopted by the European Union (EU) and which are mandatory for EU reporting as at 31 December 2016; and
- International Financial Reporting Standards as issued by the IASB and interpretations issued from time to time by the IFRS IC which are mandatory as at 31 December 2016.

The above accounting standards and interpretations are collectively referred to as 'IFRS' in this report. Whilst the financial information included in this report has been prepared in accordance with IFRS the report does not contain all the information required to comply with IFRS. The Group will publish full financial statements that comply with IFRS in March 2017.

The Group has not early adopted any other amendments, standards or interpretations that have been issued but are not yet mandatory. The financial information has been prepared on the basis of accounting policies consistent with those applied in the financial statements for the year ended 31 December 2015 except for the implementation of a number of minor amendments issued by the IASB and endorsed by the EU which applied for the first time in 2016. These new pronouncements do not have a significant impact on the accounting policies, methods of computation or presentation applied by the Group and therefore prior period financial information has not been restated.

In relation to accounting pronouncements which are mandatory in 2017 and beyond, "Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses" and "IAS 7 - Statement of cash flows, Narrow-scope amendments" are mandatory in 2017. The Group does not expect these pronouncements to have a significant impact on the accounting policies or methods of computation applied by the Group.

IFRS 15 "Revenue from Contracts with Customers", IFRS 9 "Financial Instruments" and IFRIC 22 "Foreign Currency Transactions and Advance Consideration" are mandatory in 2018 and IFRS 16 "Leases" is mandatory in 2019. The Group is currently evaluating these pronouncements and work will continue during 2017 and, for IFRS 16, 2018 as well. The most significant measurement impact is likely to be from IFRS 16 under which the present value of the Group's operating lease commitments as defined under the standard, other than short term and low value leases, will be shown as liabilities and right of use assets on the balance sheet. The undiscounted amount of the Group's operating leases commitments at 31 December 2015 disclosed under IAS 17, the current leasing standard, was \$2.2 billion.

IFRS 15 and IFRS 9 have been endorsed by the EU; EU endorsement of the other standard, amendments and interpretations mentioned above is outstanding. More detailed information on progress to date on these new accounting pronouncements will be included in the Group's 2016 accounts.

Non-GAAP measures

The Group presents certain non-GAAP financial measures, including underlying earnings, which are reconciled to directly comparable IFRS financial measures on page 46 of this report. These non-GAAP measures are used internally by management to assess the performance of the business and may therefore be useful to investors. They are not a substitute for the IFRS measures and should be considered alongside those measures.

Summary financial data in Australian dollars, Sterling and US dollars

2016 A\$m	2015 A\$m	2016 £m	2015 £m		2016 US\$m	2015 US\$m
47,467	48,878	26,043	24,063	Gross sales revenue	35,318	36,784
45,401	46,281	24,909	22,784	Consolidated sales revenue	33,781	34,829
8,525	(965)	4,677	(475)	Profit/(loss) before tax from continuing operations	6,343	(726)
6,419	(2,284)	3,522	(1,124)	Profit/(loss) for the year from continuing operations	4,776	(1,719)
6,205	(1,151)	3,404	(567)	Net earnings/(loss) attributable to owners of Rio Tinto	4,617	(866)
6,854	6,033	3,761	2,970	Underlying earnings (a)	5,100	4,540
345.2c	(63.1)c	189.4p	(31.0)p	Basic earnings/ (loss) per share (b)	256.9c	(47.5)c
381.4c	330.6c	209.2p	162.8p	Basic underlying earnings per share (a), (b)	283.8c	248.8c
211.02c	297.89c	108.01p	146.90p	Dividends per share to Rio Tinto shareholders (c)		
163.62c	151.89c	100.56p	74.21p	- paid	152.5c	226.5c
				- proposed	125.0c	107.5c
8,549	6,356	4,690	3,129	Cash flow before financing activities	6,361	4,783
(13,281)	(18,924)	(7,836)	(9,294)	Net debt	(9,587)	(13,783)
54,428	51,280	32,116	25,184	Equity attributable to owners of Rio Tinto	39,290	37,349

- (a) Underlying earnings exclude net impairment and other charges of US\$483 million (31 December 2015: US\$5,406 million).
- (b) Basic earnings/(loss) per share and basic underlying earnings per share do not recognise the dilution resulting from share options on issue.
- (c) The Australian dollar and Sterling amounts are based on the US dollar amounts, retranslated at average or closing rates as appropriate, except for the dividends which are the actual amounts paid or payable.

Metal prices and exchange rates

			2016	2015	Increase/ (decrease)
Metal prices – average for the year					
Copper	-	US cents/lb	221c	249c	(11%)
Aluminium	-	US \$/tonne	US\$1,605	US\$1,661	(3%)
Gold	-	US\$/troy oz	US\$1,250	US\$1,160	8%
Average exchange rates against the US dollar					
Sterling			1.36	1.53	(11%)
Australian dollar			0.74	0.75	(1%)
Canadian dollar			0.76	0.78	(3%)
Euro			1.11	1.11	0%
South African rand			0.068	0.079	(14%)
Year-end exchange rates against the US dollar					
Sterling			1.22	1.48	(17%)
Australian dollar			0.72	0.73	(1%)
Canadian dollar			0.74	0.72	3%
Euro			1.05	1.09	(4%)
South African rand			0.073	0.064	15%

