

RioTinto

2014 Annual report

Delivering sustainable
shareholder returns

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Navigating through Rio Tinto's Annual and Strategic report

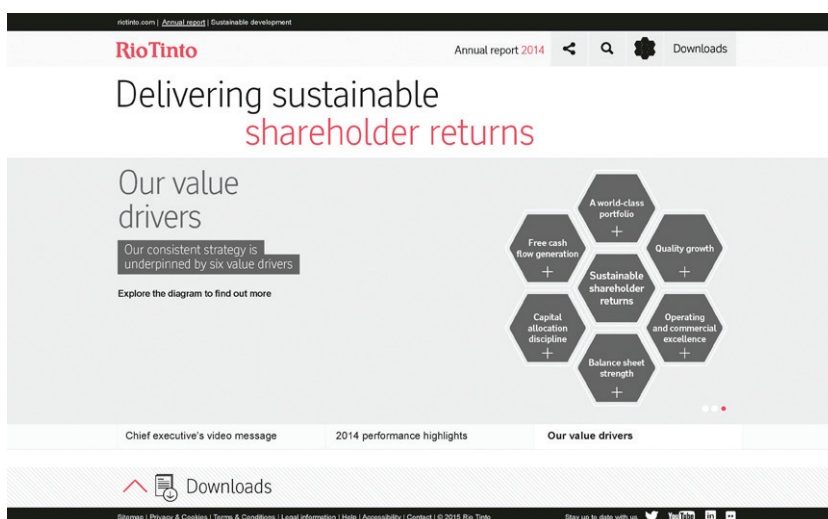
As of 2013, the UK's regulatory reporting framework requires companies to produce a strategic report. The intention is to provide investors with the option of receiving a document which is more concise than the full annual report, and which is strategic in its focus.

The first 41 pages of Rio Tinto's 2014 Annual report constitute its 2014 Strategic report. References to page numbers beyond 41 are references to pages in the full 2014 Annual report. This is available online at riotinto.com/ar2014 or shareholders may obtain a hard copy free of charge by contacting Rio Tinto's registrars, whose details are set out on page 228.

Please visit Rio Tinto's website to learn more about the Group's performance in 2014.

This Annual report, which includes the Group's 2014 Strategic report, complies with Australian and UK reporting requirements.

Copies of Rio Tinto's shareholder documents – the 2014 Annual report and 2014 Strategic report, along with the 2015 Notices of annual general meeting – are available to view on the Group's website: riotinto.com



Rio Tinto is reducing the print run of this document to be more environmentally friendly. We encourage you to visit: riotinto.com/ar2014 to access a full library of PDFs of this Annual report.

Cautionary statement about forward-looking statements

This document contains certain forward-looking statements with respect to the financial condition, results of operations and business of the Rio Tinto Group. These statements are forward-looking statements within the meaning of Section 27A of the US Securities Act of 1933, and Section 21E of the US Securities Exchange Act of 1934. 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.

Examples of forward-looking statements in this Annual report include those regarding estimated ore reserves, anticipated production or construction dates, costs, outputs and productive lives of assets or similar factors. Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors set forth in this document that are beyond the Group's control. For example, future ore reserves will be based in part on market prices that may vary significantly from current levels. These may materially affect the timing and feasibility of particular developments. Other factors include the ability to produce and transport products profitably, demand for our products, changes to the assumptions regarding the recoverable value of our tangible and intangible assets, the effect of foreign currency exchange rates on market prices and operating costs, and activities by governmental authorities, such as changes in taxation or regulation, and political uncertainty.

In light of these risks, uncertainties and assumptions, actual results could be materially different from projected future results expressed or implied by these forward-looking statements which speak only as to the date of this Annual report. Except as required by applicable regulations or by law, the Group does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information or future events. The Group cannot guarantee that its forward-looking statements will not differ materially from actual results.

Performance highlights

2014 results demonstrate clear delivery against our commitments

In 2014, Rio Tinto made a commitment to materially increase cash returns to shareholders. The Group delivered this through a 12 per cent increase in the full year dividend and announced a US\$2.0 billion share buy-back. These represent a total cash return to shareholders, in respect of 2014, of almost US\$6.0 billion.

During 2014, Rio Tinto's continued financial and operating discipline enabled the Group to offset much of the impact of lower commodity prices. By increasing volumes and reducing costs, Rio Tinto achieved underlying earnings^(a) of US\$9.3 billion and maintained the EBITDA margin^(b) at 39 per cent. Free cash flow was assisted by a further reduction in capital expenditure^(c) and a successful programme to release working capital. As a consequence, net debt^(d) reduced by US\$5.6 billion to US\$12.5 billion.

Decisive early action taken throughout the Group delivered the strong balance sheet, enabling the additional material cash return to shareholders.

With lower commodity prices and uncertain global economic trends, the operating environment remains tough. However, in these conditions Rio Tinto's qualities and competitive advantages deliver superior value. The Group's combination of world-class assets, disciplined capital allocation, balance sheet strength, operating and commercial excellence, and a culture of safety and integrity gives Rio Tinto confidence in its ability to continue generating sustainable returns for shareholders.

Year to 31 December			2014	2013	Change
KPI	Pg 12	Underlying earnings (US\$ millions) ^(a)	9,305	10,217	-9%
		Net earnings (US\$ millions) ^(a)	6,527	3,665	+78%
KPI	Pg 12	Net cash generated from operating activities (US\$ millions)	14,286	15,078	-5%
KPI	Pg 13	Capital expenditure (US\$ millions) ^(c)	8,162	13,001	-37%
		Underlying earnings per share (US cents)	503.4	553.1	-9%
		Basic earnings per share (US cents)	353.1	198.4	+78%
		Ordinary dividends per share (US cents)	215.0	192.0	+12%
At 31 December			2014	2013	Change
KPI	Pg 13	Net debt (US\$ millions) ^(d)	12,495	18,055	-31%
		Gearing ratio ^(e)	19%	25%	-6%

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

- (a) Underlying earnings is the 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 pages 124 and 125.
- (b) EBITDA margin is defined as Group underlying EBITDA divided by product group total revenues as per the Financial information by business unit on pages 178 and 179 where it is reconciled to profit on ordinary activities before finance items and taxation.
- (c) Capital expenditure is presented gross, before taking into account any disposals of property, plant and equipment.
- (d) Net debt is defined and reconciled to the balance sheet on page 41.
- (e) Gearing ratio is defined as net debt divided by the sum of net debt and total equity at each period end.

Revenues and earnings

- Achieved consolidated sales revenues of US\$47.7 billion, as a US\$5.4 billion (pre-tax) decline in pricing was partially offset by US\$3.0 billion from higher volumes.
- Sustained the EBITDA margin at 39 per cent, unchanged from 2013, with volume gains and cost improvements offsetting the impact of lower prices.
- Achieved underlying earnings of US\$9.3 billion, nine per cent lower than 2013 despite the US\$4.1 billion (post-tax) impact of lower prices.
- Delivered underlying earnings per share of 503.4 US cents.
- Generated net earnings of US\$6.5 billion, reflecting non-cash exchange rate losses of US\$1.9 billion, a US\$0.4 billion charge following the repeal of the Minerals Resource Rent Tax and other charges of US\$0.5 billion. An impairment charge of US\$1.2 billion mainly related to the Kitimat project as reported at the half year was mostly offset by an impairment reversal of US\$1.0 billion in the second half of 2014 related to an uplift in carrying value for the Pacific Aluminium business.

Production

- Set production records for iron ore and Hunter Valley thermal coal, and delivered a strong operational performance in bauxite, copper and aluminium.

Cash flow and balance sheet

- Achieved US\$4.8 billion of sustainable operating cash cost improvements and exploration and evaluation savings since 2012, of which US\$1.5 billion were in 2014.
- Generated net cash from operating activities of US\$14.3 billion, including working capital improvements of US\$1.5 billion, principally from lower inventories and lower receivables.
- Reduced capital expenditure by US\$4.8 billion to US\$8.2 billion in 2014, reflecting completion of existing major projects and continued capital discipline.
- Decreased net debt by US\$5.6 billion in 2014 to US\$12.5 billion at 31 December 2014, with gearing of 18.6 per cent. This compares with US\$18.1 billion and 25.2 per cent gearing at 31 December 2013.

Capital returns

- Increased full year dividend by 12 per cent to 215 US cents per share.
- Announced an additional capital return of US\$2.0 billion, which comprises a A\$500 million (c. US\$0.4 billion) off-market share buy-back tender of Rio Tinto Limited shares and the balance of approximately US\$1.6 billion for an on-market buy-back of Rio Tinto plc shares.
- These represent a total cash return to shareholders, in respect of 2014, of almost US\$6.0 billion, an increase of approximately 64 per cent on 2013.

Group overview

Introduction to Rio Tinto

Rio Tinto is a leading global mining group that focuses on finding, mining and processing the Earth's mineral resources. Our goal is to deliver strong and sustainable shareholder returns from our portfolio of world-class assets and our compelling pipeline of projects.

We take a long-term, disciplined approach, developing and running long-life, low-cost, expandable operations that are capable of delivering value throughout the cycle. Supported by our Exploration and Technology & Innovation groups, our five product groups represent a diversity of commodities that give us exposure to demand across the economic development spectrum^(a).

Supporting our world-class assets is a company of world-class people who are the foundation of our success. This 60,000-strong workforce, across more than 40 countries, pulls together as a powerful team committed to getting the best out of our operations. Their safety is always our first concern. We also foster a culture of innovation, where our people are proud to achieve and are always learning.

Our vision is to be a company that is admired and respected for delivering superior value, as the industry's most trusted partner. Our operations give us the opportunity to create mutual benefit with the communities, regions and countries in which we work, and our metals and minerals are transformed into end products that contribute to higher living standards. (Find out more on page 11.)

Underpinning everything we do are our values: respect, integrity, teamwork and accountability. They are fundamental to the way we operate and engage with those around us, and form the foundation of a long-term, reliable business that generates sustainable returns for shareholders.

Aluminium product group

Building on more than a century of experience and expertise, Rio Tinto is a global leader in the aluminium industry. Our business includes high-quality bauxite mines, large-scale alumina refineries, and some of the world's lowest-cost, most technologically-advanced primary aluminium smelters.

Products

Bauxite

Bauxite is the natural ore used to make aluminium. It is refined into alumina which is smelted into aluminium metal. Our wholly- and partly-owned bauxite mines are located in Australia, Brazil and Guinea.

Alumina

Alumina (aluminium oxide) is extracted from bauxite via a refining process. Approximately four tonnes of bauxite are required to produce two tonnes of alumina, which in turn makes one tonne of aluminium metal. Our wholly- and partly-owned alumina refineries are located in Australia, Brazil and Canada.

Aluminium

Aluminium is a unique and versatile modern metal. Light, strong, flexible, corrosion-resistant and infinitely recyclable, aluminium is one of the most widely-used metals in the world. Its largest markets are transportation, machinery and construction. Our smelters are mainly concentrated in Canada. We also have plants in France, Australia, New Zealand, Iceland, the UK and Oman.

Strategic advantages

- Access to the largest and best-quality bauxite ore reserves in the industry, strategically located to serve growing Chinese bauxite demand.
- One of the lowest-cost bauxite producers.

- Unrivalled hydropower position, which delivers significant cost and other advantages in an energy intensive industry and today's carbon-constrained world.
- Rio Tinto has a first-quartile cost position for aluminium smelting, with industry-leading smelting technology.

Key production locations

- Canada
- Europe
- Australia

Key sales destinations

- Asia
- Americas
- Europe

Full operating review on page 28.

Copper product group

Rio Tinto's Copper group is made up of four world-class operating assets and two attractive development projects. We are managing the portfolio to bring on new production when the market demands it.

Products

Copper

Copper is a malleable, corrosion resistant, antimicrobial metal and a highly effective conductor of heat and electricity. It is an essential component of nearly all modern electrical systems, including renewable energy sources such as solar, wind, geothermal and hydro-electric technologies. Global information and communication technologies rely on it, as do hybrid and electric cars and hospitals and medical facilities, where it is used to prevent the spread of diseases and infections. We produce gold, silver and molybdenum as co-products of our copper production.

Gold

Gold is used as a store of value. It is also highly conductive, malleable and inert, making it a key component in the electronics, chemical production, jewellery, aerospace and medical industries.

Silver

Silver has applications in art, science, and industry. It is used in many electronic devices, in aerospace applications and semiconductors. A precious metal, silver is used to make jewellery and as an investment.

Molybdenum

Molybdenum is a metallic element frequently used to produce stainless steel and other metal alloys. It enhances the metal's toughness, high-temperature strength and corrosion resistance.

Strategic advantages

- A portfolio of high-quality assets and growth opportunities.
- Attractive growth options that can be delivered when the market requires.
- Clear pathway to deliver superior profitability.
- Industry-leading technology and innovation.

Key production locations

- US
- Chile
- Mongolia

Key sales destinations

- US
- China
- Japan

Full operating review on page 30.

(a) On 27 February 2015, Rio Tinto announced that it would be streamlining its portfolio of assets into four product groups: Aluminium, Copper & Coal, Diamonds & Minerals and Iron Ore, with immediate effect. The coal assets of the former Energy product group became part of a new Copper & Coal product group, and the uranium assets of the former Energy product group became part of the Diamonds & Minerals product group. In this Annual report, references to Copper, Diamonds & Minerals and Energy refer to the product groups as they existed in 2014.

Diamonds & Minerals product group

The Diamonds & Minerals product group comprises a suite of industry-leading, demand-led businesses, which include mining, refining and marketing operations across four sectors. Rio Tinto Diamonds is one of the world's leading diamond producers, active in mining, manufacturing, selling, and marketing diamonds. Rio Tinto Minerals is a world leader in borates, with mines, processing plants, and commercial and research facilities. Dampier Salt is one of the world's largest producers of seaborne salt. Rio Tinto Iron & Titanium is an industry leader in high-grade titanium dioxide feedstocks. The Diamonds & Minerals group also includes the Simandou iron ore project in Guinea, one of the largest known undeveloped high-grade iron ore resources in the world.

Products

Diamonds

Diamonds are an important component in both affordable and higher-end jewellery. We are able to service all established and emerging markets as we produce the full range of diamonds in terms of size, quality and colour distribution.

Titanium dioxide

The minerals ilmenite and rutile, together with titanium dioxide slag, can be transformed into a white titanium dioxide pigment or titanium metal. The white pigment is a key component in paints, plastics, paper, inks, textiles, food, sunscreen and cosmetics. Titanium metal's key properties of light weight, chemical inertness and high strength make it ideal for use in medical applications and in the aerospace industry.

Borates

Refined borates are used in hundreds of products and processes. They are a vital ingredient of many home and automotive applications, and are essential nutrients for crops. They are commonly used in glass and ceramic applications including fibreglass, television screens, floor and wall tiles, and heat-resistant glass.

Salt

Salt is one of the basic raw materials for the chemicals industry and is indispensable to a wide array of automotive, construction and electronic products, as well as for water treatment, food and healthcare. Other products include high purity iron, metal powders and zircon.

Strategic advantages

- Portfolio of industry-leading businesses operating in attractive markets.
- Demand-led, integrated operations that are responsive to the changing external environment.
- Poised to benefit from mid to late-cycle demand growth as consumption increases in emerging markets.

Key production locations	Key sales destinations
– North America	– North America
– Australia	– South East Asia
– South Africa	– India

Full operating review on page 32.

Energy product group

Energy is essential for modern life and the demand for energy continues to grow. Rio Tinto's Energy product group produced coal and uranium, two important sources of energy from mining. The thermal coal and uranium we produce is used to generate electricity and our uranium is subject to strict safeguards and non-proliferation conditions to ensure it is only used for peaceful purposes. We also produce coking or metallurgical coal, which is an important ingredient in steel and cement production. We have operations, exploration and development projects in Australia, Namibia, South Africa and Canada.

Products

Coal

Coal is a cost effective and abundant energy source and we are a leading supplier to the seaborne thermal coal market. Thermal coal is used for electricity generation in power stations. We also produce higher-value coking or metallurgical coal, which produces steel when mixed in furnaces with iron ore. We have five operating mines in Australia and one in South Africa.

Uranium

Uranium is one of the most powerful known natural energy sources, and is used in the production of clean, stable, base-load electricity. After uranium ore is mined, it is processed into uranium oxide. This is the product that is sold for processing into fuel rods for use in nuclear power stations. We have uranium operations in Australia and Namibia, and an exploration project in Canada.

Strategic advantages

- Premium Australian coal assets located close to existing infrastructure and growing Asian markets.
- Successfully transforming the business by reducing costs, increasing productivity and improving our position on the cost curve.
- Strong product stewardship strategy, including investment in technologies to reduce emissions from our products.

Key production locations	Key sales destinations
– Australia	– Japan
– Namibia	– South Korea
	– Taiwan

Full operating review on page 34.

Iron Ore product group

Rio Tinto operates a world-class iron ore portfolio, supplying the global seaborne iron ore trade. We are well positioned to benefit from continuing demand across China and the developing world. In Western Australia, the majority of our production continues to achieve industry-leading margins through effective cost saving measures, automation and a relentless focus on optimising operational efficiencies and marketing expertise.

Products

Iron ore

Iron ore is the key ingredient in the production of steel, one of the most fundamental and durable products for modern-day living, with uses from railways to paperclips. Our iron ore mines are located in Australia and Canada.

Strategic advantages

- Proximity of the expanded Pilbara operations in Australia to Asian markets.
- Position as lowest cost major iron ore producer in the Pilbara, with a Pilbara cash unit cost of US\$19.50 in 2014.
- World-class assets comprising a seamless supply chain with unencumbered optionality.
- A premium product suite driving strong customer relationships supported by technical and commercial marketing expertise.

Key production locations	Key sales destinations
– Australia	– China
– Canada	– Japan
	– South Korea

Full operating review on page 36.

Chairman's letter

Dear shareholders,

During 2014, your company maintained its steadfast commitment to generate sustainable shareholder returns by supplying the commodities essential for modern life. As this report shows, we delivered strong financial and operational performance against a challenging market backdrop. Our success is underpinned by our strong safety performance, operational excellence, values-driven approach and the best people in the industry.

I am very pleased to report we delivered on our commitments during 2014. We achieved underlying earnings of US\$9.3 billion and our focus on cash generation led to net cash from operating activities of US\$14.3 billion. We exceeded our cost reduction target and lowered net debt significantly while reducing capital expenditure to US\$8.2 billion.

Most importantly we fulfilled our promise to you, the owners of our company, to materially increase cash returns. Our primary commitment in terms of shareholder returns is our progressive dividend policy. In February 2015 we announced a 12 per cent increase in our full year dividend as well as a US\$2.0 billion share buy-back. These represent a total cash return to shareholders, in respect of 2014, of almost US\$6.0 billion. They underscore the confidence your board has in the resilience and strength of the company despite ongoing uncertainties in our external markets. We believe that delivering returns to shareholders is an important component of our overall approach to creating shareholder value.

Value through the economic cycle

This improved performance reflects the strategic approach the company has embedded throughout our more than 140 year history: to invest in and operate long-life, low-cost, expandable operations in the most attractive industry sectors. We focus on the best assets, because they are capable of delivering value throughout the cycle.

Volatility has become a characteristic of the rapidly-evolving world in which we operate. Each year presents a new economic challenge. The past six months in particular have seen increased uncertainty in energy, metals and foreign exchange markets. The prices for many of the commodities we produce were significantly lower during 2014, with average iron ore prices down 30 per cent year-on-year.

However, given the decisive action we have taken over the past two years, your company is in a strong position to capitalise on the positive long-term fundamentals for our key commodities, despite the short-term market challenges.

Rio Tinto's position as a pre-eminent supplier of raw materials and refined metals and minerals products places us in an enviable position. At a time of significant distress for late-entrant or high-cost producers, Rio Tinto has been able to go about its business in a disciplined and orderly way. This is due to our world-class assets, the quality of our products and customer relationships, and the decisive actions we have taken to strengthen our balance sheet.

We continue to focus on maximising returns from our existing assets while ensuring only the best growth projects attract fresh capital.

We also continue to optimise our portfolio, and in 2014 divested the Clermont Joint Venture and Rio Tinto Coal Mozambique coal businesses, the Sørå and Alucam aluminium businesses, and the Copper group's Sulawesi and Pebble projects.

As we disclosed in October 2014, Glencore contacted Rio Tinto regarding a potential merger in July 2014. The Rio Tinto board, after consultation with its financial and legal advisers, concluded unanimously that a combination was not in the best interests of Rio Tinto shareholders.

A responsible and transparent business

The methods the company employs to deliver superior results are as important as the results themselves. We remain deeply committed to being a responsible company providing products the world over to support economic improvement and social progress.

We operate in a complex and interconnected world where global and local issues – such as biodiversity, climate change, livelihoods, and regional economic development – bring both risk and opportunity to the design, development and management of our operations.

Society's expectations are increasing, and we will continue to listen carefully to our stakeholders, as we strive to create mutual value.

Our operations can have a substantial positive economic impact on the regions and countries in which we operate. Over the past four years, our economic contribution has exceeded US\$230 billion.

We lead our industry with our ongoing commitment to tax transparency, publishing our annual Taxes Paid report to hold ourselves and host governments to account. We hope others will be encouraged to follow our example.

It is through this combination of facilitating social development, acting as a catalyst for growth, and behaving in an environmentally responsible way, that we manage our risks and deliver value for you, our shareholders, and also create projects of worth for the communities in which we work.

Governance – a balance of diversity and depth

The past year has again seen a broadening of experience and diversity on your board as we welcomed a number of new non-executive directors. Michael L'Estrange joined the board in September 2014 and Megan Clark in November. They bring to Rio Tinto a mix of backgrounds deeply relevant to our strategy and culture, including mining, science and technology, public policy and international relations. At our Australian annual general meeting in early May, Lord Kerr and Michael Fitzpatrick will step down after many years of wonderful service. I thank them both for their dedication and immense contribution to Rio Tinto.

I am delighted that Sam Walsh and Chris Lynch agreed to extend their tenure with open-ended contracts. They have provided transformative leadership since 2013, and I am confident that their experience will continue to drive the delivery of sustainable results.

A key role of the board is to ensure it has the appropriate succession arrangements for its senior leadership team and that it has the next generation of leaders moving through the company.

Rio Tinto has always prided itself on the breadth and depth of the talent within our organisation, and the capabilities of our people – across more than 40 countries – are highly regarded. I would like to thank Sam, the Executive Committee, and all of our 60,000 employees across the world for their commitment, leadership and resilience.

Looking forward with confidence

Markets are challenging, and in this environment investors seek strength, reliability and consistency. It is in these periods that your company thrives and the quality of its assets, operational excellence and balance sheet strength shines through.

Let me assure you that your board, our management, and all our people, are committed to delivering sustainable returns to you, our shareholders.

Thank you for your continued investment in Rio Tinto. I look forward to reviewing progress in 2015 with you next year.



Jan du Plessis
Chairman

4 March 2015

Chief executive's statement

Dear shareholders,

Your company had a strong year, making truly satisfying progress towards building a safer, more resilient, world-class business. Our relentless focus on improving performance at all of our operations, driving down costs and strengthening our balance sheet has enabled us to deliver materially increased cash returns to shareholders. We remain committed to pursuing further improvement in the year ahead.

In 2014 we delivered excellent results and upheld our commitment to improve performance and strengthen the balance sheet. In challenging conditions we delivered on, and in many cases exceeded, expectations.

It is clear that in the short term we will continue to face challenging commodity markets as economic and geopolitical uncertainty continues. Divergent monetary policy paths in Europe, the US and parts of Asia are contributing to financial volatility. China is now experiencing slower, but still significant, economic growth as it rebalances its economic priorities from investment towards consumption.

But we also know that against a backdrop of uncertainty, Rio Tinto thrives. Our combination of world-class assets, disciplined capital allocation, balance sheet strength, operating and commercial excellence, and our culture of safety and integrity gives me confidence we are best placed to make the most of the positive long-term demand fundamentals to generate sustainable returns.

Our strong 2014 results are first and foremost due to the efforts of our hardworking and dedicated employees around the world. I had the great pleasure of visiting many of our operations during the year, and yet again I was inspired by the commitment of our people, and impressed by their expertise. I thank them all for their contributions.

I would like to thank the Executive Committee – including Alfredo Barrios and Greg Lilleyman who we welcomed to the team this year – for their strong and passionate leadership.

Putting safety first

We strive to put safety first in everything we do. From small things such as starting our meetings with what we call a “safety share”, to supporting community mental health initiatives and understanding our critical risks, safety is deeply embedded in our culture.

We reduced our all injury frequency rate by nine per cent in 2014 compared with 2013. This was our best year ever in terms of injury rate performance, and over the past five years we have reduced our all injury frequency rate by 14.5 per cent.

However success really means everyone returning home safely, every day. Therefore it is with much sadness I report the deaths of two employees at managed operations during 2014. In February, at the Gove alumina refinery in Australia, our colleague Darryl Manderson died due to an equipment incident while carrying out maintenance work. In November, Enrick Gagnon died when a landslide derailed an iron ore train in Canada. I was also greatly saddened by two further fatalities earlier in 2015, at QIT Madagascar Minerals and at Zululand Anthracite Colliery in South Africa. Both of these 2015 fatalities are currently being investigated.

These deaths have had a major impact on the family, friends and workmates of these colleagues. We will learn from these tragedies to prevent future ones.

Although our safety performance leads our industry, we need to be constantly vigilant and focused on improvement. We refreshed our safety strategy in 2014 and our goal, above all, remains to eliminate fatalities.

Managing a world-class portfolio

Over decades and across our product suite we have built a strong portfolio of businesses. Across the Group in 2014, we saw numerous examples of the strength of our portfolio. Among the highlights of our operational performance were the production records we set for iron ore and Hunter Valley thermal coal.

Our Pilbara iron ore business reached its 290 Mt/a run rate two months ahead of schedule. Expanding our Pilbara operations to 360 Mt/a rests comfortably with our view of the longer-term demand for iron ore. These operations are world class in terms of assets, optionality, and low-cost operating performance, as well as in our marketing expertise and leading-edge application of technology.

The expansion translated into excellent product group earnings and cash flow for Iron Ore. Despite significant price declines for its products, Iron Ore's underlying earnings reached US\$8.1 billion. This was a reduction of only 18 per cent on 2013, thanks to continued cost reduction efforts and the favourable effect of the weaker Australian dollar.

The turnaround of our Aluminium business continued in 2014. Higher prices for aluminium and our focus on efficiency and productivity saw the product group's underlying earnings more than double, from US\$557 million in 2013 to US\$1.2 billion in 2014. Our bauxite business is generating handsome margins, but more work is needed in the alumina side of the portfolio. So we have set some tough targets for 2015, and we expect alumina's profile to steadily improve.

The Copper group delivered an 11 per cent increase in underlying earnings. This was despite a seven per cent reduction in average copper prices, and reflects the group's success in reducing costs and boosting productivity. Copper also increased production volumes and made more good progress in simplifying the portfolio.

The Diamonds & Minerals group continued to focus on maximising cash flow matching capacity to the market – the right approach for these specialist products. The product group achieved underlying earnings of US\$401 million, a 15 per cent increase on 2013, as higher volumes and lower costs more than offset lower prices in the minerals portfolio.

Lower prices across the coal sector decreased our Energy group's earnings by US\$434 million. Not all of this could be offset by the good progress the Energy team continued to make in reducing operating costs and maximising efficiencies. Ultimately this resulted in a loss of US\$210 million of underlying earnings.

All of our product groups have high-quality growth options, which we continue to pursue in a disciplined manner. We believe we have the right capital allocation framework and the right level of spending to support value-accretive growth while ensuring we retain a strong balance sheet and meet our commitment to deliver sustainable returns.

As part of our continued focus on efficiency and costs, we announced on 27 February 2015 that we would be streamlining our product group structure, with immediate effect. Under the new arrangements, Rio Tinto's world-class portfolio of assets has been condensed into four product groups: Aluminium, Copper & Coal, Diamonds & Minerals and Iron Ore.

I would like to recognise the significant contributions of Jacynthe Côté and Harry Kenyon-Slaney who left or will leave the company during 2014 and early 2015 respectively. I thank them both and wish them both well.

Focus and agility

In many respects, our industry-leading businesses are where others wish to be; however, now is not the time for complacency.

We must anticipate, adapt and respond with urgency to changing conditions, sustaining our focus on efficiency in areas that make a difference – rein in our costs, ensure every dollar is spent wisely and remove wasteful working capital.

Rio Tinto's balance sheet is strong and sound and we are committed to maintaining this position. In a period of market instability, a robust balance sheet is a major advantage. It protects the business, it protects shareholders and it creates a platform for future growth. It provides flexibility to undertake future projects – as and when required – and to find the best ways to reward shareholders.

On page 10, you can read more about the areas we will be focusing on in 2015 as we strive to enhance our performance even further.

Delivering sustainable value

In 2014, your company fulfilled its commitment to deliver greater value for shareholders. In doing so, we have also created value for many of our partners around the world who are so integral to the continuing success of our business.

I believe the quality and commitment of our people sets us apart, as does the way they embrace and embody our values: respect, integrity, teamwork and accountability.

I would like to thank our employees for their dedication and hard work, our stakeholders for continuing to partner with us, and you, our shareholders for investing in our company.



Sam Walsh AO
Chief executive

4 March 2015

Strategic context

Global economy

The positive momentum in developed economies in late 2013 fuelled expectations of an acceleration in global growth, but that faded in early 2014. In the end, the US remained one of the few bright spots in the global economy in 2014 while China's slowdown became more entrenched. Europe failed to emerge meaningfully from imposed austerity, Japan's growth was negatively impacted by a consumption tax hike and emerging economies suffered from the delayed recovery in global trade. As a result, the global economy grew by only just over three per cent in 2014, in line with growth in the previous two years, and below the International Monetary Fund's forecast of 3.7 per cent growth at the start of the year.

Despite most economies continuing to deal with consequences from the 2008/09 global financial crisis (GFC), volatility in financial markets fell to low levels during the first part of 2014. Equity markets reached record levels, supported by sustained loose monetary policies. Nervousness however returned to the markets towards the end of year on the back of rising geopolitical tensions, a very sharp drop in oil prices and reminders of fragilities in the eurozone.

In China, growth in 2014 came just below the government's target of 7.5 per cent. The new leadership attempted to bring the credit boom of the past five years under control while preventing a contagion from weak property and export sectors to the broader economy. This balancing act is likely to continue into 2015 and we expect China's GDP growth to slow further to around seven per cent. The economy is in the middle of a long-signalled transition away from the investment-led and commodity-intensive growth model of the past couple of decades towards a stronger focus on consumption and services as well as a cleaner environment. This "new normal" implies still-significant but slower GDP growth and maturing commodity demand.

Among developed economies, monetary policies are moving on divergent paths. The US managed to shrug off severe winter disruptions at the start of 2014 to sustain a robust pace of growth. Manufacturing activity was strong throughout the year and the labour market strengthened appreciably. As a result, the Federal Reserve unwound its Quantitative Easing (QE) programme and the focus has now shifted towards the timing of the first interest rate hike in the US since the financial crisis, expected in 2015. In contrast, the European Central Bank has embarked on a new QE initiative in an attempt to kick-start a recovery in Europe's periphery countries, stimulate growth in the core beyond Germany and counter growing deflation risks. With the Bank of Japan also extending its QE programme in October 2014 there is an increasingly pronounced dual track in the post-GFC recovery process within Organisation for Economic Co-operation and Development (OECD) economies.

The divergent monetary policies are putting upward pressure on the US dollar, which rallied strongly against most currencies in the later part of 2014. Meanwhile, the euro fell to a nine-year low against the US currency by the start of 2015. The broad US dollar strength, combined with weaker metals and minerals prices, also put downward pressure on commodity-dependent currencies such as the Australian and Canadian dollars, both of which depreciated by around eight per cent in the course of 2014. Unlike foreign exchange, the US bond market was resilient to the anticipated shift in monetary policy last year. This could reflect concerns that even as developed economies finally emerge from post-GFC adjustment, they might only return to a growth trajectory that is lower than that of the early-2000s.

Drivers of commodity prices

Long-term structural economic trends are important drivers of future commodity prices through their effects on commodity demand. The economic development and urbanisation of emerging countries goes through an initial investment-led growth phase, which is particularly commodity-intensive. This benefits commodities such as steel and copper used in construction and infrastructure. As economies evolve, other commodities such as light metals, energy products and industrial minerals tend to take over as the main enablers of consumption-led growth models.

While the macroeconomic environment provides a common demand context, supply-side factors can result in stark structural differences between commodities. In principle, commodity prices will tend to have a relationship with the cost of developing and extracting metal and mineral resources. However the exact nature of that relationship depends on barriers to entry and exit, which are specific to each sector and evolve over time.

The long-term nature of mining investment, combined with high capital-intensity and long project lead-times, tends to result in cyclical investment patterns in the industry as a whole, which also translates into cyclical commodity prices.

Across many commodity sectors, the general supply trends in recent years have pointed towards fewer discoveries, falling ore grades and maturing existing operations as well as greater complexity of projects. In a context of accelerating demand from China, a period of higher prices and margins was required to incentivise the necessary supply-side response. With supply finally catching up with demand for most commodities, focus has naturally switched towards managing margin compressions and extracting productivity gains from recent investment instead of committing significant capital into new projects.

Commodity markets

The subdued global macro environment combined with strong supply resulted in significant downturns for most commodity prices in 2014 and into 2015.

Prices for iron ore, which had been one of the most resilient commodities in 2013, were down 30 per cent on average year-on-year in 2014. The addition of seaborne iron ore capacity exceeded demand growth, tipping the markets into oversupply. Pressured by falling prices, about 125 million tonnes of high cost production from China and non-traditional seaborne suppliers exited the market in 2014. The continued ramp-up of committed supply is expected to once again exceed the growth in iron ore demand in 2015. However, with further exits of high-cost producers anticipated, the market will be more in balance.

Thermal and metallurgical coal had already experienced large price falls in 2013 and continued on a declining trend in 2014, reaching five- and seven-year lows respectively. Production has been slow to react to the new price environment, in particular in China where State Owned Enterprises account for a large share of output, which, combined with further cost reductions across the industry, led to lower prices.

Aluminium was one of the few commodities to see an increase in prices in 2014 when considering rising regional premiums. A combination of continued stock financing and more disciplined supply contributed to the improved market environment. Indonesia's bauxite ore export ban remained in place throughout 2014, resulting in higher Chinese demand for alumina and bauxite from alternative sources. Lower bauxite inventories in China should support imports of Australian bauxite into China in 2015.

In copper, despite the stronger ramp-up in new mine supply, low reported inventories moderated the price decline in 2014. Concerns over near-term demand have weighed more heavily on copper prices so far in 2015.

Titanium dioxide prices remained under pressure in 2014 as inventories continued to be absorbed.

Outlook

Economic growth is likely to remain modest and only mildly supportive for commodity demand in the near term. The start of 2015 suggests it will be a challenging year with continued industry-wide margin compression. The falls in oil prices and applicable exchange rates will provide some relief for miners, but could also delay the exit of higher cost producers. It is therefore likely that the industry will continue to put strong controls over capital budgets and further focus on productivity, costs and margins.

Although the outlook for our operating environment remains tough, Rio Tinto is positioned to perform better than many competitors in challenging conditions. Our strong balance sheet and world-class portfolio are competitive advantages that equip us to generate sustainable returns through the cycle.

Group strategy

External pressures continue

The mining industry is cyclical. Following a decade-long growth phase, it has now firmly entered a period of lower prices, driven by a subdued global macro environment combined with strong supply. We expect the current phase of margin compression to continue as previously committed supply enters our markets and the key drivers of demand growth taper off. Meanwhile, volatility – a feature of the macroeconomic environment since the global financial crisis – is expected to continue, bringing with it further short-term risk.

Our response to this has been to continue to focus on productivity, cost reductions and capital discipline – squeezing maximum returns out of our existing businesses while ensuring only the best growth projects attract capital. Others in the sector have embarked upon similar paths. Inefficiencies are being exposed, and so reductions in costs and capital expenditure, productivity improvements, and project deferrals and cancellations have become widespread across the mining industry.

Despite the uncertain conditions that we currently face, the long-term outlook for our sector remains positive. These factors drive demand for the minerals and metals we produce, as essential ingredients of modern life. They make our business a sustainable and valuable one to be in.

Consistent strategy underpinned by six value drivers

In today's challenging market conditions it is all the more important to have a clear and effective strategy. We remain convinced that our longstanding and consistent strategy is the right one: to invest in and operate long-life, low-cost, expandable operations in the most attractive industry sectors.

Sustainable shareholder returns

In 2014 we reaffirmed our commitment to deliver sustainable returns to shareholders. Six critical value drivers underpin this commitment, and combine to create a platform for our ongoing success.



1. World-class portfolio

At the heart of Rio Tinto is a portfolio of world-class assets – from our Pilbara iron ore business, to our Queensland bauxite ore reserves, hydro-powered aluminium smelters, our global suite of copper mines and sector-leading energy, diamonds and minerals assets. We use a clear strategic framework to assess our existing assets and new opportunities – taking into account the industry attractiveness and the competitive advantage of each asset, and its capacity to deliver best-in-class returns.

2. Quality growth

We have a compelling pipeline of near-term and longer dated projects across the portfolio. By reinforcing capital discipline and reshaping our projects, we have retained significant, high quality growth despite significantly reducing our capital expenditure. Our project pipeline has a compelling internal rate of return and is expected to deliver strong compound annual growth.

3. Operating and commercial excellence

The safety of our people is core to everything we do, and we remain at the forefront of the industry in safety performance. A well-run operation is a safe operation.

We have established a leading position in the development and use of technology and innovation – allowing us to increase productivity and reduce risk. As the industry faces increasingly complex geological, environmental and cost pressures, our technology advantage will be an increasingly important value driver.

Our commercial activities aim to ensure we reap the maximum value from each of our businesses. Our marketing teams work hand-in-hand with our operations, so that our resource management is fully aligned to the market.

Over the years we have leveraged our understanding of customer needs to create new markets for our products, including high temperature Weipa bauxite, and champagne and pink diamonds. We deploy industry-leading capabilities in supply chain optimisation and a variety of logistics solutions across the Group – and have in-house centres of excellence for value-in-use analysis, pricing and contracting strategies. Together, these activities allow us to manage risk and capture value in all market conditions.

4. Balance sheet strength

In a cyclical and capital intensive industry such as mining, a strong balance sheet is essential in order to preserve optionality and generate shareholder wealth at all points in the cycle. We target a net gearing ratio of 20 to 30 per cent in order to maintain our robust balance sheet – and aim to stay at the lower end of this range at the current point in the cycle. This positions us favourably to withstand current industry pressures, protect shareholders and seize on any opportunities these market conditions create.

5. Capital allocation discipline

We have a consistent and disciplined approach to capital allocation. Our first allocation is to essential sustaining capital for our operations. Next, we fund our primary contract with our shareholders – the progressive dividend. Finally, we assess the best use of the remaining capital between alternatives of compelling growth, debt reduction and further cash returns to shareholders. At each stage, we apply stringent governance and assessment criteria as we seek to maximise return on every dollar spent.

6. Free cash flow generation

Over recent years we have made improvements to our business – increasing our productivity, reducing operating and capital costs and delivering incremental volume expansions from high quality projects. Together with the quality of our asset base, these actions enhance our capacity to generate free cash flows, and underpin our confidence in our ability to deliver sustainable returns to shareholders.

Progress against strategy

What we said we would do in 2014

What we did

World-class portfolio

Continue reshaping our portfolio	Announced or completed asset sales of US\$3.9 billion since 2013 (see page 19)
Curtail the Gove alumina refinery during the first half of 2014	Production at Gove curtailed in May 2014 (see pages 28 to 29)
Keep sustaining capital expenditure at 2013 levels of around US\$3 billion	Reduced sustaining capital expenditure to US\$2.7 billion (see page 13)

Quality growth

Reduce total capital expenditure to less than US\$11 billion in 2014 and to around US\$8 billion in 2015, while delivering steady growth	Reduced capital expenditure from US\$13.0 billion in 2013 to US\$8.2 billion, completing two major projects which enabled us to bring on significant new volumes (see page 18)
Continue to progress key evaluation projects at a pace that matches our overall view of investment priorities	Progressed studies at South of Embley (bauxite), La Granja and Resolution (copper), Zulti South (titanium dioxide), Mount Pleasant (thermal coal) and Ranger 3 Deeps (uranium) (see pages 28 to 37)
Ramp up the Pilbara operations to reach an annual production rate of 290 Mt/a before the end of the first half of 2014	Annual production rate of 290 Mt/a from the Pilbara reached in May 2014, two months ahead of schedule.
Increase Pilbara mine production capacity by 60 Mt/a between 2014 and 2017, by focusing predominately on brownfield expansions and low-cost productivity gains	40 Mt/a of low-cost, brownfield growth in implementation. Investment decision on Silvergrass mine not required in 2015. (see pages 36 to 37)
Continue to discuss the pathway forward for Oyu Tolgoi underground expansion with the Government of Mongolia	Continued discussions with the Government of Mongolia over the development pathway. Finalised underground feasibility study and technical report (see pages 30 to 31)

Operating and commercial excellence

Target, above all, the elimination of workplace fatalities	Regrettably, our Group had two fatalities at our managed operations during 2014 (see page 22)
Achieve year-on-year improvement in AIFR and lost time injuries	Our all injury frequency rate (AIFR) improved from 0.65 per 200,000 hours worked in 2013 to 0.59 in 2014 (see page 22)
Improve how we manage critical risks and learn from serious potential accidents	Updated our safety strategy to confirm our focus on injury reduction and strengthen our emphasis on fatality elimination and catastrophic event prevention (see page 22)
Deliver further savings to reach US\$3 billion full-year improvement in 2014 versus 2012 in operating cash costs	Achieved a further US\$1.3 billion of operating unit cash cost improvements in 2014, delivering total operating cash cost savings of US\$3.6 billion versus 2012 (see page 40)
Maintain the reduced exploration and evaluation spend achieved in 2013	Reduced exploration and evaluation spend by a further US\$0.2 billion (see page 38)
Increase sales volumes at Oyu Tolgoi	Increased mined copper and gold production at Oyu Tolgoi by 94% and 275% respectively compared with 2013, with copper sales increasing seven-fold (see pages 30 to 31)

Group strategy continued

What we said we would do in 2014

What we did

Balance sheet strength

Pay down debt to a more sustainable level

Reduced net debt from US\$22.1 billion in June 2013 to US\$12.5 billion at 31 December 2014. The gearing ratio at the end of 2014 was 18.6%, compared with 25.2% at the end of 2013 (see page 13)

Capital allocation discipline

Continue to apply our enhanced capital allocation systems and controls

Maintained “cash generation offices” to strengthen the focus on cash and improve visibility for senior managers in this area
Continued to reinforce Investment Committee approvals process (see pages 18 to 19)

Allocate capital in the following order of priority: essential sustaining capital expenditure; progressive dividends; iterative cycle of compelling growth, debt reduction, and further cash returns to shareholders

Disciplined capital allocation framework adhered to, resulting in: sustaining capital of US\$2.7 billion, progressive dividend of US\$3.7 billion, compelling growth of US\$5.5 billion and net debt reduction of US\$5.6 billion (see pages 18 to 19)

Free cash flow generation

Reduce working capital

Released US\$1.5 billion of working capital (see page 1)

Materially increase returns to shareholders

Increased our progressive dividend by 12 per cent and announced on 12 February 2015 a share buy-back of US\$2.0 billion (a combined increase of 64 per cent compared with 2013) (see pages 18 to 19)

Our 2015 strategic priorities

We will continue to focus on our critical value drivers in 2015, in order to meet our commitment to deliver sustainable returns to shareholders.

As always, we will maintain our relentless focus on safety, as measured by both the elimination of fatalities and minimising all injury frequency rates and lost time injuries.

We will continue to shape our world-class portfolio – ensuring that we focus on only the highest returning assets in our preferred industry sectors, and that our capital is deployed in the most efficient way.

We will further enhance our portfolio as we complete a number of key growth projects, including the infrastructure for our 360 Mt/a iron ore expansion and our new Kitimat smelter. Beyond this, we will progress our South of Embley bauxite project and will continue our work on creating the conditions necessary to further advance the underground expansion of Oyu Tolgoi. Importantly, we will deliver measured, value-adding growth while reducing our capital expenditure to less than US\$7.0 billion in 2015.

Our strong focus on costs will continue in 2015, as we target further operating cash cost savings of US\$750 million and continue to optimise our working capital. We will further leverage our strength in technology and innovation, and our leading commercial capabilities, to ensure we remain the supplier of choice to our customers and maximise the cash generated from every business.

Maintaining our balance sheet strength will remain a core priority. We aim to maintain our gearing ratio at the low end of the 20 per cent to 30 per cent range.

Business model

How we create value

Rio Tinto owns a portfolio of world-class assets, the result of investment decisions made in line with our longstanding strategy. The way we find, develop and operate these assets; the way we market the minerals and metals we produce; and the legacy we leave at the end of these assets' lives enables us to create value and deliver sustainable shareholder returns.

Through productivity improvements, cost reductions and prudent growth we preserve and enhance value from our portfolio. We commit to finding ever safer, smarter and more sustainable ways to run our businesses, and our competitive advantages – which spring from a combination of our assets, our people, our capabilities and our values – keep us strong throughout the cycle.

Explore and evaluate

Our experienced in-house exploration team has a proven track record of discovering Tier 1 orebodies: the highest-value deposits that are profitable throughout the commodity cycle. We maximise opportunities by exploring for and evaluating deposits in new geographies and in our preferred commodities. We also explore the orbits of our current operations, like Weipa in Australia or Bingham Canyon in the US, which sustains the value of our existing businesses. So that we can keep our focus on targets that are important to Rio Tinto, we operate the majority of exploration programmes ourselves, rather than outsourcing. We will, however, partner with others if it gives us access to attractive opportunities, or skills, that we do not possess in-house, and which support the quality of our exploration pipeline.

Our orebody knowledge allows us to find value-enhancing ways of developing our resources and positioning our products in the marketplace, and helps support the Group's investment decision-making. Our geological expertise gives us the confidence to keep hunting for the most elusive discoveries. And we have a strong tradition of developing and applying innovative technologies to resolve specific exploration challenges.

Develop

We develop orebodies for long-term value delivery. We have strengthened our investment assessment criteria, our levels of independent review of opportunities and our investment approval processes. We approve investment only in opportunities that, after prudent assessment, offer attractive returns that are well above our cost of capital.

During the development phase, we plan the most efficient configuration for mining the orebody and for getting the products to market. We work closely with our customers, to create demand for the optimal suite of products, thus maximising value over the deposit's lifetime. Once the value of the resource is confirmed, and internal and external approvals are received, the project moves into implementation and construction. We aim to deliver projects on time and on budget – such as reaching our targeted 290 Mt/a annual production rate from the Pilbara iron ore operations in May 2014, two months ahead of schedule.

Mine and process

We create value by safely and efficiently operating assets that fit with our strategy. By focusing on operating excellence we will sustain our low-cost leadership position and drive our operations even further down the cost curve.

Our global operating model allows us to implement standard processes and systems across the Group, for instance in procurement, operations and maintenance. This increases the life of our equipment and optimises the extraction of ore. In turn, we enjoy higher production and reduced costs, and we maximise value.

Our commitment to technology and innovation sets us apart from our peers and allows us to take advantage of opportunities that may not be available to others. Our world-class technologies bring us ongoing productivity benefits, and help us tailor our products to our customers' needs. Through our network of partnerships with academia, technology suppliers and other experts, we gain access to knowledge and technical prowess that augment our own capabilities.

Market and deliver

Supplying high-quality products, which have been developed to meet our customers' needs, is the basis of our business. Our diverse portfolio of metals

and minerals allows us to respond to demand across the development cycle: we supply basic raw materials and refined products that are the building blocks of added-value goods. Most of our customers are industrial companies that process our products further and supply numerous sectors – including construction and infrastructure, automotive, machinery, energy and consumer goods.

Our marketing teams work closely with our operations, so that our resource management is fully aligned to the market, and we innovate and improve our products and services to maximise value to customers.

We are constantly adding to our knowledge of our markets and our customers' requirements, allowing us to improve our investment decisions. In many cases, we are responsible for delivering product to our customers, and do so efficiently, reliably and cost-effectively. We have capabilities across a variety of logistics solutions, including our own networks of rail, ports and ships.

Close down and rehabilitate

We integrate closure planning throughout an asset's life cycle, from the earliest stages of project development, and aim to progressively rehabilitate as much land as possible before closure. When a resource reaches the end of its life, we seek sustainable and beneficial future land uses, to minimise financial, social and environmental impact. We work together with our stakeholders to identify post-closure options that take into account their concerns and their priorities for the use of the land. By partnering with external conservation organisations, we access expertise that helps us improve our rehabilitation performance. Our approach helps us to maintain a positive reputation and uphold our licence to operate.

Read more about how we embed sustainability throughout our business on pages 20 to 26.

Delivering value for our stakeholders

Rio Tinto's primary focus is on the delivery of value for our shareholders. We balance disciplined investment with prudent management of our balance sheet and cash returns to shareholders. We offer a long-term investment opportunity, and commit to sustainable growth in returns to shareholders through our progressive dividend policy. As we work, fixed on this core aim, our activities also give us the opportunity to create value for our other stakeholders, in a variety of ways.

Customers

We supply our customers with the right products at the right time. They then add further value, by turning them into the end products that society needs to make modern life work.

Communities

Our operations create employment and career development opportunities for our local communities, as well as business opportunities for local suppliers. Communities often benefit from the infrastructure we put in place to serve our facilities and, once our operations are closed, we restore the sites – often for community use, new industry, or back to native vegetation.

Our people

We invest in our people throughout their careers, offering diverse employment prospects, opportunities for development, and competitive rewards and benefits that have a clear link to performance.

Governments

We are often a major economic contributor to the local, state and national jurisdictions in which we operate. Our tax and sovereign equity contributions enable governments to develop and maintain public works, services and institutions. We work together to facilitate growth of diverse and sustainable economies that endure far beyond the active life of our operations.

Suppliers

By seeking a balance of global, national and local supply capability, and supporting local supplier development, we drive value for our shareholders and deliver economic benefits for the communities in which we operate.

Key performance indicators

Our key performance indicators (KPIs) enable us to measure our financial and sustainable development performance. Their relevance to our strategy and our performance against these measures in 2014 are explained below.

Some KPIs are used as a measure in the long-term incentive arrangements for the remuneration of executives. These are identified with this symbol:





KPI trend data


The Group's performance against each KPI is covered in more detail in later sections of this Annual report. Explanations of the actions taken by management to maintain and improve performance against each KPI support the data.

See the Remuneration Report on page 64

Indicator

All injury frequency rate (AIFR) 
 Per 200,000 hours worked

Underlying earnings^(a) ^(b) 
 US\$ millions

Net cash generated from operating activities^(a) 
 US\$ millions

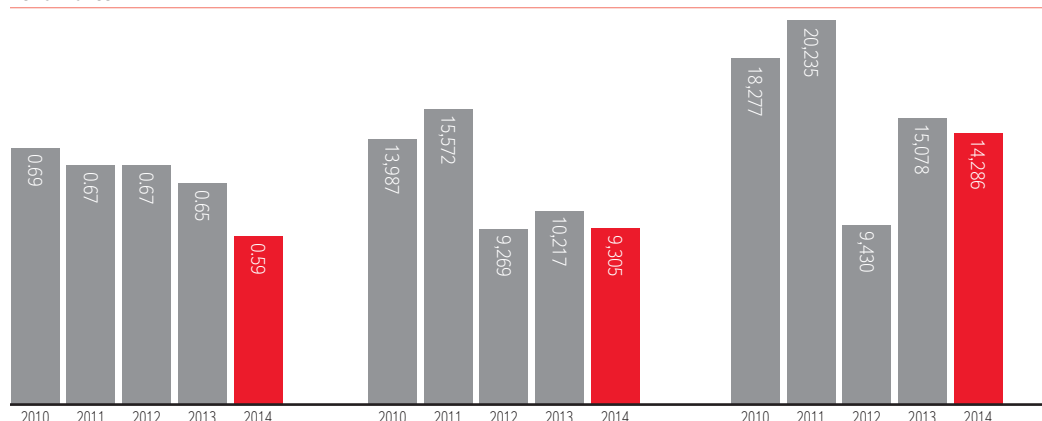
Relevance to strategy

The safety of our people is core to everything we do. Our goal is zero harm, including, above all, the elimination of workplace fatalities. We are committed to reinforcing our strong safety culture, and improving safety leadership.

This is the key financial performance indicator used across the Group. It gives insight to cost management, production growth and performance efficiency. We are focused on reducing our costs and increasing productivity to improve earnings and deliver sustainable returns to shareholders.

Net cash generated from operating activities is a complementary measure demonstrating conversion of underlying earnings to cash. It provides additional insight to how we are managing costs and increasing efficiency and productivity across the business in order to deliver increased returns.

Performance



Our AIFR has improved by 14 per cent over the last five years. We improved our AIFR by nine per cent from 2013. However, we did not meet our goal of zero fatalities and two people died while working at Rio Tinto managed operations in 2014.

Underlying earnings have decreased by US\$912 million compared with 2013. This reflects strong volumes (primarily in iron ore), favourable exchange rates, operating cash cost improvements and reductions in exploration and evaluation expenditure, which largely offset the unfavourable effect of price movements on major commodities.

Net cash generated from operating activities of US\$14,286 million, which include US\$298 million of dividends from equity accounted units, are five per cent lower than in 2013, primarily as a result of lower prices which were partially offset by higher volumes, cash cost improvements and favourable movements in working capital.

Notes

- (a) The accounting information in these charts is drawn up in accordance with IFRS.
- (b) Underlying earnings is the key financial performance indicator which management uses internally to assess performance. It is presented here as a measure of earnings to provide greater understanding of the underlying business performance of the Group's operations. Items excluded from net earnings to arrive at underlying earnings are explained in note 2 to the 2014 financial statements. Both net earnings and underlying earnings deal with amounts attributable to the owners of Rio Tinto. However, IFRS requires that the profit for the year reported in the income statement should also include earnings attributable to non-controlling interests in subsidiaries.

Definition

AIFR is calculated based on the number of injuries per 200,000 hours worked. This includes medical treatment cases, and restricted work-day and lost-day injuries for employees and contractors.

Items excluded from net earnings to arrive at underlying earnings are explained in note 2 to the 2014 financial statements.

Net cash generated from operating activities represents the cash generated by the Group's consolidated operations, after payment of interest, taxes, and dividends to non-controlling interests in subsidiaries.

More information

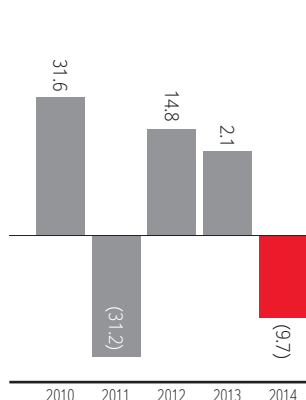
Page 22

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Total shareholder return (TSR) ^(\$)
%

The aim of our strategy is to maximise total shareholder return over the long term. This KPI measures performance in terms of shareholder wealth generation. We also monitor our relative TSR performance against peers.

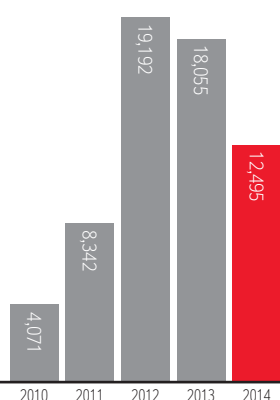


Rio Tinto's TSR performance over the five-year period from 2010 to 2014 was characterised by continued nervousness in global equity markets. Total dividends paid in calendar year 2014 were 204.5 US cents per share, a 15 per cent increase on 2013. The subdued global macro environment coupled with a strong supply response caused prices for many of our commodities to decrease, which, in turn, pushed the Rio Tinto plc and Rio Tinto Limited share prices lower in 2014. These factors resulted in the Rio Tinto Group registering a TSR of -9.7 per cent in 2014.

TSR combines share price appreciation and dividends paid to show the total return to the shareholder.

Net debt^(a)
US\$ millions

Net debt is a measure of how we are managing our balance sheet and capital structure. A strong balance sheet is essential for withstanding external pressures and seizing opportunities through the cycle. We constantly evaluate and balance the alternative uses for our cash between disciplined investment, strengthening our balance sheet, and returning cash to investors.

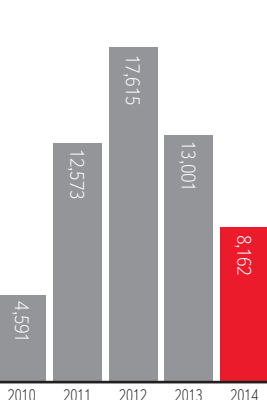


Net debt decreased from US\$18,055 million at 31 December 2013 to US\$12,495 million at 31 December 2014 due to operating cash inflows from divestment proceeds and the Turquoise Hill rights offering far exceeding outflows relating to capital expenditure and the increased dividend payment.

Net debt is calculated as: the net borrowings after adjusting for amounts due to equity accounted units originally funded by Rio Tinto, cash and cash equivalents, other liquid resources and derivatives related to net debt. This is further explained in note 24 "Consolidated net debt" to the 2014 financial statements.

Capital expenditure^(a)
US\$ millions

We adopt a consistent approach to capital allocation. We are committed to a disciplined and rigorous investment process – investing capital only in assets that, after prudent assessment, offer attractive returns that are well above our cost of capital.

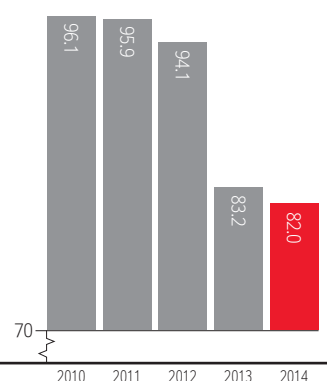


Capital expenditure declined by US\$4,839 million or 37 per cent to US\$8,162 million in 2014, following the completion of five major capital projects in 2013 (Pilbara iron ore infrastructure expansion to 290 Mt/a, Oyu Tolgoi copper/gold mine, AP60 aluminium smelter, Kestrel coking coal mine and Argyle underground diamond mine).

Capital expenditure comprises the cash outflow on purchases of property, plant and equipment, and intangible assets.

Greenhouse gas (GHG) emissions intensity
Indexed relative to 2008 (2008 being equivalent to 100)

Our GHG performance is an important indicator of our commitment and ability to manage exposure to future climate policy and legislative costs, and is closely linked to our energy use and cost. We are focusing on reducing the energy intensity of our operations as well as the carbon intensity of our energy, including through the development and implementation of innovative technologies.



We have reduced our total GHG emissions intensity by 18 per cent between 2008 and 2014. This is largely a result of the aluminium smelter divestments (Ningxia in 2009, Sebree and Saint Jean in 2013), closure of the Lynemouth smelter in 2012, commissioning of our low intensity AP60 smelter in late 2013 and improved measurement methodology for coal seam gas at our Australian coal mines.

Our GHG emissions intensity measure is the change in total GHG emissions per unit of commodity production relative to a base year. Total GHG emissions are direct emissions, plus emissions from imports of electricity and steam, minus electricity and steam exports and net carbon credits purchased from, or sold to, recognised sources.

Principal risks and uncertainties

The focus on the six value drivers articulated on pages 8 to 10 has been accompanied by a significant review of the principal risks and uncertainties the business faces.

Overview of Rio Tinto's risk management framework

Our risk management framework recognises that managing risk effectively is an integral part of how we create value, and fundamental to our business success. The responsibility for identifying and managing risks lies with all of Rio Tinto's managers and business leaders. They operate within the Group-wide framework to ensure that risks are managed within agreed thresholds. The framework, underpinned by Rio Tinto's Risk policy and standard, includes clearly-defined oversight responsibilities for the board of directors and the Executive Committee, supported by the Risk Management Committee. It also outlines the roles played by central support functions, by Group Risk, and by Group Audit & Assurance to support effective risk analysis and management across Rio Tinto.

This approach reflects a "three lines of defence" model for the management of risks and controls:

- First line of defence: ownership of risk by the operations.
- Second line of defence: control of risk by Group functions and management committees.
- Third line of defence: assurance of our systems by Group Audit & Assurance.

More information on the Group's approach to risk management can be found in the corporate governance section on page 62.



Risk factors

Rio Tinto's business units and functions assess the potential economic and non-economic consequences of their respective risks using the framework defined by the Group's Risk policy and standard. Principal risks and uncertainties are those that the Risk Management Committee, business unit or function determine to have potential material consequences at a Group level. They also include factors that may trigger a succession of events that, in aggregate, become material to the Group. Once identified, each principal risk or uncertainty is reviewed by the relevant internal experts and by the Risk Management Committee.

Pages 15 to 17 describe the currently-known principal risks and uncertainties that could materially affect Rio Tinto or its ability to meet its strategic objectives. There may be additional risks unknown to Rio Tinto and other risks, currently not believed to be material, which could turn out to be material. The risk factors outlined do not include the management detail on how each is managed and mitigated, or the controls established to decrease the likelihood or impact of these risks occurring. This is discussed in more detail on page 62.

Risks may materialise individually, simultaneously or in combination and could significantly affect the Group's:

- short, medium and long-term business and prospects;
- earnings, cash flow and financial position;
- overall financial results and product demand;
- current asset values;
- future asset values and growth potential;
- safety record and the long, medium and short-term health of its employees;
- environmental and social impact on neighbouring communities;
- social licence to operate; or
- Group or business unit reputation.

The principal risks and uncertainties should be considered in connection with any forward-looking statements in this document and the cautionary statement on the inside front cover.

External risks

Factor	Nature
Commodity prices and global demand for the Group's products are expected to remain uncertain	Commodity prices and demand are volatile and strongly influenced by fluctuating world economic conditions. The Group's policy is to sell its products at prices that reflect the value of our products in the market and not to enter into price hedging arrangements.
Past strong demand for the Group's products in China could be affected by future developments in that country	<p>The Group is highly exposed to the Chinese market. China's demand for any of the Group's products, and iron ore in particular, could be substantially affected by:</p> <ul style="list-style-type: none"> – an economic slowdown in China; – financial or banking market conditions impacting investment; – an accelerated shift from infrastructure-led to service-oriented growth; or – a material change in energy policy. <p>Any or all of these may adversely affect the Group's profitability and cash position.</p>
Rio Tinto is exposed to fluctuations in exchange rates	The vast majority of the Group's sales are denominated in US dollars, which is also the currency used for holding surplus cash, financing operations, and presenting external and internal results. Although many costs are incurred in US dollars, a significant portion are incurred in, or influenced by, the local currencies of the countries where the Group operates, principally the Australian dollar and Canadian dollar. The Group's normal policy is not to hedge foreign exchange rates and so the Group may be adversely affected by appreciation in the value of other currencies against the US dollar, or to prolonged periods of exchange rate volatility. Currency fluctuations may negatively impact the Group's profitability and dividend payments as well as rating agency metrics and asset carrying values.
Political, legal and commercial changes in the places where the Group operates	<p>The Group operates across a large number of jurisdictions, resulting in exposure to a broad spectrum of economies, political and legal frameworks and societal norms. Each jurisdiction poses unique complexities and challenges that in turn impose risks on the value chain, from new business development through to closure and rehabilitation, and on asset carrying values. These can include:</p> <ul style="list-style-type: none"> – difficulty in obtaining agreements, leases or permits for new activities; – renegotiation, unilateral variation or nullification of existing agreements, leases and permits; – changes in government ownership levels in Group businesses; – changes in taxation rates, regimes or international tax agreements; – currency and foreign investment restrictions; – limitations to power, water, energy and infrastructure access; and – general increases in regulation and compliance requirements. <p>Jurisdiction-specific behaviour or circumstance may also present uncertainties to our operating environment: unclear land title and rights to land and resources (including Indigenous title); political and administrative change, policy reform, and changes in law or government regulation; an inherent culture of bribery and corruption; violent criminal or sectarian tensions. Any such jurisdictional instability or legislative uncertainty that impacts the Group's operations may result in increased costs, curtail or negatively impact existing operations and/or prevent the Group from making future investments.</p>
Community disputes in the countries and territories in which the Group operates	Some of the Group's current and potential operations are located in or near communities that may regard these operations as being detrimental to them. Community expectations are typically complex, with the potential for multiple inconsistent stakeholder views that may be difficult to resolve. Stakeholder opinion and community acceptance can be subject to many influences, for example, related industries, operations of other groups, or local, regional or national events in any of the places where we operate. These disputes can disrupt our operations and may increase our costs, thereby potentially impacting our revenue and profitability. In the extreme, our operations may be a focus for civil unrest or criminal activity, which can impact our operational and financial performance, as well as our reputation.
Increased regulation of greenhouse gas emissions could adversely affect the Group's cost of operations	Rio Tinto's operations are energy-intensive and depend on fossil fuels. In numerous jurisdictions, there is increasing regulation of greenhouse gas emissions, tighter emission reduction targets and progressive introduction of carbon pricing mechanisms. These may raise worldwide energy, production and transport costs over the medium to long term, which may increase the Group's cost base and potentially negatively impact the Group's profitability.
Regulations, standards and stakeholder expectations regarding health, safety, environment and community evolve over time and unforeseen changes could have an adverse effect on the Group's social licence to operate, business viability and reputation	The resources sector is subject to extensive health, safety and environmental laws, regulations and standards alongside community and stakeholder expectations. Evolving regulation, standards and stakeholder expectations could result in increased costs, regulatory action, litigation or, in extreme cases, threaten the viability of an operation.

Principal risks and uncertainties continued

Strategic risks

Factor	Nature
The Group's exploration and development of new projects might be unsuccessful	Rio Tinto identifies new orebodies and mining properties through its exploration programme, and develops or expands other operations as a means of generating shareholder value. Exploration is not always successful and there is a high degree of competition for world-class orebodies. The Group may also not be able to source or maintain adequate financing, or may be unable to find willing and suitable joint venture partners to share the cost of developing large projects. Furthermore, project execution may not proceed as planned and project budgets and schedules may prove inaccurate, all of which may negatively impact the Group's profitability and the mineral resources from which future cash flows should come.
Rio Tinto may fail to successfully execute divestments and acquisitions	Potential acquisitions may not succeed and the Group may not be able to successfully divest assets it wishes to sell, resulting in unforeseen pressure on the Group's cash position or reducing the Group's ability to expand operations as a means of generating shareholder value. All business combinations or acquisitions entail a number of risks, including the cost of effectively integrating acquisitions to realise synergies, significant write-offs or restructuring charges, and unanticipated costs and liabilities. The Group may also be liable for the past acts, omissions or liabilities it has acquired that were unforeseen or greater than anticipated. The Group may also face liabilities for divested entities if the buyer fails to honour all commitments or the Group agrees to retain certain liabilities.
Large outsourcing programmes may result in exposure to third-party failure, or loss of intellectual property	The Group is implementing business transformation programmes to increase efficiency. These include outsourcing and off-shoring elements of important business support delivery as well as increasing procurement of goods and services from emerging market suppliers. The Group may be exposed to business continuity failure impacting financial performance, loss of intellectual property or data, data privacy violations and/or reputational damage as a result of third-party failure or actions.

Financial risks

Factor	Nature
The Group's reported results could be adversely affected by the impairment of assets including goodwill	The Group may be required to record impairment charges as a result of adverse developments in the recoverable values of its assets (including goodwill). Significant assumptions in the determination of recoverable value include, but are not limited to: pricing of the Group's commodities and products, reserves and resources, infrastructure availability, discount and foreign currency exchange rates, operating and development cost projections, and the timing of expenditure and revenues related to major projects. In addition, the occurrence of unexpected events, or events beyond the Group's control that adversely impact its business, may have an impact on the assumptions underlying the recoverable value of its assets. The foregoing items are not exhaustive and impairments may be caused by factors currently unknown to the Group. To the extent that the recoverable value of an asset is impaired, such impairment will negatively impact the Group's profitability during the relevant period.
Discount rates used in determining provisions and asset valuations may change, causing changes to provisions, asset carrying values and capital allocation	<p>Discount rates are utilised to determine provisions for costs of known future obligations (such as close-down and remediation) as well as valuing assets for impairment testing and capital allocation purposes. Discount rates may vary over time as underlying assumptions change. These assumptions include observable long term government bond yields, market risk premiums, and other situational changes (such as change in political stability in a particular jurisdiction).</p> <p>Changes to the discount rate may impact the size of provisions recognised, lead to changes in the carrying value of assets, or alter the capital allocated to various projects.</p>
The Group's liquidity and cash flow expectations may not be realised, inhibiting planned expenditure	Both the Group's ability to fund planned expenditure such as capital growth, mergers and acquisitions, innovation and other objectives or obligations as well as the ability to weather a major economic downturn could be compromised by inadequate access to sufficient liquidity, including external financing sources such as bank financing or capital markets.
Failure to reduce costs may result in reduced margins	Failure to reduce costs may have an adverse impact on our operating margins and the viability of our capital expansion projects.

Operational risks

Factor	Nature
Estimates of ore reserves are based on uncertain assumptions that, if changed, could result in the need to restate ore reserves	There are numerous uncertainties inherent in estimating ore reserves, including subjective judgments and determinations that are based on available geological, technical, contract and economic information. Previously valid assumptions may change significantly with new information, which may result in changes to the economic viability of some ore reserves and the need for them to be restated. In addition, volatility in commodity prices can result in substantial adjustments in the Group's recognition of ore reserves.
Labour disputes could lead to lost production and/or increased costs	Some of the Group's employees, including employees in non-managed operations, are represented by labour unions under various collective labour agreements. The Group may not be able to renegotiate agreements satisfactorily when they expire and may face difficult negotiations, higher wage demands or industrial action. In addition, labour agreements may not prevent a strike or work stoppage and labour disputes may arise even in circumstances where the Group's employees are not represented by labour unions.

Factor	Nature
Some of the Group's technologies are unproven and failures could adversely impact costs and/or productivity	The Group has invested in and implemented new technologies both in information systems and in operational initiatives, some of which are unproven and their eventual viability cannot be assessed with certainty. The actual benefits of these technologies may differ materially from expectations.
The Group may be exposed to major failures in the supply chain for specialist services, equipment and materials	Rio Tinto operates within a complex supply chain depending on suppliers of materials, services, equipment, and infrastructure, and on providers of logistics. Supply chain failures, or significantly increased costs within the supply chain, for whatever reason, could have an adverse effect on the Group's business.
Joint ventures, strategic partnerships or non-managed operations may not be successful and may not comply with the Group's standards	<p>The Group participates in several joint venture and partnership arrangements, and it may enter into others, all of which involve risk. Whether or not the Group holds majority interests or maintains operational control in its joint ventures, its partners may:</p> <ul style="list-style-type: none"> – have economic or business interests or goals that are inconsistent with, or opposed to, those of the Group; – exercise veto rights to block actions that the Group believes are in its or the joint venture's best interests; or – be unable or unwilling to fulfil their obligations under the joint venture or other agreements, such as contributing capital to expansion or maintenance projects. <p>Where these joint ventures are controlled and managed by others, the Group may provide expertise and advice but has limited control over compliance with its standards and objectives. Controlling partners may take action contrary to the Group's interests or policies, resulting in adverse impact to the Group's operations, financial performance, legal liability or reputation.</p>
The Group's operations are vulnerable to a range of interruptions, not all of which are covered fully by insurance	<p>1. Natural disasters and events</p> <p>Mining, smelting, refining and infrastructure installations are vulnerable to natural events including earthquakes, subsidence, drought, flood, fire, storm and climate change.</p> <p>2. Sustained operational difficulties</p> <p>Operating difficulties are many and various, ranging from geological variations that could result in significant ground or containment failure to breakdown of key capital equipment. Reliable roads, rail networks, ports, power generation and transmission, and water supplies are required to access and conduct our operations and deliver product to market. Limitations, delayed development, bottlenecks or interruptions in infrastructure, including as a result of third parties gaining access to our integrated facilities, could impede our ability to deliver products.</p> <p>3. Information technology and cyber security</p> <p>The Group relies heavily on information technology and process control systems to support our business. In common with most large global companies, the Group has experienced cyber attacks and is faced with ongoing threats to the confidentiality, integrity and availability of such systems. An extended failure of critical system components, caused by accidental or malicious actions, including those resulting from a cyber security attack, could result in a significant environmental, health or safety incident, commercial loss or interruption to operations.</p> <p>4. Major operational failure</p> <p>The Group's operations involve chemicals and other substances stored under high temperature and pressure, with the potential for fire, explosion or other loss of control of the process, leading to a release of hazardous materials. This could occur by accident, systems failure or a breach of operating standards, and could result in a significant environmental, health or safety incident.</p> <p>5. Sustained pandemic</p> <p>The Group has exploration, development projects and operations in numerous countries and is reliant on effective global shipping/transportation movements to deliver product to markets. The sustained outbreak of a pandemic may result in health exposure to our workforce as well as the temporary closure of a site or access to shipping/transportation movements, adversely impacting financial performance.</p> <p>The Group's insurance does not cover every potential loss associated with its operations and adequate coverage at reasonable rates is not always obtainable. In addition, insurance provision may not fully cover its liability or the consequences of any business interruption. Any occurrence not fully covered by insurance could have an adverse effect on the Group's business.</p>
The Group depends on the continued services of key personnel	The Group's ability to maintain its competitive position is dependent on the services of a wide range of highly-skilled and experienced personnel available in the locations where they are needed. Failure to recruit and retain key staff, and the inability to deploy staff worldwide, where they are most needed, could affect the Group's business. Similar constraints may be felt by the Group's key consultants, contractors and suppliers, thereby impacting the Group's operations, expansion plans or business more generally.
The Group's costs of close-down, reclamation, and rehabilitation could be higher than expected	Close-down and reclamation works to return operating sites to the community can be extensive and costly. Estimated costs are provided for, and updated annually, over the life of each operation but the provisions might prove to be inadequate due to changes in legislation, standards and the emergence of new, or increases in the cost of, reclamation techniques. In addition, the expected timing of expenditure could change significantly due to changes in the business environment that might vary the life of an operation.

Capital allocation

The aim of Rio Tinto's capital allocation process is to invest in a sustainable way through the cycle, having consideration of shareholders' expectations of returns, and the robustness of our balance sheet. This is achieved through an evaluation and prioritisation of the Group's portfolio of investment opportunities over a number of years to determine what will be the best use of capital.

Key considerations in determining the best use of capital include the progressive dividend policy and the strength of the balance sheet. This, together with financial policies, existing capital commitments and net cash generated from operating activities forecasts set the boundaries for how much capital is available for investment.

In today's capital-constrained environment, only the highest-returning investments will be approved. The Group analyses each investment based on net present value but also considers a number of further factors, including internal rate of return, payback period and risk profile. This suite of ranking criteria, together with the application of strategic judgment, ensures that capital is deployed to the best opportunities.

Rio Tinto's capital expenditure reduced by 37 per cent to US\$8.2 billion in 2014, compared with the peak level in 2012 of US\$17.6 billion. It is expected to be reduced further to less than US\$7 billion in 2015 of which around US\$2.5 billion is expected to be sustaining capital. Rio Tinto funded its capital expenditure with net cash generated from operating activities in 2014 and aims to continue funding its capital programme from internal sources.



Major capital projects (>US\$1bn)

(Rio Tinto 100% owned unless otherwise stated)	Total approved capital cost (100%) US\$	Status/milestones
In production		
Iron ore – expansion of the Pilbara mines, ports and railways from 237 Mt/a to 290 Mt/a. (Rio Tinto share US\$8.4bn).	\$9.8bn	The integrated mines, rail and ports reached a run-rate of 290 Mt/a in May 2014, two months ahead of schedule. The Nammuldi mine expansion was completed and is commencing production.
Ongoing and approved		
Iron ore – expansion of the Pilbara port, rail and power supply capacity to 360 Mt/a. (Rio Tinto share, US\$3.5bn).	\$5.9bn	The phase two expansion to 360 Mt/a includes investment in the port, rail and power supply and investment in automation.
Iron ore – investment to extend the life of the Yandicoogina mine in the Pilbara to 2021.	\$1.7bn	The investment includes a wet processing plant to maintain product specification levels.
Aluminium – modernisation and expansion of Kitimat smelter in British Columbia, Canada to increase capacity from 280ktpa to 420ktpa.	\$4.8bn	First production from the modernisation is expected towards the end of the first half of 2015 with full capacity expected to be reached in the first half of 2016.
Copper – development of Organic Growth Project 1 (OGP1) at Escondida (Rio Tinto 30%), Chile.	\$1.3bn (Rio Tinto share)	Replacement of the Los Colorados concentrator with a 152kt per day plant, accessing higher-grade ore. Initial production is expected in the first half of 2015.
Copper – construction of a desalination facility to ensure continued water supply and sustain operations at Escondida (Rio Tinto 30%), Chile.	\$1.0bn (Rio Tinto share)	The project is designed to provide a sustainable supply of water for the new OGP1 copper concentrator. Commissioning is scheduled for 2017.

Cash returns to shareholders

The aim of Rio Tinto's progressive dividend policy is to maintain or increase the US dollar value of ordinary dividends per share. The rate of the total dividend, in US dollars per share, is determined annually, taking into account the results for the past year and the outlook. The interim dividend is set at one half of the total dividend per share for the previous year.

The full year dividend in respect of 2014 was increased by 12 per cent, to 215 US cents per share, reflecting the board's confidence in the business and its attractive prospects. This follows a 15 per cent increase in both the 2013 and 2012 full year dividends.

In February 2015, Rio Tinto announced a US\$2.0 billion share buy-back programme, comprising a targeted A\$500 million (c. US\$0.4 billion) off-market share buy-back tender of Rio Tinto Limited shares and the balance of approximately US\$1.6 billion for an on-market buy-back of Rio Tinto plc shares.

These represent a total cash return to shareholders, in respect of 2014, of almost US\$6.0 billion, an increase of approximately 64 per cent on 2013.

Divestments and acquisitions

Asset	Consideration US\$m	Status
Divested in 2014		
Clermont Joint Venture	1,015 ^(a)	Sold to GS Coal Pty Ltd.
Rio Tinto Coal Mozambique	50 ^(a)	Sold to International Coal Ventures Private Limited (ICVL).
Sørål	Undisclosed	Sold to Norsk Hydro.
Alucam	Undisclosed	Sold to the Government of Cameroon.
Divested in 2013		
Northparkes mine	820	Sold to China Molybdenum Co. Ltd.
Constellium	671	Shares sold to general public.
Palabora Mining Company Limited	373	Sold to a consortium led by Industrial Development Corporation of South Africa and Hebei Iron & Steel Group.
Eagle nickel – copper project	315	Sold to Lundin Mining Corporation.
Altynalmas Gold	235	Sold to Sumeru Gold B.V.
Inova Resources Limited	81	Sold to Shanxi Donghui Coal Coking & Chemicals Group Co.
Sebree	48	Sold to Century Aluminum Co.
Divested in 2012		
Alcan Cable	229	Sold to General Cable Corporation.
Specialty Alumina businesses	Undisclosed	Sold to H.I.G.
Lynemouth Power Station	Undisclosed	Sold to RWE.
Energy – Extract Resources Ltd/Kalahari Minerals plc	429	Equity investment sold to Taurus Mineral Limited.
Acquired in 2012		
Copper – Turquoise Hill Resources Ltd. (formerly Ivanhoe Mines Limited)	307	Purchase of additional shares increasing the Group's holdings to 51 per cent.
Minerals – Richards Bay Mining Proprietary Limited	1,700	Acquisition of BHP Billiton Group's entire interests in Richards Bay Minerals, doubling the Group's holding to 74 per cent.

(a) Before working capital and completion adjustments.

There were no material acquisitions in 2014 or 2013.

Sustainable development

Rio Tinto's vision is to be a company that is admired and respected for delivering superior business value and for being the industry's trusted partner. To earn this trust we must continually find safer, smarter, more sustainable ways to run our business.

We are always looking for new answers to the complex global and local challenges we face, which include resource scarcity, climate change, community employment and regional economic development. We see these challenges as opportunities to advance our reputation and create value for our business, our shareholders and the people we are proud to work alongside. To achieve our sustainable development goals, we work hand-in-hand with our partners and communities on the ground, where it matters most.

The foundation is *The way we work*, our global code of business conduct. It contains the principles and standards of conduct which reaffirm our commitment to sustainable development, and operational excellence at our sites. All of our sites must meet a minimum set of performance standards for health, safety, environment, closure and community and social performance. These ensure we meet or go beyond our statutory and regulatory requirements. The standards are backed up by strong processes to assure management that we are performing to the right levels and establishing longer-term identification and management of risks.

We also measure ourselves against the performance of other companies in our sector as well as leaders in other industries. Over many years we have played a leading role in developing sustainable development standards in the mining and metals sector through organisations such as the International Council on Mining and Metals (ICMM), and national bodies, particularly in Australia. We look to learn from other sectors where leading companies' performance can inform us and help us improve.

Materiality

We use a materiality assessment to focus our report on the sustainable development issues that matter most. This tells us which issues are material to our stakeholders and to our business. We run this process annually as part of our corporate reporting cycle, to ensure that each year we provide the information that our stakeholders are looking for.

Level of concern to stakeholders	High			Issues of highest materiality reported in the Annual report
	Medium		Issues reported in the sustainable development website	
	Low	Issues addressed through direct communications, not reported in normal channels		
		Low	Medium	High
		Current or potential impact on our business		

Our process has been developed in line with the Global Reporting Initiative (GRI) guidance on materiality and completeness (www.globalreporting.org). This specifies that sustainable development reports should cover topics and indicators that "reflect the organisation's significant economic, environmental and social impacts" or that "substantively influence the assessments and decisions of stakeholders". It involves identifying and prioritising issues that may affect our business and stakeholders over the next three years, taking internal and external perspectives into account.

We create a materiality matrix which plots external stakeholders' level of concern against the current or potential impact on our business. Each issue is given a rating of "low", "medium" or "high" from both internal and external perspectives. An impact can be either positive or negative.

Issues that are of high importance to both our external and internal stakeholders are reported in this section of our Annual report. Those of medium-to-high importance are reported in the full Sustainable development report on our website.

Having determined which topics to include in our 2014 materiality matrix, we reviewed these with internal experts from each of our sustainable development focus areas to determine their validity and relative importance. The results of this assessment were reviewed and approved by the Sustainability Committee.

Further information on the Sustainability Committee is included in the Directors' report on page 59.

Performance overview

Performance progress in 2014 included:

- A nine per cent reduction in our all injury frequency rate (AIFR) compared with 2013.
- A 12 per cent reduction in our lost time injury frequency rate (LTIFR) compared with 2013.
- An 18 per cent reduction in our greenhouse gas emissions intensity from 2008.
- Receiving the CDP leadership award for the largest absolute carbon reduction on the ASX 200.
- Meeting our communities target that all operations have locally-appropriate, publicly-reported indicators in place consistent with the Millennium Development Goals.
- Being recognised as having good practice on human rights reporting in line with the UN Guiding Principles on Business and Human Rights.
- Improving our listing as a leading company on the FTSE4Good and Dow Jones Sustainability Indexes, which investors use to monitor businesses' sustainability performance.

However, we did not achieve all our goals and there are areas where we need to improve. Above all, we must achieve our target of zero fatalities. Tragically, two colleagues lost their lives while working at our managed operations in 2014.

Also, in addition to complying with statutory reporting obligations, we reported 12 environmental incidents to the Executive Committee with the potential to impact the environment or to concern local communities. In 2013, we reported 15 such incidents.

Our priorities for 2015 are to:

- Deliver our refreshed safety strategy for fatality elimination, injury reduction and catastrophic risk management.
- Maintain progress on reducing greenhouse gas emissions intensity.
- Achieve our target to implement critical control monitoring plans against material health risks.
- Complete an epidemiology study of the workforce at Rössing Uranium Limited.
- Further develop and implement our Mental Health Framework throughout the business.

- Implement our updated Health, Safety, Environment & Communities (HSEC) and Closure standards throughout our operations.
- Enhance business management of water risks and rehabilitation performance.
- Meet our diversity and inclusion targets for women and graduates.
- Advance our talent pipeline and the continued implementation of diversity and inclusion.
- Develop a regional economic development toolkit in partnership with local communities and our Procurement function.
- Further streamline the integration of human rights considerations into existing corporate processes. We will also develop a more targeted risk-based approach for stand-alone human rights studies.
- Continue developing our integrity and compliance programme. We will focus on ways in which we can improve risk assessments where they relate to business integrity, third party due diligence and monitoring.
- Refresh *The way we work*, to ensure it remains relevant to our employees, the business and the risks we face.

Performance data

Our sustainable development performance data are reported for calendar years and, unless stated otherwise, represent 100 per cent of the parameters at each managed operation, even though Rio Tinto may have only partial ownership.

Data reported in previous years may be modified if verification processes detect material errors, or if changes are required to ensure comparability over time.

Wherever possible, data for operations acquired prior to 1 October of the reporting period are included. Divested operations are included in data collection processes up until the transfer of management control.

We have incorporated the requirements of the ten sustainable development principles of the ICMM and the mandatory requirements set out in ICMM Position statements into our own policies, strategies and standards. We report in line with the GRI G3 guidelines at Application level A+. In 2015, we will begin reporting in accordance with the GRI G4 guidelines.

Further information on our data definitions, our GRI-checked report and our alignment with the ICMM sustainable development principles and supporting position statement can be found online at riotinto.com/sd2014

Goals and targets

As part of our commitment to continuous improvement, we have set Group targets for a range of sustainable development metrics. These help us drive performance improvement and manage risk. Further information on the risk framework that Rio Tinto applies to identify these metrics and drive decision-making can be found on pages 14 to 17.

Targets	Performance to date
Our goal is zero harm, including, above all, the elimination of workplace fatalities.	2 fatalities at managed operations in 2014.
Performance against this goal is measured by the number of fatalities and a year-on-year improvement in our all injury frequency rate (AIFR) per 200,000 hours worked.	9 per cent reduction in our AIFR compared with 2013.
A year-on-year improvement in the rate of new cases of occupational illness per 10,000 employees annually.	6 per cent reduction in the rate of new cases of occupational illness compared with 2013.
All managed operations will have reviewed – and increased their focus on managing – their health risks, through implementation of critical control management plans (CCMPs) to address their specific material health risks, by the end of 2015.	41 per cent of managed operations have identified their critical health risks and implemented CCMPs.
Ten per cent reduction in total greenhouse gas emissions intensity between 2008 and 2015.	18 per cent reduction in our total greenhouse gas emissions intensity compared with 2008, currently beating our 2015 target.
All managed operations with material water risk will have achieved their approved local water performance targets by 2018.	66 per cent of managed operations are on track to meet their recently approved local water performance targets.
Our diversity goal is to employ people based on job requirements that represent the diversity of our surrounding communities. We are targeting:	
– Women to represent 20 per cent of our senior management by 2015.	– Women represented 15.5 per cent of our senior management in 2014.
– Women to represent 40 per cent of our 2015 graduate intake.	– Women represented 31.8 per cent of our 2014 graduate intake.
– 15 per cent of our 2015 graduate intake to be nationals from regions where we are developing new businesses.	– 17.8 per cent of our 2014 graduate intake were nationals from regions where we are developing new businesses.
By 2015, all operations have in place locally-appropriate, publicly-reported social performance indicators that demonstrate a positive contribution to the economic development of the communities and regions where we work, consistent with the Millennium Development Goals.	We met our target and all operations have locally-appropriate, publicly-reported indicators in place.

Performance data 2010-2014

	2014	2013	2012	2011	2010
Social					
Fatalities at managed operations from safety incidents	2	3	2	6	3
Fatalities at managed operations from health incidents	–	–	1	–	–
All injury frequency rate (per 200,000 hours worked)	0.59	0.65	0.67	0.67	0.69
New cases of occupational illness (per 10,000 employees)	15	16	15	13	20
Employees (number) ^(a)	60,000	66,000	71,000	68,000	77,000
Environment					
Greenhouse gas emissions intensity (indexed relative to 2008)	82.0	83.2*	94.1	95.9	96.1
Total energy use (petajoules)	450	484*	502	516	513
Freshwater used (billion litres)	465	436*	446	465	457
Land footprint – disturbed (square kilometres)	3,592	3,556	3,530	3,485	3,453
Land footprint – rehabilitated (square kilometres)	502	472	446	422	420
Economic contribution					
Value add (US\$ million) ^{(a) (b)}	29,178	31,818	26,195	38,193	33,812
Payments to suppliers (US\$ million) ^(a)	21,370	26,054	30,271	28,444	27,486
Community contributions (US\$ million)	261	331	291	294	166

* Numbers restated from those originally published to ensure comparability over time. Amendments due to changes in measurement and calculation methodologies or immaterial updates to data.

(a) These figures include the Group's share of joint ventures and associates.

(b) Value add is the sum of labour costs, payments to governments and returns on capital invested in operations.

Social Safety

2014 proved to be our best year ever in terms of injury rate performance. Our all injury frequency rate (AIFR), which includes data for employees and contractors, is one of the key safety measures we consider in monitoring our performance. At the end of 2014, our AIFR was 0.59 per 200,000 hours worked. Over the last five years we have reduced our AIFR by 14.5 per cent. Our lost time injury frequency rate (LTIFR) was 0.37 per 200,000 hours worked in 2014.

Our commitment to safety is the foundation of how we operate, as we work to achieve our vision of everyone going home safe and healthy after each working day. We believe we can prevent fatalities, injuries and illness by effectively identifying and controlling risks in our business.

For us to achieve our goal of zero fatalities, every person working at Rio Tinto must be fully engaged. To this end we are building a positive safety culture, where everyone contributes to improving our safety performance and has the confidence to stop work and ensure it is safe.

We have a long history of good safety performance and strive to improve on this every year. In 2014, we updated our safety strategy to confirm our focus on injury reduction and strengthen our emphasis on fatality elimination and catastrophic event prevention. This helps us drive effective risk management, identify critical risks, verify that we have controls in place and provide our people with appropriate training.

Regrettably, we did not meet our goal of zero fatalities in 2014. Two people lost their lives while working at Rio Tinto managed operations. Darryl Manderson died due to an equipment incident during maintenance activities at the Gove alumina refinery in Australia. Enrick Gagnon died in a train derailment incident at the Iron Ore Company of Canada. These are tragic events that affect families, friends and workmates. We provide support and counselling to those who have lost loved ones.

To achieve our target of zero fatalities it is essential we learn from both actual and potential significant incidents to prevent them happening again. We are strengthening our investigative process so that we improve our understanding of the factors that lead to fatalities, and the behavioural and process changes needed to eliminate them. We continue to collaborate industry-wide to share and apply best practice.

This focus on investigation and sharing lessons learned extends to our non-managed operations. Further discussion of this is covered on page 25.

We continued our focus on incorporating learnings from the Oil and Gas industry into our management of process safety. We have projects in place to:

- build leader awareness and competence;
- improve incident reporting and investigation; and
- deepen our understanding of the process safety risks and the effectiveness of controls through rigorous process hazard risk analysis studies.

Health

We provide a healthy environment for our workforce. We continue to focus on identifying, minimising and managing key occupational health risks to control occupational exposures. We also focus on promoting the fundamentals of fitness for work, particularly for safety-critical roles.

We are targeting a year-on-year improvement in the rate of new cases of occupational illness. In 2014, we reduced our rate of new cases of occupational illness by six per cent from 2013. The main types of occupational illnesses recorded relate to musculo-skeletal disorders (49 per cent), stress (33 per cent) and noise-induced hearing loss (four per cent).

Worldwide, our employees face occupational health risks that vary significantly because of the diversity and geographic spread of our operations. We now have a 2015 Group target for all managed operations to have reviewed – and increased their focus on managing – their health risks, through implementation of critical control management plans (CCMPs) to address their specific material health risks, by the end of 2015. This will help businesses to focus on the right issues and have the right critical controls in place.

The process we are using to help businesses put these plans in place has led to a more pragmatic, focused approach to the control of material health risks. We have helped businesses to develop internal competency in this area. Forty one per cent of managed operations have identified their critical health risks and implemented CCMPs. Most (89 per cent) believe they are well placed to meet the CCMP target by the end of 2015.

In 2014, we revised our health standards to simplify them, to provide a consistent framework for managing health risks and focus on material risks for the Group. These will be rolled out in 2015. This change aims to encourage improved ownership of the standards by operations' leaders and ensure we are managing the impacts and risks related to our operations in order to protect employees and improve our workplaces.

The potential for fatigue to contribute to safety incidents is well understood. To improve fatigue management we use research tools and technology to complement our programmes, including: personal alerting tools; personal monitors to measure sleep quantity, quality and associated mental effectiveness; and scheduling.

Across many industries, the potential for mental health problems to lead to short and long-term disability, employee turnover and occupational injuries is becoming better understood. In partnership with subject matter experts in this field we have developed tools and training that will support the management of mental health risks for our workers. These cover a broad range of areas across mental health management, including crisis response, understanding mental health and ultimately improving the wellbeing and resilience of our workforce.

March 2015 marks one year since the World Health Organisation (WHO) was notified of an outbreak of Ebola in West Africa. In Guinea, where we have operations, 2,730 cases were reported and 1,739 deaths since the outbreak began. Responding to the outbreak, a Rio Tinto Business Resilience Team was established and a number of control measures have been implemented in partnership with the Guinean Government, WHO and other international organisations. We have put prevention measures in place both for our employees and the local Guinean communities. We have supported the Government and communities through awareness raising and providing logistics and food. As part of our efforts we have organised and conducted prevention and awareness campaigns, distributed hygiene kits and provided support to local hospitals with protective equipment and medical supplies. To date, none of our employees or their families in Guinea have been affected by the disease.

Rössing was challenged by local and international stakeholders in relation to the long-term health of, and impacts from radiation on, its employees at the Rössing mine in Namibia. It was alleged that employees were not given access to their medical records. In fact, since the mine started in 1976, all employees have had access to their own health records and Rössing has longstanding standards and programmes to help manage health risks including monitoring and academic review. For 2015, Rössing will undertake a new epidemiological study. This study will be conducted by independent experts and will be peer reviewed.

People

The way we work sets out the principles that form the foundation of our business: collaboration, fair treatment and living our values of respect, integrity, teamwork and accountability.

We seek to hire, motivate and retain people who demonstrate our values and are passionate about making a difference to our business and the communities in which we live and work. We employ people on the basis of job requirements and do not discriminate on grounds of age, ethnic or social origin, gender, sexual orientation, politics, religion, disability or any other status. We do not employ forced, bonded or child labour. We recognise the right of all employees to choose to belong to a union and seek to bargain collectively. We employ people with disabilities and make considerable efforts to offer suitable alternative employment and retraining to employees who become disabled and can no longer perform their regular duties.

To ensure that what we do creates long-term value for all our stakeholders, we set clear performance objectives for employees. We have Group-wide performance and remuneration systems that ensure we assess employees consistently and transparently. By engaging with employees about the business and their career aspirations, we make a clear link between performance and reward.

In 2014, we employed 60,000 people (including the Group's share of joint arrangements and associates). Of these, approximately 31,000 were located in Australasia, 16,000 in North America, 7,000 in Africa, 4,000 in Europe and 2,000 in Central and South America. See page 180 for a breakdown of employees by business units.

Throughout 2014, we remained one of the largest private sector employers of Indigenous Australians, with over 1,650 full time Indigenous employees who represented approximately 7.5 per cent of our permanent Australian workforce. In addition to our permanent Indigenous workforce we had over 550 Indigenous contractors working on our Australian mine sites. Our local employment commitments are often managed through directly-negotiated agreements with Traditional Owners.

Diversity helps us generate new and innovative ways of thinking. We are committed to increasing the representation of women in our business and remain focused on ensuring our workforce is representative of the countries and communities in which we operate. Women represented 31.8 per cent (female: 34; male: 73) of our graduate intake in 2014, 21.4 per cent (female: 3; male: 11) of the board, 15.5 per cent (female: 104; male: 565) of our senior management, and 18.7 per cent (female: 9,963; male: 43,122)^(c) of our total workforce. In 2014, 17.8 per cent of our graduate intake were nationals from regions where we are developing new businesses. Further information on diversity and inclusion can be found on page 60 in the Corporate governance section.

We recognise we have further work to do to deliver on our diversity targets for 2015 and this is reflected in our work plan. We will continue to develop our graduate talent to build on the completion of a successful three-year emerging regions graduate intake programme from 2011 to 2014.

Our 2014 employee survey showed that our people continue to report high levels of engagement, with employees feeling that safety, efficiency and flexibility have improved since the last survey. They believe that we can do more to celebrate our successes and manage personal performance. Action planning has occurred across the Group, with improvement plans developed in partnership between leaders and employees. The implementation of these plans will continue throughout 2015.

Good communication and open, honest dialogue are vital if we are to meet the expectations of our employees. Rio Tinto's culture of leader-led communication and engagement is supported by a number of communication tools. These include myRioTinto, a portal dedicated to employment needs, and keeping employees informed of Group updates, news and announcements.

Communities and regional development

We strive to build good relationships with our host communities. We engage with them to understand the social, environmental and economic implications of our activities, seeking to minimise negative impacts and bring shared value to the places where we work.

We work to a Communities and Social Performance (CSP) framework based on building knowledge, engaging with communities and developing programmes that reflect local community priorities. Our CSP programme and our policy, standards and guidance notes support this.

During 2014, our business contributed to just under 2,200 socio-economic programmes covering a wide range of activities such as health, education, environmental protection, housing, agricultural and business development. In 2014, we spent US\$261 million on these community contribution programmes. There was a decrease in overall community contributions of 21 per cent compared to 2013, which reflects prevailing market conditions, divestments and completion of key programmes at developing projects such as Oyu Tolgoi and La Granja.

Our Communities target requires that, by 2015, all operations must have in place locally-appropriate, publicly-reported social performance indicators that demonstrate a positive contribution to the economic development of the communities and regions where we work. This is consistent with the UN's Millennium Development Goals. We met our target and 100 per cent of operations have the indicators in place and have reported them publicly, in 2014. During 2015 we will establish a new Group target, to apply from 2016, to indicate progress and results of our Communities and Social Performance work in our businesses.

(c) Gender distribution for our total workforce is based on managed operations (excludes non-managed operations and joint ventures) as of 31 December 2014.

We accept that we cannot meet everybody's concerns and expectations. However, wherever we operate we seek to do so with broad-based community support. By listening carefully to the concerns of our stakeholders, and consistently aiming to align their needs with our own, we work to create mutually beneficial outcomes through collaboration with our partners to manage the shared risks, responsibilities and benefits of the long-life investments we make.

Environment

Climate change

The scale of necessary emissions reductions – coupled with the world's increasing requirements for secure, affordable energy – create large challenges which require worldwide attention. Our climate change programme focuses on reducing the energy intensity of our operations, as well as the carbon intensity of our energy.

Our total greenhouse gas (GHG) emissions were 33.9 million tonnes of carbon dioxide equivalent (CO₂-e) in 2014, 3.5 million tonnes lower than in 2013. In 2008 we set a target of a ten per cent reduction in total GHG emissions intensity, to be achieved by 2015. We have reduced our total GHG emissions intensity by 18 per cent compared with 2008, currently beating our 2015 target. Over the same period absolute emissions were reduced by 31 per cent.

A new target will be set in 2015 that extends the existing external target to 2020. This will focus on the challenge to increase energy efficiency. Targets will be developed in collaboration with businesses, and take into account their current circumstances and future plans.

Our business is inherently energy intensive. The majority of our GHG emissions are generated from energy use (electricity, fuel) and chemical processes (anodes and reductants) during mining, milling and smelting activities at our sites. The majority (65 per cent) of the electricity we use is from hydropower.

Transportation, processing and use of our products also contribute significantly to GHG emissions. In 2014, the three most significant sources of indirect emissions associated with our products were:

- Approximately 5.3 million tonnes of CO₂-e associated with third party transport of our products and raw materials.
- An estimated 129.6 million tonnes of CO₂-e associated with customers using our coal in electricity generation and steel production.
- Approximately 459.4 million tonnes of CO₂-e associated with customers using our iron ore to produce steel (these emissions are not all in addition to the coal-use emissions above, as some customers use both our iron ore and our coal to produce steel).

To assess how carbon policy and regulation will affect our businesses and our products in the future, we closely monitor national and international climate and energy policy developments and we advocate constructively for policies that are environmentally effective, economically efficient and equitable. We also assess the potential risks to the resilience of our operations from changing climatic events.

Further information on the Group's greenhouse gas emissions is included in the Directors' report on page 48.

Closure

Although it may extend over decades, mining is a temporary land use. It is a priority that we plan ahead for the closure of our operations after the commercially recoverable ore is exhausted. We must balance the needs and expectations of the present with those of future generations, while responding to environmental and social challenges of mine closure.

The Closure standard applies to all our managed operations and to non-operational (legacy) sites. This provides consistency in closure planning and management. It also helps us identify opportunities for generating positive socio-economic benefits from our activities.

Closure planning is integrated into our operational activities and we aim to progressively rehabilitate as much land as possible prior to closure. In 2014, 26 per cent of our disturbed land (excluding land disturbed for hydroelectricity dams) had been rehabilitated. Our biodiversity goal is also closely connected to closure planning and management. At sites with high or very high biodiversity values, we aim to have achieved a net positive impact (NPI) on biodiversity, or have a clear set of criteria that demonstrates trajectory to NPI, agreed by the time we close operations. These sites are determined by their proximity to biodiversity-rich habitats, species of conservation significance and the site conservation context. In 2014, 32 of our operations were prioritised with either high (eight), or very high (24) biodiversity values. To achieve our goal these sites are required to develop and implement biodiversity action plans.

Stakeholder consultation – with local communities, including traditional landowners, governments, and employees – is a fundamental part of our closure planning.

Water

Wherever possible we prevent – or otherwise minimise, mitigate and remediate – the impact that our operations may have on water resources. Our approach to water management is based on the identification, assessment and control of water-related risks. We seek risk-based local solutions to promote sustainable water supply for our operations and communities.

For many years, our focus has been on reducing the freshwater use per tonne of product and we set ourselves a target for this metric from 2008 to 2013. However, over this period, we learnt that this metric alone did not always address the issues that have the greatest potential to impact our performance, or that were of most concern to local stakeholders.

Water challenges and risks vary by region and site, so we have redefined our Group water target to better reflect the local and regional conditions and the risks to the environment where we operate. The current Group water target requires that, by 2018, all managed operations with material water risk will have reviewed and improved their management of these material water risks, and will have achieved their approved local water performance targets.

A site is identified as having a material water risk where there is potential for a high or critical impact on the business through effects on the environment, production, community, compliance or reputation.

Local water performance targets have been set to improve the site-specific water performance. These cover three areas: water supply, ecological impacts, and water surplus management. Each site has a target that is appropriate to its specific operational circumstances. At the end of 2014, 66 per cent of managed operations were on track to meet their approved local water performance targets by 2018 and the remaining sites are committed to making progress and will have submitted, by the end of 2015, clear plans to meet these targets.

Unfortunately, five incidents related to water were reported to the Executive Committee in 2014. These are listed in the environmental regulation section included in the Directors' report on page 47. We use these incidents and our annual assessment of performance against the targets to focus attention and effort on those sites and businesses that need support to improve their water management performance.

In 2014, our total water use was 834 billion litres and total recycled water was 264 billion litres. This is consistent with 2013 performance.

Environmental regulation

We are subject to various environmental regulations and are required to disclose Group-level environmental incidents and fines. Further information on the Group's environmental regulation is included in the Directors' report on page 47.

Economic

Economic contributions

Our operations can have a substantial impact on the regions and countries in which we operate through our tax payments to local and national governments, the direct and indirect employment we generate and our community programmes.

Globally, the Group's economic contribution was US\$51 billion^(d) in 2014. This includes:

- US\$29 billion in value add, made up of payments to employees, payments to governments and returns to capital.
- US\$21 billion as payments to suppliers.

We are committed to contributing to the social and economic development of our host communities. It is important to our shareholders, employees and many other stakeholders that we contribute to social stability through local employment opportunities, procurement and the transparent payment of tax and dividends.

Details of payments to governments are available in our report on Taxes paid in 2014, which is made available on the Group's website.

The figures presented in this section include the Group's share of joint ventures and associates.

Non-managed operations and joint ventures

Rio Tinto holds interests in companies and joint ventures that it does not manage, including the Escondida copper mine in Chile and the Grasberg copper-gold mine in Indonesia. We actively engage with our partners around sustainable development through formal governance structures and technical exchanges. In this way we endeavour to ensure that the principles in *The way we work* are respected at all times and encourage them to embed a strong safety and security culture in their workforces.

Escondida

Rio Tinto has a 30 per cent interest in Escondida, which is managed by BHP Billiton. Our seats on the Owners' Council ensure we have regular input on strategic and policy matters. In 2014, Escondida began construction of the Escondida Water Supply project to develop a new 2,500 litre per second seawater desalination facility. This project will ensure a continued water supply to sustain operations while minimising Escondida's need to use groundwater. Escondida is recognised as having a world-class process for managing significant health, safety and environmental risks. Rio Tinto is in the process of adopting the Escondida process to effectively manage critical fatality risk and has benefited from Escondida's guidance and willingness to openly share its learnings.

Grasberg

PT Freeport Indonesia (PTFI), a subsidiary of Freeport-McMoRan Inc., owns and operates the Grasberg mine in Papua, Indonesia. Rio Tinto has a joint venture interest attributable to the 1995 mine expansion, which entitles it to a 40 per cent share of production above specified levels until the end of 2021 and 40 per cent of all production after 2021. We engage with and influence PTFI through five formal channels: the Operating, Technical, Communities and Sustainable Development committees and the Tailings board.

Tragically, there were six industrial fatalities at PTFI in 2014: four at the surface mine involving a collision between a light vehicle and a haul truck; one due to a fall of ground in the underground operation; and one due to a roll-over involving a concrete mixer truck in the surface area of the operation. We have worked closely with, and continue to support, the PTFI leadership team in the investigations and in the post-investigation lesson implementation. In 2014 senior Rio Tinto leaders and technical specialists visited the site, shared our Group's knowledge and provided practical advice to support PTFI's actions to learn from, and avoid a recurrence of these, tragic accidents. There was a further fatality at Grasberg in early 2015, as a result of an equipment/pedestrian interaction.

The operation employs controlled riverine tailings transport, a process that the World Bank does not consider as good industry practice, on the basis that it is contrary to the International Finance Corporation's 2007 Environmental, Health, and Safety Guidelines for mining. However, several independent expert reviews concluded that this method represents the best available option for this operation because of the extremely rugged topography, high rainfall and significant seismic activity. We continue to believe that this method is appropriate given these conditions, but have adopted the standard that riverine and shallow marine disposal of mining and processing mineral waste will not be used at new Rio Tinto managed operations.

Rio Tinto technical personnel review and provide guidance and oversight of the controlled riverine tailings management system with a focus on geotechnical, geochemical and environmental issues. There is an official multidisciplinary Technical Committee which addresses environmental issues along with technical issues related to geology, worker health and safety, mine planning, processing and tailings management. Rio Tinto is represented by a senior environmental manager on the PTFI Tailings Management board, which meets twice a year at Grasberg and includes third-party experts. The emphasis of Rio Tinto's involvement is to promote continuous improvements in the environmental performance of the existing tailings management system. Historic and ongoing improvements since Rio Tinto's involvement began include:

- construction, extension and maintenance of a levee system to limit the lowlands depositional footprint;
- diversion of the Ajkwa River system in the lowlands out of the permitted tailings deposition area;
- ongoing re-vegetation programmes in the deposition area;
- ongoing efforts to increase tailings retention within the deposition area; and
- ongoing efforts to ensure that the tailings remain geochemically benign and will therefore not pose an acid rock drainage risk.

Governance

Human rights

Rio Tinto respects and supports human rights wherever it operates in a way that is consistent with the Universal Declaration of Human Rights. Our human rights approach is founded in *The way we work*, our human rights policy and voluntary commitments. It is also consistent with the UN Guiding Principles on Business and Human Rights (UNGPs). In implementing our policies, we are subject to local laws. We build on compliance with local laws and, where our policies and procedures are more stringent, we operate to these standards.

In line with the human rights due diligence process in the UNGPs, we look to understand our potential and actual human rights impacts, ensure we are managing them, and communicate our performance. We embed human rights considerations into existing corporate processes including risk analysis, impact assessment and complaints handling and may also conduct standalone human rights studies where appropriate. While we respect all internationally-recognised human rights, there are some issues to which we pay particularly close attention because of our geographical and operating footprint. These include: security; land access and resettlement; environment including access to water and sanitation; cultural heritage including the rights of Indigenous peoples; labour rights; and in-migration related impacts on local communities, including access to health services.

(d) Due to rounding, sum does not equal the total shown.

We work with suppliers, contractors and other partners to avoid our involvement in human rights harm, and to positively influence human rights through those business relationships. *The way we work* and our *Procurement principles* apply to all suppliers and contractors working with Rio Tinto or on its behalf. The principles reiterate that we oppose and prohibit forced, bonded or child labour. They specify that suppliers should maintain human rights policies and have a process to assure compliance. Prequalification checks, contractual arrangements and ongoing monitoring help us to ensure that suppliers follow these principles.

We provide employees an online human rights training programme. It explains why respecting human rights is important, what human rights impacts we might have, and internal resources and mechanisms to help manage them. Last year, approximately 1,500 employees, a large proportion of whom work in our Procurement function, completed this training. We also provide site-specific training and in 2014 developed a training package that sites can adapt to address their priority human rights issues.

Rio Tinto has made voluntary commitments to the OECD Guidelines for Multinational Enterprises, UN Global Compact and the Voluntary Principles on Security and Human Rights (VPSHR). To avoid human rights violations through our security arrangements, we provide training for security personnel and continue to conduct security and human rights assessments at all high risk sites. We have developed practical guidelines, toolkits and training on implementing the VPSHR. Our online VPSHR training became mandatory for all security personnel at high risk sites from January 2014, and is strongly recommended for all other sites. In 2014 we conducted in-person VPSHR and Use of Force training for guards at four sites in Africa. This training involved both private and public security.

Under our Communities standard all sites must have a complaints, disputes and grievance mechanism in place, in line with the effectiveness criteria for operational-level grievance mechanisms in the UNGPs. *Speak-OUT*, the Group's confidential and independently-operated whistleblowing programme, can also be used to lodge human rights-related complaints.

We respect the land connection of Indigenous communities and seek mutually beneficial agreement with affected communities in the development and performance of our operations. We strive to achieve the free, prior and informed consent of Indigenous communities as defined in the 2012 International Finance Corporation Performance Standard 7 and the 2013 ICMM Position Statement on Indigenous Peoples and Mining. We seek consent as defined in relevant jurisdictions, and ensure agreement-making processes are consistent with such definitions.

Integrity and compliance

The way we work sets out our overall commitment to integrity and compliance. It puts our values – respect, integrity, teamwork and accountability – into practice, and holds us to the highest ethical standards to behave in ways that earn the trust of others. We operate within all applicable laws and regulations and are dedicated to open and transparent dealings with our stakeholders.

Our compliance standards are core to our Integrity and Compliance programme. In 2014, we introduced a new Business Integrity standard, which applies to all Rio Tinto businesses and functions. Developed in consultation with compliance managers from across the businesses, it consolidates and streamlines four previous business integrity-related standards: anti-bribery due diligence; fraud; business integrity (anti-corruption); and business integrity (conflicts of interest). This ensures that employees and contractors have a single point of reference for integrity and compliance matters. The standard applies a risk-based approach, with simplified language and improved readability.

We refreshed our online training to ensure it is geared more towards the risks encountered by each individual. The new system incorporates a wider range of shorter task-based or awareness modules, which tailor the training depending on the individual's role. Each person then completes a set of core and elective modules.

We are committed to a culture of transparency and speaking up about issues. We provide our businesses with internal and external channels for raising concerns, anonymously if required. *Speak-OUT*, the Group's confidential and independently-operated whistleblowing programme, enables employees to report anonymously, subject to local law, any significant concerns about the business or behaviour of individuals. This could include suspicion around safety violations, environmental procedures, human rights, financial reporting, or business integrity issues in general. We encourage employees to raise their concerns to management first; *Speak-OUT* is always available as an alternative option.

In 2014, 588 *Speak-OUT* reports were lodged, representing approximately five per cent fewer than the number reported in 2013.

In line with our commitment to transparency and good governance, we issue information on the Group's operational, financial and sustainable development performance in a timely way through a number of channels, such as media releases and regulatory filings. We communicate views to governments and others on matters affecting our business interests.

Assurance

We engaged an independent external assurance organisation, PricewaterhouseCoopers, to provide the board of directors of Rio Tinto plc and Rio Tinto Limited with assurance on selected sustainable development subject matters, as explained on the next page.

PricewaterhouseCoopers' assurance statement satisfies the requirements of subject matters 1 to 4 of the ICMM assurance procedure whilst our online GRI report has been checked by GRI, satisfying subject matter 5 of the ICMM procedure.

Further information on external auditors and internal assurance is included in the Directors' report under the Corporate governance section on pages 62 and 63.

Independent limited assurance report



What we found

Based on the work described below, nothing has come to our attention that causes us to believe that the selected subject matter for the year ended 31 December 2014 has not been prepared, in all material respects, in accordance with the Reporting criteria.

To the directors of Rio Tinto plc and Rio Tinto Limited (together Rio Tinto),

What we did

Rio Tinto engaged us to perform a limited assurance engagement on the selected subject matter within the Sustainable development sections of the Rio Tinto 2014 Annual report and the Rio Tinto 2014 Strategic report for the year ended 31 December 2014.

Selected subject matter

- Rio Tinto's assertion that it has incorporated the requirements of the 10 sustainable development principles of the International Council on Mining and Metals (ICMM) and the mandatory requirements set out in ICMM Position Statements into its own policies, strategies and standards
- Rio Tinto's assertions regarding the approach that it has adopted to identify and prioritise its material sustainable development risks and opportunities
- Rio Tinto's assertions regarding the existence and status of implementation of systems and approaches used to manage the following selected sustainable development risk areas:
 - Safety
 - Greenhouse gas emissions
 - Energy use
 - Water
- The following Rio Tinto performance data related to the selected sustainable development risk areas:
 - Number of fatalities
 - All injury frequency rate
 - Lost time injury frequency rate
 - Number of lost time injuries (numerator of the lost time injury frequency rate)
 - Total greenhouse gas emissions
 - Greenhouse gas emissions intensity
 - Total energy use
 - Percentage of managed operations with material water risk that are on track to achieving their approved local water performance targets

Reporting criteria

The subject matter above has been assessed against the definitions and approaches which will be presented at www.riotinto.com/sd2014 as at 6 March 2015.

Responsibilities

PricewaterhouseCoopers

Our responsibility is to express a conclusion based on the work we performed.

Rio Tinto

Rio Tinto management is responsible for the preparation and presentation of the selected subject matter in accordance with the Reporting criteria.

What our work involved

We conducted our work in accordance with the International Standard on Assurance Engagements 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* and (for selected subject matter relating to greenhouse gas emissions) the International Standard on Assurance Engagements 3410 *Assurance Engagements on Greenhouse Gas Statements*. These Standards require that we comply with independence and ethical requirements and plan the engagement so that it will be performed effectively.

Main procedures performed

- Making enquiries of relevant management of Rio Tinto
- Evaluating the design and effectiveness of the key processes and controls for capturing, collating and reporting the performance data within the selected subject matter
- Testing performance data, on a selective basis, substantively at both an operational and corporate level, which included testing at a selection of operations from across Aluminium, Energy, Iron Ore, Copper, and Diamonds & Minerals
- Undertaking analytical procedures over the performance data
- Reviewing a sample of relevant management information and documentation supporting assertions made in the selected subject matter

We believe that the information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Liza Maimone
Partner

4 March 2015

Liability limited by a scheme approved under Professional Standards Legislation

PricewaterhouseCoopers
Canberra

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and sampling or estimating such data.