Reconciliation of net earnings/(losses) to underlying earnings

	Pre-tax 2016 US\$m	Taxation 2016 US\$m	Non- controlling interests 2016 US\$m	Net amount 2016 US\$m	Net amount 2015 US\$m
Exclusions from underlying earnings					
Impairment charges (a)	(249)	66	–	(183)	(1,802)
Net gains on disposal of interests in businesses (b)	515	(133)	–	382	48
Exchange and derivative gains/(losses):					
– Exchange gains/(losses) on US dollar net debt and intragroup balances (c)	603	(88)	1	516	(3,282)
– Gains/(losses) on currency and interest rate derivatives not qualifying for hedge accounting (d)	(22)	6	4	(12)	(88)
– Gains on commodity derivatives not qualifying for hedge accounting (e)	41	(9)	–	32	88
Onerous port and rail contracts (f)	(469)	140	–	(329)	–
Restructuring costs including global headcount reductions	(265)	71	17	(177)	(258)
Increased closure provision for legacy operations (g)	(402)	120	–	(282)	(233)
Tax provision (h)	–	(380)	–	(380)	–
Recognition of deferred tax assets relating to planned divestments	–	–	–	–	234
Other exclusions (i)	(102)	52	–	(50)	(113)
Total excluded from underlying earnings	(350)	(155)	22	(483)	(5,406)
Net earnings/(losses)	6,343	(1,567)	(159)	4,617	(866)
Underlying earnings	6,693	(1,412)	(181)	5,100	4,540

Underlying earnings are reported by Rio Tinto to provide greater understanding of the underlying business performance of its operations. Underlying earnings and net earnings/(losses) both represent amounts attributable to owners of Rio Tinto. Exclusions from underlying earnings relating to equity accounted units are stated after tax and included in the column 'Pre-tax'. Items (a) to (i) below are excluded from net earnings/(losses) in arriving at underlying earnings.

- (a) Impairment charges during the year ended 31 December 2016 primarily relate to the Argyle diamond mine in Western Australia. An impairment trigger assessment at the Argyle cash-generating unit resulted in the identification of impairment indicators as a result of lower production volumes compared with forecast and the lower prices achieved for bulk diamonds. The reduction in the recoverable amount resulted in a pre-tax impairment charge of US\$241 million to property, plant and equipment and intangible assets.

Impairment charges during the year ended 31 December 2015 primarily related to the Simandou project in Guinea. Market conditions and uncertainty over infrastructure ownership and funding affected the Group's view of the carrying value of the project and a net impairment charge of US\$1.1 billion was recorded.

Other impairment charges in 2015 were in certain uranium, aluminium, copper and coal businesses.

- (b) Net gains on disposal and consolidation of interests in businesses in 2016 related mainly to the sale of Rio Tinto's 40 per cent interest in the Bengalla Joint venture on 1 March 2016 and the sale of the Lochaber assets in Scotland on 23 November 2016. This was partially offset by a loss on disposal of the 100 per cent interest in Carbone Savoie on 31 March 2016.

In 2015, the balance related mainly to the reduction in shareholding of SouthGobi Resources Ltd during 2015, the sale of the Group's interest in Murowa Diamonds and Sengwa Colliery on 17 June 2015 and the Aluminium product group divestments of ECL on 9 July 2015 and Alesa on 24 November 2015.

Reconciliation of net earnings/(losses) to underlying earnings (continued)

- (c) Net exchange gains in 2016 comprise post-tax foreign exchange gains of US\$123 million principally on external US dollar denominated net debt in non-US dollar functional currency companies (on borrowings of approximately US\$17.6 billion), and US\$393 million gains on intragroup balances mainly as the Canadian dollar strengthened against the US dollar. The Group took further steps during 2016 to reduce the income statement exposure on retranslation of intragroup balances.

Net exchange losses in 2015 comprise post-tax foreign exchange losses of US\$1,197 million on external US dollar denominated net debt in non-US dollar functional currency companies (on borrowings of approximately US\$23.1 billion), and US\$2,085 million losses on intragroup balances, as the Australian dollar, Canadian dollar and the Euro all weakened against the US dollar.

- (d) Valuation changes on currency and interest rate derivatives, which are ineligible for hedge accounting, other than those embedded in commercial contracts, and the currency revaluation of embedded US dollar derivatives contained in contracts held by entities whose functional currency is not the US dollar.
- (e) Valuation changes on commodity derivatives, including those embedded in commercial contracts, that are ineligible for hedge accounting, but for which there will be an offsetting change in future Group earnings.
- (f) A review of the infrastructure capacity requirements in Queensland, Australia, has confirmed that it is no longer likely that Rio Tinto will utilise the Abbot Point Coal Terminal and associated rail infrastructure capacity contracted under take or pay arrangements. On 31 October 2016, agreement was reached with Adani, the owner of the port, to relinquish that capacity. Accordingly, an onerous contract provision has been recognised based on the net present value of expected future cash flows for the port and rail capacity discounted at a post-tax real rate of two per cent, resulting in a post-tax onerous contract charge of US\$329 million.
- (g) The increase in closure provision (non-operating sites) relates to the Gove alumina refinery in Northern Territory, Australia where operations have been curtailed since May 2014. The provision has been updated based on the current cost estimates from the studies which are expected to be finalised mid-2017.

Future revisions to the closure cost estimate during the study periods (including the next stage of feasibility study) are expected to be excluded from underlying earnings as the site operating assets have been fully impaired.

- (h) Tax provision includes amounts provided for specific tax matters for which the timing of resolution and potential economic outflow are uncertain.

In particular, the Group is currently in discussions with the Australian Taxation Office (ATO) in relation to the transfer pricing of certain transactions between Rio Tinto entities based in Australia and the Group's commercial centre in Singapore for the period since 2009. These matters were raised by Rio Tinto with the ATO through advance ruling requests or are under discussions pursuant to our co-operative compliance agreement.

- (i) Other credits and charges that, individually, or in aggregate, if of similar type, are of a nature or size to require exclusion in order to provide additional insight into underlying business performance.

Availability of this report

This report is available on the Rio Tinto website (www.riotinto.com).