Restriction on use

This report has been prepared in accordance with our engagement terms to assist Rio Tinto in reporting its sustainable development performance. We do not accept or assume responsibility for the consequences of any reliance on this report for any other purpose or to any other person or organisation. Any reliance on this report by any third party is entirely at its own risk.

We consent to the inclusion of this report in the Rio Tinto 2014 Annual report and the Rio Tinto 2014 Strategic report to assist Rio Tinto's members in assessing whether

the directors have discharged their responsibilities by commissioning an independent assurance report in connection with the selected subject matter.

Limited assurance

This engagement is aimed at obtaining limited assurance for our conclusions. As a limited assurance engagement is restricted primarily to enquiries and analytical procedures and the work is substantially less detailed than that undertaken for a reasonable assurance engagement, the level of assurance is lower than would be obtained in a reasonable assurance engagement.

Aluminium

Financial performance

	2014 US\$ million	2013 US\$ million
Revenue	12,123	12,463
Net cash generated from operating activities	2,550	1,696
Underlying earnings	1,248	557
Capital expenditures	2,021	2,226
Net operating assets	18,297	18,814

Strategy and strategic priorities

Rio Tinto's Aluminium group is focused on delivering industry-leading performance through the cycle and strong returns in the years to come. The business has been reshaped around the core pillars of bauxite and the group's smelting assets that are in the first quartile of the industry. By taking action to move the smelting asset base down the cost curve, the portfolio has been positioned squarely into the first quartile. Upon completion of the Kitimat Modernisation Project, more than 80 per cent of the Aluminium group's smelter assets will be in the first quartile compared with only 40 per cent in 2011. Following the transition of Gove to a bauxite export business, the group has ramped up bauxite exports and supplied around 50 per cent of Chinese bauxite imports in 2014. Its goal is to establish its Cape York bauxite as the product of choice for Chinese seaborne demand.

In 2015 the Aluminium group intends to capitalise on its competitive advantages through:

- Growing the group's sector-leading, high-margin bauxite position while further enhancing performance and cash generation from its low-cost smelters.
- Driving operating excellence at the group's alumina refineries, providing competitive supply security to its first-quartile smelter portfolio.
- Capitalising on its commercial and trading capabilities to increase margins and value.
- Achieving continuous improvement from driving sustainable cost reduction, productivity improvement initiatives and working capital reductions across all the Aluminium group's operations.
- Optimising the portfolio by divesting non-core operations to concentrate on strategic, top-tier assets.
- Exercising a disciplined approach to capital allocation, geared to delivering key brownfield and modernisation projects that leverage the group's competitive advantages in bauxite ore reserves and self-generated energy.

Safety

The Aluminium group's all-injury frequency rate continued its steady downward trend in 2014. The key all-injury metric at the year's end was 0.53, which represented a 20 per cent improvement over the 0.66 rate at the end of 2013. However, despite showing an incremental improvement in the group's overall safety performance, the tragic death of Darryl Manderson at the Gove operations in Australia in the first half of 2014 is a sobering reminder of the importance of the relentless focus on safety. The Aluminium group is committed to a zero harm workplace and there is simply no room for these kinds of accidents. The group has therefore redoubled its efforts to improve further through initiatives such as the "Zero Harm by Choice" leadership development programme, a Human Performance initiative and activities to improve process safety. Drawing on lessons learned from previous incidents, the group is constantly working to implement enhanced policies, systems and procedures to improve performance.

Greenhouse gas emissions

Rio Tinto's Aluminium group has one of the lowest carbon footprints in the aluminium industry. The group has reduced greenhouse gas emissions by 40 per cent since 2008. Almost 80 per cent of its total power needs comes from non-fossil-fuel based hydro (72 per cent) and nuclear (six per cent) power compared with an industry average of 35 per cent for non-fossil-fuel based power. This means that the emissions intensity from the group's smelters is around half of the industry average – less than six tonnes of CO₂ equivalent per tonne of aluminium versus an industry average of around 11 tonnes.

Review of operations

With effect from 1 June 2014, Alfredo Barrios succeeded Jacynthe Côté as chief executive of the Aluminium group and also joined the Rio Tinto Executive Committee.

The group's position as a sector-leading business is demonstrated in its financial performance in 2014. The Aluminium group's underlying earnings increased by 124 per cent to US\$1,248 million, US\$691 million higher than in 2013. The group achieved underlying EBITDA of US\$2,930 million, which represented a gain of 55 per cent from 2013, while widening the gap with the competition on the strength of its industry-leading EBITDA margins. The improved underlying EBITDA, combined with reduced working capital levels, has increased net cash generated from operating activities by US\$854 million to US\$2,550 million and generated positive free cash flow. The solid financial results reflected numerous ongoing cost reduction and productivity improvement initiatives across the Aluminium group, as well as benefits derived from rising regional and product premiums and the impact of the weaker Australian and Canadian dollars. Value-added products, which are produced to individual customer specifications, represented some 62 per cent of the primary metal produced by Rio Tinto in 2014, which translated into superior realised prices and margins.

The average London Metal Exchange price for aluminium in 2014 was US\$1,867 per tonne, which compares with an average of US\$1,845 per tonne in 2013. Rio Tinto's average realised price for primary metal products – including market and product premiums – was US\$2,395 per tonne in 2014, compared with US\$2,249 per tonne in 2013.

Cash cost improvements lifted earnings by US\$168 million (US\$232 million pre-tax). Greater production efficiencies, lower raw material prices, reduced functional costs, and increased production at various operations all helped to reduce unit cash costs of production.

In 2014, record bauxite production was achieved at the Sangaredi mine in Guinea and the Weipa mine in Australia delivered a similarly strong performance to that achieved in 2013. However, global bauxite production was marginally lower in 2014 compared with 2013 as Gove production was impacted by infrastructure constraints following the shift to bauxite exports, after curtailment of the refinery. Exports are expected to ramp up towards a run rate of eight million tonnes per annum in 2015 as export infrastructure constraints are addressed.

Alumina production increased by six per cent in 2014. This position will be further improved during the second half of 2015, when the expanded Yarwun refinery in Australia is expected to reach full capacity as design and construction challenges are progressively addressed.

Rio Tinto's share of aluminium production for 2014 totalled 3.4 million tonnes, which was broadly in line with 2013. Production from the new AP60 plant, and capacity creep across the smelter portfolio offset the closure of Shawinigan in November 2013 and the partial shutdown at Kitimat as preparations are made to commission the modernised smelter. Eight smelters, representing 54 per cent of 2014 production volumes, achieved annual production records.

The Aluminium group continues to make some difficult but necessary decisions with respect to portfolio management. The Gove site in Australia is now operating as a bauxite export business, following the curtailment of refinery operations in May 2014. The plan is to ramp up export capacity from six to eight million tonnes per annum towards the end of 2015, following upgrades to export infrastructure. While the workforce at Gove has been reduced, the bauxite business will be used to sustain an important economic base for the region and its Indigenous population.

Since 2009, Rio Tinto has closed, curtailed or divested approximately one million tonnes of primary aluminium capacity and three million tonnes of alumina capacity. In October 2014, Rio Tinto sold its 50 per cent interest in the SØRAL aluminium smelter in Norway, and in December divested its 46.67 per cent interest in the Alucam smelter in Cameroon.

The new Arvida Aluminium Smelter – AP60 Technology Centre in Quebec's Saguenay-Lac-Saint-Jean region was inaugurated in January 2014. With an initial capacity of 60,000 tonnes per annum, the smelter provides an industrial-scale Research & Development platform for commercialisation of Rio Tinto's latest-generation AP Technology™. This facility also benefits from low-cost, self-generated hydropower.

In Iceland, modernisation of the ISAL smelter, including the addition of a leading-edge casting facility to produce value-added billet, was completed in the first half of 2014. Annual capacity has been increased from 190,000 to 205,000 tonnes.

In June 2014, as a result of further revisions to future capital required to complete the modernisation project at Kitimat in British Columbia, and related impacts on the project, the Kitimat assets were impaired by US\$800 million (net of tax). In December 2014, an impairment reversal of US\$1 billion (net of tax) was recognised relating to the Pacific Aluminium operations, where significant cost improvements and high regional and product premiums have increased the value of the assets.

Development projects

The Aluminium group's development pipeline is focused on leveraging the product group's two sustainable competitive advantages: unrivalled positions in energy and bauxite.

At the year's end, preparations were being finalised for full commissioning of the transformed Kitimat smelter in the first half of 2015. Leveraging the Aluminium group's wholly-owned Kemano hydropower resource and high-efficiency AP smelting technology, the Kitimat Modernisation Project will increase production capacity at the smelter by more than 48 per cent to approximately 420,000 tonnes per year, while reducing overall environmental emissions by nearly 50 per cent. Kitimat will be one of the lowest-cost smelters in the world – in the first decile of the cost curve – and is strategically located to supply key emerging markets in the Pacific Rim. In August 2014, the board approved additional capital of US\$1.5 billion to complete the Kitimat project, taking the total approved capital cost to US\$4.8 billion.

In early 2014, Rio Tinto entered into an option agreement with LNG Canada for an undisclosed sum. Exercise of the option would entitle LNG Canada to acquire or lease a wharf and associated land at the Kitimat port to facilitate a proposed liquid natural gas export project. The exercise of this option would not impact the group's ability to operate the Kitimat aluminium smelter.

Rio Tinto is now prioritising the South of Embley bauxite growth project at Cape York, Queensland in Australia. With mining costs in the first quartile and with attractive returns, this is a Tier 1 investment opportunity. The project includes mine, port and infrastructure elements, with a planned initial output of 22.8 million tonnes per year and options, using the same infrastructure, to later expand up to 50 million tonnes. The project feasibility study is under way. The project will be brought to the board for approval in 2015.

Outlook

After several very challenging years, there is growing optimism and positive sentiment about the prospects for the aluminium industry. The fundamentals are strong, with forecasters anticipating a healthy market deficit outside China for the coming years.

Global primary demand reached around 54 million tonnes in 2014, and is expected to grow in the range of six to seven per cent during 2015. Aluminium prices gradually improved over the course of 2014, and regional premiums have continued to increase, reflecting the tight market outside China.

A combination of current forecast production rates and strong demand is expected to result in the global market maintaining a supply deficit for 2015. Crucially, the ex-China market appears set to continue a strong rate of drawdown of stored metal in the coming years, which is expected to result in inventory returning to pre-financial crisis levels when measured against growing demand.

Over the medium term, forecasters envisage compound annual aluminium demand growth of around four per cent through 2025, supported by increased intensities in key applications, most notably the transportation sector.

Aluminium's unique properties – light weight, strength and resistance to corrosion – are driving increasing market penetration in the automotive market. It is expected that within the next ten years, seven out of ten new pickup trucks produced in North America will be aluminium-bodied, as competitors follow the lead of Ford, which recently introduced its first aluminium-bodied F-150. Many other leading automakers also have been increasing the amount of aluminium used in lightweight and fuel-efficient car models.

Demand for alumina will be underpinned by aluminium and will be nearly balanced, given that alumina cannot be stored as easily as aluminium or bauxite.

Prospects for bauxite – a sector where Rio Tinto enjoys an unrivalled position – are particularly bright, with a projected rate of growth outpacing that of aluminium, thanks in large part to robust demand in the Chinese market. The emerging Middle East market represents an additional opportunity.

On the supply side, exports from Indonesia, a major bauxite producer, have ceased in the wake of an export ban imposed by the Indonesian Government that took effect in January 2014. Although medium-term uncertainty remains, sustained tightness in supply is expected. With attractive growth opportunities ranging from South of Embley to rich deposits in Brazil and Guinea, the Aluminium group is well positioned to capitalise on increased demand for seaborne bauxite.

Copper

Financial performance

	2014 US\$ million	2013 US\$ million
Revenue	6,282	5,916
Net cash generated from operating activities (a)	1,701	379
Underlying earnings	912	821
Capital expenditure	1,011	1,866
Net operating assets	10,581	12,070

(a) Net cash generated from operating activities excludes that from equity accounted units (Escondida) but includes dividends from equity accounted units.

Strategy and strategic priorities

The Copper group's strategy is to focus its resources on generating value from a core portfolio of low-cost, high-value, world-class assets. This includes existing operations at Rio Tinto Kennecott, Oyu Tolgoi, Escondida and Grasberg, and greenfield growth opportunities at La Granja and Resolution.

The Copper group's goal is to set an industry profitability benchmark by:

- Focusing on a world-class asset portfolio.
- Positioning itself in the first or second quartile of the cost curve.
- Delivering quality earnings by reducing costs and improving productivity.
- Making selective investments that can deliver growth to meet market opportunities.

The group's strategic priorities are to:

- Improve productivity through safer, better and smarter practices, and selected technology investments.
- Drive maximum value out of the products the group mines and optimise the entire supply chain.
- Develop strong leadership and an aligned, capable, engaged and collaborative workforce.

Safety

In 2014, the Copper product group's all injury frequency rate was 0.51, compared with 0.49 in 2013. While there has not been a fatal incident in the Copper group's managed operations in the past two years, unfortunately six employees were killed at the non-managed Grasberg operation during 2014: four in a haul truck incident, one due to a fall of ground in the underground operation and one due to a roll-over involving a concrete mixer truck.

During 2014, the group launched several new safety initiatives:

- A Critical Risk Management programme aimed at easily identifying and mitigating the common risks that can lead to fatalities and catastrophic accidents. The programme was built on the principles of the Material Safety Risk Management process at Escondida, where there have been no fatalities since the process was put in place in 2011.
- A Hand Safety campaign designed to increase employee awareness of safe practices and decrease common injuries to hands and fingers.
- Drilling safety standards and improvements to underground control safety standards.

Greenhouse gas emissions

The Copper group's 2014 greenhouse gas (GHG) emissions were 8.57 tonnes of carbon dioxide equivalent per tonne of copper cathode produced, compared with 8.34 tonnes in 2013. The decrease in efficiency resulted from a planned maintenance shutdown of the Kennecott smelter, which reduced copper cathode production year-on-year despite the continued operation of the mine and concentrator during the shutdown period. As a result, GHG emissions per tonne of copper cathode produced were higher.

Review of operations

The Copper group is focused on creating long-term value for shareholders. In the short term, it aims to achieve this by improving earnings quality through ongoing cost improvements and productivity gains. In the medium term, it aims to develop attractive brownfield projects at Kennecott and Oyu Tolgoi to leverage the next copper market cycle. In the longer term, the group is focused on two greenfield projects designed to deliver world-class returns and steady cash flows.

In 2014, the group delivered significant improvements in productivity, with a seven per cent increase in mined copper from its operations at Kennecott and Oyu Tolgoi, making Rio Tinto the world's sixth largest supplier. The group produced 603 thousand tonnes of mined copper (Rio Tinto share). Copper operations also produced 487 thousand ounces of mined gold, 4,699 thousand ounces of mined silver and 11.5 thousand tonnes of molybdenum as by-products.

The Copper group's underlying earnings of US\$912 million were 11 per cent higher than 2013, driven by increased gold and molybdenum sales at Kennecott, the ramp-up of Oyu Tolgoi and delivery of further cash cost savings. The group generated sustainable cost reductions of more than US\$900 million in 2013 and 2014, and is making good progress improving operating costs. In 2014, the Copper group reduced working capital by US\$500 million, generated positive free cash flow for the first time since 2010 – delivering US\$800 million in free cash flow – and delivered underlying EBITDA margin improvement of 26 per cent, compared with 2013, closing the gap with its peer companies.

The group's impairment charge resulted from a review of the investment case for the Molybdenum Autoclave Process project at Kennecott. The review concluded that the project, which has been on care and maintenance since early 2013, will be terminated. The recoverable amount was determined based on anticipated net disposal proceeds. As a result, a pre-tax impairment charge of US\$559 million has been recorded against property, plant and equipment.

As part of ongoing work to focus its portfolio on high-value, world-class assets, the group divested its ownership in the Sulawesi nickel project in Indonesia, and its 19.1 per cent stake in Northern Dynasty Minerals, owner of the Pebble copper and gold project in the Bristol Bay region of Alaska.

Core operating assets

Rio Tinto Kennecott (Rio Tinto: 100 per cent)

Kennecott supplies approximately 20 per cent of US refined copper requirements, and is one of the world's few fully-integrated mining, concentrating, smelting and refining operations.

In 2014, Kennecott produced 204.1 thousand tonnes of refined copper, 252.2 thousand ounces of refined gold, and 11.5 thousand tonnes of molybdenum. Production in 2014 was impacted by ongoing recovery from the 130 million-tonne landslide on the north-east wall of the Bingham Canyon Mine, which occurred in April 2013, and a 65-day planned smelter shutdown completed in the fourth quarter of 2014. Recovery work will continue in 2015, with production in the near- and medium-term impacted by continued removal of slide material and constrained by ongoing management of pit wall stability.

Oyu Tolgoi (Rio Tinto: 50.8 per cent interest in Turquoise Hill Resources)

Located in Mongolia's South Gobi Desert, Oyu Tolgoi is one of the world's largest copper-gold-silver mines. In 2014, Oyu Tolgoi produced 148 thousand tonnes of copper and 589 thousand ounces of mined gold (100 per cent basis). Since the second half of 2014, deliveries to Oyu Tolgoi customers have outstripped production and the operation ended the year with inventories at normalised levels.

Escondida (Rio Tinto: 30 per cent interest)

Located in Chile's Atacama Desert, Escondida is the world's largest copper-producing mine. In 2014, Escondida produced 1,137.6 thousand tonnes of mined copper (100 per cent basis). Copper production was higher year-on-year due to increased mill throughput and increased ore stacked for leaching. Water constraints at Escondida are expected to create some risk to production volumes in 2015.

Grasberg (a joint venture that gives Rio Tinto a 40 per cent share of production above specified levels until the end of 2021 and 40 per cent of all production after 2021)

Grasberg is owned and operated by PT Freeport Indonesia (PTFI), a subsidiary of US-based Freeport-McMoRan, Inc. Located in the province of Papua, Indonesia, it is one of the world's largest copper mines. Rio Tinto's share of mined copper production at Grasberg was 7.7 thousand tonnes in 2014.

Development projects

The Copper group is focused on delivering high-quality, medium-term projects to extend mine life at its existing operations, creating future options with world-class greenfield projects and developing innovations that drive safety, growth and productivity. A phased development approach allows the group to deploy capital in a way that maximises shareholder return, minimises risk and times new production to come online when the market requires.

Productivity and mine life extension

Rio Tinto Kennecott

Kennecott is at the early stages of its South Pushback project which may allow the Copper group to extend the life of Bingham Canyon through accessing additional copper units from approximately 510 million tonnes of ore reserves^(b).

Grasberg

PTFI continues to develop the large-scale, high-grade underground orebodies located beneath and nearby the Grasberg open pit. In aggregate, these underground orebodies are expected to ramp up over several years to approximately 240,000 tonnes of ore per day following the anticipated transition from the Grasberg open pit in 2017.

Oyu Tolgoi

The Copper group is focused on unlocking the full value of Oyu Tolgoi and remains committed to the underground development, pending appropriate investment conditions. Rio Tinto continues to engage with the Government of Mongolia to resolve a number of outstanding shareholder matters, progress project financing and meet certain conditions needed to proceed with the proposed underground development project, where a significant portion of the value is contained.

Greenfield projects

La Granja (Rio Tinto: 100 per cent)

Located in northern Peru, the La Granja project is one of the world's largest-known undeveloped copper resources.

The project team is assessing a range of options to develop the large near-surface resource at La Granja, including staged development with early production from leaching of both secondary sulphide and primary sulphide mineralisation. The team continues to successfully prove very good recoveries from the leaching of chalcopryrite-dominant ore, and has continued to build a strong social consensus for the project.

Resolution Copper (Rio Tinto: 55 per cent)

The Resolution Copper project, located in Arizona, US, is one of the world's largest undeveloped copper deposits. In 2014, drilling continued and the project completed construction of the #10 mine shaft to final depth of 2,116 metres. Drilling, underground development and engineering studies continue as the Copper group works to optimise the business case.

(b) This is only a portion of Rio Tinto Kennecott's current ore reserves. See Ore reserves section of this report for Rio Tinto Kennecott's ore reserves including breakout of all metals and classifications.

Resolution submitted a General Mine Plan of Operations in 2013. In December 2014, President Obama signed legislation that will allow the US Federal Government to exchange 2,400 acres of federally owned land immediately adjacent to Resolution's operational site, for 5,300 acres of important wildlife habitat, conservation and recreational land owned by Resolution. Both the land exchange and proposed mine plan will now undergo a comprehensive environmental and regulatory review that includes an assessment under the US National Environmental Policy Act. This process will include public input, government-to-government consultation with Arizona Native American tribes, and a US Federal Government appraisal of the exchange lands.

Growth and innovation

Rio Tinto Copper is testing and evaluating technologies to drive improved safety and productivity at its current mines and development projects. The innovation portfolio is being prioritised to ensure that the best projects are being pursued, and that there is a balance between short and long-term initiatives.

In 2014, Rio Tinto opened the Processing Excellence Centre after successful trials at a number of copper and energy sites. The Centre is improving concentrator performance by linking experts with operations across the globe in real-time, which has driven significant improvements at Oyu Tolgoi and Kennecott.

During an industrial-scale chalcopryrite heap leaching demonstration at Kennecott, the group achieved expected copper extraction targets. The Growth & Innovation team is now conducting laboratory tests at its Bundoora facility near Melbourne, Australia with the aim of enhancing leaching recovery further. This will allow the group to develop chalcopryrite deposits such as La Granja more efficiently.

The Copper group is working with a variety of partners in areas such as the development of safer and more productive underground mining equipment and processes, as well as technologies for dynamic measurement of underground rock mass and caving performance. The goal of these projects is to significantly improve safety and productivity during construction and operation of underground mines.

Outlook

The copper market is expected to see a period of continued price weakness in the short term as, despite continued demand growth, the market moves into a surplus resulting from a number of new projects coming online. However, beyond this challenging short-term picture, the medium and long-term fundamentals remain robust, with a substantial supply gap expected by the end of the decade requiring further significant investment in new capacity. The continued urbanisation, industrialisation and electrification of China and other large markets creates a solid demand outlook, while supply will be constrained by the industry's need to invest to offset grade declines and closures at existing mines, and by the many challenges of bringing on new projects.

These market dynamics create opportunity for Rio Tinto Copper. The group has a world-class portfolio of low-cost assets and high-quality growth opportunities. It has made material progress in reducing costs and is on course to become a producer in the first or second quartile of the cost curve and deliver superior profitability. It is leveraging technology to make Copper group operations safer, more productive and more sustainable. The group is pursuing high-value growth opportunities at its existing operations in the medium term and greenfield development projects in the longer term, using a phased approach to manage risk and time new production to come online when the market requires. Finally, the Copper group is building strong community partnerships and encouraging its employees to deliver results through collaboration and sharing of best practices. The group believes this strategy will generate significant and sustainable shareholder value.

Diamonds & Minerals

Financial performance

	2014 US\$ million	2013 US\$ million
Revenue	4,150	4,193
Net cash generated from operating activities	1,201	842
Underlying earnings	401	350
Underlying earnings excluding Simandou	456	393
Capital expenditure	508	1,009
Net operating assets	7,308	7,900

Strategy and strategic priorities

The Diamonds & Minerals product group has an attractive portfolio of businesses that connect customers and consumers all around the world with products that enhance their quality of life. Demand growth for diamonds and industrial minerals typically comes mid-to-late in the economic development cycle, following peak requirements for commodities such as iron ore and copper. The product group's strategy is focused on operating safe, low-cost, demand-led businesses. Through its integrated marketing strategies and insight, the product group creates and grows global markets for its products in order to deliver value for Rio Tinto and its shareholders.

The product group's strategy is focused on:

- Operating demand-led, integrated operations that can respond quickly to the changing external environment.
- Creating and growing global markets through technical research and development and market insight.
- Improving operating performance by reducing costs, driving productivity and streamlining the organisation.
- Strengthening its position in traditional segments and entering attractive new markets.

Safety

Diamonds & Minerals continues to focus on fostering a culture of accountability and awareness among employees and improving contractor safety in our pursuit of zero harm. The product group's all injury frequency rate (AIFR) fell to 0.48 in 2014 from 0.75 in 2013.

The product group faces some unique challenges in health and safety. The workforce spans multiple nationalities, ethnicities, languages and cultures in developing countries. In response, management employs innovative strategies and visible safety leadership to train the workforce. Diamonds & Minerals is focused on eliminating fatality risks by placing an emphasis on critical controls and robust process safety.

Ebola, which has had tragic human consequences, is a critical issue for the product group. The priority for Diamonds & Minerals has been to ensure the health and safety of employees, contractors and their families. In addition, Diamonds & Minerals has supported the Government of Guinea and international organisations by donating more than US\$3.4 million worth of equipment and in-kind donations to facilitate the response to this disease.

Greenhouse gas emissions

Overall greenhouse gas (GHG) emissions intensity increased slightly in 2014. This was largely due to lower production at Rio Tinto Iron & Titanium (RTIT), where a reduction in capacity utilisation of its smelters led to an increase in GHG emissions per tonne of product. This was reflected in a four per cent increase in emissions intensity for RTIT compared with 2013. GHG emissions per tonne of product were marginally higher at Rio Tinto Minerals, but improved across Rio Tinto Diamonds operations. The product group continues to invest in the implementation of more efficient equipment and technology, such as the wind farm at Diavik.

Review of operations

The Diamonds & Minerals group's underlying earnings of US\$401 million were 15 per cent higher than 2013. Excluding Simandou exploration and evaluation costs, underlying earnings of US\$456 million were 16 per cent higher than 2013. This reflected favourable exchange rates, higher diamond prices, lower exploration and evaluation costs, higher sales volumes of titanium dioxide feedstock, borates and zircon and cash cost improvements, partly offset by lower prices for titanium dioxide feedstocks, borates and zircon. In absolute terms, cash operating costs were US\$223 million lower than 2013 including a US\$152 million benefit from exchange rate movements. Net cash generated from operating activities of US\$1,201 million was 43 per cent higher than 2013, reflecting higher EBITDA and improved working capital management.

Rio Tinto Diamonds (RTD)

RTD is a leading producer of rough diamonds, with a product portfolio that provides a presence in all major markets and market segments. Rio Tinto's diamonds assets comprise the Argyle Diamond Mine in Australia (Rio Tinto: 100 per cent), the Diavik Diamond Mine in Canada (Rio Tinto: 60 per cent), Murowa Diamonds in Zimbabwe (Rio Tinto: 78 per cent) and the Bunder diamond project in India (Rio Tinto: 100 per cent). RTD markets its share of rough diamond production through its centralised sales and marketing office and has a niche cutting and polishing factory in Australia for its high-end branded pink polished diamonds from the Argyle mine, which it sells to an international customer base.

RTD produced 13.9 million carats of rough diamonds in 2014, 13 per cent lower than in 2013. Argyle production was negatively impacted by the move from open pit to underground mining, the processing of lower grade tailings as underground production ramped up, and a maintenance shutdown impacting both underground crushers. Diavik production was in line with 2013 despite lower grades, thanks to improved mining rates and processing plant improvements. Murowa production was seven per cent higher than in 2013.

Revenue in 2014 was six per cent higher than in 2013, reflecting higher sales volumes at Diavik and increased prices. Earnings of US\$104 million were US\$51 million higher than 2013. The second crusher at Argyle was commissioned during the year and the ramp-up of the Argyle underground mine to full operation is on schedule to be completed by 2015. Diavik has been operating as a fully underground mine since 2012.

Rio Tinto Iron & Titanium (RTIT)

RTIT is the largest producer of high-grade titanium dioxide feedstocks. It mines ilmenite at its wholly-owned Rio Tinto Fer et Titane (RTFT) operation in Canada; its managed operation Richards Bay Minerals (RBM) in South Africa (Rio Tinto: 74 per cent); and its QIT Madagascar Minerals (QMM) operation (Rio Tinto: 80 per cent). RTIT produces high-grade titanium dioxide feedstocks at its world-class metallurgical complexes at RTFT and RBM as well as valuable co-products including high purity iron, steel, metal powders, zircon and rutile.

In 2014, titanium dioxide feedstock production fell by 11 per cent year-on-year to 1.44 million tonnes (Rio Tinto share). Due to challenging market conditions for high grade titanium dioxide feedstock, production continues to be aligned with market demand. One of nine furnaces remains offline at RTFT pending a rebuild which has been deferred until market conditions improve. RTIT's revenues fell by four per cent due to lower prices for titanium dioxide feedstocks and zircon, partly offset by higher sales volumes. Earnings fell by six per cent to US\$248 million.

Rio Tinto Minerals (RTM)

RTM (Rio Tinto: 100 per cent) supplies over 30 per cent of the world's refined borates from its world-class deposit in Boron, California. RTM also has borates refineries and/or shipping facilities in China, France, Malaysia, the Netherlands, Spain and the US.

Borates production of 508,000 tonnes boric oxide equivalent was three per cent higher than in 2013 in response to higher sales demand. Global demand for RTM refined borates improved slightly with revenue three per cent higher than 2013. Earnings of US\$121 million were eight per cent lower than 2013 due to a decrease in product prices and the absence of prior year tax benefits. During the year, Rio Tinto Minerals completed the modified direct dissolving of kernite (MDDK) project, which allows for more efficient orebody utilisation.

Dampier Salt (DSL)

DSL (Rio Tinto: 68 per cent), the world's largest solar salt exporter, produces industrial salt by solar evaporation of seawater at Dampier and Port Hedland, and from underground brine at Lake MacLeod, all in Western Australia. Salt is sold principally to base chemical industry markets in Asia. Salt production of 6.8 million tonnes (Rio Tinto share) was one per cent higher than 2013.

Development projects

The feasibility study to develop the A21 kimberlite pipe at Diavik was completed and approved in 2014. This development will provide an important source of incremental production to maintain existing production levels. A21 is estimated to cost US\$350 million (Rio Tinto share US\$210 million), with first production expected in 2018.

Work continued on the feasibility study for the Zulti South mine expansion at RBM, which will maintain the low-cost RBM smelter capacity post-2017. If the project is approved in 2015, commissioning is scheduled for 2017. The mineral sands exploration programme in Mozambique and other brownfield studies at the group's operations also continued throughout the year.

The Simandou iron ore project in Guinea is one of the largest-known undeveloped high-grade iron ore resources in the world. The concession will enable the development of the largest mine and infrastructure project ever undertaken in Africa. This will include the progressive development of a 100 million tonne per annum mine, a 650-kilometre trans-Guinean railway and a new deep-water port.

In May 2014, Rio Tinto and its partners, Chinalco and the International Finance Corporation, signed the Investment Framework with the Government of Guinea for the development of the Simandou iron ore project. This provides the legal and commercial foundation for the project and formally separates the infrastructure from the mine development. The Investment Framework was approved for ratification by the Guinean National Assembly in June 2014, followed by Presidential promulgation and Supreme Court review and took effect in August 2014.

The project partners are continuing to work towards the completion of a bankable feasibility study and the establishment of a funding consortium to build the infrastructure. These two elements will provide the basis for disciplined capital allocation decisions.

The Bunder diamond project is progressing its prefeasibility study, which began in July 2010. These studies have confirmed the economic potential of the orebody and work is under way on the mine plan, environmental and forestry approvals required to execute a Mining Lease.

The Jadar Project in Serbia is potentially a world-class lithium-borate deposit discovered by Rio Tinto in 2004. If developed, the deposit could supply a significant proportion of global demand for lithium and borates. Findings so far are encouraging and feasibility assessments are ongoing to build an economic business case and advance the environmental and social-economic impact assessments for the project. Lithium carbonate's fastest-growing application is in batteries that provide clean power to industrial systems and electric and hybrid vehicles.

In 2011, Diamonds & Minerals re-entered the potash business through an exploration joint venture with North Atlantic Potash Inc. (NAPI), a subsidiary of JSC Acron. Acron is a world leader in fertiliser production and holds multiple potash exploration permits in Saskatchewan, Canada. Rio Tinto has completed an extensive exploration programme on the joint venture properties, with promising results and is in discussions with NAPI and Acron regarding the future of the joint venture. Higher nutritional standards, population growth and limited arable land make potash a critical factor in maintaining global food security, and a natural complement to RTM's existing borate fertiliser business.

Outlook

Diamonds & Minerals' businesses serve a range of different industries, but have in common a track record of creating and defining new and profitable markets for the group's products. Demand softened in these markets in 2013 and 2014 in response to broader economic trends. The group's key markets are beginning to stabilise, although the pace of recovery is slower than previously thought and unlikely to fully manifest during 2015. However, the medium- to long-term outlook continues to be positive across all products as urbanisation and rising standards of living, particularly in China, drive higher levels of demand.

RTM will continue to seek to capture profitable growth in emerging economies and maintain its position in its established markets. Ongoing supply chain improvements will facilitate speed and flexibility in shifting supply to promising sectors and regions. Demand for borates is expected to remain stable in the near term, and the long-term industry fundamentals remain attractive. RTM will focus on increasing refined borates capacity to meet higher-than-GDP demand growth while achieving world-class safety performance and improving its cost position.

Demand for titanium dioxide feedstock is expected to continue to grow in the medium to long term, in line with improving global economic conditions, urbanisation and demand growth in emerging markets supported by rising per capita incomes. In response to weak demand and excess inventory in the feedstock supply chain, and in order to reduce operating costs and inventory, RTIT has taken action at a number of its operations, including temporary closures of the QMM mine and the upgraded slag (UGS) plant and deferral of a furnace rebuild at RTFT. Pigment and feedstock inventories within the supply chain are now returning towards historical levels.

The medium to long-term fundamentals for the diamond industry are positive and expected to support sustainable future price growth. The global mineral resource base is steadily declining, compounded by limited exploration investment and success, and expected reductions in supply over the medium to longer term. Demand in India and China is expected to continue to grow, and to represent nearly 50 per cent of global diamond consumption by 2025. Demand in mature markets is expected to continue to grow in line with GDP.

Energy

Financial performance

	2014 US\$ million	2013 US\$ million
Revenue	4,308	5,454
Net cash generated from operating activities	355	919
Underlying earnings/(loss)	(210)	33
Capital expenditure	224	732
Net operating assets	3,794	4,872

Strategy and strategic priorities

The Energy product group aimed to safely deliver superior margins and growth from a strong existing resource base to serve growing global energy demand.

Its strategic priorities were:

- Extract full value from the group's assets.
- Leverage technology and deliver competitive projects.
- Maintain the group's licence to operate.
- Build and steer a resilient, high-return portfolio.

Safety

The Energy product group's 2014 all injury frequency rate was 0.74 compared to 0.67 in 2013 with a large number of hand injuries recorded during the year.

Energy strives to foster a culture of shared and personal accountability for health and safety, and to create a workplace where everyone goes home safe and well at the end of every shift. Throughout 2014, the group's health and safety efforts focused on:

- Strengthening the management of critical risks, specifically in areas of process safety, underground operations, and vehicles and driving.
- Improving contractor safety performance through active engagement and interaction with contract partners.
- Comprehensively refreshing the safety culture and systems at all sites to raise personal awareness and commitment to improve hazard management processes, and to strengthen the implementation of lessons arising from incidents.
- Reducing high frequency incidents such as hand injuries.

Greenhouse gas emissions

The Energy group's greenhouse gas emissions decreased to approximately 3.3 million tonnes of carbon dioxide equivalent in 2014, compared with 3.6 million tonnes in 2013. This reduction was mainly due to the divestment of the Clermont Mine and the closure of the Blair Athol Mine, and the continued efforts of the group to increase the energy efficiency of its operations through a range of initiatives including equipment optimisation and engine improvements.

Over the past 15 years, Rio Tinto has spent more than US\$100 million on research and development into technologies that will reduce emissions from coal-fired power plants. In 2014, the Energy product group continued its sponsorship of The Otway Project, Australia's first industrial-scale demonstration of geological carbon dioxide capture and storage.

Review of operations

2014 was another challenging year for the Energy product group as the business environment for both coal and uranium remained very difficult. The group's underlying loss of US\$210 million compared with underlying earnings of US\$33 million in 2013.

Annual site production records at Hail Creek, Hunter Valley Operations and Bengalla, cost improvements and benefits from a weaker Australian dollar were more than offset by lower prices, which reduced earnings by US\$434 million, and lower uranium production. Energy continued to focus on positioning its assets further down the cost curve through a range of cost, productivity and revenue enhancements. An aggressive programme of cost and productivity improvements delivered US\$795 million of pre-tax cash savings in 2014 and 2013 compared with 2012, contributing to the product group's cash flow generation in 2014.

Energy's focus has been on safely creating value, reducing costs, eliminating waste and improving asset and labour productivity. This work coupled with the agility to adjust production mix in response to changing market conditions, is protecting value in very challenging times.

The product group's extensive operational and marketing expertise enabled further volume, cost and margin improvements to be secured. Energy retains deep and enduring relationships with its customers, built upon a foundation of high-quality products supplied reliably and consistently, over long periods of time. On average over the past three years, Energy's marketing team has delivered a price premium to spot market benchmarks of approximately eight per cent for coking coal, ten per cent for thermal coal and 35 per cent for uranium.

In April 2014, the group's two uranium operations – Rössing and Energy Resources of Australia – each entered into a new marketing and sales agreement with Rio Tinto Uranium (RTU). Under the new agreements, RTU will purchase uranium oxide from both operations and market the combined pool directly to customers. This new arrangement provides Energy's uranium customers with the benefit of multi-sourced supply.

In 2014 Rio Tinto sold its 50.1 per cent share in the Clermont coal mine in Queensland to GS Coal Pty Ltd for US\$1.015 billion, and its coal operations in Mozambique to International Coal Ventures Private Limited for US\$50 million, both before net debt and working capital adjustments.

Rio Tinto Coal Australia (Rio Tinto: 100 per cent)

In Queensland, Rio Tinto Coal Australia (RTCA) manages the Hail Creek (Rio Tinto: 82 per cent) and Kestrel (80 per cent) coal mines. As stated above, Rio Tinto sold its interest in the Clermont Mine in May 2014.

In New South Wales, RTCA manages Coal & Allied's coal mines which include Hunter Valley Operations (80 per cent), Bengalla (32 per cent), Mount Thorley (64 per cent) and Warkworth (44.5 per cent).

Lower prices for all types of coal saw RTCA's net earnings decline from US\$367 million in 2013 to US\$21 million in 2014. In very difficult markets RTCA has worked hard to improve its operational performance. Its coal mines remain cash flow positive with the majority placed in the lowest quartile of the cost curve.

Significant productivity gains across the Australian coal business delivered annual site production records at Hail Creek, Hunter Valley Operations and Bengalla. Excluding production from the Clermont Mine which was divested during the year, thermal coal production increased by 15 per cent (Rio Tinto share) in 2014 compared with 2013.

The product group declared a significant increase in its Hunter Valley managed thermal coal reserves in November 2014, compared with the previous estimates reported in Rio Tinto's 2013 Annual report.

RTCA is using technology and innovation to boost its competitive edge. The Rio Tinto Processing Excellence Centre located in Brisbane is helping improve yields at its sites; an Integrated Operations Centre planned to open in 2015 in Singleton is supporting the optimisation of mine performance; and automated drilling is being piloted at Hunter Valley Operations.

RTCA is also demonstrating operational and commercial excellence by adjusting semi-soft coal production to deliver improved margins at its Hunter Valley sites. In response to deteriorating coking coal markets its Hail Creek Mine began producing a thermal coal product for targeted customers.

RTCA has been working for nearly five years to secure a long-term future for Mount Thorley Warkworth mine. In 2014, it continued to seek approvals to maintain operations at the 30 year old mine, on land it owns within the footprint of existing mining leases. Approval is critical for the future of the operation and its 1,300 employees and contractors as existing approvals only allow the mine to maintain production and employment at current levels until the end of 2015. Two separate planning applications have been submitted for the integrated operation and the NSW Department of Planning and Environment has recommended approval. A decision on both applications is expected in 2015.

Zululand Anthracite Colliery (Rio Tinto: 74 per cent)

ZAC is an anthracite coal mine in South Africa which was held for sale until 1 April 2014 when it became a Rio Tinto managed operation.

Rio Tinto Coal Mozambique (formerly Rio Tinto: 100 per cent)

In October 2014, Rio Tinto completed the sale of RTCM, which includes the Benga coal mine in the Tete province of Mozambique, to International Coal Ventures Private Limited.

Energy Resources of Australia (Rio Tinto: 68.4 per cent)

ERA is a publicly-listed company which operates the Ranger Mine in the Northern Territory of Australia. No uranium oxide was produced in the first half of 2014 due to a leach tank failure on 7 December 2013 which triggered the suspension of processing operations and a series of investigations. A Government-appointed taskforce was established to oversee the regulatory response to the leach tank failure. A progressive restart of the Ranger processing plant began on 5 June 2014, with the mill processing lower-grade stockpiled material, following receipt of written approval from the Commonwealth Minister for Industry and the Northern Territory Department of Mines and Energy.

ERA produced a total of 1,757 thousand pounds (Rio Tinto share) of uranium oxide in 2014. Its 2014 full-year earnings were unfavourably impacted by costs associated with the leach tank failure and subsequent suspension of processing plant operations. Uranium oxide was purchased to fulfil higher price contracted sales, partly mitigating effects of the suspension.

Progressive rehabilitation over the Ranger Project Area advanced during 2014. A total of more than 33 million tonnes of material has been returned to Pit 3, and rehabilitation of Pit 1 is well advanced.

The Ranger 3 Deeps project remains in prefeasibility. On 3 October 2014 ERA lodged a Draft Environmental Impact Statement for the proposed Ranger 3 Deeps underground mine with the Northern Territory Environmental Protection Authority and the Commonwealth Department of the Environment.

During 2014 ERA achieved cash savings of more than A\$23 million, surpassing its objective of saving a cumulative A\$150 million in operating costs during the period 2011–2014.

Rössing Uranium Limited (Rio Tinto: 68.6 per cent)

Rio Tinto's share of uranium production at Rössing was 2,333 thousand pounds in 2014. Production was impacted by a leach tank failure in late 2013 and the introduction of a new operating model in mid-2014. Under this new model Rössing is tailoring production to meet only existing long-term customer requirements.

In June, a planned shutdown of the processing plant allowed for major maintenance work to be carried out. The work was completed without any safety incidents and plant operations were successfully restarted on 1 July 2014.

In light of continued low prices for uranium, Rössing embarked on an aggressive cash generation programme in 2014. The business exceeded its savings target for the year, delivering US\$14 million against a target of US\$12 million from a range of initiatives.

Rio Tinto Canada Uranium (Rio Tinto: 100 per cent)

Rio Tinto Canada Uranium's Roughrider project is an exploration site located in Canada's Athabasca Basin in north-east Saskatchewan. The basin supplies approximately 20 per cent of the world's uranium.

In 2014, the Canadian Government and the European Union signed a Comprehensive Economic Trade Agreement which provides an exemption to eligible companies from the Non-Resident Ownership Policy as it applies to foreign ownership of uranium mines. Once ratified, this change means Rio Tinto could, if economical to do so, develop a uranium operation without the need to first find a Canadian majority partner.

Exploration and development studies on the project progressed during 2014.

Development projects

Rio Tinto's premium coal assets in Australia's Hunter Valley present a number of low-capital, high-quality growth options.

The Mount Pleasant project is the largest undeveloped deposit in the Hunter Valley and has high quality coal, a low strip ratio, existing consents and committed rail and port facilities. Located adjacent to Bengalla mine, Mount Pleasant is an attractive, low-capital expansion option and is in the advanced stages of study. It has a capital intensity of between A\$100 and A\$150 per saleable tonne with an expected capacity of 8.5 million tonnes per annum of saleable product.

In late 2014, the Hunter Blend project was launched. The project aims to enable Rio Tinto to operate its Hunter Valley coal mines, plants and logistics infrastructure as one integrated system to deliver greater value and synergies than through the present standalone operations.

The Mount Pleasant and Hunter Blend projects are both opportunities to further improve the overall efficiency of Rio Tinto's operations in the Hunter Valley and to maximise the synergies that exist across the business. Whilst the group's world class resource base offers a range of further brownfield opportunities, these two projects, when combined with the existing business transformation programme, effectively deliver 67 per cent volume growth and a 40 per cent cost reduction against 2012 levels.

Rio Tinto is continuing to assess options for open cut mining on the eastern side of Hail Creek Mine in Queensland. It is also exploring the potential for underground mining. Government approvals and a prefeasibility study are in progress. A decision on the timing and nature of future development at Hail Creek will be made once these are complete.

Other options in the Australian coal portfolio include the Valeria and Winchester South projects. Valeria is a large, predominantly semi-soft and thermal coal deposit in central Queensland. It is close to existing infrastructure, with 40km of rail needed to reach Kestrel Mine. Winchester South is a coking coal deposit in central Queensland.

Outlook

Whilst the short-term outlook for coal and uranium remains challenging, the long-term outlook is more positive. Energy demand continues to grow. Globally, it grew by 50 per cent between 1990 and 2011 and the International Energy Agency expects it to grow by a further 40 per cent to 2035.

All energy sources will be needed to meet increased demand. However, much of it is expected to be met by coal – the cheapest and most readily available source of energy. High quality thermal coal is likely to be in demand for efficiency and air quality reasons, which aligns with Rio Tinto's premium resource and product profile.

Demand for uranium is expected to grow steadily in the longer term, and nuclear power remains the only base-load energy source that does not produce greenhouse gases.

Geologically, coking coal remains a relatively scarce commodity found in a small number of discrete locations of which the Bowen Basin in Australia is one of the most significant. Long-term demand appears to be firm, underpinned by urbanisation and industrialisation in the major developing economies of China and India, causing steady growth in steel output.

Rio Tinto is ideally positioned to continue supplying premium energy products to traditional markets in Japan, Taiwan and Korea, which are dependent on imports for all of their primary energy needs, while capturing growth opportunities in emerging markets. India's coal imports have been increasing and are rapidly becoming as significant as China, while a number of ASEAN (Association of Southeast Asian Nations) countries are also looking to secure reliable international coal supplies.

Iron Ore

Financial performance

	2014 US\$ million	2013 US\$ million
Revenue	23,281	25,994
Net cash generated from operating activities	10,274	14,008
Underlying earnings	8,107	9,858
Capital expenditure	4,211	6,814
Net operating assets	20,987	21,062

Strategy and strategic priorities

The Iron Ore product group's vision is to remain the best iron ore producer in the world by focusing on three strategic goals:

- Production at the right cost, delivered through high-performing teams with the support of unrivalled technology.
- Value-driven growth through disciplined phasing and low-cost growth options.
- Maximising portfolio value through specialist sales and marketing expertise.

Safety

In 2014, Iron Ore's all injury frequency rate was 0.73 compared with 0.70 in the previous year. This result was reached amidst a challenging environment in which Iron Ore completed 80 per cent of the infrastructure component of the Pilbara 360 million tonne per annum (Mt/a) expansion programme and recovered from a severe tropical cyclone. Sadly, there was one fatality in November 2014 at the Iron Ore Company of Canada. Train driver Enrick Gagnon lost his life as a result of a train derailment on the Quebec North Shore and Labrador railway (QNS&L) that was caused by a landslide.

During 2014 Iron Ore initiated a health, safety and environment system review and continued with the roll-out of improvements to safety interactions, pre-start safety meetings and safety training programmes. The group has continued the implementation of its innovative THINK safety programme, which is focused on increasing employee engagement and leadership in safety management.

In Western Australia the group maintained a strong focus on the mental health of employees, including the development of a three-year wellbeing strategy. This focuses on building both mental and physical wellbeing, raising awareness and better equipping leaders to provide support and recovery assistance when required. Implementation of the strategy will commence in 2015.

The Pilbara Utilities team received the 2014 Group-wide Chief Executive Safety Award, which recognises the sites and teams with the best annual safety performance over the prior three years.

Greenhouse gas emissions

During 2014 there was a significant change in the external legislative environment for energy and climate change. The Australian Government repealed both the Energy Efficiency Opportunities (EEO) Act and the Clean Energy Act, effective 1 July 2014, introducing a review of the renewable energy target and commissioning a white paper on energy issues.

Throughout 2014, Iron Ore continued to implement high value opportunities identified in the final round of EEO, establishing more than 35 initiatives across mines, rail and ports. For example at Yandicoogina, greenhouse gas emissions have been reduced by approximately 8,700 tonnes of carbon dioxide per year through the use of a Le Tourneau 2350 loader, which uses regenerative technology to achieve a low fuel burn rate.

Iron Ore met all legislative requirements in 2014, including reporting, under the National Greenhouse and Energy Reporting Scheme, the Clean Energy Act, the Clean Energy Repeal Bill, and the EEO Act, until it was repealed in July.

The product group's total greenhouse gas emission intensity has improved 6.7 per cent on the baseline target set in 2008.

Greenhouse gas (GHG) intensity of saleable production at the Iron Ore Company of Canada marginally improved during 2014 despite a product mix that saw a greater fraction of total concentrate production converted to the more GHG-intensive pellet product. Although being more GHG intensive to produce than concentrate, pellet ultimately provides a lower GHG intensity route to finished steel for the end user.

Review of operations

Rio Tinto operates a world-class iron ore portfolio. Operations in the Pilbara region of Western Australia comprise 15 mines, four independent port terminals, the largest privately-owned heavy freight railway in Australia and supporting infrastructure, including the Operations Centre in Perth. The Iron Ore Company of Canada (IOC) operates a mine, concentrator and pelletising plant in the province of Newfoundland and Labrador, together with port facilities in Sept-Îles, Quebec. Rio Tinto Marine delivers shipping services to the wider Rio Tinto Group, including Iron Ore.

In 2014 Iron Ore achieved underlying earnings of US\$8,107 million. Record sales volumes, continued cash cost savings and lower taxes following the repeal of Mineral Resources Rent Tax in September 2014 were offset by weaker iron ore prices, down 30 per cent on average year-on-year, reducing earnings by US\$3.8 billion on 2013.

Iron Ore met global production guidance in 2014, producing 295.4 million tonnes globally. Rio Tinto's share of production was 233.6 million tonnes – an increase of 12 per cent on 2013.

Quarterly production and sales records were consistently achieved through the year. This strong performance was delivered despite interruptions caused by severe weather conditions in both the Pilbara and Canada. In January 2014, all Pilbara coastal and some mine operations were suspended as a result of tropical cyclone Christine and heavy rainfall that continued into February. North America's extreme weather in Q1 also significantly affected IOC's production and shipments in the first half of 2014.

Pilbara production improved as the year progressed, contributing to the early achievement of a 290 Mt/a run rate. Production at IOC stabilised as phase two of the Concentrate Expansion Project (CEP) was successfully completed, delivering 8.7 million tonnes of pellets and 6.0 million tonnes of concentrate for sale for the year.

Steel demand in China, while robust, did not grow at the strong rates witnessed for most of the past decade. Combined with strong growth in seaborne iron ore supply, this put downward pressure on the iron ore price, with the Platts 62 per cent iron fines index averaging US\$96.70 per dry metric tonne, a landed price in China that excludes moisture content. Iron Ore's global shipments in 2014 were 303 million tonnes at an average realised free on board (FOB) price of US\$84.30 per wet metric tonne for Pilbara volume.

Rio Tinto Marine shipped 238 Mt of dry bulk cargo on behalf of the wider Group, an increase of 25 per cent on 2013. Rio Tinto is now the largest dry bulk shipping business in the world in terms of volume, with a contract fleet of more than 200 vessels at any given time, including 17 vessels owned by Rio Tinto. Average freight rates in 2014 tracked below 2013 and forward voyage rate curves are flat, reflecting vessel oversupply and a drop in bunker fuel prices.

In the Pilbara, a new nameplate capacity of 290 Mt/a capacity was achieved in May 2014, two months ahead of schedule. Effective coordination between the expansion and operations teams enabled an almost seamless transition to the increased nameplate capacity, overseen by the Operations Centre to ensure optimal supply chain performance.

"Production at the Right Cost" improvement initiatives focused heavily on reducing costs and driving productivity gains, contributing US\$710 million in pre-tax savings to the wider Rio Tinto Group since 2012. These included reducing the use of contractors, external service providers and consultants, finding low-cost production improvements, increasing the utilisation of assets and maximising the value of new technologies. People remained a key driver in reducing costs and increasing productivity throughout 2014. An example of this was the Training Transformation strategy, which returned an overall

376,000 productive hours to the business and delivered an overall saving of US\$48 million through a focus on future innovation and technology solutions, and real-time field training.

The Mine of the Future™ programme continued to deliver efficiencies in 2014 across production, health, safety and environmental performance. In conjunction with the Technology & Innovation group, Iron Ore successfully converted four drills at the West Angelas mine to an Autonomous Drilling System, adding to the two units already in operation. The autonomous haulage system (AHS) continued to be deployed across the Pilbara, delivering lower load and haul operating costs, increased productivity and safer operating environments. At the Hope Downs 4 mine, autonomous haulage exceeded the Iron Ore Pilbara site with the highest manned effective utilisation by 14 per cent, and decreased load and haul operating costs by approximately 13 per cent. Hope Downs 4 and Nammuldi mines became the first fully-operational AHS sites, with 19 Komatsu 830E AHS haul trucks at Hope Downs 4 and 25 Komatsu 930E AHS trucks at Nammuldi. A further 13 930E AHS trucks are also in operation at Yandicoogina. Iron Ore continues to be the world's largest operator of AHS trucks and a proud leader in automated mining technologies.

Progress was also made towards AutoHaul®, the world's first autonomous heavy-haul rail system, with the project moving through a number of testing phases and the first autonomous train journey piloted in the fourth quarter.

Throughout the year, the US\$300 million Wickham town upgrade project, supporting the Cape Lambert rail and port operations workforce, was largely completed. It included construction of more than 240 houses, the Wickham Lodge fly-in, fly-out accommodation and the Julutharndu Maya central facilities building as well as new parks, roads and other town infrastructure.

In 2014, a key focus for Iron Ore remained on supporting local communities, businesses and people within the company's operational footprint. Sixty three per cent of expenditure outlayed to businesses located in the Pilbara, was with Pilbara Aboriginal businesses and their joint venture partners, providing integral services to various operations and projects, and saw millions of dollars reinvested into local economies. Iron Ore remains one of the largest private sector employers of Aboriginal people, with more than 1,100 workers in 2014.

Iron Ore continued to actively implement key participation agreements with Traditional Owners in the Pilbara, which secures land access for the life of mining operations. These agreements incorporate mutual obligations to deliver outcomes in employment, financial compensation, education and training, heritage surveys and practices, environmental care and land use.

IOC (Rio Tinto share 58.7 per cent) continued to be an important operation within Iron Ore's portfolio, maintaining a strong position as a supplier of high quality, premium pellets and high quality, low contaminant concentrate. The company is poised to realise the full potential of an enviable orebody and additional capacity brought online through recently completed expansions, while the operation remains dedicated to the journey towards zero harm.

Development projects

In May, Iron Ore announced that the Pilbara network of mines, rail and ports had reached a run rate of 290 Mt/a, two months ahead of schedule, following completion of first-phase port and rail expansion works in late 2013. This major milestone signalled a step change in production performance and paved the way for second-phase developments to 360 Mt/a.

Infrastructure to support the 360 Mt/a expansion is 80 per cent complete, with all marine and wharf works commissioned. A new shiploader at Cape Lambert Port B has been installed along with the early commissioning of a new stacker and reclaimer. First ore through a new car dumper was achieved ahead of schedule in the third quarter and all rail works for the expansion to 360 Mt/a have been completed, including AutoHaul® wayside rail works.

Iron Ore's breakthrough pathway to match the upgraded port and rail capacity will see Pilbara mine production capacity increase towards 350 Mt/a through a series of low-cost brownfield expansions. US\$400 million of capital expenditure was also approved for plant equipment and modification, as well as additional heavy machinery for use at various mines in the Pilbara. The rapid low-cost

growth pathway from existing mines such as West Angelas deposit B, Paraburdoo, Brockman 2, Nammuldi and Yandicoogina is well advanced, with around 40 Mt/a approved and in implementation. This will enable a target production rate of more than 330 Mt/a in 2015 and support delivery towards 350 Mt/a in 2017. An investment decision regarding development of the greenfield Silvergrass mine has been deferred until 2016.

The brownfield mine growth is being achieved at an average mine production capital intensity of approximately US\$9 per tonne and the full expansion from 220 Mt/a to 360 Mt/a is expected to be delivered at an industry-leading capital intensity of US\$110-120 per tonne.

Iron Ore's Pilbara expansion programme remains the largest integrated mining project in Australian history and has a proven record of delivering project stages on time and budget.

Milestones from 2014 include first ore delivered from a new 21-kilometre conveyor system at Western Turner Syncline to Tom Price in the first quarter. Completion of this project contributed to the 360 Mt/a expansion plan and provides a safer, more efficient alternative to the previous road haul operation. Rio Tinto has also approved development of Western Turner Syncline phase two, which will increase production by an additional 7 Mt/a.

The Nammuldi Below Water Table process plant delivered first ore to the stockyards in November and is expected to be in full production by the end of the first quarter of 2015.

First ore was also delivered through the new fines circuit and stacker at West Angelas deposit B in mid-November, five weeks ahead of plan. Development of deposit B included a new pit, fines circuit, stacker, and a haul road connecting to deposit A. All other non-processing infrastructure is scheduled for completion in the first quarter of 2015.

Marandoo phase two, which includes construction of a new wet processing plant to access ore reserves below the water table, was completed in 2014 and will extend the life of Marandoo operations.

At IOC, the completion of stage two of the Concentrate Expansion Project in the first half helped remove pit-to-plant bottlenecks and aided extra capacity to grow production. The project commissioned an additional ball mill and mining equipment, and upgraded power distribution infrastructure providing an additional 1.3 Mt concentrate capacity.

Outlook

The demand outlook for iron ore remains sound with expected contestable iron ore demand growth in excess of 100 Mt/a by 2020. In the longer term, there is significant potential for growth in demand in emerging markets such as ASEAN and India due to population growth, urbanisation and rising incomes.

Supply growth is expected to outpace demand growth, with approximately 300 Mt/a of additional seaborne capacity currently under construction or in ramp-up. These volumes will be spread out across the remainder of this decade and, as a consequence, supply-side exits from Chinese domestic suppliers and some high-cost seaborne suppliers will continue. Approximately 125 Mt of high-cost supply from China and non-traditional seaborne suppliers exited in 2014.

With its low-cost position, proximity to China and emerging markets, and suite of iron ore products, Rio Tinto is well placed to take advantage of demand growth for seaborne iron ore through its expansion options.

Exploration

Rio Tinto has had a sustained commitment to exploration since 1946, with an exceptional track record in mineral discovery. Mature operations such as Weipa, the Pilbara and Rössing were Tier 1 greenfield discoveries by Rio Tinto Exploration where value is still being realised after more than 40 years of production.

Strategy

The goal of Exploration is to create value for Rio Tinto through the discovery or acquisition of well-located, high-grade Tier 1 resources to supplement the Group's existing high-quality resource base. The Exploration group performs both greenfield and brownfield exploration programmes and undertakes focused research and development to aid the exploration effort. Greenfield exploration aims to establish completely new operating business units, involving, among other objectives, geographic or commodity diversification. Brownfield exploration is directed at sustaining or growing existing Group businesses in the orbit of existing operations, providing significant value to the product groups.

Additionally, Exploration is supporting an increasing array of projects across the business. This includes providing orebody knowledge expertise to the product groups, helping business development groups to evaluate merger and acquisition opportunities and assisting the Economics team with industry analysis and intelligence to support supply forecasts. In 2014, Exploration also reviewed the orebody knowledge content for all projects that were progressed to the Investment Committee.

The exploration process can take over 20 years to progress from target generation to development decisions, due to community, sustainability and investment requirements. Rio Tinto's core exploration capability and rigorous global prioritisation process has consistently delivered Tier 1 discoveries. Tier 1 discoveries over the past decade include:

Year	Discovery	Commodity	Location
2005	La Granja	Copper	Peru
2005	Caliwingina	Iron ore	Australia
2008	Sulawesi	Nickel	Indonesia
2008	Mutamba	Titanium	Mozambique
2009	Jadar	Lithium/borates	Serbia
2011	Amargosa	Bauxite	Brazil
2013	KP405	Potash	Canada
2014	Yandi Braid	Iron ore	Australia

At the end of 2014, the Exploration group was active in 19 countries and assessing opportunities in other countries across a range of commodities including copper, nickel, iron ore, bauxite, coking coal, uranium, diamonds and mineral sands. Exploration activities in China were conducted through CRTX, the joint venture between Chinalco (51 per cent) and Rio Tinto (49 per cent).

The Exploration group is organised into regional multi-commodity teams headquartered in Melbourne, London, Salt Lake City, Perth, Brisbane and Beijing; supported by a team of technical and commodity professionals. This structure provides a global reach with a local presence that allows for effective community engagement and development of the Group's social licence to operate.

Safety

At the end of 2014 the Exploration group's all injury frequency rate was 0.47, a further improvement on the 0.49 rate at the end of 2013. A multi-year change programme rolled out across the Exploration group has helped to sustain the significant safety improvement gained in 2013 and as a result Rio Tinto Exploration was awarded the "2014 Chief Executive Safety Award – most improved". This programme also contributed to measureable improvements in operational performance across all regions.

Performance

During 2014, commercial activities provided access to quality projects and supported the progression of projects through the Exploration project pipeline. Exploration joint ventures were established in Canada, the US, Chile, Mexico

and Australia. In addition, Exploration divested part of its interest in the Tamarack project in Minnesota, US thereby securing funding to increase the pace of the multi-year drilling programme required to continue testing for extensions to the nickel-copper-precious metal resource.

Resource knowledge of the Roughrider uranium project in Saskatchewan has increased, with further drilling and resource modelling. In 2015 the Exploration group will focus on identifying potential for additional resources in the orbit surrounding the project. In addition, Rio Tinto's Saskatchewan regional tenure has been prioritised and rationalised following further drilling. At the Sanxai bauxite project in Laos, ongoing exploration provided greater certainty around resource size whilst infrastructure studies targeting a range of options have been progressing. The Amargosa bauxite project in Brazil has progressed, with drilling and mapping advancing a number of brownfield areas in the Amargosa orbit as well as adding new prospects in the region.

Brownfield projects generated good drilling results at iron ore projects in the Pilbara, coking coal projects in the Bowen Basin, and in the Weipa orbit in Australia. In the Bingham orbit, drilling continued to extend the mineralisation envelope.

Exploration activities are underpinned by data and information management. The focus on data accuracy and availability has continued to drive efficiency improvements.

Research and development projects have progressed, with new analytical techniques for mineral geochemistry supporting exploration targeting. Progress continued on the development of the VK1 airborne gravity gradiometer, with a significant improvement in detection levels achieved in 2014.

In addition to Exploration's projects, the Group's major evaluation projects in 2014 were:

Project	Commodity	Country
La Granja	Copper	Peru
Resolution	Copper	US
Pilbara	Iron ore	Australia
Bowen Basin	Coking coal	Australia
Hunter Valley	Thermal coal	Australia
Zulti South	Mineral sands	South Africa
Simandou	Iron ore	Guinea
Weipa	Bauxite	Australia

In 2014, the Group reduced its exploration and evaluation expenditure to US\$747 million^(a). This represented a 21 per cent decrease compared with 2013 expenditure of US\$948 million. Of the 2014 spend, US\$209 million relates to centrally-controlled exploration and evaluation activity. In total, Rio Tinto's exploration and evaluation activity covered ten commodities in 2014, across a range of greenfield and brownfield environments.

Outlook

In 2015 the Exploration group will continue to work on a prioritised portfolio of greenfield and brownfield projects. The downturn in commodity prices is expected to produce further cost-effective commercial opportunities, by providing access to high quality projects. However, challenges around timeframes to access ground, the need to increasingly explore for orebodies beneath cover rocks, and the decreasing grade and quality of potential orebodies are expected to continue. The Exploration group will focus on project generation in a number of key geographies, as well as testing of targets within the portfolio. For 2015, exploration projects at a more advanced stage include:

Project	Commodity	Country	Type	Stage
Tamarack	Nickel	US	Greenfield	Project of Merit
Roughrider	Uranium	Canada	Greenfield	Order of Magnitude
Sanxai	Bauxite	Laos	Greenfield	Project of Merit
Amargosa orbit	Bauxite	Brazil	Greenfield	Order of Magnitude
Bowen Basin	Coking coal	Australia	Brownfield	Project of Merit
Pilbara	Iron ore	Australia	Brownfield	Project of Merit

(a) An additional US\$18m loss on an undeveloped evaluation project was recorded separately in Loss relating to interests in undeveloped projects.

Technology & Innovation

Rio Tinto's Technology & Innovation group (T&I) partners with the product groups to achieve operating excellence. T&I has a recognised track record of value creation and protection, while embedding fundamental changes that will keep Rio Tinto competitive for the long term. Gross costs in 2014 were US\$340 million, compared with US\$370 million in 2013 and US\$415 million in 2012. The total number of employees in T&I increased from 730 at year-end 2013 to 919 at year-end 2014, primarily attributed to the transfer of Iron Ore project teams into T&I.

Strategy

T&I delivers value through three levers:

- **Project shaping and delivery:** ensuring the Group “does the right projects” and “does the projects right”.
- **Productivity:** focusing on asset performance, technology deployment and global processes to sustainably improve operations, maximise margins and capture value.
- **Innovation:** creating step-change improvements to address the significant challenges facing the mining industry.

Safety

T&I is committed to the safe operation of its managed facilities and the safe deployment of its personnel. The all injury frequency rate for T&I in 2014 was 0.57 compared with 0.63 in 2013. The improvement resulted from several changes, including improved supervision and leadership in the field, improved HSE resourcing of construction projects, focus on specific construction injury risks and work planning, and attention to critical controls in the workplace. In 2014, the Cornerstone project at Rio Tinto Kennecott, US under the leadership of Rio Tinto Projects, won the Chief Executive Safety Award for the best project. This annual award recognises the project that has achieved outstanding safety performance and embodies a strong safety culture.

Performance

Project shaping and delivery

The Strategic Planning team works with product groups to identify valuable development options. In 2014, the team developed and successfully piloted a project shaping process. This considers the full spectrum of options and stakeholder interests early in the capital project life cycle, so that attractive projects get the best start and non-economic ones are culled early. The process will continue to be rolled out across the Group in 2015.

Rio Tinto Projects was established in 2014 by combining the T&I and Iron Ore project teams. Rio Tinto now has a single projects organisation, responsible for executing capital development projects and using a consistent accountability model. In 2014, Rio Tinto Projects worked on delivering the following:

- Pilbara 360 project, Australia – continuing in 2015
- Concentrate expansion project at the Iron Ore Company of Canada
- Exploration decline at Energy Resources of Australia
- Modernisation of the ISAL aluminium smelter, Iceland
- AP60 project at the Arvida aluminium smelter, Canada
- Modified direct dissolving of kernite project at Boron Operations, US
- Cornerstone project – continuing in 2015
- Kitimat modernisation project, Canada – continuing in 2015

Rio Tinto Projects also contributed to studies for the South of Embley bauxite project, Mount Pleasant coal project, Hail Creek mine expansion, Zulti South mine expansion, Simandou iron ore project and Oyu Tolgoi copper expansion project phase 2.

The Technical Assurance team provides independent assessments to the Rio Tinto Investment Committee and board to ensure investment decisions are thoroughly reviewed and technically sound. Technical Assurance has developed and applied more rigorous project review, due diligence, and post-investment review processes to Rio Tinto's governance. This has been effective in helping prioritise 2014's reduced capital spend and will continue to support future capital allocation.

Productivity

T&I's Productivity team continues to help operations attain the best operating performance from an asset. Key initiatives in 2014 included:

- Productivity programmes to improve the performance of mines and processing plants: For example, improving throughput in a number of operations, improving haul truck payloads and reducing train loading times in the Pilbara, increasing concentrator throughput at Oyu Tolgoi, improving recoveries at Escondida through process modelling and de-bottlenecking the beneficiation plant at Weipa. T&I's Integrated Value Chain Engagement (IVCE) programme undertaken by the Brockman iron ore mine since 2012 has delivered seven million tonnes of additional saleable ore and an additional 45 million tonnes of material movement without introducing new assets. Many other operations have benefited from the IVCE programme.
- Asset management: Including maintenance tactics, shutdown strategies and defect elimination protocols – to enhance the reliability, utilisation and life of operating assets.
- Process development: Using sophisticated laboratory and pilot plant facilities, and world-class modelling capabilities, to provide support to operations and projects. Examples include a step-change in leach extraction from copper sulphides and low-cost tailings de-watering.
- Technical risk mitigation: Supporting projects like Pilbara 360, the Kennecott landslide recovery, and tailings dam design and operations.

Innovation

Automation programmes continued to progress under the Mine of the Future™ programme with 57 autonomous trucks in operation in the Pilbara at year end and the world's first autonomous heavy-haul railway (Autohaul®) under construction. In 2014, T&I deployed three new technologies under the Mine of the Future™ programme:

- Processing Excellence Centre (PEC): Following successful trials that delivered significant value at Rio Tinto copper process plants, the PEC was officially opened in March. This state-of-the-art facility provides advanced remote technical support to operations. The excellence centre platform will be further developed across the Group.
- RTVis™: This visualisation software allows novel analysis of in-ground data, improving understanding of the orebody at an operation. Application of RTVis™ at the Yandicoogina mine has seen a reclassification of more than one million tonnes of material to a high silica ore product for blending. At West Angelas, the high-grade recovery programme enabled by RTVis™ created a two per cent increase in high-grade ore recovery.
- Autonomous drilling system (ADS): West Angelas is now the world's first full-time autonomous drill mine, with six rigs in operation. Functionality of the system is being extended to allow use by Rio Tinto Energy. ADS has demonstrated a ten per cent increase in use of equipment availability and significant improvement in labour productivity at West Angelas.

In addition, the Rio Tinto Chinalco Innovation Joint Venture (RTCI) was established in November. Combining Rio Tinto's global leadership in mining innovation with the resources and expertise of Chinalco's world-class research and development and engineering teams will provide a solid basis to develop and/or commercialise next-generation technologies.

Outlook

In 2015, T&I will continue to build on its 2014 successes by:

- implementing the project shaping process and improving capital project performance;
- ramping up the delivery of industry-leading productivity improvements;
- moving to the next phase of Mine of the Future™ by harnessing “big data” and predictive analytics, further equipment automation, further implementation of operation centres, excellence centres and implementation of other step-change innovations.

Financial overview

The key metrics for Group financial management and planning are summarised below.

	2014 US\$ million	2013 US\$ million	2012 US\$ million
Underlying earnings ^(a)	9,305	10,217	9,269
Net earnings/(loss) ^(a)	6,527	3,665	(3,028)
Net cash generated from operating activities	14,286	15,078	9,430
Net debt	12,495	18,055	19,192
Total capital ^(b)	67,089	71,557	76,932

(a) Underlying earnings is the key financial performance indicator which management uses internally to assess performance. It is presented here as a measure of earnings to provide greater understanding of the underlying business performance of the Group. Items excluded from net earnings to arrive at underlying earnings are explained in note 2 to the financial statements. Both net earnings and underlying earnings deal with amounts attributable to the owners of Rio Tinto. However, IFRS requires that the profit for the year reported in the income statement should also include earnings attributable to non-controlling interests in subsidiaries.

(b) Total capital is defined as equity attributable to owners of Rio Tinto plus equity attributable to non-controlling interests plus net debt.

Decreased underlying earnings reflect the unfavourable impact of lower prices in the Group's main commodities, other than aluminium and diamonds. This was offset by the favourable impact of improved sales volumes, operating cash cost improvements and continued overall strengthening of the US dollar against local currencies.

Net earnings of US\$6.5 billion reflect non-cash exchange losses of US\$1.9 billion; impairment reversals of US\$1.0 billion offset by impairment charges of US\$1.1 billion; a US\$0.4 billion write-off of deferred tax assets following the repeal of the Mineral Resources Rent Tax by the Australian senate; and losses on disposal of businesses during the period of US\$0.3 billion.

Net cash generated from operating activities, which include dividends from equity accounted units, reflect the negative impact of lower commodity prices partially offset by the favourable impact from higher volumes and cost reduction initiatives and a reduction in net interest paid as a result of lower net debt.

Net debt decreased from US\$18.1 billion at 31 December 2013 to US\$12.5 billion at 31 December 2014 as operating cash inflows, divestment proceeds and proceeds from the disposal of the Group's St James's Square properties more than offset the outflows relating to capital expenditure and the increased dividend payment. Gearing ratio decreased from 25.2 per cent at 31 December 2013 to 18.6 per cent at 31 December 2014. Interest cover remained unchanged from the prior year at 13 times. The board's objective when managing capital is to safeguard the business as a going concern whilst maximising returns for the Group's shareholders. In practice, this involves regular reviews by the board and senior management. These reviews take into account the Group's strategic priorities, economic and business conditions, and opportunities that are identified to invest across all points of the commodities cycle. The resulting capital structure provides the Group with a high degree of financial flexibility at a low cost of capital.

In addition to the information provided on the product groups on pages 28 to 37, further information on their financial performance can be found in notes 2 and 3 to the financial statements on pages 123 to 126 and the financial information by business unit on pages 178 to 182.

Five year review

Selected financial data

The selected consolidated financial information below has been derived from the historical audited consolidated financial statements of the Rio Tinto Group. The selected consolidated financial data should be read in conjunction with, and qualified in their entirety by reference to, the 2014 financial statements and notes thereto. The financial statements as included on pages 103 to 194 have been prepared in accordance with IFRS as defined in note 1.

Rio Tinto Group

Income statement data

For the years ending 31 December Amounts in accordance with IFRS	2014 US\$m	2013 US\$m	2012 US\$m	2011 US\$m	2010 US\$m
Consolidated sales revenue	47,664	51,171	50,942	60,529	55,171
Group operating (loss)/profit ^(a)	11,346	7,430	(1,925)	14,037	19,608
Profit/(loss) for the year from continuing operations	6,499	1,079	(3,020)	6,800	15,195
Loss after tax from discontinued operations	–	–	(7)	(10)	(97)
Profit/(loss) for the year	6,499	1,079	(3,027)	6,790	15,098
Basic earnings/(losses) per share ^(b)					
Profit/(loss) from continuing operations (US cents)	353.1	198.4	(163.4)	303.9	731.0
Loss after tax from discontinued operations (US cents)	–	–	(0.4)	(0.5)	(4.9)
Profit/(loss) for the year per share (US cents)	353.1	198.4	(163.8)	303.4	726.1
Diluted earnings/(losses) per share ^(b)					
Profit/(loss) from continuing operations (US cents)	351.2	197.3	(163.4)	302.0	726.7
Loss after tax from discontinued operations (US cents)	–	–	(0.4)	(0.5)	(4.9)
Profit/(loss) for the year per share (US cents)	351.2	197.3	(163.8)	301.5	721.8
Dividends per share	2014	2013	2012	2011	2010
Dividends declared during the year					
US cents					
– interim	96.0	83.5	72.5	54.0	45.0
– final	119.0	108.5	94.5	91.0	63.0
UK pence					
– interim	56.9	54.3	46.4	33.1	28.2
– final	78.0	65.8	60.3	57.3	39.1
Australian cents					
– interim	103.1	93.0	68.5	49.8	49.3
– final	153.0	120.14	91.7	84.2	61.9
Dividends paid during the year (US cents)					
– ordinary	204.5	178.0	163.5	117.0	90.0
Weighted average number of shares – basic (millions)	1,848.4	1,847.3	1,849.1	1,923.1	1,961.0
Weighted average number of shares – diluted (millions) ^(b)	1,858.7	1,857.7	1,849.1	1,935.5	1,972.6

Balance sheet data

at 31 December Amounts in accordance with IFRS	2014 US\$m	2013 US\$m	2012 US\$m	2011 US\$m	2010 US\$m
Total assets	107,827	111,025	118,437	120,152	112,773
Share capital/premium	9,053	9,410	10,189	10,024	10,105
Total equity/Net assets	54,594	53,502	57,740	58,884	64,512
Equity attributable to owners of Rio Tinto	46,285	45,886	46,553	52,199	58,247

(a) Group operating profit or loss includes the effects of charges and reversals resulting from impairments (other than impairments of equity accounted units) and profit and loss on disposals of interests in businesses. Group operating loss or profit amounts shown above exclude equity accounted operations, finance items, tax and discontinued operations.

(b) The effects of anti-dilutive potential have not been included when calculating diluted loss per share for the year ended 31 December 2012.

Directors' approval statement

This Strategic report is delivered in accordance with a resolution of the board, and has been signed on behalf of the board by:

A handwritten signature in black ink, appearing to read 'Jan du Plessis', is positioned above a horizontal red line.

Jan du Plessis
Chairman

4 March 2015

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Directors' report

The directors present their report and audited consolidated financial statements for the year ended 31 December 2014.

Dual listed structure and constitutional documents

An explanation of the dual listed companies structure (DLC) of Rio Tinto plc and Rio Tinto Limited, and of the Companies' constitutional documents can be found on pages 220 to 222. This section also provides a description of voting rights under the DLC arrangements, including restrictions which may apply in respect of the shares of either Company under specified circumstances.

Operating and financial review

The Strategic report set out on pages 1 to 42 provides a comprehensive review of Rio Tinto's operations, its financial position and its business strategies and prospects, and is incorporated by reference into, and forms part of, this directors' report.

Rio Tinto's principal activities during 2014 were minerals and metals exploration, development, production and processing.

Pages 1 to 39 of the Strategic report provides a comprehensive review of the development and performance of Rio Tinto's operations for the year ended 31 December 2014 and the potential future developments and expected results of those operations.

The subsidiary and associated undertakings principally affecting the profits or net assets of the Group in the year are listed in notes 33 to 36 to the financial statements.

Significant changes and events affecting the Group during 2014 and until the date of this report have been:

- On 13 January 2014, Rio Tinto acquired 510,983,220 common shares of Turquoise Hill under Turquoise Hill's rights offering at a total cost of C\$1,292,787,546.60 or C\$2.53 per share, together with additional anti-dilution share warrants. The purchase represented approximately 50.8 per cent of the common shares offered under the rights offering and enabled Rio Tinto to maintain its existing percentage shareholding in Turquoise Hill. The rights offering was fully subscribed. Turquoise Hill used a portion of the funds it received under the rights offering to repay all amounts outstanding under the US\$1.8 billion interim funding facility and the US\$600 million secured bridge funding facility each provided to Turquoise Hill by Rio Tinto.
- On 28 January 2014, Rio Tinto Mining and Exploration Limited (RTMEL) received 44,126,780 common shares of Minera IRL Limited (IRL), representing approximately 19.44 per cent of the issued and outstanding common shares of IRL. The shares formed part of the consideration agreed to in the 2006 option agreement on the Ollachea Gold Project between RTMEL and IRL. The consideration for each share was C\$0.1790. The shares were issued from IRL's treasury and were not purchased by RTMEL via a market transaction. Should RTMEL not sell any of the shares for a period of one year, RTMEL shall be entitled to a cash incentive payment.
- On 12 February 2014, Rio Tinto entered into an option agreement with LNG Canada, a joint venture comprising Shell Canada Energy, Phoenix Energy Holdings Limited (an affiliate of Petro-China Investment (Hong Kong) Limited), Kogas Canada LNG Ltd. (an affiliate of Korea Gas Corporation) and Diamond LNG Canada Ltd. (an affiliate of Mitsubishi Corporation) to acquire or lease a wharf and associated land at its port facility at Kitimat, British Columbia, Canada. LNG Canada is proposing to construct and operate a natural gas liquefaction plant and marine terminal export facility at Kitimat.
- On 7 April 2014, Rio Tinto announced its intention to gift its 19.1 per cent shareholding in Northern Dynasty Minerals Ltd (Northern Dynasty), owner of the Pebble Project, to two local Alaskan charitable foundations. The decision followed the strategic review announced in 2013 of Rio Tinto's interest in Northern Dynasty, which concluded the Pebble Project did not fit with Rio Tinto's strategy. The shares in Northern Dynasty were divided equally between the Alaska Community Foundation to fund educational and vocational training and the Bristol Bay Native Corporation Education Foundation, which supports educational and cultural programmes in the region.
- On 30 April 2014, Rio Tinto filed a complaint in the United States District Court for the Southern District of New York against: Vale, S.A., Beny Steinmetz, BSG Resources Limited, BSG Resources (Guinea) Ltd. aka BSG Resources Guinée Ltd, BSGR Guinea Ltd. BVI, BSG Resources Guinée SARL aka BSG Resources (Guinea) SARL aka VBG-Vale BSGR Guinea, Frederic Cilins, Michael Noy, Avraham Lev Ran, Mamadie Touré, and Mahmoud Thiam. The Complaint relates to the loss of half of Rio Tinto's mining concession in the Simandou region of south-east Guinea in 2008. Rio Tinto asked the Court to award compensatory, consequential, exemplary and punitive damages to Rio Tinto in an amount to be determined at trial.
- On 13 May 2014, Rio Tinto announced that its Pilbara iron ore system of mines, rail and ports had reached a run rate of 290 million tonnes a year, two months ahead of schedule.
- On 26 May 2014, the Government of Guinea and its partners, Rio Tinto, Chinalco and the IFC, signed the Investment Framework for blocks 3 and 4 of Simandou. The signing provided the continued legal and commercial foundation for the project.
- On 27 May 2014, the Group announced that it had appointed Alfredo Barrios as chief executive of its Aluminium business, to succeed Jacynthe Côté with effect from 1 June 2014.
- On 2 June 2014, Rio Tinto completed the sale of its 50.1 per cent interest in the Clermont Joint Venture to GS Coal Pty Ltd, a company jointly owned by Glencore and Sumitomo Corporation, for US\$1,015 million. Under the terms of the sale, Glencore took over management of Clermont mine, which produces thermal coal in central Queensland.
- On 30 July 2014, Rio Tinto announced that it had reached an agreement to sell Rio Tinto Coal Mozambique, which comprises the Benga coal mine and other projects in the Tete province of Mozambique, to International Coal Ventures Private Limited for US\$50 million (before net debt and working capital adjustments). On 8 October 2014, Rio Tinto announced that it had completed the sale.
- On 18 August 2014, the Group announced that following recent developments in Papua New Guinea, including the new mining legislation passed by the Autonomous Bougainville Government, it had decided to review all options for its 53.83 per cent stake in Bougainville Copper Limited.
- On 2 September 2014, Talon Metals Corp., a company listed on the Toronto Stock Exchange, announced an independent mineral resource estimate prepared in accordance with Canadian National Instrument 43-101 (NI 43-101) on the Tamarack Nickel-Copper-Platinum Project (Tamarack Project) located in Minnesota, US. Talon has the right to acquire an initial 30 per cent stake in the Tamarack Project from Kennecott Exploration Company, a subsidiary of the Group.

- On 7 October 2014, the Group announced that in July 2014, Glencore had contacted it regarding a potential merger of Rio Tinto and Glencore and that the Rio Tinto board, after consultation with its financial and legal advisers, had concluded unanimously that a combination was not in the best interests of Rio Tinto's shareholders, and that the board's rejection was communicated to Glencore in early August.
- 17 November 2014, Rio Tinto announced that it had signed a Heads of Agreement with Sinosteel Corporation (SC) and it intended to advance discussions with SC for a second extension to the Channar Mining iron ore joint venture in Western Australia's Pilbara region.
- On 27 November 2014, Rio Tinto announced that it had formally approved the development of a fourth pipe, known as A21, at the Diavik Diamond Mine.
- On 28 November 2014, Rio Tinto Coal Australia declared a significant increase of its managed thermal coal reserves in the Hunter Valley of New South Wales, Australia, compared with the previous estimates reported in Rio Tinto's 2013 Annual Report.
- On 12 February 2015, the Group announced a capital return of US\$2.0 billion which comprises a targeted A\$500 million (c. US\$0.4 billion) off-market share buy-back tender of Rio Tinto Limited shares and the balance of approximately US\$1.6 billion for an on-market buy-back of Rio Tinto plc shares.
- On 27 February 2015, the Group announced that it would be streamlining its product groups and corporate functions as part of the continued focus on efficiency and costs, with immediate effect. Under the new arrangements, Rio Tinto's world-class portfolio of assets have been condensed into four product groups: Aluminium, Copper & Coal, Diamonds & Minerals and Iron Ore.

Details of events after the balance sheet date are further described in note 43 to the financial statements.

Risk identification, assessment and management

The Group's principal risks and uncertainties are set out on pages 14 to 17. The Group's approach to risk management is discussed on page 62.

Share capital

Details of the Group's share capital as at 31 December 2014 can be found at notes 27 and 28 to the financial statements. Details of the rights and obligations attached to each class of shares can be found on pages 220 and 221 under the heading "Voting rights".

Where under an employee share plan operated by the Company, participants are the beneficial owners of the shares, but not the registered owners, the voting rights are normally exercised by the registered owner at the direction of the participant.

Details of certain consequences triggered on a change of control can be found on page 220 under the heading "Dual listed companies structure".

Details of certain restrictions on holding shares in Rio Tinto are described on page 221 under the heading "Limitations on ownership of shares". There are no other restrictions on the transfer of ordinary Rio Tinto shares save for:

- restrictions that may from time-to-time be imposed by laws, regulations or Rio Tinto policy (for example, those relating to market abuse or insider dealing or share trading and, in Australia, including those relating to foreign investment);
- restrictions on the transfer of shares that may be imposed following a failure to supply information required to be disclosed, or in relation to unmarketable parcels of shares;
- restrictions on the transfer of shares held under certain employee share plans while they remain subject to the plan.

At the annual general meetings held in 2014, shareholders authorised:

- the purchase by Rio Tinto Limited and its subsidiaries, and the on-market repurchase by Rio Tinto plc, of up to 141,340,869 Rio Tinto plc shares (representing approximately ten per cent of Rio Tinto plc's issued share capital at that time);
- the off-market purchase by Rio Tinto plc of up to 141,340,869 Rio Tinto plc shares acquired by Rio Tinto Limited or its subsidiaries under the above authority; and
- the off-market or on-market buy-back by Rio Tinto Limited of up to 43.5 million Rio Tinto Limited shares (representing approximately ten per cent of Rio Tinto Limited's issued share capital at the time).

Purchases

	Rio Tinto plc			Rio Tinto Limited			Rio Tinto Group Approximate dollar value of shares that may yet be purchased under the plans or programmes US\$ ^(e)
	Total number of shares purchased ^(a)	Average price paid per share US\$ ^(b)	Total number ^(c) of shares purchased as part of publicly announced plans or programmes	Total number ^(a) of shares purchased	Average price ^(b) paid per share US\$	Total number ^(c) of shares purchased as part of publicly announced plans or programmes	
2014							
1 Jan to 31 Jan	—	—	—	10,436	60.62	—	—
1 Feb to 28 Feb	—	—	—	579,000	62.46	—	—
1 Mar to 31 Mar	—	—	—	—	—	—	—
1 Apr to 30 Apr	667,292	56.57	—	1,099,277	61.02	—	—
1 May to 31 May	—	—	—	—	—	—	—
1 Jun to 30 Jun	12,751	53.44	—	—	—	—	—
1 Jul to 31 Jul	—	—	—	—	—	—	—
1 Aug to 31 Aug	58,003	55.58	—	53,827	60.68	—	—
1 Sep to 30 Sep	777,165	52.29	—	933,259	56.01	—	—
1 Oct to 31 Oct	649,261	48.45	—	1,726,644	51.39	—	—
1 Nov to 30 Nov	198,482	51.69	—	—	—	—	—
1 Dec to 31 Dec	—	—	—	—	—	—	—
Total	2,362,954^(d)	52.48	—	4,402,443	56.36	—	—
2015	—	—	—	—	—	—	—
1 Jan to 31 Jan	—	—	—	—	—	—	—
1 Feb to 16 Feb	—	—	—	—	—	—	—

Notes

- (a) Rio Tinto plc ordinary shares of 10p each; Rio Tinto plc ADRs; Rio Tinto Limited shares.
- (b) The average prices paid have been translated into US dollars at the exchange rate on the day of settlement.
- (c) Shares purchased by the Companies' registrars in connection with the dividend reinvestment plans and employee share plans are not deemed to form part of any publicly announced plan or programme.
- (d) This figure represents 1.66 per cent of Rio Tinto plc issued share capital at 31 December 2014.
- (e) Rio Tinto announced a US\$2.0 billion buy-back programme on 12 February 2015. At 16 February 2015, no Rio Tinto plc or Rio Tinto Limited shares had been purchased under this programme.

During 2014, in order to satisfy obligations under employee share plans, Rio Tinto plc issued 1,450,659 shares from treasury and allotted 971 newly issued shares. The trustees of Rio Tinto plc's employee share trusts purchased on-market 961,451 shares and 27,493 ADRs. The trustee of Rio Tinto Limited's employee share trusts purchased 2,483,214 shares on-market. In total, 2,298,707 Rio Tinto plc shares, 5,504 ADRs, and 1,229,122 Rio Tinto Limited shares were delivered to plan participants.

Also during the year, the Companies' registrars purchased 1,374,010 Rio Tinto plc shares and 1,919,229 Rio Tinto Limited shares on-market to satisfy obligations to shareholders under the dividend reinvestment plans.

For the period 1 January 2015 to 16 February 2015, Rio Tinto plc issued 316,583 shares from treasury in connection with employee share plans and allotted 253 newly issued shares. During this period, 791,957 Rio Tinto plc shares, 350 ADRs, and 581,972 Rio Tinto Limited shares were delivered to plan participants.

Awards over 1,919,507 Rio Tinto plc shares and 1,515,972 Rio Tinto Limited shares were granted under employee share plans during 2014. As at 16 February 2015, awards were outstanding over 6,434,325 Rio Tinto plc shares, 124,530 ADRs and 5,074,494 Rio Tinto Limited shares. Upon vesting, awards may be satisfied by the issue of new shares, the purchase of shares on-market, or, in the case of Rio Tinto plc, by issuing treasury shares.

On 12 February 2015, Rio Tinto announced a US\$2.0 billion buy-back programme comprising a targeted A\$500 million (c. US\$0.4 billion) off-market share buy-back tender of Rio Tinto Limited shares and the balance of approximately US\$1.6 billion for an on-market buy-back of Rio Tinto plc shares.

Substantial shareholders

Details of substantial shareholders can be found on page 222.

Dividends

Details of dividends paid and the progressive dividend policy can be found on page 224.

Directors

The names of the directors who served during the year, together with their biographical details and other information, are shown on pages 49 to 51.

All directors will stand for election or re-election at the 2015 annual general meetings with the exception of Lord Kerr and Michael Fitzpatrick who will retire at the conclusion of the Rio Tinto Limited annual general meeting to be held on 7 May 2015.

A table of directors' attendance at board and committee meetings during 2014 is on page 55.

Secretaries

Details of the company secretary of Rio Tinto plc and the joint company secretaries of Rio Tinto Limited together with their qualifications and experience are set out on page 51.

Corporate governance

A full report on corporate governance can be found on pages 53 to 63 and forms part of this Directors' report.

Indemnities and insurance

The Articles of Association and Constitution of the Companies provide for them to indemnify, to the extent permitted by law, officers of the Companies, including officers of wholly owned subsidiaries, against liabilities arising from the conduct of the Group's business. The directors of the Companies, the company secretary of Rio Tinto plc and the joint company secretaries of Rio Tinto Limited, and certain employees serving as directors of subsidiaries at the Group's request have been indemnified in accordance with these provisions. No amount has been paid under any of these indemnities during the year. The Group has purchased directors' and officers' insurance during the year. In broad terms, the insurance cover indemnifies individual directors' and officers' personal legal liability and legal defence costs for claims arising out of actions taken in connection with Group business. It is a condition of the insurance policy that detailed terms and premiums paid cannot be disclosed.

Employment policies and communication

Information about the Group's employment policies and our employees is available on page 23.

Political donations

No donations were made during 2014 for political purposes in the EU, Australia or elsewhere, as defined by the UK Companies Act 2006.

Government regulations

Our operations in over 40 countries are subject to extensive regulations imposed by local, state, provincial and federal governments. These regulations govern many aspects of our operations – how we explore, mine and process ore, conditions of land tenure and use, health, safety and environmental requirements, how we operate as a company including laws regarding securities, taxation, intellectual property, competition and foreign investment, provisions to protect data privacy, conditions of trade and export and infrastructure access. In addition to these laws, several operations are also governed by the provisions of specific agreements which have been made with governments. Some of these agreements are enshrined in acts of parliament.

The geographic and product diversity of our operations reduces the likelihood of any single government regulation having a material effect on the Group's business. Our many internal controls – codes of conduct, standards and procedures coupled with our high standards of practice also mitigate against the impact of regulation.

In Australia and Namibia, Rio Tinto's uranium operations are subject to specific regulations governing the mining and export of uranium.

In Canada, our hydroelectric power generation assets are regulated by the Quebec and British Columbia provincial agencies covering issues of water rights, power sales and purchases.

In Mongolia, starting from 1 January 2015, we are potentially subject to legal requirements under the so-called "Glass Account Law" on publicly disclosing certain financial information related to the company's procurement, tender process and debts. The law applies to companies in which the government owns at least one-third of its common shares (the government owns 34 per cent of Oyu Tolgoi LLC). The company already broadly discloses much of the information covered in the new law, but the practical impact to the business is still unclear as the government is yet to provide detailed guidance on minimum compliance standards.

In South Africa, our operations are subject to and have complied with black economic empowerment legislation which required companies to transfer (for fair value) 26 per cent of the Group's South African mining assets to historically disadvantaged South Africans by 2014. Rio Tinto also complies with the mining legislation's transformation imperatives which includes empowerment of South Africa's Historically Disadvantaged Employees and Communities.

Environmental regulations

Rio Tinto is subject to various environmental regulations including regulations that cover air, land, water, ecology and noise in the countries where it has operations. Rio Tinto measures its performance against environmental regulation to which its operations are subject by tracking and rating incidents according to their environmental impact. Issues of Group-level importance are reported to the Executive Committee and the Sustainability Committee. Prosecutions and other breaches are also used to gauge Rio Tinto's performance.

In 2014, there were 12 one-off or repeated environmental incidents reported to the Executive Committee with impact to the environment or of concern to local communities. Five resulted from air discharges, four from water discharges, one from spillage into a water body, one related to soil runoff and one related to injury to fauna.

They were:

- Several releases of coal dust and sulphur dioxide beyond specified limits from a plant in the Netherlands.
- Elevated potroom particulate emission at an aluminium smelter in Canada.
- Complaints of blast dust cloud drifting over private land adjacent to a coal mine in Australia.
- Multiple releases of fluorine gas from scrubber and exhaust fan malfunctions at an aluminium smelter in Canada.
- Several releases of dust emissions beyond specified limits from a plant in France.
- Release of caustic, spent liquor and other substances due to water discharge overflow at an alumina refinery in Australia.
- Exceedances of total suspended solids and pH requirements during heavy rain at a refinery in Australia.
- Release of effluent from a settling tank into surface water from a plant in the Netherlands.
- Release of oil into a river outlet at an aluminium smelter in Canada.
- A diesel spill into a river as a result of a train derailment in Canada.
- Presence of adult salmon in an industrial lagoon in violation of wildlife regulations at a smelter in Canada.
- Soil runoff into a rice field following insufficient rehabilitation of an exhausted exploration borrow pit in Guinea.

During 2014, six operations incurred fines amounting to US\$319,513 (2013: US\$190,279).

Australian corporations that exceed specific greenhouse gas emissions or energy use thresholds have obligations under the Australian National Greenhouse and Energy Reporting Act 2007 (NGER). All Rio Tinto entities covered under this Act met their annual NGER reporting obligations by the required 31 October 2014 deadline.

A number of Australian Rio Tinto entities were also subject to the Clean Energy Act 2011 and the Energy Efficiency Opportunities Act 2006 for the first half of 2014 and both these Acts were repealed retrospectively, with effect from 1 July 2014. All compliance requirements under these Acts were satisfied within the stipulated timeframes.

Further information on the Group's environmental performance is included in the sustainable development section of this Annual report, on pages 20 to 26, and on the website.

Greenhouse gas emissions

Greenhouse gas emissions (in million tCO₂-e) ^{(a)(b)}

	2014	2013
Scope 1 ^(c)	21.9	23.6 ^(g)
Scope 2 ^(d)	12.5	14.4
Total emissions ^(e)	33.9	37.4 ^(g)
Ratios		
GH intensity index ^(f)	82.0	83.2 ^(g)
GH intensity (tCO ₂ -e/t of product)	0.082	0.095

- (a) Rio Tinto's greenhouse gas emissions for managed operations are reported in accordance with requirements under Part 7 of The UK Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013. Our approach and methodology used for the determination of these emissions are available at: http://www.riotinto.com/sd2014/pdfs/climate_change.pdf and <http://www.riotinto.com/sd2014/pdfs/glossary.pdf>
- (b) Rio Tinto's greenhouse gas emission inventory is based on definitions provided by The World Resource Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol: A Carbon Reporting and Accounting Standard, March 2004.
- (c) Scope 1 emissions include "emissions from combustion of fuel and operation of managed facilities". It includes emissions from land management and livestock management at those facilities.
- (d) Scope 2 emissions include "emissions from the purchase of electricity, heat, steam or cooling".
- (e) Total emissions is the sum of scope 1 and scope 2 emissions minus emissions that are associated with the generation of electricity, heat, steam or cooling supplied to others. These emissions exclude indirect emissions associated with transportation and use of our products reported on page 24.
- (f) Rio Tinto greenhouse gas intensity index is the weighted emissions intensity for each of Rio Tinto's main commodities relative to the commodity intensities in the 2008 base year (set to 100). This index incorporates approximately 97 per cent of Rio Tinto's emissions from managed operations.
- (g) Number restated to ensure comparability over time. Amendment due to changes in measurement and calculation methodologies or immaterial updates to data.

Exploration, research and development

The Group carries out exploration as well as research and development in support of its activities as described more fully under Exploration and Technology & Innovation on pages 38 to 39. Amounts charged for the year, net of any gains on disposal, generated a net loss before tax for exploration and evaluation of US\$783 million (2013: US\$1,109 million). Research and development costs were US\$112 million (2013: US\$231 million).

Auditors

PricewaterhouseCoopers LLP and PricewaterhouseCoopers (together, PwC) are the auditors of Rio Tinto plc and Rio Tinto Limited respectively. PricewaterhouseCoopers LLP have indicated their willingness to continue in office as auditors of Rio Tinto plc and a resolution to reappoint them as auditors of Rio Tinto plc will be proposed at the 2015 annual general meetings. A separate resolution will seek authority for the Audit Committee to determine their remuneration. PricewaterhouseCoopers will continue in office as auditors of Rio Tinto Limited.

A copy of the declaration given by PricewaterhouseCoopers as the Group's external auditors to the directors in relation to the auditors' compliance with the independence requirements of the Australian Corporations Act 2001 and the professional code of conduct for external auditors is set out on page 185 in the financial statements.

No person who was an officer of Rio Tinto during 2014 was a director or partner of the auditors at a time when they conducted an audit of the Group.

Each person who held the office of director at the date the board resolved to approve this report makes the following statements:

- so far as the directors are aware, there is no relevant audit information of which the auditors are unaware; and
- each director has taken all steps that he or she ought to have taken as a director to make him or herself aware of any relevant audit information and to establish that the auditors are aware of that information.

Fees for audit and non-audit services

The amounts payable to the Group's auditors, PwC, were:

	2014 US\$m	2013 US\$m
Audit fees ^(a)	14.7	15.3
Assurance services ^(b)	2.1	4.2
Taxation services	0.9	0.9
All other fees ^(c)	0.4	1.3
	18.1	21.7

- (a) Audit fees relating to statutory audits.
- (b) Assurance services in 2014 are mainly related to half year review procedures, sustainability assurance and limited assurance over the 2014 Taxes Paid Report.
- (c) All other fees include services in connection with the divestment programme and other corporate projects.

Further information on auditor's remuneration see note 39 to the financial statements.

During the year, the Audit Committee reviewed the effectiveness of PwC for Group audit and local, statutory audit work. The evaluation took the form of a survey comprising a range of questions covering objectivity, quality and efficiency and was completed by individual Rio Tinto business units. The results of this survey and review were presented to the Audit Committee which concluded that PwC continued to provide a high-quality audit and an effective and independent challenge to management. The Audit Committee was satisfied with the external audit process and the independence of the external auditors.

PwC have been the external auditors since before the formation of the dual listed companies structure in 1995. For the reasons noted on page 58 the Audit Committee does not consider it necessary at the present time to undertake a tender process for the Group's external audit. Since 2002, PwC have followed the requirements of the Sarbanes-Oxley Act 2002 and APB Ethical Standards and rotated both the lead UK and Australian audit partners at least every five years. In the UK, the audit engagement partner was appointed in 2011, and in Australia the audit engagement partner was appointed in 2012. They are due to transition after 2015 and 2016 respectively. This continued refreshing of the team brings new perspectives to the audit and promotes healthy debate between auditors and management as well as the Committee.

Based on advice provided by the Audit Committee as set out in the report of the Audit Committee on pages 57 to 59, the directors are satisfied that the provision of non-audit services by PwC is compatible with the general standard of independence for auditors and the standards imposed by Australian, UK and US legislation.

Financial instruments

Details of the Group's financial risk management objectives and policies and exposure to risk are described in note 30 to the 2014 financial statements.

Board of directors

Key for committee memberships:

- (A) Audit Committee
- (R) Remuneration Committee
- (N) Nominations Committee
- (S) Sustainability Committee
- (C) Chairman's Committee
- (I) Independent

Jan du Plessis (R, N and C)

Chairman, BCom, LLB, CA(SA), age 61

Appointment: Director of Rio Tinto since 2008. Jan was appointed chairman in 2009. He is the chairman of the Nominations Committee.

Skills and experience: Jan, a South African and British citizen, became group finance director of Compagnie Financière Richemont, the Swiss luxury goods group, in 1988. In 2004, he was appointed chairman of British American Tobacco plc, a position which he held until 2009.

External appointments (current and recent): Non-executive director of SABMiller plc since 2014 and chairman-elect, non-executive director and senior independent non-executive director of Marks and Spencer Group plc since 2008 and 2012 respectively. Jan stepped down from the board of Marks and Spencer Group plc in March 2015.

Sam Walsh AO (C)

Chief executive, BCom (Melbourne), age 65

Appointment: Director of Rio Tinto since 2009. He was appointed chief executive in 2013.

Skills and experience: Sam, an Australian citizen, joined Rio Tinto in 1991, following 20 years in the automotive industry at General Motors and Nissan Australia. He has held a number of management positions during his career at Rio Tinto including chief executive of the Aluminium group from 2001 to 2004, chief executive of the Iron Ore group from 2004 to 2009 and chief executive, Iron Ore and Australia from 2009 to 2013. Sam is a Fellow of the Australian Institute of Management, the Australasian Institute of Mining and Metallurgy, the Chartered Institute of Purchasing and Supply Management, the Australian Institute of Company Directors and the Australian Academy of Technical Science and Engineering. In 2010, he was appointed an Officer in the General Division of the Order of Australia.

External appointments (current and recent): Trustee of the Royal Opera House Covent Garden Foundation since 2014, Member of the Council of the International Council on Mining & Metals and a director of The International Council on Mining and Metals (UK) Limited since 2013, non-executive director of Seven West Media Limited from 2008 until 2013.

Chris Lynch (C)

Chief financial officer, BCom, MBA, age 61

Appointment: Director of Rio Tinto since 2011 (non-executive) and chief financial officer since 2013.

Skills and experience: Chris, an Australian citizen, has nearly 30 years' experience in the mining and metals industry. He was chief executive officer of the Transurban Group, an international toll road developer and manager with interests in Australia and North America, until 2012. His career has included seven years at BHP Billiton, where he was chief financial officer and then executive director and group president – Carbon Steel Materials. Prior to this, Chris spent 20 years with Alcoa Inc. where he was vice-president and chief information officer based in Pittsburgh, and chief financial officer Alcoa Europe in Switzerland. He was also managing director of KAAL Australia Limited, a joint venture company formed by Alcoa and Kobe Steel.

External appointments (current and recent): Chief executive officer of the Transurban Group Limited from 2008 until 2012, commissioner of the Australian Football League from 2008 until 2014.

Robert Brown (A, N and I)

Non-executive director, BSc, age 70

Appointment: Director of Rio Tinto since 2010.

Skills and experience: Bob is a Canadian citizen and contributes his considerable experience in large, high-profile Canadian companies. He is chairman of Aimia Inc., a customer loyalty management provider, and serves on the board of BCE Inc. (Bell Canada Enterprises), Canada's largest communications company. He was previously president and chief executive officer of CAE Inc., a world leader in flight simulation and training. Before that he spent 16 years at Bombardier Inc., the aerospace and transportation company, where he was firstly head of the Aerospace Group and then president and chief executive officer. He has also served as chairman of Air Canada and of the Aerospace Industries Association of Canada. Bob was inducted to the Order of Canada as well as l'Ordre National du Québec. He has been awarded honorary doctorates from five Canadian universities.

External appointments (current and recent): Non-executive director of BCE Inc. and Bell Canada since 2009, non-executive director and chairman of Aimia Inc. since 2005 and 2008 respectively, non-executive director of Fier CPVC-Montreal L.P. from 2005 until 2014.

Megan Clark AC (S, N and I)

Non-executive director, BSc, PhD, age 56

Appointment: Director of Rio Tinto since November 2014.

Skills and experience: Megan, an Australian citizen, was chief executive of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) from 2009 until 2014. Prior to that, Megan held various mineral exploration, mine geology and strategy roles with Western Mining Corporation, was a director at NM Rothschild and Sons (Australia) and was vice president, Technology and subsequently vice president, Health, Safety, Environment, Community and Sustainability with BHP Billiton from 2003 to 2008. She holds a PhD in economic geology from Queen's University, Canada and is a Fellow of the Australian Academy of Technological Sciences and Engineering, the Australian Institute of Mining and Metallurgy and the Australian Institute of Company Directors. In 2014 she was appointed a Companion of the Order of Australia.

External appointments (current and recent): Member of the Global Foundation board since 2014, member of the Monash University Council since 2014, member of the advisory board of the World Economic Forum's 2015 Global Risk Report, member of the Australian advisory board of Bank of America Merrill Lynch since 2010, chief executive and director of CSIRO from 2009 to 2014, member of the Prime Minister's Science, Industry, and Engineering Council from 2009 until 2014.

Michael Fitzpatrick (A, R, N and I)

Non-executive director, BEng, BA (Oxon), age 62

Appointment: Director of Rio Tinto since 2006.

Skills and experience: Michael, an Australian citizen, contributes wide-ranging investment and local knowledge of Australian business. He is chairman of Treasury Group Limited, a Sydney-based incubator of fund management companies, chairman of the Australian Football League and a former chairman of the Australian Sports Commission. After leaving professional football in 1983 and working for the Treasury of the State of Victoria and with investment banks in New York, Michael founded the pioneering infrastructure asset management company Hastings Funds Management Limited in 1994. He was a Rhodes Scholar in 1975.

External appointments (current and recent): Non-executive director of LatAm Autos Limited since November 2014, non-executive director of Carnegie Wave Energy Limited since 2012, non-executive director and chairman of Infrastructure Capital Group Limited since 2009, chairman of the Treasury Group Limited since 2005, commissioner and chairman of the Australian Football League since 2003 and 2007 respectively, director of the Walter & Eliza Hall Institute of Medical Research since 2001.

Board of directors continued

Ann Godbehere (A, N and I)

Non-executive director, FCPA, FCGA, age 59

Appointment: Director of Rio Tinto and chairman of the Audit Committee since 2010.

Skills and experience: Ann, a Canadian and British citizen, has more than 25 years' experience in the financial services industry. She spent ten years at Swiss Re, a global reinsurer, latterly as chief financial officer from 2003 until 2007. She was interim chief financial officer and executive director of Northern Rock bank after its nationalisation. Ann is a qualified accountant.

External appointments (current and recent): Non-executive director of UBS Group AG since 2014 and non-executive director of UBS AG since 2009, non-executive director of British American Tobacco plc since 2011, non-executive director of Atrium Underwriting Group Limited from 2007 until 2014, non-executive director of Arden Holdings Ltd from 2007 until 2014, non-executive director and chairman of the audit committee of Prudential Public Limited Company since 2007 and 2009 respectively.

Richard Goodmanson (R, S, N and I)

Non-executive director, B. Econ, BCom, MBA, MCE, age 67

Appointment: Director of Rio Tinto since 2004 and chairman of the Sustainability Committee.

Skills and experience: Richard, a US citizen, was executive vice president and chief operating officer of DuPont until 2009. Prior to this he was president and chief executive officer of America West Airlines and senior vice president of operations for Frito-Lay, Inc., a subsidiary of PepsiCo. Richard has worked at senior levels for McKinsey & Co, where he led client service teams on major programmes of strategy development. He spent ten years in heavy civil engineering project management, principally in South East Asia, including the construction of the Hong Kong Subway System.

External appointments (current and recent): Non-executive director of Qantas Airways Limited since 2008.

Lord Kerr of Kinlochard (S, N and I)

Non-executive director, GCMG, MA (Oxon), age 73

Appointment: Director of Rio Tinto since 2003.

Skills and experience: John, a British citizen, was a member of the UK Diplomatic Service for 36 years and headed it from 1997 to 2002 as permanent under secretary at the Foreign Office. He previously served in HM Treasury and in the former Soviet Union and Pakistan, and was ambassador to the European Union and the US. He has been an Independent member of the House of Lords since 2004.

External appointments (current and recent): Advisory board member of Edinburgh Partners Limited since 2012, director and vice chairman of Scottish Power Limited since 2009 and 2012 respectively, chairman of the Centre for European Reform (London) since 2008, vice president of the European Policy Centre (Brussels) since 2007, trustee of the Carnegie Trust for the Universities of Scotland since 2005, director of The Scottish American Investment Company plc since 2002, deputy chairman of Royal Dutch Shell plc from 2005 until 2012, chairman of the Court and Council of Imperial College London from 2005 until 2011, advisory board member of BAE Systems from 2008 until 2011, trustee of the National Gallery in London from 2002 until 2010, trustee of the Rhodes Trust from 1997 until 2010.

Anne Lauvergeon (S, N and I)

Non-executive director, PhD, age 55

Appointment: Director of Rio Tinto since March 2014.

Skills and experience: Anne, a French citizen, started her professional career in 1983 in the steel industry and in 1990 was named adviser for economic international affairs at the French Presidency and deputy chief of its staff in 1991. In 1995, she became a partner of Lazard Frères & Cie, subsequently joining Alcatel Telecom as senior executive vice president in 1997, where she was responsible for international activities and the group's industrial shareholdings in the energy and securities sectors. She served as chairman and chief executive officer of COGEMA from 1999 until 2011 and chief executive officer of AREVA Group from 2001 until 2011.

External appointments (current and recent): Chairman of SIGFOX since 2014, non-executive director of American Express Company since 2013, non-executive director of EADS N.V. since 2013, non-executive director of Total SA since 2000, chairman and chief executive officer of French advisory company, A.L.P., non-executive director of GDF SUEZ from 2001 until 2012, chief executive officer of AREVA Group from 2001 until 2011, and non-executive director of Vodafone plc from 2005 until 2014.

Michael L'Estrange AO (S, N and I)

Non-executive director, BA, MA (Oxon), age 62

Appointment: Director of Rio Tinto since September 2014.

Skills and experience: Michael, an Australian citizen, joined the Australian Government's Department of Prime Minister and Cabinet in 1981. From 1989 to 1994, he worked in a range of policy advisory positions before he was appointed the inaugural executive director of the Menzies Research Centre in Canberra in 1995. In 1996, he was appointed by the Prime Minister as secretary to cabinet and head of the Cabinet Policy Unit. He served in that role until 2000 when he became Australia's high commissioner to the United Kingdom. He returned to Australia as secretary of the Department of Foreign Affairs and Trade from 2005 to 2009. In 2007, he was appointed as an Officer in the Order of Australia. Michael served as head of college of the National Security College at the Australian National University from 2009 until 2014 and he is a professor at the college.

External Appointments (current and recent): Director of the University of Notre Dame, Australia since 2014, and head of college of the National Security College at the Australian National University from 2009 until 2014.

Hon. Paul Tellier (A, R, N and I)

Non-executive director, LLL, BLitt (Oxon), LL.D, C.C. age 75

Appointment: Director of Rio Tinto since 2007.

Skills and experience: Paul, a Canadian citizen, entered the civil service in the 1970s. He was clerk of the Privy Council Office and secretary to the Cabinet of the Government of Canada from 1985 to 1992. He was president and chief executive officer of the Canadian National Railway Company from 1992 until 2002. Until 2004, he was president and chief executive officer of Bombardier Inc., the aerospace and transportation company.

External appointments (current and recent): Chairman of Global Container Terminals Inc. since 2007, member of the advisory board of General Motors of Canada since 2005, trustee of the International Accounting Standards Foundation from 2007 until 2012, co-chair of the Prime Minister of Canada's Advisory Committee on the Renewal of the Public Service from 2006 until 2014, strategic adviser to Société Générale (Canada) from 2005 until 2013, director of BCE Inc. (Bell Canada Enterprises) from 1999 until 2010, director of Bell Canada from 1996 until 2010, director of McCain Foods Limited from 1996 until 2014.

Simon Thompson (S, N and I)*Non-executive director, MA (Oxon), age 55**Appointment:* Director of Rio Tinto since April 2014.*Skills and experience:* Simon, a British citizen, was an executive director of Anglo American plc, chairman and chief executive of the Base Metals Division, chairman of the Exploration Division and chairman of Tarmac. Prior to his career with Anglo American he held investment banking positions at S. G. Warburg and N M Rothschild & Sons Ltd.*External appointments (current and recent):* Chairman of Tullow Oil plc since 2012, non-executive director of Amec Foster Wheeler plc since 2009 and senior independent director since 2014, non-executive director of Sandvik AB since 2008, non-executive director of Newmont Mining Corporation from 2008 to 2014.**John Varley (A, R, N and I)***Non-executive director, BA, MA (Oxon), age 58**Appointment:* Director of Rio Tinto and chairman of the Remuneration Committee since 2011 and senior independent director since 2012.*Skills and experience:* John, a British citizen, joined Barclays plc in 1982 after working as a solicitor. He was chief executive of Barclays from 2004 until 2010. During a 28-year career with the bank he held several senior positions, including chairman of the Asset Management division, group finance director and deputy chief executive.*External appointments (current and recent):* Director of Barclays plc and Barclays Bank plc from 1998 until 2010, non-executive director of BlackRock Inc. since 2009, non-executive director and senior independent director of AstraZeneca plc since 2006 and 2012 respectively, chairman of Marie Curie Cancer Care since 2011 and chairman of Business Action on Homelessness since 2006.**Directors who left the board****Vivienne Cox***Non-executive director, MA (Oxon), MBA (INSEAD), age 55**Appointment:* Director of Rio Tinto from 2005 until April 2014.*Skills and experience:* Vivienne is a British citizen. She was executive vice president of Gas, Power and Renewables at BP and former chief executive of BP Alternative Energy. During her career at BP she served in a variety of positions ranging from supply and trading, to commercial, finance and exploration and renewable energy. Vivienne holds degrees in chemistry from Oxford University and in business administration from INSEAD.*External appointments (current and recent):* Member of Kingfisher plc Net Positive Advisory Council since 2013, non-executive director of BG Group plc since 2012, non-executive director and senior independent non-executive director of Pearson plc since 2012 and 2013 respectively, non-executive director of the UK Department for International Development since 2010, non-executive director of The Climate Change Organisation since 2010, non-executive director and non-executive chairman of Climate Change Capital Limited from 2008 and 2009 respectively until 2012, member and chairman of the supervisory board of Vallourec, since 2010 and 2013 respectively, member of the offshore advisory committee of Mainstream Renewable Power from 2010 until 2012, a member of the board of INSEAD business school from 2009 until 2013.**Company secretaries****Eleanor Evans***LLB (Lond), Solicitor, age 48**Skills and experience:* Eleanor joined the Group as company secretary of Rio Tinto plc and joint company secretary of Rio Tinto Limited in 2013.

Prior to joining Rio Tinto, Eleanor was general counsel and company secretary at Amec Foster Wheeler plc and chief legal officer and company secretary at Cobham plc. In both roles Eleanor was responsible for legal, compliance and secretariat matters globally, was a member of the executive committee and the risk committee, and was secretary to the board of directors and their principal committees. Eleanor commenced her career as a solicitor specialising in corporate and financial law with Norton Rose Fulbright and in her earlier career held senior legal roles at The BOC Group plc and Corus Group plc.

External appointments (current and recent): Eleanor is a member of the executive committee of GC100, the Association of General Counsel and Company Secretaries of the FTSE 100, a trustee of the StepChange Foundation UK, a charity, and is an advisory board member of Women in Mining UK.**Tim Paine***BEc, LLB, FGIA, FCIS, age 51**Skills and experience:* Tim joined the Group as joint company secretary of Rio Tinto Limited in 2012. He has over 20 years' experience in corporate counsel and company secretary roles, including at ANZ Bank, Mayne Group, Symbion Health and Skilled Group. Tim commenced his career as a solicitor in private practice and has also managed his own consulting company.*External appointments (current and recent):* He has no external appointments.

Executive Committee

Hugo Bague

MA (Linguistics), age 54

Hugo Bague was appointed Group executive, Organisational Resources in 2013 after joining Rio Tinto as global head of Human Resources in 2007. Previously he worked for Hewlett-Packard where he was the global vice president, Human Resources for the Technology Solutions Group, based in the US. Prior to this he worked for Compaq Computers, Nortel Networks and Abbott Laboratories based in Switzerland, France and Germany.

He has been a non-executive director and member of the nominating and governance committee, and the compensation committee of Jones Lang LaSalle Incorporated, a global real estate services firm, since 2011.

Alfredo Barrios

PhD (Energy Economics), BSc (Physics), MSc (Management), age 49

Alfredo was appointed chief executive, Aluminium in June 2014. He joined the Group after a wide-ranging career in leadership positions with BP plc. His most recent role was executive director and executive vice president Downstream at TNK-BP, based in Moscow, where he was directly responsible for the refining, trading, supply, logistics, and marketing businesses. Prior to this, he led BP's operations in Spain and Portugal where he was responsible for establishing and developing the Fuels Value Chain organisation, combining this with the role of BP Head of Country Spain.

Alfredo has held board positions in a number of companies, including CLH (Spain) from 2007 until 2011 where he was chairman of the Audit Committee, and OAO NGK Slavneft (Russia) from 2012 until 2013. He was president of the Spanish National Oil Industry Association (AOP) from 2009 until 2011.

Alan Davies

BBus (Acctcy) LLB, LLM, FCA, age 44

Alan was appointed chief executive, Diamonds & Minerals in 2012. He joined the Group in 1997 and has held management positions in Australia, London and the US for the Iron Ore and Energy businesses. Prior to his current role, Alan was president, international operations for Rio Tinto's Iron Ore business with global accountability for operations and projects in Canada, India and Guinea, and was also previously chief financial officer of the Iron Ore business. Alan assumed responsibility for the Uranium business on 27 February 2015. Alan is a Fellow of the Institute of Chartered Accountants in Australia.

He was a director of the Art Gallery of Western Australia from 2010 to 2012.

Andrew Harding

BEng (Mining Engineering), MBA, age 48

Andrew Harding was appointed chief executive, Iron Ore in 2013. Prior to his current role, Andrew spent three years as chief executive, Copper, where he was responsible for a range of mines and projects including the development of the world-class Oyu Tolgoi copper-gold mine in Mongolia. Andrew joined Rio Tinto in 1992 and spent seven years in Rio Tinto Iron Ore. He has also held a range of positions in Technology & Innovation, Energy and Aluminium and was president and chief executive officer of Kennecott Utah Copper.

He was a director of Turquoise Hill Resources Ltd between 2009 and 2010 and between 2011 and 2013.

Jean-Sébastien Jacques

MSc, age 43

Jean-Sébastien was appointed chief executive, Copper & Coal in February 2015, having previously been chief executive, Copper since 2013. He joined Rio Tinto in 2011 as president, International Operations – Copper, where he led a senior team and oversaw Rio Tinto's interests in the Palabora Mining Company in South Africa, Northparkes Mines in Australia, Kennecott Eagle Minerals, the Pebble Mine in the US and Sulawesi in Indonesia. Prior to joining Rio Tinto, Jean-Sébastien spent more than 15 years working across Europe, South East Asia, India and the US in operational and strategy roles in the

aluminium, bauxite and steel industries. He served as group director, Strategy and was on the executive committee at Tata Steel Group from 2007 to 2011.

Jean-Sébastien was appointed chairman of the International Copper Association in October 2014, having served as vice chairman since 2013. He was a director of Turquoise Hill Resources Ltd during 2013, a director of Bougainville Copper Limited from 2012 until 2013, and a director of Palabora Mining Company Limited from 2011 until 2013.

Harry Kenyon-Slaney

BSc (Geology), age 54

Harry was appointed chief executive, Energy in 2012. He joined the Group in 1990 from Anglo American Corporation and has held management positions in South Africa, Australia and the UK. Harry spent his early career at Rio Tinto in marketing and operational roles in the uranium, copper and industrial minerals businesses. In 2004, he was appointed chief executive of Energy Resources of Australia and in 2007, managing director of Rio Tinto Iron & Titanium. Prior to his current role, he was chief executive of Rio Tinto's Diamonds & Minerals product group. Harry will be leaving Rio Tinto in March 2015 following the announcement made on 27 February 2015.

Harry has been a director of the World Coal Association since 2012 and was appointed chairman in 2014. He became a director of the Coal Industry Advisory Board to the IEA in 2013.

Greg Lilleyman

BEng (Construction), age 48

Greg was appointed Group executive, Technology & Innovation in January 2014. He joined the Group in 1990 and held a number of operational roles across the Pilbara, Hunter Valley and Canada with both the Iron Ore and Energy businesses. In 2011 Greg was appointed president, Pilbara Operations for Rio Tinto Iron Ore and in 2013 assumed the role of head of productivity improvement with Technology & Innovation.

Greg was a board member of the Australian Institute of Management of Western Australia from 2012 until 2013, a board member of the Energy & Minerals Institute from 2011 until 2013, and a director of the Chamber of Minerals and Energy of Western Australia from 2008 until 2013, holding the position of president from 2011 until 2013. Since 2012 he has been a board member of the Curtin University Foundation.

Debra Valentine

BA (History), JD, age 61

Debra was appointed Group executive, Legal & Regulatory Affairs in 2009 having joined Rio Tinto as global head of Legal in 2008. She previously worked at United Technologies Corporation in the US where she was vice president, deputy general counsel and corporate secretary. Before then, she was a partner with the law firm O'Melveny & Myers, in Washington DC. Debra served as general counsel at the US Federal Trade Commission from 1997 to 2001.

She has been a member of the board of the Extractive Industries Transparency Initiative since 2012, the North American Advisory Council at Chatham House since 2013, the UK-Japan 21st Century Group since October 2014 and the 'Your Life' Corporate Advisory Board since November 2014.

Executive director members

Sam Walsh and Chris Lynch were also members of the Executive Committee in 2014 through their positions as chief executive and chief financial officer respectively. Their biographies are shown on page 49.

Corporate governance

Rio Tinto takes a unified approach to corporate governance to comply with the regulatory obligations associated with its three principal stock exchange listings in the UK, Australia and the US.

Statement of compliance with governance codes and standards in 2014

In compiling this report, the directors have referred to the September 2012 edition of the UK Corporate Governance Code (the Code), the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (2nd edition with 2010 amendments) (the ASX Principles), and the New York Stock Exchange (NYSE) Corporate Governance Standards (the NYSE Standards).

Throughout 2014, and at the date of this report, the Group applied the principles of, and was compliant with the provisions of, the ASX Principles and with the Code.

Rio Tinto plc, as a foreign issuer with American Depositary Shares listed on the NYSE, is obliged by the NYSE Standards to disclose any significant ways in which its practices of corporate governance differ from the NYSE Standards.

The Company has reviewed the NYSE Standards and believes that its practices are broadly consistent with them, with the following exceptions where the strict requirements of the NYSE Standards are not met.

The NYSE Standards state that companies must have a nominating/corporate governance committee composed entirely of independent directors which, in addition to identifying individuals qualified to become board members, develops and recommends to the board a set of corporate governance principles applicable to the company. Rio Tinto has a Nominations Committee, information about which is set out on page 59. This committee does not develop corporate governance principles for the board's approval. The board itself performs this task.

Under US securities law and the NYSE Standards, the company is required to have an audit committee that is directly responsible for the appointment, compensation, retention and oversight of the work of external auditors. While the Rio Tinto Audit Committee makes recommendations to the board on these matters, the ultimate responsibility for the appointment of the external auditors rests with the shareholders.

A discussion of the Group's position on audit tenders is set out on page 58 of this report.

Further information about the corporate governance framework is available in the "Corporate governance" section of Rio Tinto's website.

The board

Rio Tinto plc and Rio Tinto Limited have a common board of directors. The directors are responsible for the success of the Group and, through the independent oversight of management, are accountable to shareholders for the performance of the business.

Role and responsibilities

The principal role of the board is to set the Group's strategy and to review regularly its strategic direction. In doing this, the board also has responsibility for corporate governance.

A formal schedule of matters reserved by the board has been established by the directors. This covers areas such as the Group's strategy, major investments, acquisitions and divestments and oversight of risk. It is available on the website.

Responsibility for day-to-day management of the business is delegated to the chief executive and the Executive Committee. In turn, authorities are also delegated to individual members of the Executive Committee.

As part of the annual financial planning process, the board sets annual performance targets, which include personal and business performance measures, under the Group's short-term incentive plan (detailed on page 76) for the chief executive. These performance targets are determined by the Remuneration Committee on behalf of the board. The chief executive establishes targets for the Executive Committee. Those objectives are cascaded throughout management teams.

Further details of the performance evaluation of the executive directors and other senior executives are discussed in the Implementation Report section of the Remuneration Report on page 75.

Board balance and independence

Board composition

The names, skills and experience of each director together with their terms in office are shown in the biographical details on pages 49 to 51. Details of changes to the board during 2014 and in the year to date are set out in the Directors' report on page 46.

Director independence

The tests of independence of a non-executive director vary between the jurisdictions where Rio Tinto has listings. The Nominations Committee has adopted a formal policy for the determination of the independence of the non-executive directors.

Among the key criteria of the independence policy are independence from management and the absence of any business relationship which could materially interfere with the director's independence of judgment and ability to provide a strong, valuable contribution to the board's deliberations, or which could interfere with the director's ability to act in the best interests of the Group. Where contracts in the ordinary course of business exist between Rio Tinto and a company in which a director has declared an interest, these are reviewed for materiality both to the Group, and the other party to the contract. "Material" is defined in the policy as being where the relationship accounts for more than two per cent of either party's consolidated gross revenue per annum, although the test also takes other circumstances into account. The Code includes criteria to assess independence where a director has served on the board for more than nine years from the date of their first election.

The chairman was considered independent upon his appointment under the Code, and in the board's view he continues to satisfy the tests for independence under the ASX Principles and the NYSE Standards.

Applying the criteria of the independence policy, the board is satisfied that all of its non-executive directors are and remain independent. Lord Kerr and Michael Fitzpatrick are not standing for re-election in 2015.

Richard Goodmanson, who has been a non-executive director since 2004, has agreed to stand for re-election to the board at the annual general meetings in 2015. The board believes that Richard makes an outstanding contribution to the board, and particularly as chairman of the Sustainability Committee. Richard provides continuity to the board, given his significant knowledge of the business and the board has confirmed that he continues to satisfy the tests for independence in carrying out his role.

Executive directors' other directorships

Executive directors may be invited to become non-executive directors of other companies. The Nominations Committee, on behalf of the board, operates a procedure under which approval may be given to accept such invitations, recognising the benefit to be derived to the individual and to Rio Tinto from such appointments. Details of the chief executive's external appointments are set out on page 49.

Election and re-election

The directors may appoint additional members to join the board during the year. Directors appointed in this way will be subject to election by shareholders at the first annual general meetings after their appointment. In subsequent years, the directors are expected to submit themselves for re-election at the annual general meetings each year.

Non-executive directors are normally expected to serve at least six years and would not normally serve more than nine years.

On 29 May 2014, Rio Tinto announced the appointment of Michael L'Estrange as an independent non-executive director effective 1 September 2014. On 20 November 2014 Rio Tinto announced the appointment of Dr Megan Clark as an independent non-executive director effective immediately. Both will offer themselves for election at the annual general meetings in 2015 and further details about them are set out in the notices of annual general meetings.

Governance processes

In 2014, there were nine scheduled board meetings. Details of the directors' attendance at all of the board and committee meetings held in 2014 are set out on the following page.

The board has regular discussions with senior management on the Group's strategy. These discussions typically include presentations given by senior management during the year. The board attends an annual two-day strategy meeting with the Executive Committee, which includes broader, detailed review sessions on the Group's strategic direction. The outputs from this event help underpin the board's annual financial planning exercise and provide strategic direction and focus to the Executive Committee.

Directors receive timely, regular and appropriate information to enable them to fulfil their duties. They also have direct access to the advice and services of the Rio Tinto company secretary. The directors are also able to obtain independent professional advice at the Group's expense.

The chairman and non-executive directors meet, typically at the start of each board meeting, without the executive directors present, to create an opportunity for non-executive directors to raise any issues in private session.

In addition, the directors are in regular informal communication with members of the Executive Committee and other members of senior management. This helps to foster an open and regular exchange of knowledge and experience.

All new non-executive directors undertake a full, formal and tailored induction on joining the board. The board is provided with training and development opportunities during the year. The directors are also encouraged to participate in site visits to the Group's operations around the world and to meet with employees and, from time to time, shareholders and other key stakeholders. In 2014, the board visited our coal mining operations in the Hunter Valley, Australia. These events are arranged by the Rio Tinto company secretary on behalf of the chairman, and seek to ensure directors have appropriate knowledge of the company and access to its operations and staff.

Progress against our priorities

The progress made towards achieving the priorities set by the board during 2014 are set out on pages 9 and 10.

Annual performance evaluation

An annual exercise is undertaken to evaluate the effectiveness of the board, board committees and individual directors.

For 2014, the board and committee (audit, nominations, remuneration and sustainability) evaluation process was conducted by the Rio Tinto company secretary.

The process involved agreeing with the chairman, board and committee chairmen a series of questions for discussion and interviews with directors seeking their views with regard to progress on the actions arising from the 2013 evaluation and generally upon the performance of the board and its committees in 2014.

The findings from the evaluation reports for the board and its committees and recommended actions were discussed with the chairman and the chairmen of the committees ahead of a full review at the February 2015 meetings of the board and its committees.

The non-executive directors, led by the senior independent director, were responsible for the performance evaluation of the chairman. Non-executive directors met to give their views and the senior independent director also sought the views of the executive directors. The senior independent director gave feedback on the chairman's performance to him in February.

The chairman continues to be responsible for the assessment of each individual director's performance and contribution.

Directors' attendance at board and committee meetings during 2014

	Board Scheduled ^(a)	Audit Committee ^(a)	Remuneration Committee ^{(a) (h)}	Sustainability Committee ^(a)	Nominations Committee ^(a)	Chairman's Committee ^(a)
Jan du Plessis	9/9	–	9/9	–	5/5	13/13
Chris Lynch	9/9	–	–	–	–	10/13
Sam Walsh	9/9	–	–	–	–	11/13
Robert Brown ^(a)	9/9	2/2	–	4/4	5/5	–
Megan Clark ^(b)	1/1	–	–	–	–	–
Vivienne Cox ^(c)	3/3	–	–	2/2	1/1	–
Michael Fitzpatrick	9/9	6/6	8/9	–	5/5	–
Ann Godbehere	9/9	6/6	–	–	5/5	–
Richard Goodmanson	9/9	–	8/9	5/5	5/5	–
Lord Kerr	9/9	–	–	5/5	5/5	–
Anne Lauvergeon ^(d)	6/6	–	–	3/3	4/4	–
Michael L'Estrange ^(e)	3/3	–	–	1/1	2/2	–
Paul Tellier	9/9	6/6	9/9	–	5/5	–
Simon Thompson ^(f)	5/6	–	–	3/3	3/4	–
John Varley	9/9	6/6	9/9	–	5/5	–

(a) Stepped down from the Sustainability Committee and joined the Audit Committee on 15 October 2014.

(b) Joined the board on 20 November 2014.

(c) Stood down from the board on 15 April 2014.

(d) Joined the board on 15 March 2014.

(e) Joined the board on 1 September 2014.

(f) Joined the board on 1 April 2014 and had a prior conflict for meetings in September 2014.

(g) The number of meetings attended/maximum number the director could have attended.

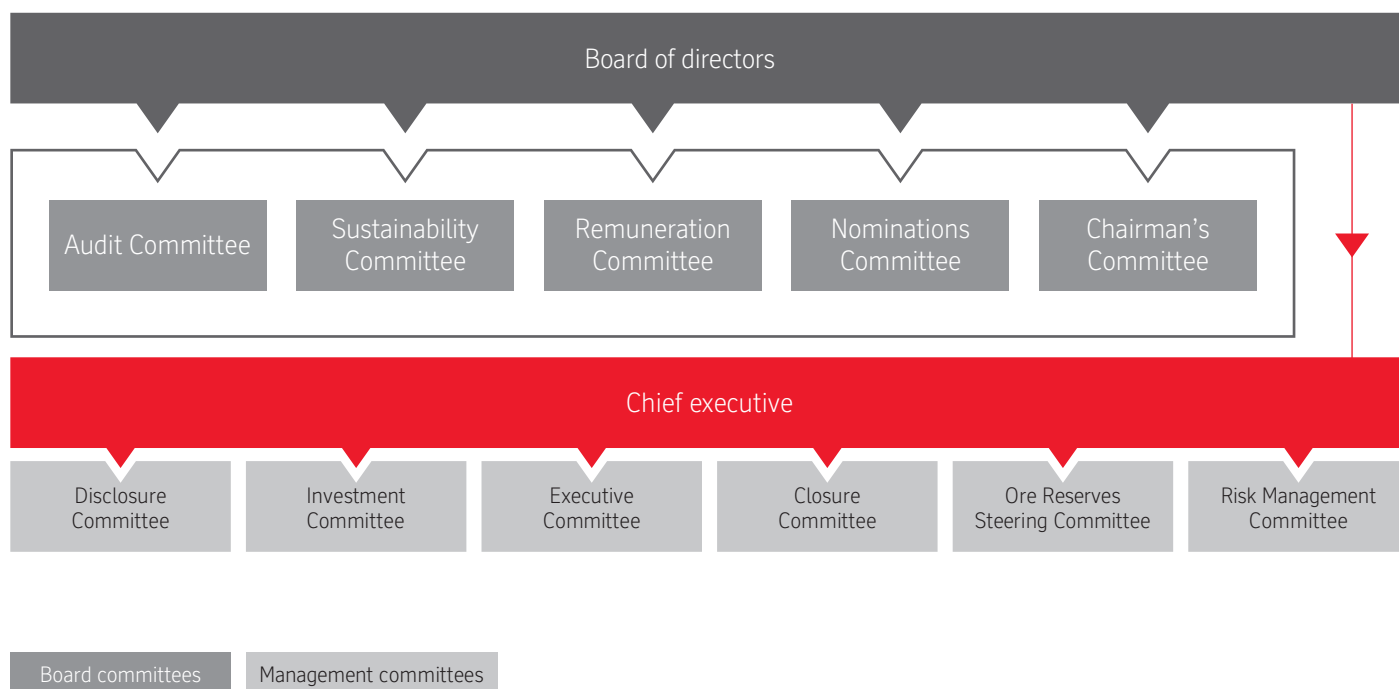
(h) This included three meetings convened at short notice.

Governance structure

The board has established sub-committees which are responsible for audit, remuneration, sustainability and nominations issues. In addition, a Chairman's Committee operates under delegated authority between scheduled board meetings. These committees support the board in ensuring that high standards of corporate governance are maintained across the Group.

The committees are governed by terms of reference, set and approved by the board, which are reviewed annually. The terms of reference of the audit, nominations, remuneration and sustainability committees (revised versions of those for the audit, sustainability and nominations committees were issued in February 2015) can be viewed in the "Corporate governance" section of the website.

The chief executive is assisted by the key management committees noted below in monitoring performance and delivering Rio Tinto's strategy.



Board committees

Audit Committee

Members of the Committee are Ann Godbehere (chairman), Robert Brown, Michael Fitzpatrick, Paul Tellier and John Varley. Robert Brown was appointed to the Committee on 15 October 2014.

Key responsibilities

The objective of the Audit Committee is to assist the board to monitor decisions and processes designed to ensure the integrity of financial reporting, sound systems of internal control and risk management.

The Committee's terms of reference set out its main responsibilities, and are available to view on the website. The Committee is responsible for:

- Financial reporting;
- Internal control, including internal control over financial reporting;
- Internal audit and assurance;
- The external auditors (appointment and relationship);
- The effectiveness of the risk management framework; and
- The integrity and compliance programme including the Group's *Speak-OUT* whistleblowing programme.

In carrying out its responsibilities, the Committee has full authority to investigate all matters that fall within its terms of reference. Accordingly, the Committee may:

- obtain independent professional advice in the satisfaction of its duties at the cost of the Group; and
- have direct access to the resources of the Group as it may reasonably require including the external and internal auditors.

Financial reporting

During 2014 the Committee's deliberations included the following matters which it considered to be significant:

- Impairments in the 2013 accounts, and the continued monitoring of management's determination of cash-generating units, review of impairment triggers and consideration of potential impairment charges and reversals over the course of the year.
- Management's key accounting judgments and policies, and the application of these in the accounts, including:
 - the justification for exclusion of certain items from underlying earnings;
 - the Group's tax exposure, the consequences of the repeal of the Mineral Resources Rent Tax and the appropriateness of provisions for uncertain tax positions; and
 - accounting for divestments announced in 2013 and 2014 with contractual obligations which remain with the Group following completion of the divestments.

The Committee also considered:

- the impact on internal financial controls of the overall cost reduction programme which has been implemented across the Group.
- the impact of the Group's finance transformation programme which includes the centralisation and outsourcing of certain finance activities (excluding key controls) to a third party provider. Group Audit & Assurance has performed a series of point-in-time reviews of the effectiveness of the finance transformation governance structure and the transition of certain processes to the outsourcing provider and reported to the Committee on the findings from these reviews.
- closure provisions.
- the Group's resources and reserves report in the 2013 Annual report and received updates during the year.

To date in 2015 the Committee has reviewed, amongst others, the following matters which it considered to be significant in relation to the 2014 financial statements:

- carrying values in the draft 2014 Annual report, including assessment of impairment charges (particularly at the Kitimat modernisation project and the Molybdenum Autoclave Process (MAP)) and impairment reversals (at Pacific Aluminium).
- closure provisions and an increase to the provision adjusted through fixed assets at Rio Tinto Kennecott. The Committee noted that this significant adjustment is primarily a result of updating the existing estimate to an Order of Magnitude level reflecting the latest data and business plan.
- management's key accounting judgments and policies, and the application of these in the accounts, including:
 - the justifications for exclusion of certain items from underlying earnings; and
 - the Group's tax exposure, the recoverability of deferred tax assets and the appropriateness of provisions for uncertain tax positions.
- the Group's resources and reserves report in the 2014 Annual report.

Key judgments considered

In preparing the financial statements, a number of judgments and estimates are required involving assumptions and consideration of future events that are inherently uncertain. The Committee focused its work on assessing management's ongoing judgments and estimates against available evidence, and evaluating the disclosures in the financial statements. The Committee also considered the external auditors' views on these matters.

Of the judgments and key sources of estimation uncertainty listed as critical accounting policies and estimates in note 1 to the financial statements, the following areas received specific focus from the Committee over the year:

- Assessment of the carrying value and annual impairment reviews of: assets dependent on the approval of major capital spend (Oyu Tolgoi and Simandou); major assets under construction (Kitimat modernisation project and MAP); and for impairment reversals derived from the sustainability of improved business performances (Aluminium group including Pacific Aluminium) due to the size and degree of subjectivity related to the recoverable amount for these assets and the complex judgments about the expected future performance of the business.
- Valuation reports and indicators for the above assets to corroborate the internally prepared valuations. For listed subsidiaries (Turquoise Hill Resources and Energy Resources of Australia), the Committee considered the carrying value of these separate businesses against external market data, including market capitalisation and broker reports.
- The assumptions on discount rate, long-term pricing and risk factors for future growth projects were considered and challenged by the Committee, by understanding how they compare with external market data.
- For Oyu Tolgoi, the timing of the underground development is an important factor in determining potential impairment, and the Committee reviewed and challenged the likely timing in light of the progress of discussions with the Government of Mongolia and changes in Government in late 2014. The Committee satisfied itself with regard to the carrying value for Oyu Tolgoi and the likely impact of further delays to the project on the carrying value as noted in note 6 on page 128.
- Close-down, restoration and environmental obligations.
 - Estimates of risk free discount rates in light of the ongoing impact of fiscal interventions. The Committee also focused on the different remediation or closure outcomes which could realistically arise when assessing the adequacy of the provisioning for these obligations. Both involve complex judgments.

Corporate governance continued

- Recoverability of potential deferred tax assets.
 - Appropriateness of continued recognition of deferred tax assets, particularly tax losses in France, recovery of which is restricted by legislation.
- Defined benefit pension plan surpluses and deficits. During 2014 the board received an update on the status of funding, investment and governance of pensions and other retirement benefits provided to current and former employees of the Company. The Committee received reports in 2014 and 2015 on PwC's audit procedures over the Group's pension and post-retirement defined benefit assets and liabilities. The Committee reviewed the disclosures on pensions in note 45 on pages 168 to 173.

In addition, the Committee critically assessed the projections of future cash flows under different scenarios and compared these with cash balances and committed facilities available in order that the Committee could recommend to the board that the adoption by the Group of the going concern basis of preparation was appropriate.

Governance processes

The Committee met six times in 2014. The chairman of the board, chief financial officer, other senior management and external and internal auditors regularly attended its meetings. The Committee carries out its business following an agreed annual cycle of meetings and topics for consideration.

The members of the Committee are independent and free of any relationship that would affect their impartiality in carrying out their responsibilities. The members meet the independence requirements of the Code, the ASX Principles and the NYSE Standards. The Committee meets the composition, operation and responsibility requirements of the ASX Principles.

The Committee is also bound by SEC requirements for audit committees' financial experts and the Code and ASX Principles requirement that at least one committee member should have recent and relevant financial qualifications and experience. Ann Godbehere, chairman of the Committee, is considered by the board to have recent and relevant financial experience, and financial qualifications, and has been designated the Committee's financial expert. All other members of the Committee are, in the opinion of the board, deemed to be financially literate by virtue of their business experience.

The Committee applies policies for the pre-approval of permitted services provided by the Group's external auditors PwC. All of the engagements for services provided by PwC were either within the pre-approval policies or separately approved by the Committee. The Committee members are satisfied that the provision of non-audit services by PwC in accordance with this procedure is compatible with the general standard of independence for auditors imposed by relevant regulations, including Australian, UK and US legislation.

The Committee considered reports from PwC and Group Audit & Assurance on the activities undertaken in reviewing and auditing the control environment in order to assess the quality and effectiveness of the internal control system. This included an evaluation of the effectiveness of the Group's internal controls over financial reporting and the Group's disclosure controls and procedures in accordance with sections 404 and 302 of the Sarbanes-Oxley Act 2002.

The external auditors attended all six Committee meetings during the year. In advance of the Committee meetings, the audit partners brief the chairman of the Committee on key matters. Private discussion sessions were routinely held between PwC and the Committee without management present to discuss the status of the audit and nature of interaction with management.

During the year, the Committee reviewed the effectiveness of PwC for Group audit and local statutory audit work. The evaluation, managed by the Group's financial controllers, took the form of a survey comprising a range of questions covering objectivity, quality, and efficiency, and was completed by individual Rio Tinto business units. The results of this survey and review were assessed by the Committee which concluded that PwC continued to provide a high-quality audit and effective and independent challenge to management. The Committee was satisfied with the external audit process and that the independence of the external auditors was in no way compromised.

PwC have been the external auditors since before the formation of the DLC structure in 1995, and acted as external auditors to a number of the company's legacy entities prior to the formation of the DLC. In the UK, the audit engagement partner Richard Hughes was appointed in 2011, and in Australia the audit engagement partner Paul Bendall was appointed in 2012. They are due to transition off the audit after the December 2015 and 2016 year-end audits respectively.

The Committee considers its recommendations to the board on the appointment and reappointment of auditors annually and specifically has responsibility for establishing formal and transparent arrangements with PwC. The Committee has reviewed the timetable for tendering and has taken into account all relevant regulation and guidance. New EU regulations and the recent ruling by the Competition and Markets Authority will impose mandatory rotation requirements from 2016 which require that the Group's auditors must be changed by 2021. In light of these requirements, it is likely that the audit will be tendered in 2017 or 2018 with the new auditors appointed for the 2019 or 2020 financial year.

The Committee believes that the requirements of good governance and the needs of Rio Tinto are best served by tendering in the above timeframe for the following reasons:

- Rio Tinto is undergoing significant business process change through the cost saving programme, which includes outsourcing of certain activities (including the finance transformation programme), and is currently implementing a new financial reporting consolidation system. A measured rotation timetable maintains stability in the independent oversight provided by the external auditors while the business fully implements the changes to maximise efficiency and effectiveness.
- Rio Tinto draws on expertise from a number of accounting firms and therefore a rotation of external audit services will require careful planning of transition periods to ensure that all services are fully contracted throughout the rotation process.

Rio Tinto ensures independence through other means, including detailed review, challenge and reporting of all work performed by accounting firms. A summary is presented annually to the Audit Committee of the fees incurred and nature of work performed. Further information on fees paid to PwC in 2014 for audit and non-audit services are set out on page 48 of the Directors' report.

The Committee meets privately with the Head of Group Audit & Assurance from time to time without management present and the chairman of the Committee has regular discussions with him.

Other

In 2014 the Committee also:

- Conducted an ongoing review and monitoring of the Group's control environment and risk management processes and effectiveness.
- Reviewed Group Audit & Assurance findings and approved the Internal Audit Plan and associated resources for 2015.
- Monitored Internal Control over Financial Reporting (SOx) testing results.
- Monitored the effectiveness of the Group's internal controls and internal control systems.
- Reviewed reports from the Head of Group Compliance.
- Monitored the effectiveness of the Group's risk management system with the Head of Group Risk.
- Reviewed Legal and Tax disputes reports from the Group Executive, Legal & Regulatory Affairs and the Head of Tax respectively.
- Considered the requirement for the Annual report and accounts, taken as a whole, to be fair, balanced and understandable.
- Reviewed the controls and processes in place over reporting of cost savings achieved under the Group's cost reduction programme.
- Considered the findings from the 2013 evaluation of the Committee's performance and supported the recommended action.
- Conducted ongoing monitoring of non-audit activities performed by the Group's external auditors and approval of their audit engagement contracts and remuneration.

- Considered proposals from various regulators (including the Financial Reporting Council and Competition and Markets Authority) on Auditor Independence and the Audit Committee's responsibilities in this regard.
- Underwent training and development on relevant accounting topics.

In the first part of 2015, the Committee:

- Evaluated, at the request of the board, the 2014 Annual report and accounts, to assess whether they are, taken as a whole, fair, balanced and understandable.
- Considered findings from the 2014 evaluation of the Committee's performance.

During the remainder of 2015 the Committee will follow its annual schedule of meetings and topics for discussion and will report on the same in 2016.

Sustainability Committee

Members of the Committee are Richard Goodmanson (chairman), Anne Lauvergeon, Michael L'Estrange, Lord Kerr, Simon Thompson and Megan Clark. Anne Lauvergeon was appointed to the Committee with effect from 15 March 2014. Simon Thompson was appointed to the Committee with effect from 1 April 2014. Robert Brown stood down from the Committee and Michael L'Estrange was appointed to the Committee on 15 October 2014. Megan Clark was appointed to the Committee with effect from 20 November 2014. Vivienne Cox stood down from the Committee with effect from 15 April 2014.

Key responsibilities

The Committee assists the board with overseeing strategies designed to manage social and environmental risks, overseeing management processes and standards and achieving compliance with social and environmental responsibilities and commitments. The Committee reviews the effectiveness of management policies and procedures relating to safety, health, employment practices, relationships with neighbouring communities, environment, human rights, land access, political involvement and sustainable development. The Committee's terms of reference are available to view on the website.

Governance processes

In 2014, the Committee met five times. The chairman of the board, chief executive, and other senior management regularly attend its meetings. The Committee carries out its business following an agreed annual cycle of meetings and topics for consideration.

The members of the Committee are all independent in accordance with the independence policy adopted by the board.

2014 activities

In 2014 the Committee:

- Reviewed key risks associated with process safety and communities and social performance, and management's plans for tackling them;
- Reviewed work plans formulated for health, safety, environment, communities and employment practices, and assurance over selected areas within the Committee's terms of reference;
- Undertook reviews around major risk areas, including mine closures and legacy matters and energy, environment and climate change;
- Received updates on findings following the pit wall slide at Bingham Canyon and the fatality at Gove; and
- Considered the findings from the 2013 evaluation of the Committee's performance and implemented the recommendations.

We draw to your attention the Sustainable development report on pages 20 to 26 of this report.

Remuneration Committee

Members of the Committee are John Varley (chairman), Jan du Plessis, Michael Fitzpatrick, Richard Goodmanson and Paul Tellier.

Key responsibilities

The Remuneration Committee assists the board with fulfilling its oversight responsibility to shareholders. In particular, the Committee seeks to spend compensation resource fairly and responsibly to ensure that remuneration policy and practices are properly linked to corporate and individual performance and to the delivery of the Group's strategy on behalf of our owners. The Committee's terms of reference are available to view on the website.

The report of the Remuneration Committee on pages 64 to 100 has been recommended by the Committee for approval by the board, and was approved by the board on 4 March 2015. On page 75 we have included sections dealing with the responsibilities of the Remuneration Committee and how it spent its time in 2014.

Governance processes

The Committee met nine times in 2014, including three ad hoc meetings called at short notice. The Committee carries out its business following an agreed annual cycle of meetings and topics for consideration.

In addition to the matters noted on page 75, the Committee considered the findings from the 2013 external evaluation of the Committee's performance. In early 2015, the Committee considered the findings from the 2014 evaluation of the Committee's performance.

As set out in the Committee chairman's annual statement on pages 64 to 65, we are committed to a continuing dialogue with our owners.

Chairman's Committee

Members of the Committee are Jan du Plessis (chairman), Sam Walsh and Chris Lynch.

Key responsibilities

The Committee acts on behalf of the board between scheduled board meetings either in accordance with authority delegated by the board or as specifically set out within its terms of reference. It supports the functioning of the board and ensures that the business of the board and its committees is properly planned and aligned with management. When mandated by the board, the Chairman's Committee will consider urgent matters between board meetings, and deals with the implementation of board decisions on transactions and other corporate matters. Other than for the chairman of the board, the Committee performs the annual review of non-executive directors' fees and makes a recommendation to the board.

Nominations Committee

Members of the Committee comprise Jan du Plessis (chairman) and all non-executive directors.

Key responsibilities

The Committee is responsible, on behalf of the board, for regularly assessing the balance of executive and non-executive directors and the composition of the board in terms of the diversity and capacity required to oversee the delivery of Rio Tinto's strategy.

The Committee develops and agrees in advance the desired profiles of potential candidates for board membership. It oversees the recruitment process and engages external search consultants to manage searches on its behalf, including constructing shortlists comprising candidates from diverse backgrounds. Following a final review of shortlisted candidates, the Committee makes recommendations for new board members to the board for approval.

The Committee engages Egon Zehnder from time to time. Egon Zehnder conducts searches for a number of Rio Tinto positions and not only at board and Executive Committee level. Egon Zehnder has no other connection with the Company.

On behalf of the board, the Committee also reviews proposals for appointments to the Executive Committee and monitors executive succession planning.

The Committee's terms of reference are available to view on the website.

Governance processes

The Committee meets as required and in 2014, met five times. The members of the Committee are independent in accordance with the independence policy adopted by the board.

The Committee in its proceedings takes account of the Group's Diversity & Inclusion policy and progress in the diversity and inclusion arena, discussed further below.

In 2014, the Committee:

- Continued regular executive and non-executive succession planning reviews.
- Considered the findings from the 2013 evaluation of the Committee's performance and supported the recommended actions.
- Reviewed the mix of skills required for non-executive directors and briefed the search firm accordingly.
- Recommended to the board the appointment of Michael L'Estrange and Megan Clark as non-executive directors.
- Received and considered a leadership assessment and development report on senior management talent from Egon Zehnder, and discussed the same with them.
- Considered, under the direction of John Varley, as senior independent director, the chairman's appointment as non-executive director and chairman-designate of SABMiller plc, and its impact on his commitment to Rio Tinto.
- Considered and recommended the appointment of Alfredo Barrios as Aluminium product group chief executive.
- Reviewed the proposal to amend the service contracts of the chief executive and chief financial officer to twelve months' notice.

In 2015, the Committee will continue its regular executive and non-executive succession planning reviews. In early 2015, the Committee considered the findings from the 2014 evaluation of the Committee's performance.

Board diversity

More information about the board's process for the selection, appointment and election of directors is available in the "Corporate governance" section of the website.

The Nominations Committee regularly reviews the structure, size and composition of the board.

In leading a global mining and metals company, the board seeks to continually evolve its membership by seeking non-executive directors with diverse and complementary skills and perspectives, as well as experience which reflects the geographic spread of the Group's operations. Core skills required for non-executive membership of the board are maintained. These skills may, depending upon the circumstances, comprise international business, financial or public policy experience, strategic acumen or mining or metals industry experience. The board aspires to increase other aspects of diversity, including gender and nationality, of directors in order to bring a diversity of skills, experience and perspective to the governance of the Group. The board recognises that the evolution of the mix of skills and diversity is a long-term process and weighs the various factors relevant to board balance and diversity when vacancies arise.

In 2012 the board established two objectives relating to board diversity:

- The Nominations Committee will undertake a review of board diversity.
- For each director selection and appointment process, the external search firm supporting the Nominations Committee will put forward at least one credible and suitably experienced female candidate.

These objectives were met in 2013 and 2014.

Diversity and inclusion

Our commitment to diversity and inclusion

We are a global company and, wherever we operate and across every part of our business, we strive to create an inclusive culture in which difference is recognised and valued. By bringing together men and women from diverse backgrounds and giving each person the opportunity to contribute their skills, experience and perspectives, we believe that we are able to develop the best solutions to challenges and deliver sustainable value for Rio Tinto and its stakeholders.

The board received a presentation in 2014 on diversity and inclusion across the whole Group.

What diversity and inclusion means for Rio Tinto

- Embracing workforce diversity – age, gender, race, national or ethnic origin, religion, language, political beliefs, sexual orientation, and physical ability.
- Valuing diversity of perspective – leveraging the diverse thinking, skills, experience and working styles of our employees and other stakeholders.
- Building a flexible organisation – providing opportunities for work arrangements that accommodate the diverse needs of individuals at different career and life stages.
- Respecting stakeholder diversity – developing strong and sustainable relationships with diverse shareholders, communities, employees, governments, customers and suppliers.

How we support diversity and inclusion

We use the following to drive action and build awareness about diversity and inclusion:

- Governance models
- Policies, practices and targets
- Leadership and cultural competence
- Stakeholder relationships
- Education and communication

We prioritise long and short-term programmes based on need and impact.

Read a summary of our Diversity and inclusion policy in the "Corporate governance" section of our website.

Our current focus

Our goal is to have a workforce that is representative of the countries and communities in which we operate. Currently, our focus is to improve the representation of women and of people from nationalities which are under-represented in our workforce, and to continue to build an inclusive culture in which all talent can thrive.

Some of the activities and initiatives relating to diversity that we undertook during the year are:

- The development of executive-sponsored diversity and inclusion plans within the product groups and geographies which align with business goals and the Group Diversity and inclusion strategy, the aim being to increase the diversity in our workforce at all levels and build a more inclusive culture. Progress is evaluated each year by the Executive Committee and Group Diversity Council and began in 2013.
- Embed diversity and inclusion scorecards to accompany the above plans with metrics in three areas:
 1. Who we are (demographics)
 2. How we behave (performance and development)
 3. What we stand for (values)to be applied across Rio Tinto to help baseline, trend and track progress as well as to address areas where we may be underperforming.

- Active involvement with Women in Mining groups, professional women's associations and other targeted recruiting efforts to raise awareness about Rio Tinto and to increase the attraction, development and retention of talented women wherever we operate.
- Expansion of our diversity champions network group to include additional geographies and operations, and the establishment of several new business unit diversity councils and committees across Rio Tinto. These are increasing leadership engagement, cross-company collaboration, and the sharing and replication of best practices.
- The expansion of training programmes aimed at countering unconscious bias. These have targeted senior leaders, hiring managers and recruiters to help minimise the impact of bias in recruitment and development practices, as well as to improve the cross-cultural interactions and relationship-building needed to globalise our business.
- The continuation of a three-year commitment by the chairman to mentoring high-potential female board candidates through the FTSE100 Cross-company Mentoring Programme.

The chief executive became the chairman of the Group Diversity Council in January 2015.

Proportion of women employees and board members

In 2014, the proportion of women on the board was 21.4 per cent (ie 3 out of 14), in senior management 15.5 per cent and in the overall workforce 18.7 per cent.

Measurable objectives and progress

We established the following five-year measurable objectives for workforce diversity at the start of 2011.

Measurable objective	Progress during 2014
Women to represent 20 per cent of our senior management by 2015.	Women represented 15.5 per cent of our senior management in 2014.
Women to represent 40 per cent of our 2015 graduate intake.	Women represented 31.8 per cent of our 2014 graduate intake.
15 per cent of our 2015 graduate intake to be nationals from regions where we are developing new businesses.	17.8 per cent of our 2014 graduate intake were nationals from regions where we are developing new businesses.

Subsidiary board diversity

In addition to the measurable objectives described above, women also represented 10.6 per cent of the directors of our principal controlled subsidiary undertakings during 2014 (15 female; 126 male).

Other disclosures

Policies and standards

Rio Tinto's commitment to integrity is set out in our global code of business conduct: *The way we work*. This contains principles and standards of conduct which reaffirm the Group's commitment to integrity. It is inspired by our four core values: respect, integrity, teamwork and accountability. It is available on the website.

It is supported by a number of policies and standards. Core policies are adopted after wide consultation, externally and within the Group. Once adopted, they are communicated to business units worldwide, together with related standards, guidance notes and resources to support implementation. Business unit management are required to devote the necessary effort to implement and report on these policies and standards.

Rio Tinto policies and standards include policies on a variety of important topics. They apply to all Rio Tinto managed businesses. Where the Group does not have operating responsibility for a business, Rio Tinto's policies and standards are communicated to its business partners and they are encouraged to adopt similar policies of their own.

Rio Tinto employees are required to undertake training about the requirements of *The way we work* and other core policies.

"Whistleblowing" programme

The board has adopted a confidential and independently operated whistleblowing programme called *Speak-OUT*. This offers an avenue where employees, contractors, suppliers and customers of Rio Tinto managed sites can report concerns anonymously if they so choose, subject to local law. This can include any significant concerns about the business, or behaviour of individuals, including suspicion of violations of financial reporting, safety or environmental procedures or business integrity issues generally. The programme features web submission, a case management tool to better manage cases, and a reporting tool to allow for improved analysis of case statistics and reporting. Rio Tinto is also looking at ways to increase the positive awareness of *Speak-OUT*. The Audit Committee receives a report twice annually on *Speak-OUT* activity as does the Sustainability Committee with regard to calls to *Speak-OUT* impacting sustainable development issues.

Dealing in Rio Tinto securities

Rio Tinto operates rules which restrict the dealing in Rio Tinto securities by directors and employees with access to "inside information". These rules require those people to seek clearance before any proposed dealing and place restrictions on when some people can deal.

Communication with stakeholders

Rio Tinto recognises the importance of effective timely communication with shareholders and the wider investment community.

The Disclosure Committee is responsible for determining whether information relating to Rio Tinto may require disclosure to the markets.

Rio Tinto makes immediate disclosure (unless an exemption applies allowing a delay) to the relevant listing authorities in accordance with their rules of any information that a reasonable person would expect to have a material effect on its share price. All information released to the markets is posted on the Media section of the website.

In addition to statutory documents, Rio Tinto's website features information on corporate governance, and general investor information. Annual and half year results, as well as any major presentations, are webcast and the materials are available on the website. Presentation material from investor seminars is also made available on the website.

The annual general meetings present an opportunity to provide a summary business presentation, to inform shareholders of recent developments and to give them the opportunity to ask questions. Generally, the chairs of all board committees will be available to answer questions raised by shareholders and all directors are expected to attend where possible. In 2014 all of the directors attended the annual general meetings. Rio Tinto's external auditors, PwC, attend the annual general meetings and are available to answer questions about the conduct of the external audit and the preparation and content of the Independent auditors' report. Any questions received and answers provided ahead of the annual general meetings are made available to shareholders, who also have the opportunity to meet informally with directors after the meetings.

The main channels of communication with the investment community are through the chairman, chief executive and chief financial officer, who have regular meetings with the Companies' major shareholders. The senior independent director has a specific responsibility to be available to shareholders who have concerns, and where contact with the chairman, chief executive or chief financial officer has failed to resolve their concerns, or for whom such contact is inappropriate. In his capacity as Remuneration Committee chairman, the senior independent director meets shareholders to discuss remuneration issues as described in his annual statement on pages 64 to 65.

During 2014, these meetings with the investment community focused on the issues of strategy, board succession, corporate governance, executive remuneration, and the operational and financial performance of the Group. Regular investor seminars provide a two-way communication opportunity with investors and analysts. On 24 November 2014, a corporate governance forum was hosted in Sydney to provide investors with an opportunity to engage with the chairman and the chairs of the board committees. A similar event will be held in London on 17 March 2015. Feedback from such engagement is routinely communicated to the board. Surveys of major shareholders' opinions are presented to the board by the Group's investor relations advisers on a regular basis.

Risk management

Rio Tinto's overriding objective is to generate attractive, sustainable returns to shareholders through a strategy of investing in long-life, low-cost, expandable operations in the most attractive industry sectors. The directors recognise that creating shareholder return is the reward for taking and accepting risk.

A description of the principal risks and uncertainties that could affect Rio Tinto is found on pages 14 to 17.

Risk policy and standard

The board recognises that risk is an integral component of the business and carefully considers the level of risk it is prepared to tolerate. The Group fosters a risk-aware corporate culture in all decision-making, and is committed to managing all risk in a proactive and effective manner through competent risk management that ensures that risks are managed within agreed thresholds. To support this commitment, risk is analysed in order to inform the management decisions taken at all levels within the organisation. The principles of the risk analysis are set out in the Risk policy which is on the website.

Risk approach

The Risk policy and standard is supported by an integrated framework of risk governance and reporting specifying how the Group organises the handling of risk. Together with the policy, the framework provides an ongoing process for identifying, evaluating and managing the significant risks faced by the Group. Clear accountability for risk management is defined throughout the Group and is a key performance area of line managers.

To support risk understanding and management at all levels, the Group Risk function provides the necessary infrastructure, information collation for the senior executive, and co-ordination between other risk-focused functions. Group Risk supports the Risk Management Committee in its review of risk.

Whilst the Audit Committee is responsible for oversight of the effectiveness of the Group's risk management systems, the responsibility for identifying and managing risks rests with the chief executive and all of Rio Tinto's managers and business leaders, who operate within a Group-wide framework that ensures that risks are managed within agreed thresholds.

Internal controls

The directors are responsible for the Group's system of internal controls and for reviewing annually the effectiveness of the internal control system. This includes reviewing financial, operational and compliance controls and risk management procedures and their effectiveness. The directors have completed their annual review and assessment for 2014.

Internal control systems

Two of the Group's management committees, the Executive Committee and the Disclosure Committee, regularly review reports related to the Group's control framework in order to satisfy the internal control requirements of the Code, the ASX Principles, the NYSE Standards and section 404 of the Sarbanes-Oxley Act 2002. The Group Audit & Assurance function performs reviews of the integrity and effectiveness of control activities and provides regular reports to the Audit Committee, Sustainability Committee and other management committees.

Each year, the leaders of the Group's businesses and functions complete a representation letter confirming that adequate internal controls are in place, are operating effectively and are designed to capture and evaluate failings and weaknesses, if any exist, and that action is taken promptly, as appropriate.

In 2014, information was reported by management to the Audit Committee to enable it to assess the effectiveness of the Company's risk management and internal control systems. In addition, as part of their role, the board and its committees routinely monitor the Group's material business risks.

Due to the limitations inherent in any risk management system, the process for identifying, evaluating and managing the material business risks is designed to manage, rather than eliminate, risk and to provide reasonable, but not absolute assurance, against material misstatement or loss. Certain risks, for example natural disasters, cannot be managed to an acceptable degree using internal controls. Such major risks are transferred to third parties in the international insurance markets, to the extent considered appropriate. The Group has material investments in a number of jointly controlled entities and associates. Where Rio Tinto does not have managerial control, it cannot guarantee that local management of mining and related assets will comply with Rio Tinto standards or objectives.

Auditors and internal assurance

External auditors

As indicated in the report of the Audit Committee on pages 57 to 59, Rio Tinto has adopted policies designed to uphold the independence of the Group's external auditors by prohibiting their engagement to provide other accounting and other professional services that might compromise their appointment as independent auditors.

The engagement of the external auditors to provide statutory audit services, other services pursuant to legislation, taxation services, and certain other services is pre-approved. Any engagement of the external auditors to provide other permitted services is subject to the specific approval of the Audit Committee or its chairman. For other services, because of their knowledge, experience and/or for reasons of confidentiality, it can be more efficient or necessary to engage the external auditor rather than another party.

At half year and year end, the chief financial officer and the external auditors submit to the Audit Committee a schedule of the types of services that were performed during the period. The Audit Committee may impose a financial limit on the total value of other permitted services that can be provided. Any non-audit service provided by the external auditors, where the expected fee exceeds a pre-determined level, must be subject to the Group's normal tender procedures.

In exceptional circumstances, the chief financial officer is authorised to engage the external auditors to provide such services without going to tender, but if the fees are expected to exceed certain pre-determined limits then the chairman of the Audit Committee must give prior approval of the engagement.

Further information on audit and non-audit fees of the Group's external auditors is set out in note 39 to the financial statements and in the Directors' report.

Group Audit & Assurance

Group Audit & Assurance is an internal function which provides independent and objective assurance on the adequacy and effectiveness of the Group's systems for risk management, internal control and governance together with recommendations to improve the effectiveness of the relevant systems and processes. The function has an internal audit methodology which is aligned with international auditing standards set by the Institute of Internal Auditors (IIA).

The function operates independently of management, under a mandate approved by the Audit Committee, and has full access to all functions, records, property and personnel of the Group. The head of Group Audit & Assurance administratively reports to the chief financial officer and has direct communication lines with the chairs of both the Audit Committee and Sustainability Committee and regularly attends their meetings.

A risk-based approach is used to focus assurance activities on high-risk areas and audit plans are presented annually to the Audit Committee and Sustainability Committee for approval.

In respect of its internal audit function, Rio Tinto utilises the services of external service providers. The function has a policy which addresses conflicts of interest in relation to engagements of the service provider that are requested by management. The policy complies with the IIA's standards on independence. Certain services are pre-approved under the policy as they would not be in conflict with the internal auditor's role. There is a list of prohibited services which may not be undertaken without approval of the head of Group Audit & Assurance, and guidance on the consideration of services which may give rise to a conflict of interest.

Financial reporting

Financial statements

The directors are required to prepare financial statements for each financial period which give a true and fair view of the state of affairs of the Group as at the end of the financial period, and the profit or loss and cash flows for that period. This includes preparing financial statements in accordance with UK company law which give a true and fair view of the state of the company's affairs, and preparing a Remuneration report which includes the information required by Regulation 11, Schedule 8 of the Large and Medium Sized Companies and Groups (Accounts and Reports) Regulations 2008 and the Australian Corporations Act 2001.

In addition, the Code requires that the board provides a fair, balanced and understandable assessment of the company's position and prospects in its external reporting. The directors were responsible for the preparation and approval of the Annual report for the year ended 31 December 2014. They consider the Annual report, taken as a whole, to be fair, balanced and understandable, and provides the information necessary for shareholders to assess the company's performance, business model and strategy.

The directors are responsible for maintaining proper accounting records, in accordance with UK and Australian legislation. They have a general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group, and to prevent and detect fraud and other irregularities. The directors are also responsible for ensuring that appropriate systems are in place to maintain and preserve the integrity of the Group's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from current and future legislation in other jurisdictions. The work carried out by the auditors does not involve consideration of such developments and, accordingly, the external auditors accept no responsibility for any changes, should any be made, to the financial statements after they are made available on the website.

The directors, senior executives, senior financial managers and other members of staff who are required to exercise judgment in the course of the preparation of the financial statements are required to conduct themselves with integrity and honesty and in accordance with the ethical standards of their profession and the business.

The directors consider that the 2014 Annual report presents a true and fair view and has been prepared in accordance with applicable accounting standards, using the most appropriate accounting policies for Rio Tinto's business, and supported by reasonable judgments and estimates. The accounting policies have been consistently applied. The directors have received a written statement from the chief executive and the chief financial officer to this effect. In accordance with the internal control requirements of the Code and the ASX Principles Recommendation 7.3, this written statement confirms that the declarations in the statement are founded on a sound system of risk management and internal controls, and that the system is operating effectively in all material respects in relation to financial reporting risks.

Disclosure controls and procedures

The Group maintains disclosure controls and procedures as such term is defined in US Exchange Act Rule 13a-15(e). Management, with the participation of the chief executive and chief financial officer, has evaluated the effectiveness of the design and operation of the Group's disclosure controls and procedures pursuant to Exchange Act Rule 13a-15(b) as of the end of the period covered by this report and has concluded that these disclosure controls and procedures were effective at a reasonable assurance level.

Management's report on internal control over financial reporting

The management of Rio Tinto plc and Rio Tinto Limited is responsible for establishing and maintaining adequate internal control over financial reporting. The companies' internal control over financial reporting is a process designed under the supervision of their common chief executive and chief financial officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of the Group's published financial statements for external reporting purposes in accordance with International Financial Reporting Standards (IFRS).

The Group's internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that receipts and expenditures are being made only in accordance with authorisations of management and directors of each of the Companies; and provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use or disposition of the Group's assets that could have a material effect on our financial statements.

Due to inherent limitations, internal control over financial reporting cannot provide absolute assurance, and may not prevent or detect all misstatements whether caused by error or fraud, if any, within each of Rio Tinto plc and Rio Tinto Limited.

Management conducted an assessment of the effectiveness of internal control over financial reporting as of 31 December 2014, based on the Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) issued in 2013, and concluded that it was effective.

There were no changes in the internal controls over financial reporting that occurred during the period that have materially affected, or are reasonably likely to materially affect, the internal controls over financial reporting of each of Rio Tinto plc and Rio Tinto Limited.

Remuneration Report: Annual statement by the Remuneration Committee chairman

Dear shareholders

On behalf of the board, I am pleased to introduce our 2014 directors' remuneration report (the Remuneration Report), for which we seek your support at our annual general meetings (AGMs), in London in April, and in Perth in May.

The Remuneration Report is designed to demonstrate the link between our Group's strategy, its performance, and the remuneration outcomes for our executives, particularly the executive directors.

With a view to delivering sustainable returns to shareholders over time, Rio Tinto takes a long-term approach to its activities, and this means concentrating on developing long-life, low-cost, expandable operations that are capable of providing competitive returns throughout business cycles. Our executives' performance objectives are set accordingly.

The Remuneration Report has been prepared in accordance with applicable legislation and corporate governance guidance in the UK and Australia. Australian legislation requires disclosures in respect of "key management personnel", being those persons having authority and responsibility for planning, directing and controlling the activities of the Group. The key management personnel are, in addition to the directors, the non-director members of the Executive Committee. The Executive Committee comprises the executive directors, product group chief executive officers and Group executives. Throughout this Remuneration Report, the members of the Executive Committee are collectively referred to as "executives". They are listed on pages 49 and 52, which also show the positions held during the year and dates of appointment.

Shareholders will be aware that we have to comply with UK and Australian legislation in the remuneration arena and that the rules are different. We have structured the voting arrangements such that all shareholders vote on all three resolutions that we are putting to our AGMs.

This Remuneration Report is divided into two parts: the statement of remuneration policy, which summarises our compensation policies and practices (the Remuneration Policy); and the annual report on remuneration, which shows how the Remuneration Policy has been applied (the Implementation Report).

The Remuneration Policy is once again subject to a binding vote at our 2015 AGMs for UK law purposes. The Implementation Report (including this statement) is subject to an advisory vote for UK law purposes. The Remuneration Report as a whole is subject to an advisory vote at the 2015 AGMs for Australian law purposes.

For the purposes of UK regulations on remuneration reporting, the Remuneration Policy will, if the resolution is passed, become effective in respect of payments to directors from the date of the second of our AGMs (7 May 2015).

The board presented to shareholders a policy for the remuneration of its directors for the first time at the 2014 AGMs. Following approval at the 2014 AGMs, the Remuneration Policy, for the purposes of the UK regulations, became effective in respect of payments to directors from 8 May 2014. While the board intended the Remuneration Policy put to shareholders at the 2014 AGMs to apply for three years, it has taken the decision to present you with an updated Remuneration Policy, which will be subject to a binding vote at the 2015 AGMs. This is because the board has decided to seek approval for the proposed change to the contractual notice periods for the chief executive and the chief financial officer announced, subject to shareholder consent, on 23 October 2014 by way of an update to the Remuneration Policy.

Furthermore, the board has decided to update the risk management section of the Report to incorporate its policy relating to malus and claw back for performance related payments. Both sections (being the only sections containing material changes to the Remuneration Policy) are identified in *italics* in this Report. Other minor clarification and contextual changes have been made to reflect the revised Remuneration Policy becoming effective in 2015, but these are not marked. A version that shows the comparisons between our 2013 and 2014 Policy Reports is, however, available on the company's website at riotinto.com.

In the absence of circumstances which may necessitate a change to the Remuneration Policy, it is our intention that the Policy will next be put before shareholders for a vote at our AGMs in 2018. The contextual changes referred to above are designed to avoid the need to update the Remuneration Policy before then.

Although, as a matter of UK law, the Remuneration Policy only applies to the remuneration of our directors, it is the Committee's intention that the broad policy principles will continue to inform the way in which our non-director key management personnel on the Executive Committee are remunerated.

The Remuneration Policy describes among other things: our executive remuneration structure; the details of the discretions available to the Committee; our approach to remuneration on recruitment; the details of executives' service contracts; and how we treat leavers.

Remuneration for executives comprises fixed compensation in the form of base salary, participation in a pension plan, superannuation fund and/or a cash allowance to contribute to a pension fund, the receipt of certain benefits, and performance-related remuneration. Each element is described in the Remuneration Policy.

The majority of the remuneration of executives will normally be performance-related, and is provided in the form of variable short and long-term incentives.

In relation to the short-term incentive plan (STIP), the Committee each year sets performance criteria relative to three benchmarks: threshold, target and outstanding. Target performance is intended to be stretching, and is typically equivalent to budget for the year.

I want to remind you of our policy relating to the disclosure of measures, weightings and targets. In relation to the long-term incentive plan (LTIP), these will all be disclosed in advance, at the beginning of each five-year performance period. In relation to the STIP, we will, when it comes to disclosure, distinguish between safety, financial and individual goals. In the area of safety goals, we have disclosed and will continue to disclose the measures, weightings and targets at the beginning of each year. In the area of financial and individual goals, we have disclosed, and will continue to disclose, at the beginning of each year, the measures and weightings only, because we regard the targets as commercially sensitive. However, as we said in the Remuneration Report last year, we intended to disclose, and have in this Implementation Report disclosed, the targets and outcomes for 2014 retrospectively. In the rare instances where this may not be prudent on grounds of commercial sensitivity, I will seek to explain why and give an indication of when they would be disclosed.

The chart on page 85 demonstrates the usual timeframe for the delivery of the components of remuneration, using 2014 as an example. This emphasises the long-term nature of our remuneration arrangements.

You will see several mechanisms in the Remuneration Report that are intended to create alignment of interest between shareholders and executives. We have, for our executives, a mandatory conversion of 50 per cent of any annual short-term bonus payment into shares, with vesting deferred for three years. The performance measures under our long-term remuneration plans are structured to support and incentivise the creation of long-term shareholder value. In addition, should circumstances warrant, we have reserved to the Committee such discretions as enable it to safeguard against the return experience of shareholders being materially misaligned with the reward experience of executives. We want the remuneration outcomes properly to reflect the Group's overall performance. We also have meaningful share ownership requirements for our executives as described in the Implementation Report.

There are many examples in the Remuneration Policy and practice of how our dialogue with shareholders has influenced the Committee's decisions. In 2013, we added a new performance measure to our Performance Share Plan (PSP), namely the relative EBIT margin improvement measure. We did this because many of our owners had expressed a wish that our PSP should incorporate some diversification beyond total shareholder return (TSR). We extended the performance period of the PSP from four to five years and have materially reduced the pay-out for threshold performance. We have ceased using share options as a mechanism for long-term reward. We adjusted our safety measures in our STIP targets to reflect lost time injuries and all injury frequency rates. Meanwhile, as you will see in the Implementation Report, our decisions relating to base pay changes for executive directors and executives are now broadly guided by pay changes for the wider employee population.

2014 performance and remuneration

In terms of STIP for 2014, the Committee determined that the underlying "unflexed" earnings target set by the board had not been met. However, the "unflexed" free cash flow target and "flexed" earnings and free cash flow targets have been exceeded. "Flexed" targets are designed to take into account the impact of uncontrollable fluctuations in exchange rates, quoted metals and other prices during the year, and as such may be higher or (as was the case in 2014 – a year in which many commodity prices fell sharply) lower than "unflexed" targets set by the board. This is reflected in the financial component of the STIP awards at Group and product group level.

Disappointingly, the Group did not attain its goal of zero fatalities. However, the Group's all injury frequency rate reduced from 0.65 in 2013 to an all-time low of 0.59 in 2014, bettering the Group target of 0.61. This has led to a total safety score for the Group, excluding the impact of fatalities, of 138 per cent out of a maximum of 200 per cent. Reductions have been applied as required for executives with portfolios where a fatality has occurred.

The net effect of these outcomes, also taking into account the achievement of individual objectives, is that STIP awards for Executive Committee members have been made in a range from at or about target to above target levels.

The Committee considered the Group's overall performance in the context of the LTIP awards that were due to vest at the end of 2014. These were the 2011 award under the PSP, which had an indicative vesting of 73.5 per cent of face value, and the 2012 grant under the Share Option Plan, which has an indicative vesting of 100 per cent of face value. The Committee concluded that the vesting of awards, based upon the achievement of the TSR measures, was justified.

As previously announced, Jacynthe Côté, chief executive of the Aluminium group, left the Group on 1 September. The details of her departure terms are summarised on page 84.

2015 decisions

The Committee has reviewed the base salary levels for executives and, for the executive directors and the majority of the Executive Committee, made adjustments in line with the base salary budgets applying to the broader employee population.

The base salary increases for Alan Davies and Jean-Sébastien Jacques are specific adjustments which reflect the additional responsibilities and broader portfolios transferred to them from the former Energy product group announced on 27 February 2015. Details are set out on page 82 of the Implementation Report.

The quantum of LTIP awards to be granted to executives in March 2015 is broadly similar to those made in 2014.

Safety, cost and capital expenditure reductions, and cash flow management will continue to feature prominently in the individual objectives for executives in 2015.

Further details are provided in the Implementation Report.

Governance and owners' views

It has been and continues to be our intention to be alert to evolving best practice and to the views and guidance given to us in the conversations we have with our owners.

We are committed to a continuing dialogue with shareholders, including listening to their views about this report, which are most welcome.

Yours sincerely,



John Varley
Remuneration Committee chairman

Remuneration Report: Remuneration Policy

Remuneration Policy introduction

This Remuneration Policy applies to our executive and non-executive directors and to the chairman. It also sets out, in conformance with Australian law, the broad policy principles which generally apply to the non-director members of the Executive Committee. The policy applying to our chairman and non-executive directors is set out at the end of the Remuneration Policy.

Shareholders should note that this Remuneration Policy is binding only in so far as it relates to directors.

Our remuneration policies, principles and practices

Our first objective is to spend remuneration resource wisely in pursuit of the implementation of the Group's strategy. We want our pay policies to be regarded as fair by shareholders and employees alike. Although we have remuneration structures which are fit for purpose, the Committee retains appropriate discretions, enabling it, if it thinks fit, to override inappropriate mechanistic outcomes, but always within the confines of the Remuneration Policy.

Rio Tinto operates in global and local markets where it competes for a limited pool of talented executives. High-quality people, who are capable of achieving stretching performance targets, are essential to generating superior returns for the Group. Our compensation strategies aim to provide this support by enabling the Group to attract and retain people whose contribution will increase shareholder value over time.

We aim to engage our people over the long term by fostering diversity, providing challenging work and development opportunities, and encouraging strong delivery by good performance. This people strategy is underpinned by our values of respect, integrity, teamwork and accountability and by our commitment to provide sustainable growth and development for both Rio Tinto and its employees.

Our policy is based on the principle of aligning remuneration outcomes with the successful delivery of strategy. The remuneration strategy and the policies which support it, together with a description of how we believe they will help Rio Tinto achieve its vision, are set out below and under the heading "Executive remuneration structure – policy table". Complementary remuneration structures are designed for other employees, drawing on these strategies and policies.

Competitive, performance-related, remuneration

We aim to provide competitive rewards that attract, retain and motivate executives of the high calibre required to lead the Group, while ensuring that rewards remain appropriate and proportionate when compared both to market practice and to remuneration arrangements for other employees in the Group.

- The majority of remuneration is linked to demanding performance targets over both the short and long term to ensure that executive rewards are directed at delivering good performance for shareholders.
- For the purposes of assessing the appropriate level of executive remuneration, the Committee refers to the FTSE30 (excluding financial services companies) as the initial comparator group. The FTSE30 is considered the most relevant comparator group as it largely comprises organisations broadly comparable to the Group in terms of global reach, revenue, market capitalisation and complexity. References are also made to other relevant supplementary comparator groups, including a cross-section of comparable international industrial organisations and other international mining companies.
- Typically we aim to position base salaries at the median of these comparator groups, while our incentive plans are designed with the potential to deliver total remuneration outcomes across the full market range according to business and individual performance.
- Benchmarking is undertaken periodically, but not annually, and our intention is to apply judgment in evaluating market data. We will take salary increases in the broader employee population into account in determining any change to the base pay of executives. We normally use three-year average exchange rates, in order to mitigate the impact of exchange rate volatility, to help determine the appropriate positioning of executive remuneration against internal and external comparators.

- We regularly consult with shareholders on the design of our policies and programmes, most recently on the subjects of the safety measure component of the STIP, the ceasing of the use of share options as a mechanism for long-term reward, and the performance conditions and the performance period for the Performance Share Plan (PSP).
- Employee share plans provide the opportunity for employees to participate in the voting on executive remuneration. Employees who are shareholders – 25 per cent of the workforce at the date of this report – are able to vote on the Remuneration Report. Employees have not been consulted on the Remuneration Policy but are free to ask any questions they wish and to offer any opinions they have through our normal employee communications channels.

Safety

We have a strong focus on safety in the STIP targets.

- As an organisation, we strive for superior long-term shareholder value creation in a healthy, safe and environmentally appropriate way. These are important elements of our licence to operate.
- Safety key performance indicators determine a significant portion of the STIP for executives.
- Any fatality will have a material impact on the STIP score for the relevant executives. Further details on the approach to fatalities are provided in the Implementation Report.

Long-term focus

Consistent with our strategy of investing in and operating long-life, low-cost, expandable operations in the most attractive industry sectors, we seek to provide incentive plans that focus on longer-term performance.

- Our incentive plans are designed to promote and reward decision-making with a positive long-term impact while avoiding excessive risk.
- Fifty per cent of the STIP for executives is deferred into shares which vest after three years, through the Bonus Deferral Plan (BDP).
- The performance-based options and shares awarded prior to 2013 have a three and four-year performance period, respectively. The performance period for performance shares awarded under the PSP from 2013 is five years. However, as a transitional measure, awards granted in 2013 will potentially vest 50 per cent after four years and 50 per cent after five years.
- Options are no longer granted, but existing options may be exercised (subject to their vesting conditions) up to ten years after their grant.
- The Committee intends to keep the Group's long-term incentive arrangements under review.

Shareholder alignment

Our share ownership policy requires executives to build up and maintain a meaningful shareholding as described in the Implementation Report under the heading "Share ownership policy for executives".

We reward executives for delivering shareholder value by using relative TSR as one of the measures for our LTIP.

- For awards granted from 2013 under the PSP, a relative EBIT margin improvement measure has complemented the existing relative TSR measures, and incentivises executives to deliver long-term shareholder value while maximising operational performance in the medium term. This comprises one-third of the total value opportunity under the PSP awards.
- The reward opportunity under the remaining portion of the PSP awards is delivered based on relative TSR performance against both the HSBC Global Mining Index and the broader market of large global companies as measured through the Morgan Stanley Capital World Index (MSCI).
- The choice of both the HSBC Global Mining Index and MSCI reflects the fact that Rio Tinto competes in a global market for investors as well as within the mining sector, and is consistent with rewarding executives for providing stable returns over the long term relative to the broader market and the mining sector.

Risk management – Malus and claw back^(a)

The Committee has authority under the "malus" provisions of the PSP to reduce or cancel awards made from 2013 in the event of gross misconduct which may have a material effect on the value or reputation of the Group, a materially adverse error in the Group's or a product group's financial statements, exceptional events that have a materially detrimental impact on the value of any Group company, or for any other reason that the Committee decides in a particular case.

The Committee also has authority under the "claw back" provisions of the PSP to recover the value of any vested awards made from 2013 in the event of deliberate misconduct by a participant that may have a material impact on the value or reputation of a Rio Tinto Group company or for any other reason that the directors decide in a particular case.

Malus and claw back can be applied by the Committee in relation to the STIP and its deferral into BDP. The Committee evaluates the outcomes of the STIP for fairness with the original targets and with shareholder experience, and may make discretionary adjustments for executives using "malus" principles as necessary. Any such adjustments are disclosed in the Implementation Report for the relevant financial period.

The Committee retains discretion with respect to the vesting of BDP awards made from 2013 onwards prior to their vesting dates, such that if an executive resigns or is dismissed for misconduct, or for any other reason that the Committee decides in the event of an executive terminating their employment, BDP awards may be "clawed back" and consequently lapse.

The Committee reserves rights to exercise discretions more generally as described under the heading "Discretions".

- (a) Material changes to the Remuneration Policy, such as those relating to malus and claw back below, are identified in italics in this Report.

Executive remuneration structure – policy table

The Committee seeks to achieve a remuneration mix which best reflects the long-term nature of the business. The total remuneration package is therefore designed to provide an appropriate balance between fixed and variable components, with an emphasis on long-term variable pay. The remuneration structure for executives, including the relationship between each element of remuneration and Group performance, is summarised below. Further details on the key performance indicators used to assess Group performance are provided in the Strategic report under the heading "Key performance indicators". Shareholders should note that the following remuneration structure is binding only in so far as it relates to directors.

Any commitment made before this Remuneration Policy takes effect or before an executive became or becomes a director will be honoured even if it is not consistent with this Remuneration Policy or any subsequent policy.

Remuneration arrangements – Fixed

[Link to Group performance and strategy](#)

Base salary

- Base salary provides the main fixed element of the remuneration package.
 - Base salaries are reviewed annually, with a maximum increase of nine per cent, or inflation if higher, per annum. An increase may be higher than this for executives who are not directors in the circumstances described below.
 - Any increase is generally aligned with the average base salary increases applying to the broader employee population unless there were significant changes to an individual's role and/or responsibilities during the year. Any increases are determined with reference to underlying Group and individual performance, global economic conditions, role responsibilities, an assessment against relevant comparator groups and internal relativities.
 - An increase above the maximum noted above for executives who are not directors may be made in the event of internal promotion or increase in responsibility or where the executive's salary is significantly below market positioning.
 - Benchmarking is undertaken periodically but not annually, and our intention is to apply judgment in evaluating market data.
- We pay competitive salaries to hire, motivate and retain highly competent people.

Remuneration Report: Remuneration Policy continued

Remuneration arrangements – Fixed		Link to Group performance and strategy
Pension or superannuation	<ul style="list-style-type: none"> – Employment benefits typically include participation in a pension plan, superannuation fund, or a cash allowance to contribute to a personal pension or superannuation fund. – The maximum level of Company contribution to an individual executive director's schemes annually is 35 per cent of base salary. 	<ul style="list-style-type: none"> – We provide locally competitive post-employment benefits in a cost-efficient manner in order to hire and retain.
Other benefits	<ul style="list-style-type: none"> – Other benefits include private healthcare cover for the executive and their dependants, company car or allowance, car parking, life insurance, accident insurance, provision of Company-provided transport/chauffeur, professional advice, participation in local flexible benefit programmes and certain other minor benefits (including modest retirement gifts in applicable circumstances, occasional spouse travel in support of the business and any Rio Tinto business expenses which are deemed to be taxable where the Company has paid the tax on their behalf). – Secondment, relocation and localisation benefits (for example, housing, tax equalisation, cost of living allowance, the payment of school fees, periodic visits home for the executive and their family and where relevant, localisation payments) may also be made to and on behalf of executives living outside their home country. Examples of these types of payments are set out in the Implementation Report. – Other benefits are paid at cost and, given the nature and variety of the items, there is no formal maximum level of Company contribution. 	<ul style="list-style-type: none"> – We provide competitive other benefits in a cost-efficient manner to hire and retain.
Remuneration arrangements – Performance-related (At risk)		
Short Term Incentive Plan (STIP)	<ul style="list-style-type: none"> – If target performance is achieved under the STIP, the bonus opportunity is up to 120 per cent of base salary for executive directors and up to 100 per cent of base salary for other executives. The award for achieving threshold performance is 50 per cent of the target bonus opportunity and the maximum bonus award for outstanding performance is 200 per cent of base salary. These percentages, with the exception of the maximum percentage, are subject to the exercise of discretion by the Committee. – A scorecard of key performance indicators (KPIs) is established for each executive at the commencement of the financial year. The measures and the relative weightings are selected by the Committee in order to drive business performance for the current year, including the achievement of financial, safety and other individual business outcomes that are priorities for the financial year in question. – The measures, weightings and targets are reviewed annually and are included either prospectively or retrospectively each year in the Implementation Report. The Committee retains flexibility to determine the measures, weightings and targets as appropriate, based on the outcomes of its annual review. – We expect to disclose the measures, weightings and targets for safety goals at the beginning of each year. In the area of financial and individual goals, we will, at the beginning of each year, disclose the measures and weightings only, because we regard the targets as commercially sensitive. However, we intend to disclose targets and outcomes retrospectively. In the rare instances where this may not be prudent on grounds of commercial sensitivity, we will seek to explain why, and give an indication of when they will be disclosed. – Threshold, target and outstanding performance levels are established for all STIP measures to help drive high levels of business and individual performance. – The central case or “base” plan delivers what the board considers to be target performance. Target performance is intended to be stretching. Probability factors are then applied, based upon a range of potential operating and cost scenarios, to establish the threshold and outstanding performance levels. These threshold (below target), target, and outstanding (above target) levels are determined by the Committee at the beginning of each performance year. – The Committee seeks to ensure, in making its year-end determination of STIP awards, that actual performance is directly comparable to the targets set at the beginning of the year. This sometimes results in adjustments to the targets being made by the Committee (in particular to take account of events outside management's control), to ensure a like-for-like comparison. Both upward and downward adjustments can be made, with reference to principles agreed by the Committee, to ensure the outcomes are fair. – Safety KPIs comprise a significant portion of the STIP for executives, and any fatality will have a material impact on the STIP score for the relevant executives. 	<ul style="list-style-type: none"> – STIP focuses participants on achieving demanding annual performance goals, which are based on the Group's KPIs, in pursuit of the creation of sustainable shareholder value. – We demand that sustainable business practices are adhered to, particularly in the context of safety. – When reviewing the outcome of the awards under the STIP the Committee will, when evaluating overall safety, financial, Group and individual performance, consider the overall fairness against original expectations and shareholder experience. – Any discretionary adjustments for directors will be disclosed in the Implementation Report for the financial period.
Bonus Deferral Plan (BDP)	<ul style="list-style-type: none"> – Fifty per cent of the STIP is delivered in deferred shares under the BDP, with the remainder delivered in cash. 	<ul style="list-style-type: none"> – The BDP ensures ongoing alignment between executives and shareholders through deferral of 50 per cent of STIP awards into Rio Tinto shares.

Remuneration arrangements – Performance-related (At risk)

Link to Group performance and strategy

	<ul style="list-style-type: none"> – The BDP vests in the December of the third year after the end of performance year to which it relates. – The number of BDP shares which are awarded is increased by reference to the dividends paid in the deferral period before vesting. – BDP shares vest on a change of control. 	
Performance Share Plan (PSP)	<ul style="list-style-type: none"> – A new plan was approved by shareholders at the 2013 AGMs. – Awards under the new PSP have a maximum face value of 438 per cent of base salary (ignoring dividend equivalents as described below). – The awards have been calculated independently by our consultants (Towers Watson since 1 August 2013 and Deloitte LLP previously) to have an expected value of approximately 50 per cent of face value. Expected value is face value adjusted for the probability of the performance target being met. – Threshold performance, as explained in the Implementation Report, would result in the vesting of 22.5 per cent of the face value of an award. – The maximum expected value that can be awarded under the PSP is 219 per cent of base salary (ie 438 per cent x 50 per cent). The threshold value is a maximum of 98.6 per cent of base salary (ie 438 per cent x 22.5 per cent). – Actual award levels may vary for each executive and are included in the Implementation Report. – Conditional share awards vest subject to the achievement of stretching performance conditions, comparing Rio Tinto's performance against: <ul style="list-style-type: none"> – One-third: TSR relative to the HSBC Global Mining Index; – One-third: TSR relative to the Morgan Stanley Capital World Index (MSCI); and – One-third: improvement in EBIT margin relative to the global mining comparators which will be listed in the Implementation Report each year. – Each component of the award will be assessed independently. Details of the TSR and EBIT margin measures (targets and vesting schedules) will be set out in the Implementation Report each year. With respect to the EBIT margin measure, in order to ensure that outcomes are fair and that business performance has been appropriately taken into account, the Committee will consider, on a discretionary basis, any specific, significant, unusual, "below the line" items (eg impairments) reported by Rio Tinto or its peers during the performance period to ensure genuine comparability when determining any level of vesting indicated by third-party data. The application of any such discretion will be disclosed. – The outperformance required for maximum vesting under all components of the award is considered by the Committee to be very stretching. – If, but only if, vesting is achieved, participants in the PSP shall be entitled to receive a number of additional shares whose market value reflects the aggregate cash amount of dividends that would have been received had the shares which have vested at the end of the performance period been held throughout the performance period. – Awards and performance conditions can be adjusted to take account of variations of capital and other transactions. Subject to this policy, performance conditions may be amended in other circumstances if the Committee considers that a changed performance condition would be a fairer measure of performance. – If there is a change of control, awards will vest to the extent performance conditions are then satisfied. If the change of control happens during the first 36 months from the date of grant of the award, the number of shares that can vest will be reduced pro rata over that 36 months period. The Committee may, alternatively, with agreement of an acquiring company, replace awards with equivalent new awards over shares in the acquiring company. – The Committee retains the discretion, where circumstances warrant, to amend or waive performance conditions under the Plan rules. – As described under the malus and claw back provisions set out earlier in this Policy Report, the Committee retains the discretion to reduce or cancel awards before they vest (malus) or to recover the value of awards after vesting (claw back). – The Committee will seek to ensure that outcomes are fair and that they take account of the overall performance of the Company during the performance period. 	<ul style="list-style-type: none"> – The PSP incorporates a simple structure to align executive reward with shareholder returns and business strategy, to help drive performance over a long-term horizon. – Award levels are set to incentivise executives to meet the long-term strategic goals of the Group, to provide retention for the executive team and to contribute towards the competitiveness of the overall remuneration package. – TSR rewards the delivery of superior returns to shareholders over the long term. – EBIT margin improvement rewards sustained operational performance of our business and the cost-competitive operation of our mining assets, a core part of our strategy. – How performance is generated is as important as what level of performance is delivered. Before vesting, the Committee must satisfy itself that relative TSR and EBIT margin performances are an appropriate reflection of the underlying performance of the business, and can adjust vesting accordingly. – Awards will normally have a five-year performance period to provide long-term alignment with the interests of shareholders. – As a transitional measure, awards granted in 2013 will vest 50 per cent after four years and 50 per cent after five years.

The long-term incentive awards made prior to 2013, and under which payments are still intended to be made should the relevant performance conditions be satisfied, can be paid out under this policy. The details of the awards granted prior to 2013 which have yet to vest, including the details of the performance conditions, are provided in the Implementation Report.

Remuneration Report: Remuneration Policy continued

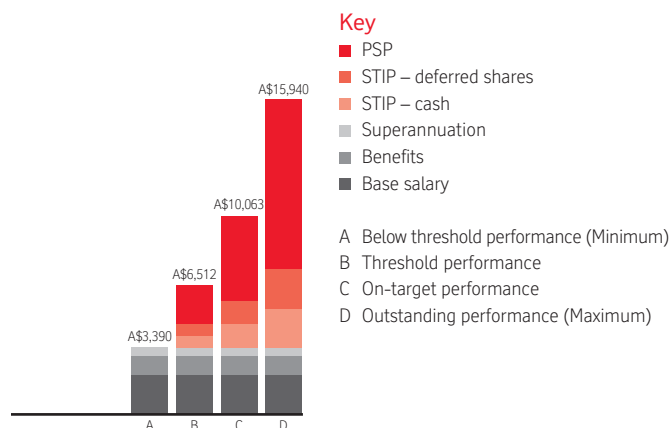
Total remuneration opportunity

The following charts provide an indication, based on 2015 remuneration and the upcoming 2015 PSP awards, of what can be achieved under the Remuneration Policy for the executive directors at below threshold (A), threshold (B), target (C) and outstanding (D) performance levels, together with the proportion of the package delivered through fixed and variable remuneration. The PSP, STIP deferred shares and STIP cash are all performance-related remuneration. UK legislation requires that these charts are given in relation to the first year in which the Remuneration Policy applies.

Sam Walsh (chief executive)

Potential value of 2015 remuneration package

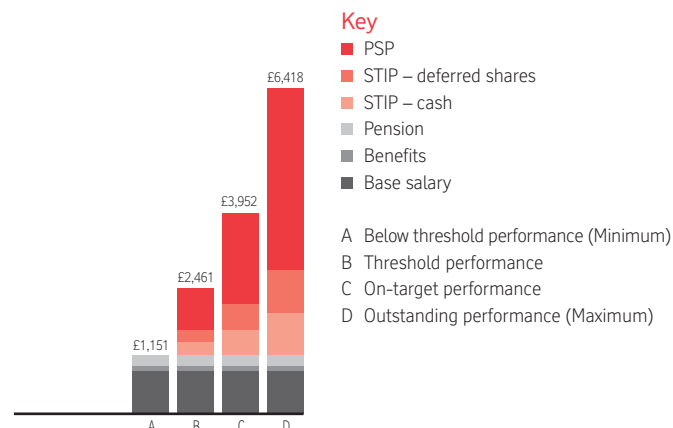
A\$'000



Chris Lynch (chief financial officer)

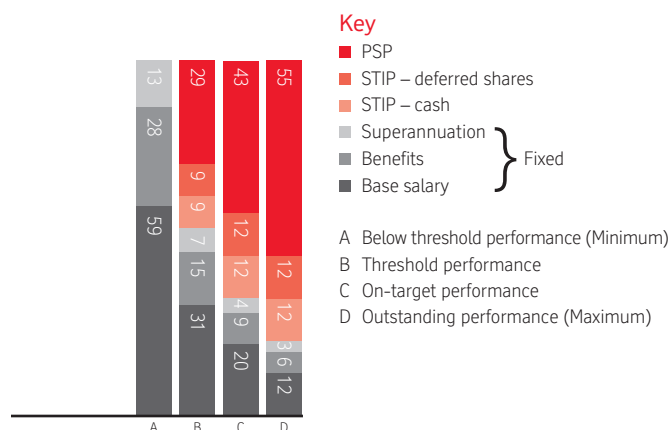
Potential value of 2015 remuneration package

£'000



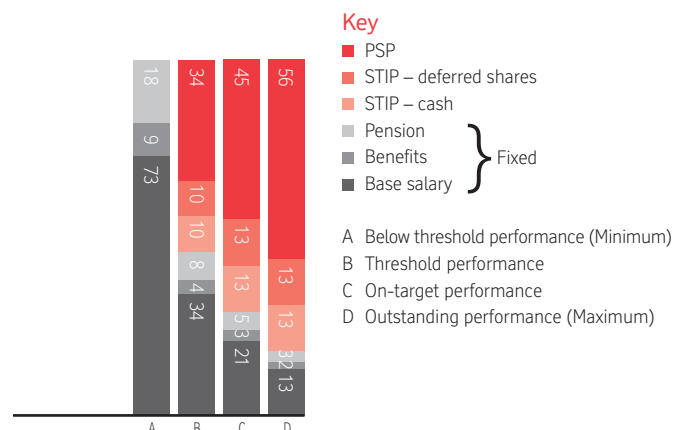
Proportion of the 2015 remuneration package value delivered through fixed and variable remuneration

%



Proportion of the 2015 remuneration package value delivered through fixed and variable remuneration

%



The following table provides the basis for the values included in the charts above:

Fixed (stated in '000) – shown as column A above	Base salary ^(a)	Superannuation or pension ^(b)	Benefits ^(c)	Total fixed
Sam Walsh	A\$1,992	A\$450	A\$948	A\$3,390
Chris Lynch	£836	£208	£107	£1,151

(a) Base salary is the latest known salary.

(b) Superannuation for Sam Walsh is measured on a basis consistent with the single figure superannuation figure as set out in the Implementation Report but assumes that Sam's accrued benefit at 31 December 2014 will receive investment earnings at the rate of six per cent. The final value for 2015 will depend on the actual investment earnings received and may therefore be significantly different.

(c) Benefits are as measured at the benefits figure in the single figure tables in the Implementation Report excluding amounts considered to be one-off in nature. One-off items for Sam in 2014 of A\$82,000 included a relocation related benefit for the removal of household goods into storage in Australia and immigration related services. Note that this number for Sam includes expatriate benefits which are not capped and are subject to exchange rate fluctuations.

Performance-related (At risk)

Threshold STIP and LTIP ^(a) performance – shown as column B above	<ul style="list-style-type: none"> – A STIP award of 50% of the target STIP opportunity, ie 60% of base salary – Threshold vesting of the PSP award at 22.5% of face value, calculated as 96.8% of base salary
Target STIP and LTIP performance – shown as column C above	<ul style="list-style-type: none"> – A STIP award of 100% of the target STIP opportunity, ie 120% of base salary – Expected value of the PSP award of 50% of face value, calculated as 215% of base salary
Outstanding STIP and LTIP performance (Maximum) – shown as column D above	<ul style="list-style-type: none"> – A maximum STIP award of 200% of base salary – Full vesting of the PSP award, calculated as 430% of base salary

(a) Long-term incentives consist of share awards only, measured at 2015 face value. This does not constitute an estimate of the value of awards that may potentially vest with respect to year end 31 December 2015. No assumption has been made for increase in share price or payment of dividends.

Context for outstanding performance

Demanding performance targets are designed to ensure that the level of remuneration is aligned with performance delivered for shareholders. Outstanding business and individual performance is required to achieve the maximum level of remuneration. This comprises:

- outstanding performance against all financial, health and safety, and individual STIP measures;
- TSR outperformance against both the HSBC and MSCI indices by six per cent per annum over five years; and
- EBIT margin improvement equal to or greater than the second ranked company in the comparator group over five years.

The intention of the Committee is that if these levels of reward are achieved by our executives then shareholders will benefit over time from superior share price performance.

Discretions

The Committee recognises the importance of ensuring that the outcomes of the Group's executive pay arrangements described in this Remuneration Policy properly reflect the Group's overall performance and the experience of its shareholders and other stakeholders over the performance period.

The Committee undertakes to owners that it will exercise discretion diligently and in a manner that is aligned with our strategy to create long-term shareholder value. Accordingly, when reviewing the operation of short and long-term incentive plans and the outcome of awards made under these plans, the Committee will, when evaluating safety, financial, Group and individual performance, consider the overall shareholder experience during the performance period in question.

It is the Committee's intention that the mechanistic outcome of performance conditions relating to awards made under such plans will routinely be subject to review to avoid outcomes which could be seen as contrary to shareholders' expectations. To the extent provided for in the terms of any performance condition or in accordance with any relevant amendment power under the plan rules, the Committee may adjust and/or set different performance measures if events occur (such as a change in strategy, a material acquisition or divestment, a change in control or unexpected event) which cause the Committee to determine that the measures are no longer appropriate or in the best interests of shareholders, and that the amendment is required so that the measures achieve their original purpose. Committee discretion should not operate as an automatic override, and it must be exercised judiciously.

To the extent that discretion is applied in any year, the Committee undertakes that this will be clearly explained and disclosed to shareholders in the Implementation Report.

Recruitment remuneration

Our approach to recruitment remuneration for executives (both external and internal) is set out below. Shareholders are reminded that the following principles are binding only in so far as they relate to the recruitment of directors.

We aim to position base salary at an appropriate level, taking into consideration a range of factors including an executive's current remuneration, experience, internal relativities, an assessment against relevant comparator groups and cost.

Other elements of remuneration will be established in line with the Remuneration Policy set out earlier in this Policy Report in the executive remuneration structure table. As such, annual variable remuneration for new appointees will comprise a maximum award of 200 per cent of base salary under the STIP and a maximum award of 438 per cent of base salary under the PSP.

In the event that an internal appointment is made, existing commitments will be honoured.

If the Committee concludes that it is necessary and appropriate to secure an appointment, relocation-related support and international mobility benefits may also be provided depending on the circumstances. Any relocation arrangements will be set out in the Implementation Report.

Any compensation provided to an executive recruited from outside the Group for the forfeiture of any award under variable remuneration arrangements entered into with a previous employer is considered separately to the establishment of forward looking annual remuneration arrangements. Our policy with respect to such "buy-outs" is to determine a reasonable level of award, on a like-for-like basis, of primarily equity-based, but also potentially cash or restricted stock, taking into consideration the quantum of forfeited awards, their performance conditions and vesting schedules. The Committee will obtain an independent external assessment of the value of awards proposed to be bought out and retains discretion, subject to the above, to make such compensation as it deems necessary and appropriate to secure the relevant executive's employment. The Committee's intention is that buy-out compensation should include, where appropriate, performance-tested equity.

No form of "golden hello" will be provided upon recruitment.

Executives' service contracts and termination^(b)

The Committee will seek to honour any commitments made in respect of termination of employment in the executive directors' service contracts predating this Remuneration Policy which are described in this section. This section also sets out Rio Tinto's policy on termination payments and notice periods. Shareholders are reminded that such policy is binding only in so far as it relates to directors.

For new appointments where the Company terminates by making a payment in lieu of notice, the Committee will for executive directors (to the extent permitted by relevant law) have regard to the executive director's ability to mitigate his loss in assessing the payment to be made.

The executive directors may have or may be offered service contracts which can be terminated by either party with up to 12 months' notice in writing, or immediately by paying the base salary only in lieu of any unexpired notice. An initial notice period of up to 24 months during the first two years of employment, reducing to up to 12 months thereafter, may sometimes be necessary to secure an external appointment. In some circumstances, it may also be appropriate to use fixed-term contracts for executive directors.

On 23 October 2014, the Company announced its intention to change the contractual notice periods for the executive directors. Subject to approval of this Remuneration Policy at the 2015 AGMs, both executive directors will transfer from their current fixed term contracts to open-ended contracts with no pre-determined end date and a 12-month notice period.

Other executives can be offered service contracts which can be terminated by the Company with up to 12 months' notice in writing, and by the employee with six months' notice in writing, or immediately by the Company by paying the base salary only in lieu of any unexpired notice.

The current contract terms of both directors and the other executives are included in the Implementation Report.

(b) Material changes to the Remuneration Policy, such as those relating to executive service contracts above, are identified in italics in this Report.

Remuneration Report: Remuneration Policy continued

Executives may be required to undertake garden leave during all or part of their notice period and may receive their contractual salary, STIP and benefits during the notice period (or the cash equivalent). Where applicable, tax equalisation and other expatriate benefits will continue in accordance with the executive's prevailing terms and conditions.

In the case of dismissal for cause, the Company can terminate employment notice. Deferred bonus shares and outstanding awards under the LTIP may be forfeited in these circumstances.

Accrued but untaken annual leave and any long service leave will be paid out on termination, in accordance with the relevant country legislation and applicable practice applying to all employees. For eligible leavers (as defined below), in Australia the value of the leave is calculated on the basis of base salary, target STIP and car allowance. No STIP is included where the executive is not an eligible leaver.

If termination is a result of redundancy, the terms of the relevant local policy may apply in the same way as for other local employees.

On termination, the Company will pay relocation or expatriation benefits as agreed on the original expatriation and/or in accordance with its applicable policies on travel and relocation. For example, Sam Walsh is provided with expatriation benefits and allowances and on termination of his employment by the Company repatriation expenses would be paid.

On termination other than for cause, the Company may make a payment in consideration for entry by the departing executive director into appropriate restrictive covenants to protect Rio Tinto and its shareholders. The amount of such payment will be determined by the Committee based on the content and duration of the covenant.

Following termination, executive directors may be eligible to exercise long-term incentives awards under the conditions described in the sections following. They and their dependants may also be eligible for post-retirement benefits such as medical and life insurance. The Company may also agree to continue certain other benefits for a period following termination where the arrangements are provided under term contracts or in accordance with the terms of the service contract, for example, payment for financial advice, tax advice and preparation of tax returns for a tax year. In some cases, they may receive a modest retirement gift.

The Company may pay such amount as it determines is reasonable to settle any claims which in the Committee's view are legitimate which the executive director may have in connection with the termination of his employment. The Company may also pay reasonable legal and other professional fees (including outplacement support) to or in respect of a director in connection with the termination of his employment. These may include legal fees incurred by him in negotiating a settlement agreement with Rio Tinto. In assessing what is reasonable, the Company will take account of prevailing rates for such advice and support and determine appropriate level of contribution based on the complexity of the issues.

Treatment of STIP and LTIP on termination

The STIP and share plan rules govern the entitlements that executive participants may have under those plans upon termination of employment.

The concept of an "eligible leaver" is defined in the relevant Plan rules. In general terms, an eligible leaver is an executive who leaves the Group by reason of ill-health, injury, disability (as determined by the executive's employer); retirement; redundancy; transfer of the undertaking in which the executive works; change of control of the executive's employing company; or death; and usually there is a discretion for the Remuneration Committee to treat an executive as an eligible leaver.

Short Term Incentive Plan (STIP)

If an eligible leaver leaves the Group during a performance year, the Committee may determine in its absolute discretion to award a pro rata portion of the STIP based on the amount of the year served and based on actual assessment of performance against targets. Any cash payment will be made at the normal STIP payment date and no portion of the award will be deferred into shares.

If an executive provides the Company notice of their resignation during the performance year, but will not leave the Group until after the end of the performance year, the Committee may determine in its absolute discretion to make an award under the STIP. In these circumstances, the executive will only be eligible to receive the cash portion of the award and will forfeit the deferred shares portion. Any cash payment will be made at the normal STIP payment date.

No STIP award will be made where an executive who is not an eligible leaver leaves the Group, resigns or is terminated for cause prior to the end of the performance year.

Bonus Deferral Plan (BDP) (2013 onwards)

For grants made to executives from and including 2013, awards will normally be retained and vest at the scheduled vesting date, save where the Committee determines otherwise. There will be no pro rata reduction of awards and any dividend equivalent shares will be calculated on the vested shares.

If the executive resigns or is dismissed for misconduct, or for any other reason that the Committee decides, the awards will lapse.

BDP (pre-2013)

For grants made to eligible leavers before 2013, awards will normally vest at the scheduled vesting date save where the Committee determines otherwise. There will be no pro rata reduction of awards and any dividend equivalent shares will be calculated on the vested shares.

If an executive leaves the Group for any other reason, awards will lapse.

For any BDP award, where required by law or regulation, and where the Remuneration Committee so decides, cash may be provided in lieu of shares.

PSP (2013 onwards)

For grants made to executives from and including 2013, awards will normally be retained, and vest at the scheduled vesting date. Unvested awards remain subject to the satisfaction of the performance conditions. Any dividend equivalent shares will be calculated on the vested shares at vesting.

If the executive leaves the Group during the first 36 months from the date of grant of the award, the number of shares that can vest will be reduced pro rata over that 36-month period.

Awards will vest immediately on death, but if an executive dies during the first 36 months from the date of grant of the award, the number of shares that can vest will be reduced pro rata over that 36-month period.

If the executive resigns or is dismissed for misconduct, or for any other reason that the Committee decides, the awards will lapse.

PSP (pre-2013)

For grants made to eligible leavers before 2013, awards will normally be retained and vest at the scheduled vesting date, although the Committee may determine that awards should vest early. Unvested awards remain subject to the satisfaction of the performance conditions.

Awards vest immediately on death. The number of shares vesting is determined on the assumption that performance conditions are met at median level or at the level to which they are actually satisfied at the date of death, if higher. If an executive leaves the Group for any other reason, awards will lapse.

For any PSP award, where permitted, and where the Remuneration Committee so decides, awards may be made in cash in lieu of shares.

Share Option Plan (SOP) (pre-2013)

For grants made to eligible leavers before 2013, awards will normally be retained. If the executive is an eligible leaver, vested awards will lapse one year from the date the executive leaves the Group and unvested awards will lapse one year from the vesting date or such longer period as permitted by the Committee. At the date of this report there are no awards under the SOP which remain subject to the satisfaction of performance conditions.

Awards vest in full on death.

If an executive leaves the Group for any other reason, unvested awards and vested awards that have not been exercised will lapse.

Management Share Plan (MSP)

Awards under the MSP are only made to executives prior to their appointment as an Executive Committee member. All retained awards will be reduced pro rata to reflect the proportion of the period between the date of grant of the award and the normal vesting date which has not elapsed at the time employment ceased. Any dividend equivalent shares or cash equivalent will be calculated on the vested shares. Awards vest on death, subject to the pro rata reduction described above.

For grants made to executives from and including 2013, awards will normally be retained, and vest, at the Committee's discretion, at the scheduled vesting date (although awards of US taxpayers may vest on leaving).

If the executive resigns or is dismissed for misconduct, or for any other reason that the Committee decides, the awards will lapse.

All MSP awards granted prior to 2013 have vested.

Chairman and non-executive directors' remuneration

Chairman

It is Rio Tinto's policy that the chairman should be remunerated on a competitive basis and at a level which reflects his contribution to the Group, as assessed by the board.

The Committee determines the terms of service, including remuneration, of the chairman. The chairman's fees are set by the Committee. The chairman has no part in the setting of his fees and is not present at any discussion at the Committee about his fees.

The chairman receives a fixed annual fee and does not receive any additional fee or allowance either for committee membership or chairmanship, or for travel. The chairman does not participate in the Group's incentive plans.

The chairman is provided with a car and driver. Any use for transport between home and the office and other personal travel is a taxable benefit to the chairman, and the Company pays any tax arising on the chairman's behalf. The chairman pays a fixed annual fee to the Company for the personal travel element.

Other benefits provided include private healthcare cover, accident insurance (note this is neither contractual nor a taxable benefit), other minor benefits (including modest retirement gifts in applicable circumstances), occasional spouse travel in support of the business and any Rio Tinto business expenses which are deemed to be taxable where the Company has paid the tax on his behalf. Rio Tinto does not pay retirement or post-employment benefits to the chairman.

Non-executive directors

Fees paid to non-executive directors reflect their respective duties and responsibilities and the time required to be spent by them so as to make a meaningful and effective contribution to the affairs of Rio Tinto.

The non-executive directors' fees and other terms are set by the board upon the recommendation of the Chairman's Committee (which comprises the chairman, chief executive and chief financial officer).

Non-executive directors receive a fixed annual fee comprising a base fee, committee membership or committee chairmanship fee or senior independent director fee, as applicable, and allowances for attending meetings which involve medium or long-distance air travel. They do not participate in any of the Group's incentive plans.

Where the payment of statutory minimum superannuation contributions for Australian non-executive directors is required by Australian superannuation law, these contributions are deducted from the director's overall fee entitlements.

Non-executive directors may on occasion receive reimbursement for costs incurred in relation to the provision of professional advice. These payments, if made, are taxable benefits to the non-executive directors and the tax arising is paid by the Company on the director's behalf.

Other benefits provided include accident insurance (note this is neither contractual nor a taxable benefit), other minor benefits (including modest retirement gifts in applicable circumstances), occasional spouse travel in support of the business and any Rio Tinto business expenses which are deemed to be taxable where the Company has paid the tax on their behalf. Rio Tinto does not pay retirement or post-employment benefits to non-executive directors.

Appointment

The appointment of non-executive directors (including the chairman) is handled through the Nominations Committee and board processes. The current fee levels are set out in the Implementation Report.

Details of each element of remuneration paid to the chairman and non-executive directors are set out in the Implementation Report in table 1b on page 94.

The chairman's letter of appointment from the Company stipulates his duties as chairman of the Group. His appointment may be terminated without liability on the part of Rio Tinto in accordance with the Group's constitutional documents dealing with retirement, disqualification from office or other vacation from office. Otherwise, his appointment may be terminated by giving 12 months' notice. There are no provisions for compensation payable on termination of his appointment, other than if his appointment as chairman is terminated by reason of his removal as a director pursuant to a resolution of shareholders in general meeting in which case the Company shall be liable to pay any fees accrued to the date of any such removal.

The non-executive directors' letters of appointment from the Company stipulate their duties and responsibilities as directors. Each non-executive director is appointed subject to their election and annual re-election by shareholders. Non-executive directors' appointments may be terminated by giving three months' notice. There are no provisions for compensation payable on termination of their appointment. The letters of appointment are available for inspection at Rio Tinto plc's registered office, and at its annual general meeting.

In accordance with the provisions of the Group's constitutional documents, the maximum aggregate fees payable to the non-executive directors (including the chairman) in respect of any year, including fees received by the non-executive directors for serving on any committee of the boards, and any travel allowances received by the non-executive directors for attending meetings, will not exceed £3,000,000. Non-monetary benefits are not included in this limit.

Remuneration Report: Implementation Report

Implementation Report introduction

This Implementation Report is presented to shareholders for approval at the AGMs. It outlines how our Remuneration Policy was implemented in 2014 and how it is intended to be operated in 2015.

Remuneration for executives, set out in the single total figure of remuneration tables on pages 86 and 87, is shown gross of tax and in the relevant currency of award or payment. The information reported for executives in table 1a on pages 92 and 93 is reported in accordance with Australian statutory disclosure requirements and is shown gross of tax and in US dollars. Where applicable, amounts have been converted using the relevant average exchange rates included in the notes to table 3 on page 92^(a).

In addition to executive remuneration, this report covers the remuneration of the chairman and the non-executive directors in table 1b on page 94. All figures are shown gross of tax and in US dollars.

Remuneration Committee responsibilities

The Committee's responsibilities are set out in its terms of reference which are available in the corporate governance section of the Rio Tinto website. The responsibilities of the Committee include:

- determining the Group's remuneration structure and policies, and assessing their cost, including pension and superannuation arrangements for executives;
- determining the mix and use of short and long-term incentive plans for executives;
- overseeing the operation of the Group's short and long-term incentive plans as they relate to executives, including the approval of awards, the setting of performance criteria, where applicable, and the determination of any vesting;
- determining contractual notice periods and termination commitments and setting any retention and termination arrangements for executives;
- determining awards under the Group's all-employee share plans; and
- determining the terms of service upon appointment and any subsequent changes for the chairman and executives.

The Committee considers the level of pay and conditions throughout the Group when determining executive remuneration and ensures that the same principles are used when designing the broader employee remuneration policies.

The members of the Committee are John Varley (chairman), Jan du Plessis, Michael Fitzpatrick, Richard Goodmanson and Paul Tellier.

The membership and meeting attendances are detailed in the corporate governance section on page 59. The Committee is supported by executives and members of senior management who attend meetings to provide information as requested by the Committee. These included Sam Walsh (chief executive), Hugo Bague (Group executive, Organisational Resources), John Beadle (global head, Performance and Reward) and Eleanor Evans (company secretary). None of the attendees mentioned above was present when matters associated with their own remuneration were considered by the Committee.

Independent advisers

The independent advisers engaged by the Committee during 2014 were Towers Watson. Towers Watson reports to the Committee and not to management.

To ensure that "remuneration recommendations" (being advice relating to the elements of remuneration for key management personnel, as defined under the Australian Corporations Act) were made free from undue influence by key management personnel to whom they may relate, the Committee established a protocol for the engagement of and interaction with remuneration consultants and has monitored compliance with its requirements throughout 2014. Declarations were given by Towers Watson to the effect that its remuneration recommendations were made free from undue influence by key management personnel to whom they related. The board has received assurance from the Committee and is therefore satisfied that the remuneration recommendations received from Towers Watson were made free from undue influence.

Towers Watson is a member of the Remuneration Consultants' Group and, as such, voluntarily operates under the Code of Conduct (the Code) in relation to executive remuneration consulting in the UK. The Code is based upon principles of transparency, integrity, objectivity, competence, due care and confidentiality. Towers Watson has confirmed that it adhered to the Code throughout 2014 for all remuneration services provided to Rio Tinto. The Code is available online at remunerationconsultantsgroup.com.

Towers Watson is the only remuneration consultant which provided remuneration recommendations to the Committee during 2014. The Committee is content that Towers Watson, in providing remuneration advice to the Committee, did not have any connections with Rio Tinto that impaired its independence.

During 2014, as part of its engagement, Towers Watson provided remuneration recommendations to the Committee. Its services included Committee meeting attendance and advice in relation to management proposals. Towers Watson was paid US\$349,905 for these services.

Towers Watson provided general and technical executive remuneration services. These services included the provision of benchmarking data, the giving of advice about remuneration of employees other than key management personnel across the Group, and advice in relation to preparation of the 2014 Remuneration Report. Towers Watson was paid US\$147,547 for these services.

Other services and publications were received from a range of advisers in relation to remuneration data.

(a) UK and Australian remuneration figures are generally not comparable due to the different methodologies required to calculate various parts of the remuneration packages, most notably LTIP arrangements and the value of pension or superannuation.

How the Committee spent its time in 2014

During 2014, the Committee met nine times. It fulfilled its responsibilities as set out in its terms of reference.

In particular, its work in 2014 and in the early part of 2015 has included:

- reviewing and determining any base salary adjustments for executives;
- reviewing and determining threshold, target and outstanding performance targets for the 2014 STIP;
- reviewing actual performance against the targets for the 2014 STIP and assessing applicable adjustments;
- reviewing and determining the outcomes for LTIP awards vesting at the end of 2014;
- reviewing and determining LTIP grants for the executives in 2015;
- reviewing the proposed change to the notice periods in the service contracts for the chief executive (Sam Walsh) and the chief financial officer (Chris Lynch);
- reviewing and determining the terms of appointment for the new chief executive, Aluminium group (Alfredo Barrios);
- determining the terms of departure for the outgoing chief executive, Aluminium group (Jacynthe Côté);
- reviewing the annual reports on the Group's global benefit plans;
- reviewing progress towards compliance with the Group's share ownership requirements;
- an initial review of 2015 STIP targets; and
- preparing the Remuneration Report (including this Implementation Report).

The performance targets under the LTIP and the Company's approach to establishing the performance targets under the STIP are detailed in the executive remuneration structure table on pages 67 to 69. The Committee's approach to the commercial sensitivity of certain targets is discussed below.

Performance review process for executives

Rio Tinto conducts an annual performance review process for all of its executives. In the case of members of the Executive Committee, the chief executive conducts the review. In the case of the chief executive, his performance is assessed by the chairman of the board.

The key objectives of the performance review process are to:

- improve organisational effectiveness by creating alignment between the executive's objectives and Rio Tinto's strategy; and
- provide a consistent, transparent and balanced approach to measure, recognise and reward executive performance.

All such reviews took place in 2014 or early 2015.

Share ownership policy for executives

The Group recognises the importance of aligning executives' interests with those of shareholders and they are therefore expected to build up and maintain a meaningful shareholding. The Committee intends that executives should aim to reach a share ownership (defined below) in Rio Tinto shares equivalent in value to:

	Share ownership requirement
Chief executive	4 x base salary
Other executives	3 x base salary

The Committee expects that this shareholding will be built up over a five-year period by holding shares and share options that vest under the LTIPs. For new hires, longer periods may be accepted, given the five-year vesting periods for the PSP.

Shares will be treated as "owned" if they are not subject to restriction, and as such include shares directly held by the executive and any shares where there is a beneficial interest. A beneficial interest includes any shares where the executive receives the benefit of ownership (such as a right to receive dividends) without directly owning the shares. A value for vested, but unexercised, share options is included, with a 50 per cent discount for the likely effects of taxation, on the basis that executives with unexercised vested options have a strong financial alignment with the share price and therefore with shareholder interests.

Shareholding requirements also exist for senior management below the Executive Committee.

Details of executives' beneficial interests in Rio Tinto shares are set out in table 2 on page 95 and the details of awards of shares and options under long-term incentive plans are set out in table 3 on pages 96 to 100.

Executives' external and other appointments

Executives may be invited to become non-executive directors of other companies. It is Rio Tinto's policy that such appointments can broaden the experience and knowledge of executives, to the benefit of the Group. This policy limits each executive's external appointment to one FTSE100 company directorship or equivalent. Consequently, where there is no likelihood that such an appointment will give rise to a conflict of interest, the board will normally provide consent to the appointment. The executive is typically permitted to retain any fees earned.

Details of all executives' external appointments can be found on pages 49 to 52.

Performance and impact on 2014 STIP

Group financial and safety measures are included in the STIP for executive directors and Group executives. The STIP measures for the product group chief executive officers (PGCEOs) include product group financial and safety measures in addition to the Group financial measures.

Safety measures for all executives in 2014 were split equally between all injury frequency rate (AIFR) and lost time injuries (LTIs). The safety of our people is core to everything we do. Our goal is zero harm, including, above all, the elimination of workplace fatalities. We are committed to reinforcing our strong safety culture, and improving safety leadership.

The Committee selected the current financial measures of underlying earnings and free cash flow because they are KPIs used in managing the business. Underlying earnings is the key financial performance indicator used across the Group. It gives insight into cost management, production growth and performance efficiency. We are focused on aggressively reducing our costs and increasing productivity to improve earnings and deliver greater value for shareholders. Operating free cash flow is a complementary measure to underlying earnings. It also provides insight into how we are managing costs and increasing efficiency and productivity across the business. In measuring financial performance against the annual plan, half is measured against the original plan, and half is “flexed” to exclude the impact of uncontrollable fluctuations in exchange rates, quoted metal and other prices. Earnings and free cash flow results are therefore compared against equally weighted “flexed” and “unflexed” targets.

The aggregate scores for Group safety and financial measures are set out in the table below. The outcomes for the executive directors, with commentary on key highlights on performance against individual objectives, are provided on pages 83 and 85. Additional details for other executives are provided on page 87.

Group measures	Weight (%)	Score (out of 200%)	Weighted score
Group safety ^(a)	20.0	138	27.6
Underlying earnings	12.5	81	10.0
Underlying earnings – “flexed”	12.5	133	16.5
Free cash flow	12.5	200	25.0
Free cash flow – “flexed”	12.5	200	25.0
Group financial	50.0	153	76.5
Safety and financial measures ^(b)	70.0	148.7	104.1
Individual measures ^(c)	30.0	–	–
Total ^(c)	100.0	–	–

(a) This excludes the impact of adjustments for fatalities in 2014 which vary by executive.

(b) The weighted score represents the total Group safety and financial measures score (out of a maximum of 200 per cent) weighted based on the total STIP opportunity of 70 per cent allocated to the safety and financial measures. This excludes the impact of adjustments for fatalities in 2014 which vary by executive.

(c) The outcomes against individual measures and the total score (out of 200 per cent) for executives are included in the following pages.

Safety performance

Regrettably, we did not meet our goal of zero fatalities in 2014. Two people lost their lives while working at Rio Tinto managed operations. The fatalities were caused by a train derailment due to a landslide at Iron Ore Company of Canada, and an equipment incident during maintenance activities at the Gove alumina refinery in Australia.

Our commitment to safety is the foundation of how we operate, as we work to achieve our vision of everyone going home safe and healthy after each working day. We believe we can prevent fatalities, injuries and illness by effectively identifying and controlling risks in our business. We have a long history of good safety performance and strive to improve on this year-on-year. In 2014, we updated our safety strategy to confirm our focus on injury reduction and strengthen our emphasis on fatality elimination and catastrophic event prevention. This helps us drive effective risk management, identify critical risks, verify that we have the necessary controls in place and provide our people with appropriate training.

The Remuneration Committee sought guidance from the Sustainability Committee on safety performance for 2014, as per our normal procedures. Both committees noted the continued improvement in AIFR, with the Group’s AIFR reducing from 0.65 in 2013 to an all-time low of 0.59 in 2014. This bettered the Group target for 2014 of 0.61, but fell below the level of 0.51 which would have represented “outstanding”.

There were 381 lost time injuries in 2014 compared to 500 in 2013. This bettered the Group target of 407 lost time injuries, but fell below the level of 361 lost time injuries which would have represented “outstanding”.

The combined performance meant that the overall Group result for safety was between target and outstanding, with differentiated levels of safety performance across the product groups. The total safety score for the Group was 138 per cent (out of a maximum of 200 per cent). Reductions have been applied as required for executives where a fatality has occurred.

Group financial performance

Highlights of 2014 include:

- Achieved US\$1.5 billion of sustainable operating cash cost improvements and exploration and evaluation savings in 2014, contributing to a total of US\$4.8 billion since 2012.
- Set production records for iron ore and Hunter Valley thermal coal, and delivered a strong operational performance in bauxite, copper and aluminium.
- Reduced capital expenditure by US\$4.8 billion to US\$8.2 billion in 2014, reflecting completion of existing major projects and continued capital discipline.
- Decreased net debt by US\$5.6 billion in 2014 to US\$12.5 billion at 31 December 2014, with gearing of 19 per cent. This compares with US\$18.1 billion and 25 per cent gearing at 31 December 2013.
- Achieved underlying earnings of US\$9.3 billion, nine per cent lower than 2013 despite the US\$4.1 billion (post-tax) impact of lower prices.

Additional details on our progress against strategy are provided on pages 8 to 10.

The Group exceeded the earnings and cash flow targets set by the board, and this is reflected in the financial component of the STIP awards both at the Group and product group level.

The Group's underlying earnings and free cash flow generated from operating activities for 2014 were US\$9.3 billion and US\$6.9 billion respectively, against targets of US\$10.5 billion and US\$3.0 billion respectively. The "flexed" earnings and free cash flow targets (which take into account the impact of uncontrollable fluctuations in exchange rates, quoted metal and other prices) were US\$8.1 billion and US\$(1.3) billion respectively.

The Committee seeks to ensure, in making its year end determination of STIP awards, that actual performance is directly comparable to the targets set at the beginning of the year. This resulted in the Committee making adjustments to the targets to take account of events outside management's control and to ensure a like-for-like comparison. Both upward and downward adjustments were made to the targets by reference to principles agreed by the Committee, which have been consistently applied over several years, to ensure the outcomes are fair.

The Group's performance against the financial targets was 153 per cent (out of a maximum of 200 per cent). This comprised an "unflexed" earnings result of close to target, a "flexed" earnings result above target, and "outstanding" free cash flow results on both a "flexed" and "unflexed" basis.

STIP individual measures for 2014

Individual measures were set by the chairman for the chief executive and by the chief executive for other executives based on the following categories:

1. Business transformation
2. Cost reduction
3. Performance delivery
4. Leadership and engagement

Details of the outcomes against the individual measures are provided in the following pages.

Performance and impact on LTIP vesting outcome for the period ended 31 December 2014

The performance shares under the PSP awarded in 2011 had a four-year performance period that ended on 31 December 2014. Conditional share awards vest subject to the TSR performance condition which compares Rio Tinto's TSR against the HSBC Global Mining Index and the Morgan Stanley Capital World Index (MSCI). Both indices are weighted equally.

Rio Tinto outperformed the HSBC Global Mining Index by 7.8 per cent per annum compared to the level of outperformance required for maximum vesting against this index of eight per cent per annum. The vesting outcome against this index was therefore 147 per cent compared to the maximum of 150 per cent. The level of vesting against the MSCI was nil as Rio Tinto underperformed this index.

This award therefore has a vesting of 73.5 per cent of face value (49 per cent of maximum).

Share options under the SOP granted in 2012 had a performance period that ended on 31 December 2014.

Options vest subject to the TSR performance condition which compares Rio Tinto's TSR against the HSBC Global Mining Index. Rio Tinto outperformed the index by 30.3 per cent during the performance period, compared to the level of outperformance required for full vesting of 15.8 per cent.

This award therefore had a vesting of 100 per cent of face value. The exercise price for Rio Tinto plc options granted in 2012 is £35.179. There were no options granted over Rio Tinto Limited shares in 2012 to any Executive Committee members. Options can be exercised from 19 March 2015 until 19 March 2022.

The Committee considered the Group's overall performance in the context of the LTIP awards that were due to vest at the end of 2014 and concluded that the vesting of awards based upon the achievement of the TSR measures set by shareholders was justified.

Further details of the LTIP outcomes for the period ended 31 December 2014 and in prior years are provided on pages 89 and 90.

Sam Walsh (chief executive)

Single total figure of remuneration

The table below provides a summary of actual remuneration in respect of 2014 and prior years in accordance with UK legislation, stated in Australian dollars, the currency of Sam Walsh's arrangements. This is in addition to the Australian statutory disclosure requirements set out in US dollars in table 1a on pages 92 and 93. The remuneration details set out in table 1a include theoretical accounting values relating to various parts of the remuneration packages, most notably LTIP arrangements, and require a different methodology for calculating the superannuation value. Accordingly, the figures below are not directly comparable with those in table 1a.

(stated in A\$'000)	2014	2013	2012
Base salary paid ^(a)	1,940	1,889	1,643
STIP payment – cash	1,721	1,371	1,075
STIP payment – deferred shares ^(b)	1,721	1,370	1,075
Total short-term pay	5,382	4,630	3,793
Value of LTIP awards vesting ^(c)	3,161	3,121	2,225
Superannuation ^(d)	841	1,322	745
Other benefits ^(e)	1,030	997	232
Single total figure of remuneration	10,414	10,070	6,995
Percentage change in total remuneration (2014 versus 2013; 2013 versus 2012)	3.4%	44.0%	–
Percentage of total remuneration provided as performance-related pay (STIP and LTIP)	63.4%	58.2%	62.5%
Percentage of total remuneration provided as non-performance-related pay (base salary, pension and other benefits)	36.6%	41.8%	37.5%
Percentage of maximum STIP awarded ^(f)	88.4%	72.1%	65.0%
Percentage of maximum STIP forfeited	11.6%	27.9%	35.0%
Percentage of target STIP awarded	147.3%	120.2%	108.3%
Percentage of PSP award vesting	73.5%	75%	92.5%
Percentage SOP award vesting	–	–	100%

(a) Salary paid in the financial year to 31 December. Salaries are reviewed with effect from 1 March. The salary and single figure of remuneration for 2012 relates to Sam's position as PGCEO, Iron Ore.

(b) Value of STIP deferred under the BDP.

(c) Based on the value of the LTIP awards which vested in respect of the performance period that ended 31 December. The Rio Tinto Ltd share price used to calculate the value of the award vesting on 16 February 2015 of A\$63.55 was sourced from Investis Ltd. The performance conditions for awards vesting for the period ending 31 December 2014 are detailed in the notes to table 3 on pages 96 to 100.

(d) Superannuation reflects the value of the superannuation accrued during the year assuming that it was to come into payment immediately. This differs from the value reported in table 1a which is calculated using an IAS19 methodology and assumptions on rates of investment return, inflation and salary increases.

(e) Includes international assignment benefits of A\$810,000 for 2014 (2013: A\$786,000), allowance for professional tax services, car allowance, Company provided transport, other contractual payments or benefits and for 2012, activities in relation to Rio Tinto's sponsorship of the medals for the 2012 London Olympics.

(f) The maximum potential STIP award is 200 per cent of base salary.

Remuneration Report: Implementation Report continued

Base salary

The Committee has increased Sam's base salary by 2.3 per cent with effect from 1 March 2015, consistent with the salary budget for other Australian contracted employees in the Group.

	2015	2014	% change
Base salary (stated in A\$'000)	1,992	1,948	2.3

STIP individual objectives for 2014

Sam's performance against his individual objectives is summarised below:

Category	Performance
Business transformation	<ul style="list-style-type: none"> Continued delivery of the transformation programme at multiple levels. Established a strong platform to engage with all leaders and employees, and drive transformation and cultural change. Increased discipline in capital management and prioritisation, focus on costs and continued delivery of record production output. Strengthened key governance models, such as the investment and evaluation committees.
Capital and cost reductions	<ul style="list-style-type: none"> Reduced capital expenditure by US\$4.8 billion to US\$8.2 billion in 2014. Achieved working capital improvements of US\$1.5 billion principally from lower inventories and lower receivables. Achieved US\$1.5 billion of sustainable operating cash cost improvements and exploration and evaluation savings in 2014, contributing to a total of US\$4.8 billion since 2012.
Performance delivery	<ul style="list-style-type: none"> Delivered good results from the Aluminium business, having taken a more aggressive transformation approach. Executed the curtailment of the Gove refinery in an effective and responsible manner. Delivered value and optionality through the Pilbara expansion programme. Finalised the Simandou investment framework and the Ebola outbreak has been well managed.
Leadership and engagement	<ul style="list-style-type: none"> Engaged with a wide range of key stakeholders. Increased level of engagement with investors and interactions with key government leaders at many levels. Continued to strengthen the Executive Committee.

The Committee, with input from the chairman of the board, assessed Sam's performance against his individual objectives as 190 per cent (out of 200 per cent) for his individual contribution to the business during the year.

STIP outcomes for 2014

The following table summarises the STIP outcomes for 2014.

Measures	Weight (%)	Score (out of 200%)	Weighted score
Safety ^(a)	20	69.0	13.8
Group financial ^(a)	50	153.0	76.5
Safety and financial	70	129.0	90.3
Individual	30	190.0	57.0
Total (% of target out of 200%)	100	–	147.3

(a) Refer to page 76 for further details of Group safety and financial performance. The Group safety score of 138 per cent has been reduced by 50 per cent to 69 per cent for the impact of fatalities in 2014.

As a result, Sam received a STIP award of 147.3 per cent of target, equivalent to 176.8 per cent of base salary, 50 per cent to be delivered in cash in March 2015, and the remainder to be delivered in deferred shares, vesting in December 2017.

LTIP outcome for the period ended 31 December 2014

Sam received 45,387 shares in Rio Tinto Limited on 16 February 2015 from the vesting of the PSP awarded in 2011. He also received a cash payment of A\$277,051 equal to the aggregate net dividends that would have been paid on the shares that vested had he owned them during that four-year period. No dividends were paid in respect of the shares that lapsed.

In 2012, Sam elected to receive his full LTIP award under the PSP and as a result he has no options under the SOP that were granted in 2012 and which had a performance period that ended on 31 December 2014.

Further details of the awards vesting in 2015 and in prior years are provided on page 89 and in table 3 on page 97.

LTIP award granted in 2014

The details of Sam's 2014 LTIP award are summarised in the following table.

Type of award	Grant date	Face value of award (% of base salary)	Face value of award (A\$'000) ^(a)	% vesting at threshold performance	End of the performance period over which the performance conditions have to be fulfilled ^{(b)(c)}
PSP	17 March 2014	420%	8,180	22.5%	31 Dec 2018

(a) The face value represents the maximum value of the award and resulted in an award of 134,026 conditional shares based on the average share price over 2013 of A\$61.029. The expected value of the award is 50 per cent of the face value or A\$4,090,000.

(b) The 2014 PSP award may vest after five years in 2019.

(c) The full performance conditions for the award are set out in detail in table 3 on page 100.

LTIP award for 2015

Sam's PSP award in 2015 will have a face value of 430 per cent of base salary and an expected value of 215 per cent of base salary. The award may vest after five years in 2020, subject to the Group's relative TSR and relative EBIT margin performance. The performance conditions for the award are unchanged from 2014 and the full performance conditions are set out in detail on page 83. As with other participants, Sam's award in 2015 may be subject to pro-rating depending on the date of his retirement from Rio Tinto.

Shareholding

Sam's shareholding for the purposes of the share ownership policy, calculated using the market price of Rio Tinto shares on the latest practicable date each year before the date of publication of this report was:

	31 December 2014	31 December 2013	Increase in shareholding/ value of options
Holding of ordinary shares	146,993	94,444	55.6%
Value of vested but unexercised options ('000)	A\$809	A\$1,073	(24.6%)
Multiple of base salary	5.2	4.0	1.2

The value of vested but unexercised options is calculated based on the share price as at the relevant date in February each year less the exercise price and with a 50 per cent discount for the effects of taxation.

Superannuation

Sam is provided with superannuation through an employer funded plan as provided to Australian-based employees.

In line with Australian-based employees with defined benefit provision who remain in service beyond age 62, Sam's benefit is calculated as the greater of:

- (a) 20 per cent of base salary, averaged over three years, for each year of service and proportionate month with the Company to date of retirement; or
- (b) (i) his accrued benefit at age 62 of 4.05 times final base salary; plus
(ii) Company contributions required under Australian legislation sufficient to meet the maximum contribution base as detailed within the Superannuation Guarantee legislation, being at the rate of 9.25 per cent for the period 1 January to 30 June 2014 and 9.5 per cent for the period 1 July to 31 December 2014, less tax; plus
(iii) investment earnings at the rate the trustee of the superannuation fund may determine from time to time for the period from age 62 to the date of retirement.

In line with typical market practice in Australia, Sam continues to receive an additional Company contribution on a defined contribution basis of 20 per cent of the lesser of:

- (a) 50 per cent of the annual STIP award; or
- (b) 20 per cent of base salary.

This benefit can be taken without employer or trustee consent and without actuarial reduction on cessation of employment on or after age 62.

The accrued lump sum benefit as at 31 December 2014 was A\$9,496,489 (31 December 2013: A\$8,454,000). The accrued lump sum benefit as at 31 December 2014 calculated by reference to Sam's base salary as set out in (a) above was A\$8,235,215 (31 December 2013: A\$7,811,427). The additional Company contribution on a defined contribution basis for 2014 was A\$75,999 (2013: A\$66,000). Sam elected to take the defined contribution element as a cash amount less any applicable withholdings.

Fees received from external appointments

Sam received no fees from external appointments in 2014. In 2013 Sam received A\$27,282 in respect of his position as a non-executive director of Seven West Media Limited from which he stood down in January 2013.

Service contract

Positions held and date of appointment to position

Position held during 2014	Date of appointment to position
Chief executive	17 January 2013

It is intended that Sam will transfer to a rolling contract which can be terminated by either party with 12 months' notice in writing, or immediately by paying the base salary only in lieu of any unexpired notice. His initial contract

was due to end on 31 December 2015 with a break clause from 31 October 2014. Subject to shareholder approval of the Remuneration Policy at Rio Tinto's AGMs in 2015, the revised contract terms will come into effect immediately thereafter.

Other

Sam receives a housing allowance and other assignment benefits during his secondment to London. His remuneration is not subject to tax equalisation or cost of living adjustments, both of which are standard provisions for other international assignees in the Group. The amounts are included in note (e) under the single total figure of remuneration table on page 77.

Sam will be eligible to receive the value of unused annual leave and long service leave at the conclusion of his employment in accordance with Australian legislation and applicable practice applying to all employees in Australia; the value of this leave as at 16 February 2015 was A\$1,139,000 and A\$1,703,000 respectively.

Chief executive's pay and employee pay

The table below compares the changes from 2013 to 2014, in salary, benefits and annual incentives paid for the chief executive and the Australian workforce. We chose the comparison to the Australian workforce because it is the country where approximately 40 per cent of the total workforce is based. This comparator group has been selected due to the availability of comparative data and to remove the impacts of year-on-year exchange rate fluctuations. The underlying elements of the chief executive's pay are based on the values reported in the single total figure of remuneration table.

The chief executive's base salary was increased by 2.5 per cent with effect from 1 March 2014. The increase in annual incentive paid for the chief executive reflects a higher base salary in 2013 resulting from his appointment as chief executive in January 2013, and net higher overall safety, financial and individual performance in 2013 compared to 2012.

	Percentage change in salary paid	Percentage change in other benefits paid	Percentage change in annual incentive paid ^(b)
Chief executive	2.7%	3.3%	27.5%
Australian workforce ^(a)	3.3%	2.8%	10.5%

- (a) The percentage change in each element of remuneration for the workforce is calculated on a per capita basis using average employee numbers.
- (b) The percentage change in annual incentive compares amounts paid in 2014 with respect to the 2013 performance year, to amounts paid in 2013 with respect to the 2012 performance year. Annual incentives for the workforce comprise a number of different short-term incentive arrangements.

Chris Lynch (chief financial officer)

Single total figure of remuneration

The table below provides a summary of actual remuneration in respect of 2014 and the prior year in accordance with UK legislation, stated in pounds sterling, the currency of Chris's arrangements. This is in addition to the Australian statutory disclosure requirements set out in US dollars in tables 1a and 1b on pages 92 to 93. The remuneration details for 2014 set out in table 1a include theoretical accounting values relating to various parts of the remuneration packages, most notably LTIP arrangements, and require a different methodology for calculating the pension value. Accordingly, the figures below are not directly comparable with those in table 1a.

Remuneration for 2013 is split for the period Chris was a non-executive director up until 28 February 2013 and for the period from 1 March 2013 (the day he became an executive director) to 31 December 2013.

(stated in £'000)	2014	2013 (1 Mar to 31 Dec)	2013 (1 Jan to 28 Feb)
Base salary paid/fees ^(a)	817	667	35
STIP payment – cash ^(a)	746	457	–
STIP payment – deferred shares ^(b)	746	456	–
Total short-term pay	2,309	1,580	35
Value of LTIP awards vesting ^(c)	0	0	–
Pension ^(d)	204	167	–
Other benefits ^(e)	107	941	–
Single total figure of remuneration	2,620	2,688	35
Percentage change in total remuneration (2014 versus 2013)	(3.8%)	–	–
Percentage of total remuneration provided as performance-related pay (STIP and LTIP)	56.9%	34.0%	–
Percentage of total remuneration provided as non-performance-related pay (base salary/fees, pension and other benefits)	43.1%	66.0%	100%
Percentage of maximum STIP awarded ^(f)	91.0%	68.1%	–
Percentage of maximum STIP forfeited	9.0%	31.9%	–
Percentage of target STIP awarded	151.7%	113.5%	–
Percentage of PSP award vesting ^(c)	–	–	–
Percentage SOP award vesting ^(c)	–	–	–

(a) Salary/fees paid in the financial year to 31 December. Salaries are reviewed with effect from 1 March.

(b) Value of STIP deferred under the BDP.

(c) Chris had no LTIP awards vest in respect of the performance period that ended 31 December 2014 as he received no LTIP awards prior to the award made in 2013.

(d) Pension reflects the value of the pension contribution and payment in lieu of pension paid during the year.

(e) Includes healthcare, allowance for professional tax services and car allowance. 2013 includes one-off costs of £896,000 associated with Chris's relocation from Melbourne, Australia to London.

(f) The maximum potential STIP award is 200 per cent of base salary.

Base salary

The Committee has increased Chris's base salary by 2.0 per cent with effect from 1 March 2015, consistent with the salary budget for other UK contracted employees in the Group.

	2015	2014	% change
Base salary (stated in £'000)	836	820	2.0

STIP individual objectives for 2014

Chris's performance against his individual objectives is summarised below:

Category	Performance
Business transformation	<ul style="list-style-type: none"> Increased discipline in capital management and prioritisation and focus on costs. Strengthened key governance models, such as the Investment and Evaluation Committees.
Capital and cost reductions	<ul style="list-style-type: none"> Reduced capital expenditure by US\$4.8 billion to US\$8.2 billion in 2014. Achieved working capital improvements of US\$1.5 billion principally from lower inventories and lower receivables. Achieved US\$1.5 billion of sustainable operating cash cost improvements and exploration and evaluation savings in 2014, contributing to a total of US\$4.8 billion since 2012. Decreased net debt by US\$5.6 billion in 2014 to US\$12.5 billion at 31 December 2014.
Performance delivery	<ul style="list-style-type: none"> Actively contributed to the Investment Committee, Evaluation Committee, Plan Review Committee, Executive Committee and the board.
Leadership and engagement	<ul style="list-style-type: none"> Made new appointments within finance leadership team. Increased level of engagement with investors.

The Committee, with input from the chief executive, assessed Chris's performance against his individual objectives as 181.5 per cent (out of 200 per cent) for his individual contribution to the business during the year.

STIP outcomes for 2014

The following table summarises the STIP outcomes for 2014.

Measures	Weight (%)	Score (out of 200%)	Weighted score
Safety ^(a)	20	103.5	20.7
Group financial ^(a)	50	153.0	76.5
Safety and financial	70	138.9	97.2
Individual	30	181.5	54.5
Total (% of target out of 200%)	100	–	151.7

(a) Refer to page 76 for further details of Group safety and financial performance. The Group safety score of 138 per cent has been reduced by 25 per cent to 103.5 per cent for the impact of fatalities in 2014.

As a result, Chris received a STIP award of 151.7 per cent of target, equivalent to 182.0 per cent of base salary, 50 per cent to be delivered in cash in March 2015, and the remainder to be delivered in deferred shares, vesting in December 2017.

LTIP outcome for the period ended 31 December 2014

Chris had no LTIP awards which had a performance period that ended on 31 December 2014, having become an executive director on 1 March 2013.

LTIP award granted in 2014

The details of Chris's 2014 LTIP award are summarised in the following table.

Type of award	Grant date	Face value of award (% of base salary)	Face value of award (£'000) ^(a)	% vesting at threshold performance	End of the performance period over which the performance conditions have to be fulfilled ^{(b) (c)}
PSP	17 March 2014	400%	3,280	22.5%	31 Dec 2018

(a) The face value represents the maximum value of the award and resulted in an award of 104,312 conditional shares based on the average share price over 2013 of £31.444. The expected value of the award is 50 per cent of the face value or £1,640,000.

(b) The 2014 PSP award may vest after five years in 2019.

(c) The full performance conditions for the award are set out in detail in table 3 on page 100.

LTIP award for 2015

Chris's PSP award in 2015 will have a face value of 430 per cent of base salary and an expected value of 215 per cent of base salary. The award may vest after five years in 2020, subject to the Group's relative TSR and the relative EBIT margin performance. The performance conditions for the award are unchanged from 2014 and the full performance conditions are set out in detail on page 83.

Shareholding

Chris's shareholding for the purposes of the share ownership policy, calculated using the market price of Rio Tinto shares on the latest practicable date each year before the date of publication of this report was:

	31 December 2014	31 December 2013	Increase in shareholding
Holding of ordinary shares	9,050	8,960	1.0%
Multiple of base salary	0.4	0.4	0

Chris holds no options over Rio Tinto shares. He has until 2018 to build up his ownership in shares to three times his salary as chief financial officer.

Pension

Chris is employed in the UK and is provided with pension benefits on a defined contribution basis.

The Company paid a pension contribution to a funded UK company pension arrangement of 25 per cent of £135,000, being the current maximum salary on which pension contributions are based under that arrangement. The pension contribution for 2014 was £33,750 (2013, pro rata for the period from 1 March 2013: £28,000).

Chris also received a cash supplement equal to 25 per cent of the amount by which his base salary exceeded £135,000, less any applicable withholdings. The gross cash supplement for 2014 was £170,417 (2013, pro rata for the period from 1 March 2013: £139,000).

Service contract

Positions held and date of appointment to position

Position held during 2014	Date of appointment to position
Chief financial officer	18 April 2013

It is intended that Chris will transfer to a rolling contract which can be terminated by either party with 12 months' notice in writing, or immediately by paying the base salary only in lieu of any unexpired notice. His initial contract was due to end on 28 February 2017 with a break clause from 31 December 2015. Subject to shareholder approval of the Remuneration Policy at Rio Tinto's AGMs in 2015, the revised contract terms will come into effect immediately thereafter.

Other

As a UK contracted employee, Chris is not eligible for tax equalisation on his remuneration, cost of living or any other ongoing assignment benefits such as housing allowance.

Past-director payments

Guy Elliott retired on 31 December 2013. Upon his retirement, good leaver treatment and pro-rating, where applicable, were applied to outstanding LTIP awards in accordance with the plan rules.

Accordingly, Mr Elliott received 29,256 Rio Tinto plc shares on 16 February 2015 resulting from the vesting of the PSP awarded in 2011. In accordance with the Remuneration Policy, he also received a cash payment of £109,488 equal to the aggregate net dividends that would have been paid on those shares had he owned them during the four-year performance period. No dividends were paid in respect of the 10,549 shares which lapsed.

The market price of Rio Tinto plc shares at 16 February 2015, the latest practicable date before the date of publication of this report, was £31.64. The total value of the LTIP awards vesting with respect to the performance period ending 31 December 2014, inclusive of the cash payment for dividends on the 2011 PSP, was therefore £1,034,000.

During 2014 Mr Elliott also received a payment for 23.5 days outstanding unused annual leave of £66,704.

What we paid our chairman and non-executive directors

Annual fees payable

The table below sets out the annual fees paid in 2014 and payable in 2015 to the chairman and the non-executive directors.

	2015	2014	2013
Director fees			
Chairman's fee	£730,000	£730,000	£715,000
Non-executive director base fee ^(a)	£90,000	£90,000	£85,000
Senior independent director	£40,000	£40,000	£40,000
Committee fees			
Audit Committee chairman	£35,000	£35,000	£35,000
Audit Committee member	£20,000	£20,000	£20,000
Remuneration Committee chairman	£30,000	£30,000	£30,000
Remuneration Committee member	£15,000	£15,000	£15,000
Sustainability Committee chairman	£30,000	£30,000	£30,000
Sustainability Committee member	£15,000	£15,000	£15,000
Nominations Committee member	£7,500	£7,500	£7,500
Meeting allowances			
Long distance (flights over 10 hours per journey)	£10,000	£10,000	£10,000
Medium distance (flights of 5-10 hours per journey)	£5,000	£5,000	£5,000

(a) The fees payable to non-executive directors are subject to review by the board on the recommendation of the Chairman's Committee. Following a review, taking into account the demands on directors, market and related developments, the base fee for non-executive directors was increased to £90,000 with effect from 1 January 2014. There have been no changes to other fees or allowances since 1 January 2012, save that the travel allowances are now based on length of flights (unchanged) rather than whether the travel is overseas.

Details of each element of remuneration and the single total figure of remuneration paid to the chairman and non-executive directors during 2014 and 2013 are set out in US dollars in table 1b on page 94. No post-employment, termination payments or share-based payments were made. Where the payment of statutory minimum superannuation contributions for non-executive directors is required by Australian superannuation law, these contributions are deducted from the director's overall fee entitlements.

The total fee and allowances payments made to the chairman and non-executive directors in 2014 are within the maximum aggregate annual amount of £3 million set out in the Group's constitutional documents approved by shareholders at the 2009 annual general meetings.

Remuneration Report: Implementation Report continued

Share ownership policy for non-executive directors

The board, in 2006, adopted a policy whereby non-executive directors are encouraged to build up a shareholding within three years of their appointment equal in value to one year's base fee. Details of non-executive directors' share interests in the Group, including total holdings, are set out in table 2 on page 95.

Non-executive directors' share ownership

The non-executive directors' shareholdings, calculated using the market price of Rio Tinto shares on the latest practicable date before the date of publication of this report were:

Director	Share ownership level at 31 December 2014 as a multiple of base fee
Jan du Plessis	1.3
Robert Brown	1.5
Megan Clark	0.1
Michael Fitzpatrick	2.3
Ann Godbehere	1.1
Richard Goodmanson	1.9
John Kerr	5.3
Anne Lauvergeon	1.2
Michael L'Estrange	0.1
Paul Tellier	7.4
Simon Thompson	2.6
John Varley	3.4

What we paid our other Executive Committee members and why

Base salary

The Committee has reviewed the base salary levels and, for the majority of the executives, made adjustments in line with the base salary budgets applying to the broader employee population.

The increases for Alan Davies and Jean-Sébastien Jacques are specific adjustments designed to reflect the additional responsibilities and broader portfolios transferred to them from the former Energy product group. These adjustments are compliant with our Remuneration Policy and are inclusive of the 2 per cent salary budget for the broader employee population in the UK.

Stated in '000	2015	2014	% change
Hugo Bague	£494	£484	2.0
Alfredo Barrios	C\$964	C\$945	2.0
Alan Davies	£540	A\$791	Note (a)
Andrew Harding	£571	£560	2.0
Jean-Sébastien Jacques	£553	£512	8.0
Greg Lilleyman	A\$778	A\$760	2.3
Debra Valentine	US\$696	US\$682	2.0

- (a) Alan Davies' remuneration has been localised to the UK with effect from 1 March 2015. The effective base salary increase, in line with our principle of applying three-year average exchange rates, as at September 2014, is 11.4%. The increase using the average exchange rate for January 2015 is 28%. To comply with Australian legislation, the Company will pay Alan's accrued long-service leave, which is currently valued at A\$482,000. Alan will also receive a lump sum payment with an estimated disclosable value of £263,000 in lieu of contractual commitments already made in relation to his future, multi-year entitlements to Housing Allowance, Education Assistance, Home Leave and a Resettlement Allowance.

STIP objectives and outcomes for 2014

Overview of STIP weightings and measures for 2014

The following table provides an overview of the measures and weightings used to determine STIP awards for members of the Executive Committee in 2014:

	Weighting for executive directors and Group executives	Weighting for PGCEOs
Safety – split equally between AIFR and LTIs adjusted for fatalities	20%	20%
Financial measures split equally between underlying earnings and free cash flow for the Group	50%	20%
Financial measures split equally between underlying earnings and free cash flow for the relevant product group	0%	30%
Individual measures based on key strategic initiatives of each role and contribution to overall company performance	30%	30%

Although the Group safety score was above target, the average performance against safety goals for individual Executive Committee members was below target, and for individual financial goals, above target.

The individual performance of Executive Committee members who are not executive directors was reviewed by the Committee against these measures and, on average, was considered above target. This reflected, among other things, the outstanding performance against the cost reduction targets set for 2014.

	2014 STIP Award (% of Salary) ^(a)	2014 STIP Award (000's)
Hugo Bague	146.0%	£707
Alfredo Barrios ^(b)	174.0%	C\$964
Jacynthe Côté ^(c)	145.4%	C\$569
Alan Davies	174.8%	A\$1,382
Andrew Harding	123.6%	£692
Jean-Sébastien Jacques	154.0%	£789
Harry Kenyon-Slaney	95.4%	£501
Greg Lilleyman	142.6%	A\$1,084
Debra Valentine	151.7%	US\$1,035

- (a) Scores out of 200% have been rounded to one decimal place in the above table. As the actual STIP awards do not use rounding conventions, small rounding variances may occur.

- (b) STIP Award for the period 1 June 2014 – 31 December 2014.

- (c) STIP Award for the period 1 January 2014 – 31 May 2014. The full STIP award for the period 1 January 2014 – 1 September 2014 was C\$920,000.

Detailed commentary on the performance of each product group is provided in the Annual report on pages 28 to 39. The average individual performance of Executive Committee members who are not executive directors was adjudged to be between target and outstanding.

LTIP outcomes for the period ended 31 December 2014

Details of the LTIP outcomes for the period ended 31 December 2014 are provided on pages 89 and 90.

LTIP awards granted in 2014

The maximum potential value of PSP awards granted in 2014 was 438 per cent of base salary. The Committee decided that the PSP awards in 2014 would have a face value of awards as shown in the table below. The eventual value of the award will depend on the Group's relative TSR and relative EBIT margin performance during the years 2014-2018. The 2014 PSP award may vest after five years in 2019. The performance conditions for the awards granted in 2014 are consistent with the performance conditions for awards to be granted in 2015 as set out below.

LTIP awards for 2015

The Committee has decided that the PSP awards in 2015 will have a face value of awards as shown in the table below. The award levels have been set to incentivise executives to meet the long-term strategic goals of the Group, to provide retention and to contribute towards the competitiveness of the overall remuneration package. The average face value of awards to be made to Executive Committee members in 2015, excluding the executive directors, is 413 per cent of base salary.

Maximum value (Percentage of 1 March base salary)	2015	2014
Hugo Bague	430	400
Alfredo Barrios ^(a)	400	(a)
Alan Davies	420	400
Andrew Harding	420	430
Jean-Sébastien Jacques	420	430
Greg Lilleyman	400	380
Debra Valentine	400	400
Average	413	407 ^(b)

(a) A 2014 PSP award of 233 per cent of base salary was granted on 16 September 2014. This award was the annual equivalent of 400 per cent of base salary, pro-rated for the period of service from 1 June 2014 to 31 December 2014.

(b) Average of Executive Committee members shown above.

The performance conditions for the awards made in 2015 and 2014 are the same. The expected value of the awards in both years is equal to 50 per cent of the face value. The percentage vesting at threshold performance in both years is 22.5 per cent. The 2015 award may vest after five years in 2020, subject to the Group's relative TSR and relative EBIT margin performance.

For the TSR component (constituting two-thirds of the award), where TSR performance is measured against both the HSBC Global Mining Index and the broader market of large global companies as measured through the Morgan Stanley Capital World Index, the award will vest as follows:

Outperformance of the index by 6 per cent per annum	1.0 x award vests
Performance between equal to the index and 6 per cent outperformance	Proportionate vesting between 0.225 x and 1.0 x vesting
Performance equal to the index	0.225 x award vests
Performance less than the index	Nil vesting

For the EBIT margin measure, change in the EBIT margin of Rio Tinto and each of the comparator companies (measured on a "point-to-point" basis using the last financial year in the performance period and the financial year prior to the start of the performance period) will be calculated using independent third-party data. Vesting will be subject to Rio Tinto's interpolated ranking position using the following schedule:

Equal to or greater than 2nd ranked company	1.0 x award vests
Between the 5th and 2nd ranked companies	Proportionate vesting between 0.225 x and 1.0 x vesting
Above the 6th ranked company	0.225 x award vests
Equal to the 6th ranked company or below	Nil vesting

The 2015 comparator group (unchanged from 2014) for the EBIT margin measure is: Alcoa, Antofagasta, Anglo American, Barrick Gold, BHP Billiton, Freeport McMoRan, Glencore, Peabody, Teck Resources and Vale.

Share ownership

The following table illustrates the executive share ownership level for current members of the Executive Committee in office at 31 December 2014 as a multiple of salary as at the same date.

	Share Ownership level at 31 December 2014 as a multiple of base pay
Hugo Bague	4.0
Alfredo Barrios	0.2
Alan Davies	1.9
Andrew Harding	2.8
Jean-Sébastien Jacques	0.6
Harry Kenyon-Slaney	3.0
Greg Lilleyman	2.7
Debra Valentine	3.9

The share ownership level is calculated using the market price of Rio Tinto shares on the latest practicable date each year before the date of publication of this report. The value of any vested but unexercised options is calculated based on the share price as at the relevant date in February less the exercise price and with a 50 per cent discount for the effects of taxation. The recent vesting of the 2011 PSP has increased the multiples noted above for several executives.

Post-employment benefits

Executives may participate in pension, superannuation and post-employment medical and life insurance benefits, which are typically offered to the broader employee population in similar locations.

Service contracts

All other executives have service contracts which can be terminated by the Company with 12 months' notice in writing, and by the employee with six months' notice in writing, or immediately by the Company by paying the base salary only in lieu of any unexpired notice.

Positions held and date of appointment to position

Name	Position(s) held during 2014	Date of appointment to position
Other executives		
Hugo Bague	Group executive, Organisational Resources	1 March 2013
Alfredo Barrios	Chief executive, Rio Tinto Alcan	1 June 2014
Jacynthe Côté ^(a)	Chief executive, Rio Tinto Alcan	1 February 2009
Alan Davies	Chief executive, Diamonds & Minerals	1 September 2012
Andrew Harding	Chief executive, Iron Ore	14 February 2013
Jean-Sébastien Jacques	Chief executive, Copper	14 February 2013
Harry Kenyon-Slaney	Chief executive, Energy	1 September 2012
Greg Lilleyman	Group executive, Technology & Innovation	1 January 2014
Debra Valentine	Group executive, Legal & Regulatory Affairs	17 March 2009

(a) Jacynthe Côté stepped down from the Executive Committee on 31 May 2014.

Departures from the Executive Committee

Jacynthe Côté stepped down from the Executive Committee on 31 May 2014 and remained with the Group in an advisory role until 1 September 2014. Jacynthe received her normal base salary and contractual benefits until 1 September 2014. The Committee exercised its discretion to treat her as an eligible leaver. As such, she remained eligible for a pro rata STIP for the period 1 January 2014 to 1 September 2014, which has been calculated based on actual business and individual performance and will be paid fully in cash in March 2015. Outstanding LTIP awards were also treated, where required, in accordance with eligible leaver provisions of each plan with pro rating, where applicable, up to 1 September 2014.

Jacynthe is eligible to receive 24 months' base salary and target STIP opportunity, inclusive of notice to the extent paid, in line with entitlements under her Alcan Inc. contract which the Company inherited on the acquisition of Alcan Inc. Jacynthe has elected to take her termination payments in the form of salary continuance for a two year period until 31 August 2016, which will include the monthly payment of her base salary and target STIP and ongoing participation in benefit programmes (pension accrual and other benefits, including medical cover, Life, Accident and Critical Illness insurance). Jacynthe will not accrue vacation, be eligible for short or long term disability insurance, or be eligible to participate in employee share plans.

At any time during her period of salary continuance, Jacynthe may, with the Company's consent, leave the payroll and receive the balance of her payments in a lump sum. However her membership in the benefit plans, which remain in force after the termination date, will cease at the date she leaves the payroll.

As recently announced, Harry Kenyon-Slaney will leave the Group in March 2015. The remuneration associated with his departure will be determined in accordance with our Remuneration Policy. Details of the terms of his departure will be disclosed in the 2015 Implementation Report.

STIP measures, weightings and targets for 2015

As in 2014, the STIP measures and opportunities for executives will be weighted 50 per cent for financial, 30 per cent for individual and 20 per cent for safety measures. The financial and individual targets which have been set for 2015 are regarded by the board to be commercially sensitive. As such, the specific targets for these measures, and the performance against them, will be described retrospectively in the 2015 Implementation Report. The Group financial targets relate to earnings and free cash flow. The individual targets include objectives relating to business transformation, cost reduction, performance delivery and leadership and engagement.

The safety measures, weightings and targets for 2015 are outlined opposite.

2015 safety measures, weightings and targets

For 2015, the safety measures for all executives will continue to be split equally between AIFR and LTIs. For the AIFR measure, target performance for the Group has been set at an 8.5 per cent improvement compared with the actual outcome for 2014 which is the threshold number for calculation purposes. For the LTI measure, a higher improvement rate has been set reflecting an increased focus on injury severity. The target has been set at a 14 per cent improvement compared with the actual outcome for 2014 which is the threshold number for calculation purposes. Outstanding performance for both measures has been set at twice the target improvement.

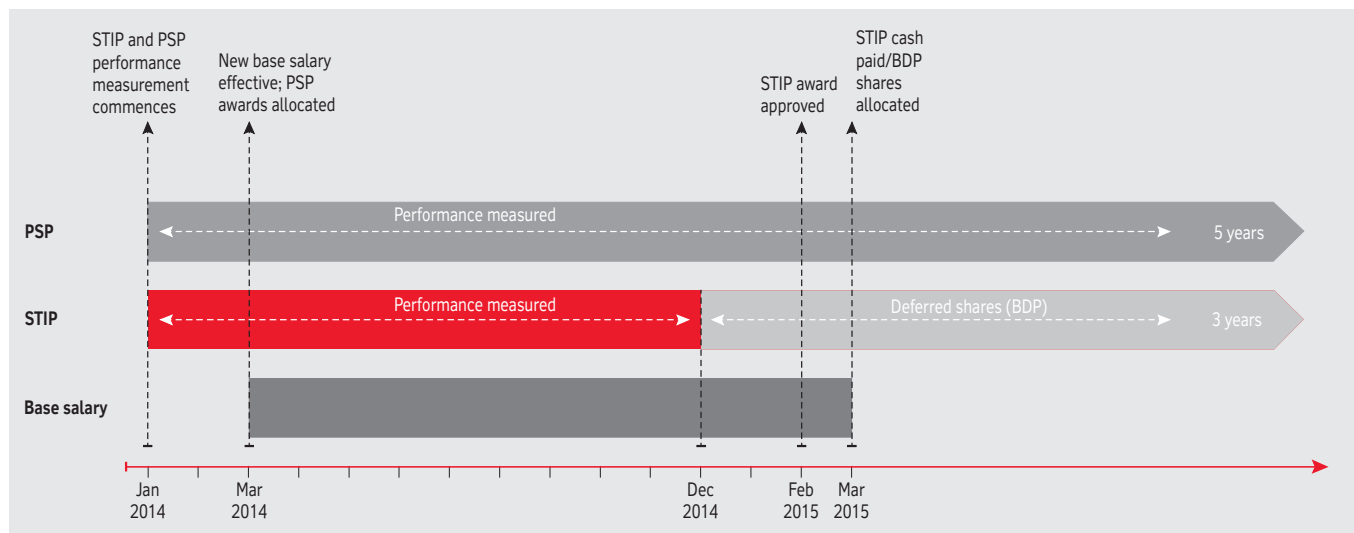
The safety STIP score will continue to be adjusted for fatalities. The adjustment has been modified for the chief executive, chief financial officer, Group executive, Organisational Resources, and Group executive, Legal & Regulatory Affairs to reflect the exposure of these roles to the aggregated Group fatalities. The adjustment for fatalities for 2015 in the event a fatality occurs, will be:

- For the product group chief executives and the Group executive, Technology & Innovation, the safety score is reduced by 50 per cent if a fatality occurs within their respective product groups or function.
- For the chief executive and the Group executive, Organisational Resources, the safety score is reduced by 25 per cent if a fatality occurs in the Group.
- For the chief financial officer and the Group executive, Legal & Regulatory Affairs, the safety score is reduced by 15 per cent if a fatality occurs in the Group.

The fatality adjustment for a multiple fatality incident, or multiple incidents resulting in fatalities, will remain at the discretion of the board in respect of Executive Committee members and the chief executive in respect of other employees.

When remuneration is delivered

The following chart provides a timeline of when total remuneration is delivered, using 2014 as an example.



Remuneration Report: Implementation Report continued

Single total figure of remuneration

The table below provides a summary of actual remuneration in respect of 2014 and 2013, stated in the currency of payment. While not required under UK or Australian legislation, the information is presented for consistency with the disclosures for executive directors on pages 77 to 81. This is in addition to the Australian statutory disclosure requirements set out in US dollars in table 1a on pages 92 and 93. The remuneration details set out in table 1a include theoretical accounting values relating to various parts of the remuneration packages, most notably LTIP arrangements, and require a different methodology for calculating the pension and superannuation values. Accordingly, the figures below are not directly comparable with those in table 1a.

	Hugo Bague		Alfredo Barrios ^(a)		Jacynthe Côté ^(h)	
(stated in '000)	2014	2013	2014	2013	2014	2013
Base salary paid ^(a)	£482	£465	C\$551	–	C\$391	C\$930
STIP payment – cash	£353	£305	C\$482	–	C\$569	C\$527
STIP payment – deferred shares ^(b)	£354	£305	C\$482	–	C\$0	C\$527
Total short-term pay	£1,189	£1,075	C\$1,515	–	C\$960	C\$1,984
Value of LTIP awards vesting ^(c)	£596	£916	C\$283	–	C\$612	C\$2,154
Pension or superannuation ^(d)	£115	£110	C\$110	–	C\$102	C\$832
Other benefits ^(e)	£36	£45	C\$1,625	–	C\$23	C\$48
Single total figure of remuneration	£1,936	£2,146	C\$3,533	–	C\$1,697	C\$5,018
Percentage change in total remuneration (2014 versus 2013)	(9.8%)		–		(66.2%)	
Percentage of total remuneration provided as performance-related pay (STIP and LTIP)	67.3%	71.1%	35.3%	–	69.6%	63.9%
Percentage of total remuneration provided as non-performance-related pay (base salary, pension and other benefits)	32.7%	28.9%	64.7%	–	30.4%	36.1%
Percentage of maximum STIP awarded ^(f)	73.0%	64.6%	87.0%	–	72.7%	56.7%
Percentage of maximum STIP forfeited	27.0%	35.4%	13.0%	–	27.3%	43.3%
Percentage of target STIP awarded	146.0%	129.1%	174.0%	–	145.4%	113.4%

	Alan Davies ⁽ⁱ⁾		Andrew Harding		Jean-Sébastien Jacques ^(j)	
(stated in '000)	2014	2013	2014	2013	2014	2013
Base salary paid ^(a)	A\$787	A\$768	£557	£533	£500	£383
STIP payment – cash	A\$691	A\$414	£346	£372	£394	£229
STIP payment – deferred shares ^(b)	A\$691	A\$414	£346	£371	£395	£229
Total short-term pay	A\$2,169	A\$1,596	£1,249	£1,276	£1,289	£841
Value of LTIP awards vesting ^(c)	A\$564	A\$764	£603	£1,074	£350	£236
Pension or superannuation ^(d)	A\$191	A\$184	£143	£133	£117	£77
Other benefits ^(e)	A\$547	A\$529	£493	£416	£31	£23
Single total figure of remuneration	A\$3,471	A\$3,073	£2,488	£2,899	£1,787	£1,177
Percentage change in total remuneration (2014 versus 2013)	13.0%		(14.2%)		51.8%	
Percentage of total remuneration provided as performance-related pay (STIP and LTIP)	56.1%	51.8%	52.0%	62.7%	63.7%	58.9%
Percentage of total remuneration provided as non-performance-related pay (base salary, pension and other benefits)	43.9%	48.2%	48.0%	37.3%	36.3%	41.1%
Percentage of maximum STIP awarded ^(f)	87.4%	53.7%	61.8%	68.0%	77.0%	59.7%
Percentage of maximum STIP forfeited	12.6%	46.3%	38.2%	32.0%	23.0%	40.3%
Percentage of target STIP awarded	174.8%	107.3%	123.6%	136.1%	154.0%	119.5%

(stated in '000)	Harry Kenyon-Slaney		Greg Lilleyman		Debra Valentine	
	2014	2013	2014	2013	2014	2013
Base salary paid ^(a)	£523	£512	A\$760	–	US\$681	US\$668
STIP payment – cash	£501	£291	A\$542	–	US\$517	US\$429
STIP payment – deferred shares ^(b)	–	£290	A\$542	–	US\$518	US\$428
Total short-term pay	£1,024	£1,093	A\$1,844	–	US\$1,716	US\$1,525
Value of LTIP awards vesting ^(c)	£882	£916	A\$482	–	US\$960	US\$1,451
Pension or superannuation ^(d)	£125	£126	A\$590	–	US\$226	US\$214
Other benefits ^(e)	£276	£298	A\$236	–	US\$594	US\$585
Single total figure of remuneration	£2,307	£2,433	A\$3,152	–	US\$3,496	US\$3,775
Percentage change in total remuneration (2014 versus 2013)	(5.2%)		–		(7.4%)	
Percentage of total remuneration provided as performance-related pay (STIP and LTIP)	59.9%	61.5%	49.7%	–	57.1%	61.1%
Percentage of total remuneration provided as non-performance related pay (base salary, pension and other benefits)	40.1%	38.5%	50.3%	–	42.9%	38.9%
Percentage of maximum STIP awarded ^(f)	47.7%	56.7%	71.3%	–	75.8%	63.8%
Percentage of maximum STIP forfeited	52.3%	43.3%	28.7%	–	24.2%	36.2%
Percentage of target STIP awarded	95.4%	113.5%	142.6%	–	151.7%	127.6%

(a) Salary paid in the financial year to 31 December. Salaries are reviewed with effect from 1 March.

(b) Value of STIP deferred under the BDP.

(c) Based on the value of the LTIP awards (2011 PSP, 2012 SOP and 2012 MSP, where applicable) which vested in respect of the performance period that ended 31 December. The Rio Tinto Ltd and Rio Tinto plc share prices used to calculate the value of the awards vesting on 16 February 2015 of A\$63.55 and £31.64 respectively, were sourced from Investis Ltd. Executives who were members of the Executive Committee at the time the 2011 PSP awards were granted (Hugo Bague, Jacynthe Côté, Andrew Harding, Harry Kenyon-Slaney and Debra Valentine) also received a cash payment equal to the aggregate net dividends that would have been paid on the 2011 PSP shares that vested had they owned them during the four-year performance period. No dividends were paid in respect of the shares that lapsed.

(d) For defined benefit plans, pension or superannuation reflects the value of the pension or superannuation accrued during the year assuming that it was to come into payment immediately. For defined contribution plans and cash paid in lieu of pension contributions it is the amount contributed in the year by the Company. This differs from the value reported in table 1a which is calculated using an IAS19 methodology and assumptions on rates of investment return, inflation and salary increases.

(e) Includes healthcare, other post-employment benefits, allowance for professional tax services and car allowance or car. Will include active or legacy expatriate related benefits, as relevant. For Alfredo Barrios this includes non-recurring lump sum payments as a contribution to housing and children education costs that may be incurred in Canada, as well as other one-off benefits related to his relocation from Spain to Canada, home finding, shipment of goods and relocation flights.

(f) The maximum potential STIP award is 200 per cent of base salary.

(g) Remuneration details for 2014 reflect remuneration received for the period 1 June 2014 – 31 December 2014. The value of LTIP awards vesting in 2014 includes an award of 5,278 MSP shares granted on 16 September 2014 which vested on 31 October 2014. This award was made to Mr Barrios in lieu of forfeited and foreshortened vesting periods of stock options from his previous employer.

(h) Remuneration details for 2014 reflect remuneration received for the period 1 January 2014 – 31 May 2014. Remuneration received for the period 1 June 2014 – 1 September 2014 was base salary of C\$237,000, STIP of C\$351,000, value of LTIP awards vesting of C\$377,000, pension of C\$0 and other benefits of C\$13,000.

(i) Superannuation contributions for Alan Davies for 2013 have been restated as a Company contribution was incorrectly recorded as a personal contribution. The previous figure disclosed for 2013 was A\$174,000.

(j) Remuneration details for 2013 reflect remuneration received for the period 14 February 2013 – 31 December 2013.

Context to outcomes for the Executive Committee

The decrease in the single total figure of remuneration for most executives is due mainly to the lower value of LTIP awards vesting in 2014 compared to 2013, partly offset by higher STIP payments in 2014 compared to 2013.

Hugo Bague, Jacynthe Côté, Andrew Harding and Debra Valentine all received less remuneration related to the vesting of 2011 PSP awards in 2014 compared to the vesting of 2010 PSP awards in 2013. While the vesting levels for the awards were similar (73.5 per cent for the 2011 PSP and 75 per cent for the 2010 PSP), the number of PSP awards granted in 2011 was significantly lower than the PSP awards granted in 2010 because PSP awards are calculated based on the average share price over the calendar year prior to the year of grant and the average 2009 share price was significantly lower than the average 2010 share price. In addition, the share prices at the date the 2011 PSP awards vested in February 2015 were lower than the share prices at the date the 2010 PSP awards vested in February 2014. The value of SOP awards vesting with respect to both the 2014 and 2013 performance periods was nil as both the 2012 SOP and 2011 SOP options are currently under water.

Harry Kenyon-Slaney elected to receive his full 2011 LTIP allocation in the form of PSP awards and hence he received a relatively larger number of 2011 PSP awards compared to other executives. The reduction in his value of LTIP awards vesting is therefore less pronounced.

The decrease in remuneration for Jacynthe Côté reflects that her 2014 remuneration represents part-year remuneration for the period 1 January 2014 to 31 May 2014.

The significantly higher single total figure of remuneration for Jean-Sébastien Jacques reflects that his 2013 remuneration represents part year remuneration for the period 14 February 2013 to 31 December 2013, a higher 2014 base salary and a higher 2014 STIP payment primarily due to higher product group financial performance. The value of LTIP awards vesting was higher due to a larger number of MSP awards (granted prior to his appointment to the Executive Committee) vesting with respect to the performance period that ended 31 December 2014.

Remuneration Report: Implementation Report continued

Potential value of 2015 remuneration package

The table below shows the potential minimum and maximum value of the 2015 remuneration package and the threshold, target and maximum value of the 2015 STIP and LTIP awards.

Stated in '000	Currency	Base salary	Superannuation or pension ^(a)	Benefits ^(b)	Minimum potential remuneration ^(c)	Threshold value of STIP and LTIP awards ^(d)	Target value of STIP and LTIP awards ^(e)	Maximum value of STIP and LTIP awards ^(f)	Maximum potential remuneration
Executive directors									
Sam Walsh	A\$	A\$1,992	A\$450	A\$948	A\$3,390	A\$3,122	A\$6,673	A\$12,550	A\$15,940
Chris Lynch	£	£836	£208	£107	£1,151	£1,310	£2,801	£5,267	£6,418
Other executives									
Hugo Bague	£	£494	£115	£36	£645	£725	£1,556	£3,112	£3,757
Alfredo Barrios	C\$	C\$964	C\$336	C\$185	C\$1,485	C\$1,350	C\$2,892	C\$5,784	C\$7,269
Alan Davies	£	£540	£130	£681	£1,351	£780	£1,674	£3,348	£4,699
Andrew Harding	£	£571	£143	£493	£1,207	£825	£1,770	£3,540	£4,747
Jean-Sébastien Jacques	£	£553	£133	£31	£717	£799	£1,714	£3,429	£4,146
Greg Lilleyman	A\$	A\$778	A\$590	A\$110	A\$1,478	A\$1,089	A\$2,334	A\$4,668	A\$6,146
Debra Valentine	US\$	US\$696	US\$226	US\$594	US\$1,516	US\$974	US\$2,088	US\$4,176	US\$5,692

- (a) Superannuation or pension is measured at the superannuation or pension figure in the single figure tables on pages 86 to 87, adjusted accordingly for Alfredo Barrios where the value for 2014 did not represent a full year.
- (b) Benefits are as measured at the benefits figure in the single figure tables on pages 86 to 87, excluding any significant one-off items where applicable. One-off items for Alfredo Barrios in 2014 included a housing allowance, an education assistance allowance and various other relocation related benefits for his relocation to Montreal. One-off items for Greg Lilleyman in 2014 included benefits relating to his relocation from Perth to Brisbane. Note that this number includes expatriate benefits which are not capped and are subject to exchange rate fluctuations.
- (c) The sum of base salary, pension/superannuation and benefits is the minimum potential remuneration (fixed remuneration).
- (d) Calculated based on threshold performance under the STIP (50 per cent of STIP target) and threshold PSP vesting (22.5 per cent of the face value of the 2015 PSP award).
- (e) Calculated based on target performance under the STIP (100 per cent of STIP target) and target PSP vesting (50 per cent of the face value of the 2015 PSP award).
- (f) Calculated based on outstanding performance under the STIP (200 per cent of base salary) and maximum PSP vesting (100 per cent of the face value of the 2015 PSP award).
- (g) Harry Kenyon-Slaney is not listed above as he ceased to be a member of the Executive Committee on 27 February 2015.

Long-term incentives – awards made prior to 2013

In 2012 and prior years, awards were made in the form of options under the Share Option Plan (SOP) and/or performance shares under the PSP.

For 2011 and 2012, executives were able to express a preference regarding the mix of their long-term incentive opportunity.

- They could choose either a mix of performance shares and share options (with a maximum face value performance share award of 200 per cent of base salary, and a performance “kicker” leading to a vesting up to 1.5 times for exceptional performance), together with a maximum share option award of 300 per cent of base salary.
- Or alternatively, they could choose to receive the full award in performance shares (with a maximum face value performance share award of 292 per cent of base salary, and a performance kicker leading to a vesting up to 1.5 times for exceptional performance).
- The maximum value of award from selecting the full award in performance shares was therefore 438 per cent of base salary (292 per cent x 150 per cent).
- The total expected value of awards made under either preference was the same, at 190 per cent of base salary.
- Both awards were based solely on relative TSR performance to reward executives for increasing the share price and delivering superior TSR performance against other companies over a long-term timeframe.

Before awards vest, the Committee must also satisfy itself that TSR performance is an appropriate reflection of the underlying performance of the business and/or the health of the Group. The Committee may therefore adjust vesting subject to the plan rules.

Long-term incentives – vesting outcomes for the period ended 31 December 2014

The awards with performance periods ending 31 December 2014 were the 2011 PSP awards and the 2012 SOP awards.

2011 PSP awards

Performance period (4 years)	1 January 2011 – 31 December 2014	
Rio Tinto TSR		0.8%
Comparator index	HSBC	MSCI
Index TSR	(34.2%)	62.5%
Outperformance per annum	7.8%	(21.3%)
Vesting against index	147%	0%
% of shares vested	73.5%	(49% of maximum)
% of shares forfeited	76.5%	(51% of maximum)

The performance conditions for the 2011, 2012 and 2013 PSP awards are included in the notes to table 3 on pages 96 to 100.

The methodology used to calculate the starting share prices for TSR comparison purposes, for Rio Tinto and the index, was the 12-month average prior to the commencement of the performance period.

The methodology used to calculate the ending share prices for TSR comparison purposes, for Rio Tinto and the index, was the last 12 months in the performance period. The usual conventions were also applied to set the number of options awarded, based upon the prior year average share price.

Remuneration Report: Implementation Report continued

The table below summarises the average vesting of performance shares for executive directors over the five-year period 2011– 2015.

Performance period	Vesting year	% of shares vested	% of maximum shares vested
2007 – 2010	2011	36.4	24.3
2008 – 2011	2012	0.0	0.0
2009 – 2012	2013	92.5	61.7
2010 – 2013	2014	75.0	50.0
2011 – 2014	2015	73.5	49.0
Average vesting	–	55.5	37.0

2012 SOP awards

Performance period (3 years)	1 January 2012 – 31 December 2014
Rio Tinto TSR	(10.9%)
HSBC Global Mining Index TSR	(41.2%)
Rio Tinto outperformance	30.3%
Outperformance required for full vesting	15.8%
% of options vested	100%
% of options forfeited	0%

Options awarded under the 2012 SOP can be exercised from 19 March 2015 until 19 March 2022.

The performance conditions for the 2012 SOP awards are included in the notes to table 3 on page 100.

The methodology used to calculate the starting share prices for TSR comparison purposes, for Rio Tinto and the index, was the 12-month average prior to the commencement of the performance period.

The methodology used to calculate the ending share prices for TSR comparison purposes, for Rio Tinto and the index, was the last 12 months in the performance period. The usual conventions were also applied to set the number of options awarded, based upon the prior year average share price.

The table below summarises the average vesting of share options for executive directors over the five-year period 2011– 2015.

Performance period	Vesting year	% of options vested
2008 – 2010	2011	0.0
2009 – 2011	2012	100.0
2010 – 2012	2013	100.0
2011 – 2013	2014	100.0
2012 – 2014	2015	100.0
Average vesting	–	80.0

The SOP ceased operation from 2013. No awards of share options have been made since 2012.

MSP awards

Although executives are not eligible to receive awards under the MSP after their appointment as executives, Alan Davies, Jean-Sébastien Jacques and Greg Lilleyman received grants prior to their appointments as PGCEOs.

Alfredo Barrios received an award of 5,278 MSP shares on 16 September 2014 which vested on 31 October 2014. This award was made in lieu of forfeited and foreshortened vesting periods of stock options from his previous employer.

Plan period	Plan period that ended 31 December 2014
Vesting period	19 March 2012 – 31 December 2014
% of shares vested	100
% of shares forfeited	–

TSR and relevant index TSR

Relative TSR is the single performance measure used to determine the vesting of awards made under the PSP and SOP prior to 2013. Rio Tinto's TSR relative to the relevant index over the performance period has a direct impact on the levels of LTIP vesting.

The effect of this performance on shareholder wealth, as measured by TSR delivered during the relevant calendar year, is detailed in the table.

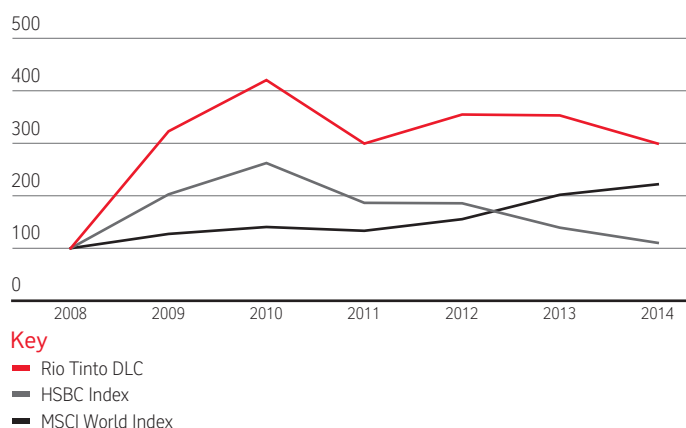
	Dividends paid during the year	Share price – Rio Tinto plc pence		Share price – Rio Tinto Limited A\$		Total shareholder return (TSR)
Year	US cents per share	1 Jan	31 Dec	1 Jan	31 Dec	Group %
2014	204.5	3,409	3,000	68.18	58.00	(9.7)
2013	178.0	3,512	3,409	66.01	68.18	2.1
2012	163.5	3,125	3,512	60.30	66.01	14.8
2011	117.0	4,487	3,125	85.47	60.30	(31.2)
2010	90.0	3,390	4,487	74.89	85.47	31.6

The graph below illustrates the TSR performance of the Group against the HSBC Global Mining Index and the MSCI over the past five years to the end of 2014. These two indices are used to assess Rio Tinto's relative TSR performance for awards made under the PSP in 2011 and 2012. The HSBC Global Mining Index alone is used to determine the vesting of awards made under the SOP.

The graph has been prepared in accordance with the requirements of Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended) and is not an indication of the likely vesting of awards granted under the PSP and SOP. The executive remuneration structure policy table on pages 67 to 69 provides further details of the performance conditions for the current PSP. The performance conditions for the previous PSP and the SOP are provided in the notes to table 3 on pages 99 and 100.

TSR (US\$) – Rio Tinto Group vs. the HSBC Global Mining and MSCI World indices

Total return basis Index 2008 = 100



Chief executive's remuneration summary

Year	Chief executive ^(a)	Single total figure of remuneration ('000)	Annual STIP award against maximum opportunity	Long-term incentive vesting against maximum opportunity (SOP) ^{(b)(c)}	Long-term incentive vesting against maximum opportunity (PSP) ^(c)
2009	Tom Albanese	£3,516	54.1%	0.0%	26.4%
2010	Tom Albanese	£4,512	87.8%	0.0%	24.3%
2011	Tom Albanese	£4,256	0.0%	100.0%	0.0%
2012	Tom Albanese	£4,040	0.0%	100.0%	61.7%
2013	Tom Albanese	£53	0.0%	–	–
	Sam Walsh	A\$10,070	72.1%	–	50.0%
2014	Sam Walsh	A\$10,414	88.4%	–	49.0%

(a) Tom Albanese held the role of chief executive until 17 January 2013, and left the Group on 16 July 2013. The single total figure of remuneration for Tom Albanese for 2013 is for the period up until 17 January 2013. Sam Walsh took over as chief executive from 17 January 2013, having previously been the chief executive, Iron Ore and Australia.

(b) In 2011 and 2012, Sam Walsh elected to receive his full LTIP awards under the PSP and as a result he has no options under the SOP that were granted in 2011 or 2012 and which had performance periods that ended on 31 December 2013 and 31 December 2014 respectively.

(c) All outstanding but unvested LTIP awards earned in previous years lapsed and were forfeited when Tom Albanese left the Group.

Employee share plans

Management Share Plan (MSP)

The primary focus of the MSP is to support the Group's ability to attract and retain key staff below executive level in an increasingly tight and competitive labour market. Executives are not eligible to participate in the MSP.

Retention of key individuals is also important given the long-term nature of the delivery of the business strategy. MSP awards are conditional awards not subject to a performance condition as they vest subject to continued employment, at the end of three years, and thus act as an effective retention tool. Shares to satisfy the awards are purchased in the market and no new shares are issued.

All employee share plans

Executives may participate in broad-based share and share option plans which are available to Group employees generally and for which performance conditions do not apply. These plans form part of standard remuneration practice whereby employees are offered participation in plans to encourage alignment with the long-term performance of the Group.

Global employee share plan

The Committee believes that all employees should be given the opportunity to become shareholders in our business. A global employee share purchase plan is normally offered to all eligible employees across the world save for any local jurisdictional restrictions. Under the plan, employees may acquire shares up to the value of US\$5,000 (or equivalent in other currencies) per year, capped at ten per cent of base salary. Each share purchased will be matched by the Company providing the participant holds the shares, and remains employed, at the end of the three-year vesting period. The Committee believes this plan will serve to engage, retain and motivate employees over the long-term.

Over 14,000 of our employees are shareholders.

Dilution

Awards under the SOP, PSP and all employee plans may be satisfied by treasury shares, the issue of new shares or the purchase of shares in the market. Currently, Rio Tinto plc satisfies these awards by the issue of new shares or the transfer of shares from treasury. Rio Tinto Limited currently satisfies these awards by the market purchase and delivery of shares to plan participants. In the UK, institutions have issued corporate governance guidelines in relation to the issue of new shares with which Rio Tinto plc complies (they do not apply to Rio Tinto Limited). All other share awards are satisfied by the use of shares which are purchased in the market. Further information in respect of the number of shares issued under plan arrangements can be found in note 44 to the financial statements.

Shareholder voting

The table below sets out the results of the remuneration-related resolutions approved at the Group's 2014 AGMs.

Resolution	Total votes cast	Votes for	Votes against	Votes withheld ^(a)
Approval of the Remuneration Policy Report	1,249,331,713	1,175,047,346	64,668,462	9,615,905
		94.8%	5.2%	
Approval of the Directors' Report on Remuneration and Remuneration Committee chairman's letter	1,249,331,990	1,188,612,802	34,629,544	26,089,644
		97.2%	2.8%	
Approval of the Remuneration Report	1,249,332,146	1,177,556,466	45,592,093	26,183,587
		96.3%	3.7%	
Approval of potential termination benefits	1,249,327,387	1,223,287,903	22,255,938	3,783,546
		98.2%	1.8%	

(a) A vote "withheld" is not a vote in law, and is not counted in the calculation of the proportion of votes for and against the resolution.

Relative spend on remuneration

The table below sets out the details of total remuneration paid; distributions to shareholders; purchase of property, plant and equipment and intangible assets, and tax paid during the financial year.

Stated in US\$m	2014	2013	Difference in spend
Remuneration paid ^(a)	6,659	7,568	(909)
Distributions to shareholders ^(b)	3,710	3,322	388
Purchase of property, plant and equipment and intangible assets ^(c)	8,162	13,001	(4,839)
Corporate income tax paid ^(c)	3,618	3,698	(80)

(a) Total employment costs for the financial year as per note 5 to the financial statements.

(b) Dividends paid during the financial year as per note 11 to the financial statements.

(c) Purchase of property, plant and equipment and intangible assets, and corporate income tax paid during the financial year are as per the Group cash flow statement and are calculated as per note 1 to the financial statements. These additional items were chosen by the directors as they represent other significant disbursements of the Company's funds.

Remuneration Report: Implementation Report continued

Table 1a – Executives' remuneration

Stated in US\$'000 ^(a)		Short-term benefits				Total short term benefits	Other long term benefits
		Base salary	Cash bonus ^(b)	Other cash-based benefits ^(c)	Non-monetary benefits ^{(d)(e)}		
Executive directors							
Sam Walsh	2014	1,751	1,411	150	784	4,096	–
	2013	1,830	1,223	87	871	4,011	–
Chris Lynch	2014	1,346	1,162	306	114	2,928	–
	2013	1,043	754	236	1,443	3,476	–
Other key management personnel							
Hugo Bague	2014	795	550	167	28	1,540	–
	2013	728	504	151	42	1,425	–
Alfredo Barrios ^(k)	2014	500	416	77	1,361	2,354	–
Jacynthe Côté ^(l)	2014 – ExCo	355	491	6	15	867	–
	2013	903	495	1	45	1,444	–
Alan Davies	2014	711	567	180	385	1,843	–
	2013	743	369	193	470	1,775	–
Andrew Harding	2014	919	539	175	870	2,503	–
	2013	833	614	167	614	2,228	–
Jean-Sébastien Jacques	2014	823	614	170	12	1,619	–
	2013	600	378	101	11	1,090	–
Harry Kenyon-Slaney	2014	862	780	203	470	2,315	–
	2013	802	480	150	462	1,894	–
Greg Lilleyman	2014	686	444	32	179	1,341	–
Debra Valentine	2014	681	517	26	571	1,795	–
	2013	668	428	26	550	1,672	–

Notes to Table 1a – Executives' remuneration

- (a) The total remuneration is reported in US dollars. The amounts have been converted using the relevant 2014 average exchange rates of A\$1 = 0.90278 US\$; £1 = 1.64785 US\$; 1C\$ = 0.90616 US\$. The annual cash bonus payable under the STIP has been converted using the relevant 2014 year end exchange rates of A\$1 = 0.81974 US\$; £1 = 1.55690 US\$; 1C\$ = 0.86244 US\$.
- (b) "Cash bonus" relates to the cash portion of the 2014 STIP to be paid in March 2015.
- (c) "Other cash based benefits" typically include cash in lieu of a car and fuel and, where applicable cash in lieu of Company pension or superannuation contributions. For Jacynthe Côté, it includes a cash balance related to her 2012-2013 Flexible Perks entitlement and the 2014 cash amount paid out in 2014 for her 2014 flexible perquisites.
- (d) "Non-monetary benefits" for executives include healthcare coverage, provision of a car, professional tax advice and flexible perquisites. For Executive directors, it includes the value of company provided transport.
- (e) "Non-monetary benefits" for executives living outside their home country, international assignment benefits comprising housing, education, relocation expenses, tax equalisation and relocation payments made to and on their behalf are included. Non-monetary benefits for Alfredo Barrios include non-recurring lump sum payments as a contribution to any and all housing and children's education costs that may be incurred in Canada, as well as other one-off benefits related to his relocation from Spain to Canada, home-finding, shipment of goods and relocation flights.
- (f) The value of share based awards has been determined in accordance with the recognition and measurement requirements of IFRS2 "Share-based Payment". The fair value of awards granted under the Share Option Plan (SOP), the Management Share Plan (MSP), the Bonus Deferral Plan (BDP), the Performance Share Plan (PSP) and the Share Savings Plan (SSP) have been calculated at their dates of grant using valuation models provided by external consultants, Lane Clark and Peacock LLP, including an independent lattice-based option valuation model and a Monte Carlo valuation model which take into account the constraints on vesting and exercise attached to these awards. Further details of the valuation methods and assumptions used for these awards are included in note 44 (Share-based Payments) in the financial statements. The fair value of other share-based awards is measured at the purchase cost of the shares from the market. The non-executive directors do not participate in the long-term incentive share schemes.

Stated in US\$'000 ^(a)		Long-term benefits Value of share-based awards ^(f)				Post-employment benefits ⁽ⁱ⁾			Termination benefits	Total remuneration ^(j)	Currency of actual payment
		BDP ^(g)	PSP	MSP	SOP	Others ^(h)	Pension and superannuation	Other post- employment benefits			
Executive directors											
Sam Walsh	2014	1,002	3,645	–	–	2	421	–	–	9,166	A\$
	2013	1,189	3,386	–	160	2	453	–	–	9,201	A\$
Chris Lynch	2014	330	1,291	–	–	–	55	–	–	4,604	£
	2013	176	399	–	–	–	44	–	–	4,095	£
Other key management personnel											
Hugo Bague	2014	385	1,409	–	314	3	44	–	–	3,695	£
	2013	402	1,147	–	546	6	42	–	–	3,568	£
Alfredo Barrios ^(k)	2014	51	135	257	–	–	23	–	–	2,820	C\$
Jacynthe Côté ^(l)	2014 – ExCo	119	684	–	251	1	197	–	–	2,119	C\$
	2013	433	1,543	–	745	1	510	–	–	4,676	C\$
Alan Davies	2014	286	880	92	–	2	25	–	–	3,128	A\$
	2013	228	563	195	–	3	20	–	–	2,774	A\$
Andrew Harding	2014	423	1,597	–	318	5	61	–	–	4,907	£
	2013	455	1,390	–	566	10	56	–	–	4,705	£
Jean-Sébastien Jacques	2014	216	785	154	–	1	44	–	–	2,819	£
	2013	115	212	310	–	4	37	–	–	1,768	£
Harry Kenyon-Slaney	2014	320	1,670	–	222	9	179	–	–	4,715	£
	2013	422	1,336	–	287	1	157	–	–	4,097	£
Greg Lilleyman	2014	152	522	154	–	–	169	–	–	2,338	A\$
Debra Valentine	2014	363	1,320	–	305	2	226	5	–	4,016	US\$
	2013	395	1,115	–	535	1	214	5	–	3,937	US\$

(g) "BDP (Bonus Deferral Plan)" represents the deferral of the 2011 – 2014 bonus under STIP into Rio Tinto Shares.

(h) "Others" include the Global Employee Share Plan (myShare), Share Savings Plan, Share Ownership Plan and Global Employee Share Plan as described in the Remuneration report on page 72.

(i) The costs shown for defined benefit pension plans and post-retirement medical benefits are the service costs attributable to the individual, calculated in accordance with IAS19. The cost for defined contribution plans is the amount contributed in the year by the Company. The table 1a value of Jacynthe Côté's pension benefits between 1 June and 1 September 2014 was US\$118,000. For Alan Davies, we have restated the 2013 "Pension and superannuation" value as some Company contributions were incorrectly recorded as employee contributions. The restated amount for 2013 is US\$20,000 whilst the amount shown in the 2013 report was US\$10,000.

(j) "Total remuneration" represents the disclosure of total emoluments and compensation required under the Australian Corporations Act 2001 and applicable accounting standards.

(k) Alfredo Barrios joined Rio Tinto and became a member of the Executive Committee on 1 June 2014. Therefore, the amounts reported for him in table 1a relate to the period from 1 June 2014 to 31 December 2014. The MSP amount for Alfredo Barrios reflects the value of an award of 5,278 MSP shares which he received on 16 September 2014. This award was made in lieu of forfeited and foreshortened vesting periods of stock options from his previous employer. The award vested on 31 October 2014.

(l) Jacynthe Côté stepped down from the Executive Committee on 31 May 2014 and remained with the Group in an advisory role until 1 September 2014. The amounts reported in table 1a relate to the period when she was a member of the Executive Committee.

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Table 1b – Non-executive directors' remuneration

Stated in US\$'000 ^(a)		Fees and allowances ^(b)	Non-monetary benefits ^{(c)(d)}	Single total figure of remuneration ^(e)
Chairman				
Jan du Plessis	2014	1,203	92	1,295
	2013	1,119	121	1,240
Non-executive directors				
Robert Brown	2014	286	50	336
	2013	246	74	320
Megan Clark ^(f)	2014	21	–	21
Vivienne Cox ^(g)	2014	54	16	70
	2013	184	14	198
Michael L'Estrange ^(h)	2014	91	–	91
Michael Fitzpatrick	2014	284	–	284
	2013	294	–	294
Ann Godbehere	2014	251	23	274
	2013	246	22	268
Richard Goodmanson	2014	350	20	370
	2013	340	97	437
Anne Lauvergeon ⁽ⁱ⁾	2014	180	11	191
Lord Kerr	2014	218	13	231
	2013	222	14	236
Paul Tellier	2014	309	67	376
	2013	293	71	364
Simon Thompson	2014	172	3	175
John Varley	2014	342	10	352
	2013	325	18	343

Notes to Table 1b – Non-executive directors' remuneration

- (a) The remuneration is reported in US dollars. The amounts have been converted using the relevant 2014 average exchange rates of £1 = 1.64785 US\$ and A\$1 = 0.90278 US\$ (1 Jan to 31 Dec 2014) average.
- (b) "Fees and allowances" comprise the total fees for the chairman and all non-executive directors and travel allowances for the non-executive directors (other than the chairman). The payment of statutory minimum superannuation contributions for Australian non-executive directors is required by Australian superannuation law. These contributions are included in the Fees and Allowances amount disclosed for Australian non-executive directors.
- (c) "Non-monetary benefits" include, as in the previous year, amounts which are deemed by the UK tax authorities to be benefits in kind relating largely to the costs of non-executive directors' expenses in attending Board meetings held at the Company's UK registered office (including associated hotel and subsistence expenses). Given these expenses are incurred by directors in the fulfilment of their duties, the Company pays the tax on them.
- (d) In 2014, the following additional amounts are included as noted for the relevant director. For Jan du Plessis, the value of company-provided transport and medical insurance premiums. For Vivienne Cox, a gift received from Rio Tinto at retirement. For Richard Goodmanson, accountancy fees.
- (e) Represents disclosure of the single total figure of remuneration under Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended) and total remuneration under the Australian Corporations Act 2001 and applicable accounting standards.
- (f) The amounts reported for Megan Clark reflect the period when she was a member of the board from 20 November to 31 December 2014.
- (g) The amounts reported for Vivienne Cox reflect the period when she was a member of the board from 1 January to 15 April 2014.
- (h) The amounts reported for Michael L'Estrange reflect the period when he was a member of the board from 1 September to 31 December 2014.
- (i) The amounts reported for Anne Lauvergeon reflect the period when she was a member of the board from 15 March to 31 December 2014.

Table 2 – Directors' and executives' beneficial interests in Rio Tinto shares

	Rio Tinto plc ^(a)			Rio Tinto Limited			Movements		
	1 Jan 2014 ^(b)	31 Dec 2014 ^(c)	16 Feb 2015 ^(c)	1 Jan 2014 ^(b)	31 Dec 2014 ^(c)	16 Feb 2015 ^(c)	Exercise of options ^(d)	Compensation ^(e)	Other ^(f)
Directors									
Robert Brown	4,200	4,200	4,200	–	–	–	–	–	–
Megan Clark ^(g)	–	–	–	165	165	1,715	–	–	1,550
Vivienne Cox ^(g)	2,912	2,912	–	–	–	–	–	–	–
Jan du Plessis	30,000	30,000	30,000	–	–	–	–	–	–
Michael Fitzpatrick	–	–	–	6,252	6,252	6,252	–	–	–
Ann Godbehere	2,981	3,100	3,100	–	–	–	–	–	119
Richard Goodmanson	15,443	5,512	5,512	–	–	–	–	–	(9,931)
Lord Kerr	15,000	15,000	15,000	–	–	–	–	–	–
Anne Lauvergeon ^(g)	–	3,350	3,350	–	–	–	–	–	3,350
Michael L'Estrange ^(g)	–	–	–	303	303	303	–	–	–
Chris Lynch	2,070	2,160	2,160	6,890	6,890	6,890	–	89	1
Paul Tellier	18,490	21,022	21,022	–	–	–	–	–	2,532
Simon Thompson ^(g)	7,458	7,458	7,458	–	–	–	–	–	–
John Varley	2,985	9,685	9,685	–	–	–	–	–	6,700
Sam Walsh	–	–	–	94,444	146,993	181,003	125	107,270	(20,836)
Executives									
Hugo Bague	39,708	60,964	60,990	–	–	–	15,714	48,352	(42,785)
Alfredo Barrios ^(g)	–	2,585	2,610	–	–	–	–	5,311	(2,700)
Jacynthe Côté ^(g)	39,899	57,967	–	–	–	–	–	34,657	(16,589)
Alan Davies	–	–	–	15,920	23,521	23,547	323	13,617	(6,312)
Andrew Harding	4,466	8,618	8,618	24,684	36,605	36,605	–	31,177	(15,104)
Jean-Sébastien Jacques	4,528	9,565	11,402	–	–	–	–	12,332	(5,448)
Harry Kenyon-Slaney	32,506	47,944	48,391	–	–	–	434	31,184	(15,733)
Greg Lilleyman ^(g)	–	–	–	23,133	31,226	34,865	–	13,548	(1,816)
Debra Valentine	33,926	50,571	50,599	–	–	–	–	31,965	(15,292)

Notes to table 2

- (a) Rio Tinto plc ordinary shares or American Depositary Shares.
- (b) Or date of appointment, if later.
- (c) Or date of retirement or at date no longer a member of the Executive Committee, if earlier.
- (d) Shares obtained through the exercise of options under the Rio Tinto Share Savings Plan or the Share Option Plan. The number of shares retained may differ from the number of options exercised.
- (e) Shares obtained through the Rio Tinto Share Ownership Plan and/or vesting of awards under the PSP, MSP and BDP.
- (f) Share movements due to sale or purchase of shares, shares received under the Dividend Reinvestment Plan, shares purchased/sold through the Rio Tinto America Savings Plan or non-executive directors' Share Purchase Plan.
- (g) Megan Clark, Anne Lauvergeon, Michael L'Estrange and Simon Thompson were appointed as directors on 20 November 2014, 15 March 2014, 1 September 2014 and 1 April 2014 respectively. Vivienne Cox retired as a director on 15 April 2014. Greg Lilleyman was appointed on 1 January 2014, Alfredo Barrios was appointed on 1 June 2014 and Jacynthe Côté resigned from the Executive Committee on 31 May 2014.
- (h) Interests in outstanding awards under LTIPs and option plans are set out in table 3.

Remuneration Report: Implementation Report continued

Table 3 – Plan interests (awards of shares and options under long-term incentive plans)

	Conditional award granted	Market price at award	1 Jan 2014 ^(a)	Awarded	Lapsed/cancelled	Dividend shares	Vested	31 Dec 2014 ^(b)	16 Feb 2015 ^(b)	Performance period concludes	Date of election	Market price at election	Monetary value of vested award US\$'000
Bonus Deferral Plan													
Hugo Bague	19 Mar 2012	£36.15	7,069	–	–	670	7,739	–	–	1 Dec 2014	3 Dec 2014	£29.75	379,355
	27 May 2013	£28.67	6,945	–	–	–	–	6,945	6,945	1 Dec 2015	–	–	–
	17 Mar 2014	£31.54	–	9,669	–	–	–	9,669	9,669	1 Dec 2016	–	–	–
Jacynthe Côté	19 Mar 2012	£36.15	9,096	–	–	–	–	9,096	N/A	1 Dec 2014	–	–	–
	27 May 2013	£28.67	2,050	–	–	–	–	2,050	N/A	1 Dec 2015	–	–	–
	17 Mar 2014	£31.54	–	9,036	–	–	–	9,036	N/A	1 Dec 2016	–	–	–
Alan Davies	19 Mar 2012	A\$65.85	2,315	–	–	189	2,504	–	–	1 Dec 2014	8 Dec 2014	A\$57.27	129,462
	27 May 2013	A\$53.11	6,702	–	–	–	–	6,702	6,702	1 Dec 2015	–	–	–
	17 Mar 2014	A\$61.67	–	6,709	–	–	–	6,709	6,709	1 Dec 2016	–	–	–
Andrew Harding	19 Mar 2012	£36.15	7,096	–	–	672	7,768	–	–	1 Dec 2014	3 Dec 2014	£30.04	384,505
	27 May 2013	£28.67	7,870	–	–	–	–	7,870	7,870	1 Dec 2015	–	–	–
	17 Mar 2014	£31.54	–	11,776	–	–	–	11,776	11,776	1 Dec 2016	–	–	–
Jean-Sébastien Jacques	19 Mar 2012	£36.15	518	–	–	49	567	–	–	1 Dec 2014	1 Dec 2014	£29.51	27,568
	27 May 2013	£28.67	2,113	–	–	–	–	2,113	2,113	1 Dec 2015	–	–	–
	17 Mar 2014	£31.54	–	8,259	–	–	–	8,259	8,259	1 Dec 2016	–	–	–
Harry Kenyon-Slaney	19 Mar 2012	£36.15	6,729	–	–	637	7,366	–	–	1 Dec 2014	17 Dec 2014	£27.58	334,768
	27 May 2013	£28.67	8,128	–	–	–	–	8,128	8,128	1 Dec 2015	–	–	–
	17 Mar 2014	£31.54	–	9,217	–	–	–	9,217	9,217	1 Dec 2016	–	–	–
Greg Lilleyman	19 Mar 2012	A\$65.85	1,877	–	–	153	2,030	–	–	1 Dec 2014	17 Dec 2014	A\$53.38	97,827
	27 May 2013	A\$53.11	2,094	–	–	–	–	2,094	2,094	1 Dec 2015	–	–	–
	17 Mar 2014	A\$61.67	–	2,754	–	–	–	2,754	2,754	1 Dec 2016	–	–	–
Chris Lynch	17 Mar 2014	£31.54	–	14,479	–	–	–	14,479	14,479	1 Dec 2016	–	–	–
Debra Valentine	19 Mar 2012	£36.15	7,244	–	–	686	7,930	–	–	1 Dec 2014	3 Dec 2014	£29.68	387,777
	27 May 2013	£28.67	7,173	–	–	–	–	7,173	7,173	1 Dec 2015	–	–	–
	17 Mar 2014	£31.54	–	8,153	–	–	–	8,153	8,153	1 Dec 2016	–	–	–
Sam Walsh	19 Mar 2012	A\$65.85	18,490	–	–	1,512	20,002	–	–	1 Dec 2014	3 Dec 2014	A\$57.36	1,035,773
	27 May 2013	A\$53.11	18,413	–	–	–	–	18,413	18,413	1 Dec 2015	–	–	–
	17 Mar 2014	A\$61.67	–	22,226	–	–	–	22,226	22,226	1 Dec 2016	–	–	–
Performance Share Plan													
Hugo Bague	22 Mar 2010	£37.30	31,531	–	7,883	–	23,648	–	–	31 Dec 2013	27 Feb 2014	£34.02	1,325,781
	6 May 2011	£41.51	22,943	–	–	–	–	22,943	–	31 Dec 2014	16 Feb 2015	£31.30	869,755
	19 Mar 2012	£36.15	22,056	–	–	–	–	22,056	22,056	31 Dec 2015	–	–	–
	27 May 2013	£28.67	29,294	–	–	–	–	29,294	29,294	31 Dec 2016	–	–	–
	27 May 2013	£28.67	29,295	–	–	–	–	29,295	29,295	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	61,607	–	–	–	61,607	61,607	31 Dec 2018	–	–	–
Alfredo Barrios	15 Sep 2014	£31.44	–	43,568	–	–	–	43,568	43,568	31 Dec 2018	–	–	–
Jacynthe Côté	22 Mar 2010	£37.30	46,153	–	11,539	–	34,614	–	–	31 Dec 2013	21 Feb 2014	£36.00	2,053,392
	6 May 2011	£41.51	31,682	–	–	–	–	31,682	N/A	31 Dec 2014	–	–	–
	19 Mar 2012	£36.15	30,056	–	–	–	–	30,056	N/A	31 Dec 2015	–	–	–
	27 May 2013	£28.67	27,296	–	–	–	–	27,296	N/A	31 Dec 2016	–	–	–
	27 May 2013	£28.67	27,297	–	–	–	–	27,297	N/A	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	74,752	–	–	–	74,752	N/A	31 Dec 2018	–	–	–
Alan Davies	22 Mar 2010	A\$75.03	9,750	–	2,438	–	7,312	–	–	31 Dec 2013	19 Feb 2014	A\$71.11	469,406
	21 Mar 2011	A\$81.00	6,228	–	–	–	–	6,228	4,577	31 Dec 2014	–	–	–
	19 Mar 2012	A\$65.85	6,663	–	–	–	–	6,663	6,663	31 Dec 2015	–	–	–
	27 May 2013	A\$53.11	27,047	–	–	–	–	27,047	27,047	31 Dec 2016	–	–	–
	27 May 2013	A\$53.11	27,047	–	–	–	–	27,047	27,047	31 Dec 2017	–	–	–
	17 Mar 2014	A\$61.03	–	51,817	–	–	–	51,817	51,817	31 Dec 2018	–	–	–

	Conditional award granted	Market price at award	1 Jan 2014 ^(a)	Awarded	Lapsed/ cancelled	Dividend shares	Vested	31 Dec 2014 ^(b)	16 Feb 2015 ^(b)	Performance period concludes	Date of election	Market price at election	Monetary value of vested award US\$'000
Performance Share Plan continued													
Andrew Harding	22 Mar 2010	A\$75.03	31,064	–	7,766	–	23,298	–	–	31 Dec 2013	21 Feb 2014	A\$70.27	1,477,987
	6 May 2011	£41.51	23,219	–	–	–	–	23,219	17,065	31 Dec 2014	–	–	–
	19 Mar 2012	£36.15	22,390	–	–	–	–	22,390	22,390	31 Dec 2015	–	–	–
	27 May 2013	£28.67	35,547	–	–	–	–	35,547	35,547	31 Dec 2016	–	–	–
	27 May 2013	£28.67	35,548	–	–	–	–	35,548	35,548	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	76,539	–	–	–	76,539	76,539	31 Dec 2018	–	–	–
Jean-Sébastien Jacques	19 Mar 2012	£36.15	4,793	–	–	–	–	4,793	4,793	31 Dec 2015	–	–	–
	27 May 2013	£28.67	25,682	–	–	–	–	25,682	25,682	31 Dec 2016	–	–	–
	27 May 2013	£28.67	25,683	–	–	–	–	25,683	25,683	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	70,057	–	–	–	70,057	70,057	31 Dec 2018	–	–	–
Harry Kenyon-Slaney	22 Mar 2010	£37.30	31,531	–	7,883	–	23,648	–	–	31 Dec 2013	6 Mar 2014	£32.82	1,278,844
	6 May 2011	£41.51	33,936	–	–	–	–	33,936	24,942	31 Dec 2014	–	–	–
	19 Mar 2012	£36.15	22,390	–	–	–	–	22,390	22,390	31 Dec 2015	–	–	–
	27 May 2013	£28.67	33,353	–	–	–	–	33,353	33,353	31 Dec 2016	–	–	–
	27 May 2013	£28.67	33,354	–	–	–	–	33,354	33,354	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	66,798	–	–	–	66,798	66,798	31 Dec 2018	–	–	–
Greg Lilleyman	22 Mar 2010	A\$75.03	4,219	–	1,055	–	3,164	–	–	31 Dec 2013	20 Mar 2014	A\$60.80	173,669
	6 May 2011	A\$79.57	5,423	–	–	–	–	5,423	3,985	31 Dec 2014	–	–	–
	19 Mar 2012	A\$65.85	5,585	–	–	–	–	5,585	5,585	31 Dec 2015	–	–	–
	27 May 2013	A\$53.11	6,898	–	–	–	–	6,898	6,898	31 Dec 2016	–	–	–
	27 May 2013	A\$53.11	6,898	–	–	–	–	6,898	6,898	31 Dec 2017	–	–	–
	17 Mar 2014	A\$61.03	–	47,321	–	–	–	47,321	47,321	31 Dec 2018	–	–	–
Chris Lynch	27 May 2013	£28.67	52,084	–	–	–	–	52,084	52,084	31 Dec 2016	–	–	–
	27 May 2013	£28.67	52,085	–	–	–	–	52,085	52,085	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	104,312	–	–	–	104,312	104,312	31 Dec 2018	–	–	–
Debra Valentine	22 Mar 2010	£37.30	31,887	–	7,972	–	23,915	–	–	31 Dec 2013	17 Mar 2014	£31.65	1,247,159
	6 May 2011	£41.51	22,553	–	–	–	–	22,553	16,576	31 Dec 2014	–	–	–
	19 Mar 2012	£36.15	21,257	–	–	–	–	21,257	21,257	31 Dec 2015	–	–	–
	27 May 2013	£28.67	26,274	–	–	–	–	26,274	26,274	31 Dec 2016	–	–	–
	27 May 2013	£28.67	26,275	–	–	–	–	26,275	26,275	31 Dec 2017	–	–	–
	17 Mar 2014	£31.44	–	55,522	–	–	–	55,522	55,522	31 Dec 2018	–	–	–
Sam Walsh	22 Mar 2010	A\$75.03	55,842	–	13,961	–	41,881	–	–	31 Dec 2013	19 Feb 2014	A\$71.09	2,687,865
	6 May 2011	A\$79.57	61,752	–	–	–	–	61,752	–	31 Dec 2014	16 Feb 2015	A\$63.85	2,616,367
	19 Mar 2012	A\$65.85	63,540	–	–	–	–	63,540	63,540	31 Dec 2015	–	–	–
	27 May 2013	A\$53.11	66,627	–	–	–	–	66,627	66,627	31 Dec 2016	–	–	–
	27 May 2013	A\$53.11	66,628	–	–	–	–	66,628	66,628	31 Dec 2017	–	–	–
	17 Mar 2014	A\$61.03	–	134,026	–	–	–	134,026	134,026	31 Dec 2018	–	–	–
Management Share Plan													
Alan Davies	21 Mar 2011	A\$81.00	3,487	–	–	200	3,687	–	–	31 Dec 2013	19 Feb 2014	A\$71.06	236,527
	19 Mar 2012	A\$65.85	3,997	–	–	–	–	3,997	4,309	31 Dec 2014	–	–	–
Alfredo Barrios	15 Sep 2014	£31.44	–	5,278	–	–	5,278	–	–	31 Oct 2014	6 Nov 2014	£29.50	256,537
Jean-Sébastien Jacques	12 Sep 2011	£35.10	7,500	–	–	825	8,325	–	–	1 Jul 2014	24 Oct 2014	£30.19	414,161
	19 Mar 2012	£36.15	2,875	–	–	–	–	2,875	–	31 Dec 2014	16 Feb 2015	£31.46	162,893
Greg Lilleyman	21 Mar 2011	A\$81.00	3,037	–	–	174	3,211	–	–	31 Dec 2013	20 Mar 2014	A\$60.80	176,249
	19 Mar 2012	A\$65.85	3,351	–	–	–	–	3,351	–	31 Dec 2014	16 Feb 2015	A\$63.61	207,480
	27 May 2013	A\$53.11	4,598	–	–	–	–	4,598	4,598	31 Dec 2015	–	–	–

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Table 3 – Plan interests (awards of shares and options under long-term incentive plans) continued

	Date of grant	1 Jan 2014 ^(a)	Vested during 2014	Exercised	Lapsed/cancelled	Vested and exercisable on 31 Dec 2014 ^(b)
Share Savings Plan						
Hugo Bague	4 Oct 2011	425	–	–	–	–
Alan Davies	5 Oct 2010	323	323	323	–	–
Andrew Harding	20 Oct 2009	723	–	–	–	–
	5 Oct 2010	555	–	–	–	–
Harry Kenyon-Slaney ^(c)	20 Oct 2009	434	–	–	–	–
Greg Lilleyman	5 Oct 2010	555	–	–	–	–
Sam Walsh ^(d)	20 Oct 2009	125	–	–	–	–
	5 Oct 2010	457	–	–	–	–
Share Option Plan						
Hugo Bague	17 Mar 2009	15,714	–	15,714	–	–
	22 Mar 2010	47,297	–	–	–	47,297
	6 May 2011	34,415	34,415	–	–	34,415
	19 Mar 2012	33,085	–	–	–	–
Jacynthe Côté	17 Mar 2009	35,680	–	–	–	35,680
	22 Mar 2010	69,230	–	–	–	69,230
	6 May 2011	47,523	47,523	–	–	47,523
	19 Mar 2012	45,084	–	–	–	–
Andrew Harding	17 Mar 2009	6,268	–	–	–	6,268
	22 Mar 2010	46,597	–	–	–	46,597
	6 May 2011	34,829	34,829	–	–	34,829
	19 Mar 2012	33,585	–	–	–	–
Harry Kenyon-Slaney	17 Mar 2009	6,938	–	–	–	6,938
	22 Mar 2010	47,297	–	–	–	47,297
	19 Mar 2012	33,585	–	–	–	–
Greg Lilleyman	22 Apr 2004	1,416	–	1,416	–	–
	9 Mar 2005	1,275	–	–	–	1,275
	7 Mar 2006	2,186	–	–	–	2,186
	17 Mar 2009	3,058	–	–	–	3,058
Debra Valentine	17 Mar 2009	13,558	–	–	–	13,558
	22 Mar 2010	47,831	–	–	–	47,831
	6 May 2011	33,830	33,830	–	–	33,830
	19 Mar 2012	31,886	–	–	–	–
Sam Walsh	7 Mar 2006	48,079	–	–	–	48,079
	17 Mar 2009	40,005	–	–	–	40,005
	22 Mar 2010	83,763	–	–	–	83,763

Notes to table 3

- (a) Or date of appointment, if later.
- (b) Or date of retirement or at date no longer a member of the Executive Committee, if earlier.
- (c) Alfredo Barrios was appointed on 1 June 2014.
- (d) Jacynthe Côté stepped down from the Executive Committee on 31 May 2014.
- (e) Awards denominated in pounds sterling were for Rio Tinto plc ordinary shares of 10 pence each and awards denominated in Australian dollars were for Rio Tinto Limited shares. All options granted over ordinary shares. Rio Tinto plc – ordinary shares of 10 pence each stated in sterling. Rio Tinto Limited ordinary shares stated in Australian dollars. Each option is granted over one share at no cost to participants. The exercise price represents the amount payable per share on the exercise of each option by participants.
- (f) The weighted fair value per share of conditional awards granted in 2014 under the BDP was £31.38 for Rio Tinto plc and A\$61.32 for Rio Tinto Limited and for PSP was £22.71 for Rio Tinto plc and A\$44.40 for Rio Tinto Limited.
- (g) Conditional awards are awarded at no cost to the recipient and no amount remains unpaid on any shares granted.
- (h) The 2011 PSP awards granted on 6 May 2011 with a performance period that concluded on 31 December 2014 vested at 73.5 per cent. This award vested on 16 February 2015 as follows: Hugo Bague, awarded 22,943, lapsed 6,080, vested 16,863, Hugo exercised his award on 16 February 2015; Alan Davies, awarded 6,228, lapsed 1,651 vested 4,577; Andrew Harding, awarded 23,219, lapsed 6,154, vested 17,065; Harry Kenyon-Slaney, awarded 33,936, lapsed 8,994, vested 24,942; Greg Lilleyman awarded 5,423, lapsed 1,438, vested 3,985; Debra Valentine, awarded 22,553, lapsed 5,977, vested 16,576; Sam Walsh, awarded 61,752, lapsed 16,365, vested 45,387, Sam exercised his award on 16 February 2015. The 2012 MSP awards granted 19 March 2012 vested on 16 February 2015 as follows: Alan Davies awarded 3,997, dividend shares 312, vested 4,309; Jean-Sébastien Jacques awarded 2,875, dividend shares 267, vested 3,142, Jean-Sébastien exercised his award on 16 February 2015; Greg Lilleyman awarded 3,351, dividend shares 262, vested 3,613, Greg exercised his award on 16 February 2015.

	31 Dec 2014 ^(b)	Vested and exercisable on 16 Feb 2015	16 Feb 2015	Exercise price	Value of options exercised during 2014	Market price on date of exercise	Date from which first exercisable	Expiry date
Share Savings Plan								
Hugo Bague	425	–	425	£28.630	–	–	1 Jan 2017	1 Jul 2017
Alan Davies	–	–	–	A\$59.26	A\$2,371	A\$66.60	1 Jan 2014	1 Jul 2014
Andrew Harding	723	723	723	A\$48.73	–	–	1 Jan 2015	1 Jul 2015
	555	–	555	£27.810	–	–	1 Jan 2016	1 Jul 2016
Harry Kenyon-Slaney ^(c)	434	–	–	£21.480	–	–	1 Jan 2015	1 Jul 2015
Greg Lilleyman	555	–	555	A\$59.26	–	–	1 Jan 2016	1 Jul 2016
Sam Walsh ^(d)	125	125	–	A\$48.73	–	–	1 Jan 2015	1 Jul 2015
	457	–	457	A\$59.26	–	–	1 Jan 2016	1 Jul 2016

Share Option Plan

Hugo Bague	–	–	–	£16.530	£285,995	£34.73	17 Mar 2012	17 Mar 2019
	47,297	47,297	47,297	£37.050	–	–	22 Mar 2013	22 Mar 2020
	34,415	34,415	34,415	£42.450	–	–	6 May 2014	6 May 2021
	33,085	–	33,085	£35.179	–	–	19 Mar 2015	19 Mar 2022
Jacynthe Côté	35,680	N/A	N/A	£16.530	–	–	17 Mar 2012	1 Sep 2015
	69,230	N/A	N/A	£37.050	–	–	22 Mar 2013	1 Sep 2015
	47,523	N/A	N/A	£42.450	–	–	6 May 2014	1 Sep 2015
	45,084	N/A	N/A	£35.179	–	–	19 Mar 2015	19 Mar 2016
Andrew Harding	6,268	6,268	6,268	A\$33.450	–	–	17 Mar 2012	17 Mar 2019
	46,597	46,597	46,597	A\$76.150	–	–	22 Mar 2013	22 Mar 2020
	34,829	34,829	34,829	£42.450	–	–	6 May 2014	5 May 2021
	33,585	–	33,585	£35.179	–	–	19 Mar 2015	19 Mar 2022
Harry Kenyon-Slaney	6,938	6,938	6,938	£16.530	–	–	17 Mar 2012	17 Mar 2019
	47,297	47,297	47,297	£37.050	–	–	22 Mar 2013	22 Mar 2020
	33,585	–	33,585	£35.179	–	–	19 Mar 2015	19 Mar 2022
Greg Lilleyman	–	–	–	A\$18.30	A\$63,965	A\$63.47	22 Apr 2009	22 Apr 2014
	1,275	1,275	1,275	A\$30.933	–	–	9 Mar 2008	9 Mar 2015
	2,186	2,186	2,186	A\$54.951	–	–	7 Mar 2009	7 Mar 2016
	3,058	3,058	3,058	A\$33.451	–	–	17 Mar 2012	17 Mar 2019
Debra Valentine	13,558	13,558	13,558	£16.530	–	–	17 Mar 2012	17 Mar 2019
	47,831	47,831	47,831	£37.050	–	–	22 Mar 2013	22 Mar 2020
	33,830	33,830	33,830	£42.450	–	–	6 May 2014	6 May 2021
	31,886	–	31,886	£35.179	–	–	19 Mar 2015	19 Mar 2022
Sam Walsh	48,079	48,079	48,079	A\$54.950	–	–	7 Mar 2009	7 Mar 2016
	40,005	40,005	40,005	A\$33.450	–	–	17 Mar 2012	17 Mar 2019
	83,763	83,763	83,763	A\$76.150	–	–	22 Mar 2013	22 Mar 2020

(i) The closing price of Rio Tinto plc ordinary shares at 31 December 2014 was £30.00 and of Rio Tinto Limited ordinary shares at 31 December 2014 was A\$58.00. The high and low prices during 2014 of Rio Tinto plc and Rio Tinto Limited shares were £36.27 and £26.16 and A\$70.88 and A\$52.65 respectively.

(j) The exercise price represents the price payable on the options.

(k) The amount in US dollars has been converted at the rate of US\$0.60685 = £1 and US\$1.10768 = A\$1, being the average exchange rates for 2014.

(l) As of 16 February 2015, members of the Executive Committee held 1,643,138 shares awarded and not vested under long-term incentive plans and 632,082 options to acquire Rio Tinto plc and Rio Tinto Limited shares.

(m) Between 31 December 2014 and 16 February 2015 no options were granted to the executives.

(n) Details of performance conditions for the BDP are provided below. Fifty per cent of the STIP is delivered in cash and 50 per cent delivered in deferred shares under the BDP. The BDP vests in December of the third year after the end of performance year to which they relate.

(o) Details of performance conditions for the PSP are provided below.

For 2011 and 2012 awards, the awards have a four-year performance period and from 2014, awards have a five-year performance period commencing on 1 January of the year of grant. For 2013 awards only, 50 per cent of the award granted will be measured against the performance conditions after four years (at the end of 2016) and 50 per cent of the awards granted will be measured against the performance conditions after five years (at the end of 2017).

For 2011 and 2012 awards, subject to the "mix" chosen, awards have a maximum face value of 292 per cent of base salary with the potential for 1.5 times of this value, ie 438 per cent of base salary, for outstanding performance. The expected value of the 2011 and 2012 awards is 190 per cent of base salary. For awards granted from 2013, awards have a maximum face value of 438 per cent of base salary and a maximum expected value of 190 per cent of base salary. The actual award levels granted from 2013 vary by executive. For 2011 and 2012 awards, conditional share awards vest subject to the achievement of a stretching TSR performance condition, comparing Rio Tinto's TSR performance against:

– 50 per cent: the HSBC Global Mining Index

– 50 per cent: the Morgan Stanley Capital World Index (MSCI)

Remuneration Report: Implementation Report continued

Vesting of awards made in 2011 and 2012 is as follows:

Out-performance of the index by 8 per cent per annum	1.5x award vests
Performance between index and 8 per cent out-performance	Proportionate vesting for performance between index and 8 per cent out-performance of the index
Out-performance of the index by approximately 5 per cent per annum	1.0x award vests
Performance equal to index	0.35x award vests
Performance less than index	Nil vesting

For awards granted from 2013, for the TSR component (constituting two-thirds of the award), where TSR performance is measured against both the HSBC Global Mining Index and the Morgan Stanley Capital World Index, the award will vest as follows:

Out-performance of the index by 6 per cent per annum	1.0x award vests
Performance between equal to the index and 6 per cent out-performance	Proportionate vesting between 0.225x and 1.0x vesting
Performance equal to index	0.225x award vests
Performance less than index	Nil vesting

For the EBIT margin measure (constituting one-third of the award), change in the EBIT margin of Rio Tinto and each of the comparator companies (measured on a "point-to-point" basis using the last financial year in the performance period and the financial year prior to the start of the performance period) will be calculated using independent third-party data. Vesting will be subject to Rio Tinto's interpolated ranking position using the following schedule.

Equal to or greater than 2nd ranked company	1.0x award vests
Between the 5th and 2nd ranked companies	Proportionate vesting between 0.225x and 1.0x vesting
Above the 6th ranked company	0.225x award vests
Equal to the 6th ranked company or below	Nil vesting

For awards granted in 2011 and 2012, if vesting is achieved, a cash payment will be paid equal to the dividends that would have been received had the number of shares which have vested at the end of the performance period been held throughout the performance period. For awards granted from 2013, if vesting is achieved, participants will be entitled to receive a number of additional shares whose market value reflects the aggregate cash amount of dividends that would have been received had the number of shares which have vested at the end of the performance period been held throughout the period.

- (p) Details of performance conditions for the SOP are provided below.
Three-year performance period.

Awards have a maximum face value of 300 per cent of base salary.

Options vest subject to the achievement of a stretching TSR performance condition, comparing Rio Tinto's TSR performance to that of the HSBC Global Mining Index.

Vesting of awards made in 2012 is as follows:

Outperformance of the index by 5 per cent per annum	Awards vest in full
Performance between index and 5 per cent out-performance	Proportionate vesting of residual award for performance between index and 5 per cent out-performance of the index
Performance equal to index	Awards of up to 20,000 options or one-third of the award (whichever is the higher)
Performance less than index	Nil vesting

The SOP ceased to operate from 2013. No further awards of shares options will be made.

- (q) Harry Kenyon-Slaney exercised 434 Share Savings Plan options on 14 February 2015. Sam Walsh exercised 125 Share Saving Plan options on 16 February 2015.

Audited information

Under Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended), the information included in respect of: the single total figure of remuneration for each director; details of the directors' total pension entitlements; details of scheme interests awarded to the directors during the financial year; details of payments to past directors; and the statement of the directors' shareholdings and share interests, as set out in the Implementation Report are all auditable. The Australian Securities and Investments Commission issued an order dated 9 January 2015 under which the Remuneration Report must be prepared and audited in accordance with the requirements of the Corporations Act 2001 applied on the basis of certain modifications set out in the order (as detailed on page 183). The information provided in the Remuneration Report has been audited as required by section 308(3C) of the Corporations Act.

Going concern

The directors, having made appropriate enquiries, have satisfied themselves that no material uncertainties that cast significant doubt about the ability of the Companies and the Group to continue as a going concern have been identified, and they have a reasonable expectation that the Group has adequate financial resources to continue in operational existence for the foreseeable future. Therefore, these financial statements have been prepared on a going concern basis.

Annual general meetings

The 2015 annual general meetings will be held on 16 April in London and 7 May in Perth. Separate notices of the 2015 annual general meetings are produced for the shareholders of each Company.

Directors' approval statement

The Directors' report is delivered in accordance with a resolution of the board.



Jan du Plessis

Chairman

4 March 2015

2014 Financial statements

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Group income statement

Years ended 31 December

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Continuing operations				
Consolidated sales revenue	3	47,664	51,171	50,942
Net operating costs (excluding items shown separately)	4	(33,910)	(36,104)	(37,534)
Impairment charges net of reversals	6	(1,062)	(7,315)	(14,701)
Net (losses)/gains on consolidation and disposal of interests in businesses	2,37	(563)	787	845
Exploration and evaluation costs	13	(747)	(948)	(1,971)
(Loss)/profit relating to interests in undeveloped projects	13	(36)	(161)	494
Operating profit/(loss)		11,346	7,430	(1,925)
Share of profit after tax of equity accounted units	7	625	698	1,056
Impairment charges net of reversals of investments in equity accounted units after tax	6	589	(216)	(1,526)
Profit/(loss) before finance items and taxation		12,560	7,912	(2,395)
Finance items				
Net exchange (losses)/gains on external debt and intragroup balances	24	(1,995)	(3,672)	492
Net (losses)/gains on derivatives not qualifying for hedge accounting		(46)	59	88
Finance income	8	64	82	116
Finance costs	8	(649)	(507)	(293)
Amortisation of discount		(382)	(369)	(439)
		(3,008)	(4,407)	(36)
Profit/(loss) before taxation		9,552	3,505	(2,431)
Taxation	9	(3,053)	(2,426)	(589)
Profit/(loss) from continuing operations		6,499	1,079	(3,020)
Discontinued operations				
Loss after tax from discontinued operations		–	–	(7)
Profit/(loss) after tax for the year		6,499	1,079	(3,027)
– attributable to owners of Rio Tinto (net earnings/(losses))		6,527	3,665	(3,028)
– attributable to non-controlling interests		(28)	(2,586)	1
Basic earnings/(losses) per share				
Profit/(loss) from continuing operations	10	353.1c	198.4c	(163.4c)
Loss from discontinued operations	10	–	–	(0.4c)
Profit/(loss) for the year per share	10	353.1c	198.4c	(163.8c)
Diluted earnings/(losses) per share				
Profit/(loss) from continuing operations	10	351.2c	197.3c	(163.4c)
Loss from discontinued operations	10	–	–	(0.4c)
Profit/(loss) for the year per share	10	351.2c	197.3c	(163.8c)

The notes on pages 110 to 174 are an integral part of these consolidated financial statements.

Group statement of comprehensive income

Years ended 31 December

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Profit/(loss) after tax for the year		6,499	1,079	(3,027)
Other comprehensive (loss)/income:				
Items that will not be reclassified to profit or loss:				
Actuarial (losses)/gains on post retirement benefit plans	45	(735)	2,260	(332)
Share of other comprehensive (losses)/income of equity accounted units, net of tax		–	(1)	1
Tax relating to components of other comprehensive income	9	215	(641)	83
		(520)	1,618	(248)
Items that have been/may be reclassified subsequently to profit or loss:				
Currency translation adjustment		(2,004)	(2,657)	727
Currency translation on companies disposed of, transferred to the income statement		53	81	(3)
Fair value movements:				
– Cash flow hedge (losses)/gains		(48)	195	(67)
– Cash flow hedge losses/(gains) transferred to the income statement		55	(92)	100
– (Losses)/gains on revaluation of available for sale securities		(36)	(101)	34
– Losses/(gains) on revaluation of available for sale securities transferred to the income statement		6	146	(355)
Share of other comprehensive loss of equity accounted units, net of tax		(44)	(44)	(158)
Tax relating to components of other comprehensive income	9	(9)	(56)	(26)
Other comprehensive (loss)/income for the year, net of tax		(2,547)	(910)	4
Total comprehensive income/(loss) for the year		3,952	169	(3,023)
– attributable to owners of Rio Tinto		4,322	3,261	(3,164)
– attributable to non-controlling interests		(370)	(3,092)	141

The notes on pages 110 to 174 are an integral part of these consolidated financial statements.

Group cash flow statement

Years ended 31 December

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Cash flow from consolidated operations ^(a)		18,896	19,531	15,999
Dividends from equity accounted units		298	600	522
Cash flows from operations		19,194	20,131	16,521
Net interest paid		(981)	(1,164)	(824)
Dividends paid to holders of non-controlling interests in subsidiaries		(309)	(191)	(422)
Tax paid		(3,618)	(3,698)	(5,845)
Net cash generated from operating activities		14,286	15,078	9,430
Cash flow from investing activities				
Acquisitions of subsidiaries, joint ventures & associates	37	–	4	(1,335)
Disposals of subsidiaries, joint ventures & associates	37	887	1,896	251
Purchase of property, plant and equipment and intangible assets	2	(8,162)	(13,001)	(17,615)
Sales of financial assets		172	224	692
Purchases of financial assets		(24)	(75)	(50)
Other funding of equity accounted units		(117)	(88)	(223)
Other investing cash flows ^(b)		741	94	37
Cash used in investing activities		(6,503)	(10,946)	(18,243)
Cash flow before financing activities		7,783	4,132	(8,813)
Cash flow from financing activities				
Equity dividends paid to owners of Rio Tinto	11	(3,710)	(3,322)	(3,038)
Proceeds from additional borrowings		442	3,954	8,569
Repayment of borrowings		(3,476)	(1,832)	(682)
Proceeds from issue of equity to non-controlling interests ^(c)		1,291	159	2,945
Own shares purchased from owners of Rio Tinto		–	–	(1,471)
Purchase of non-controlling interests	37	–	–	(76)
Other financing cash flows		17	107	77
Net cash flow (used in)/from financing activities		(5,436)	(934)	6,324
Effects of exchange rates on cash and cash equivalents		(156)	(261)	16
Net increase/(decrease) in cash and cash equivalents		2,191	2,937	(2,473)
Opening cash and cash equivalents less overdrafts		10,209	7,272	9,745
Closing cash and cash equivalents less overdrafts	21	12,400	10,209	7,272
(a) Cash flow from consolidated operations				
Profit/(loss) from continuing operations		6,499	1,079	(3,020)
Adjustments for:				
– Taxation		3,053	2,426	589
– Finance items		3,008	4,407	36
– Share of profit after tax of equity accounted units		(625)	(698)	(1,056)
– Impairment charges net of reversals of investments in equity accounted units after tax		(589)	216	1,526
– Net losses/(gains) on disposal and consolidation of interests in businesses	37	563	(787)	(845)
– Impairment charges net of reversals	6	1,062	7,315	14,701
– Depreciation and amortisation		4,860	4,791	4,624
– Provisions (including exchange differences on provisions)	26	712	1,449	886
Utilisation of provisions	26	(973)	(871)	(840)
Utilisation of provision for post retirement benefits	26	(296)	(635)	(695)
Change in inventories		937	(330)	(433)
Change in trade and other receivables		962	84	412
Change in trade and other payables		(380)	803	266
Other items		103	282	(152)
		18,896	19,531	15,999

(b) Other investing cash flows in 2014 mainly relate to the disposal of the Group's St James's Square properties.

(c) Cash proceeds from the issue of equity to non-controlling interests relates mainly to Turquoise Hill Resources Ltd's rights issue at the beginning of 2014, which increased non-controlling interests by US\$1,158 million. The balance in 2012 included US\$1.8 billion from the transfer of a 47 per cent interest in Simfer Jersey Limited, a Rio Tinto subsidiary, to Chalco Iron Ore Holdings Limited, a consortium led by Chalco (and reimbursing Rio Tinto for historic project costs) plus subsequent cash calls to meet project costs, and US\$0.9 billion of proceeds from subscription by non-controlling interests in a rights offering by Turquoise Hill. Refer to the Group statement of changes in equity on page 107, and to note 33.

The notes on pages 110 to 174 are an integral part of these consolidated financial statements.


Group balance sheet

At 31 December

	Note	2014 US\$m	2013 US\$m
Non-current assets			
Goodwill	12	1,228	1,349
Intangible assets	13	5,880	5,421
Property, plant and equipment	14	68,693	70,827
Investments in equity accounted units	15	4,868	3,957
Inventories	16	397	511
Deferred tax assets	17	3,540	3,555
Trade and other receivables	18	1,304	2,140
Other financial assets (including tax recoverable and loans to equity accounted units)	20	792	983
		86,702	88,743
Current assets			
Inventories	16	4,350	5,737
Trade and other receivables	18	3,623	4,667
Other financial assets (including tax recoverable and loans to equity accounted units)	20	417	710
Cash and cash equivalents	21	12,423	10,216
		20,813	21,330
Assets of disposal groups held for sale	19	312	952
Total assets		107,827	111,025
Current liabilities			
Borrowings and other financial liabilities	22	(2,684)	(3,926)
Trade and other payables	25	(7,437)	(8,400)
Tax payable		(800)	(1,126)
Provisions including post retirement benefits	26	(1,299)	(1,738)
		(12,220)	(15,190)
Non-current liabilities			
Borrowings and other financial liabilities	22	(22,535)	(24,625)
Trade and other payables	25	(871)	(576)
Tax payable		(370)	(468)
Deferred tax liabilities	17	(3,574)	(4,140)
Provisions including post retirement benefits	26	(13,303)	(12,343)
		(40,653)	(42,152)
Liabilities of disposal groups held for sale	19	(360)	(181)
Total liabilities		(53,233)	(57,523)
Net assets		54,594	53,502
Capital and reserves			
Share capital			
– Rio Tinto plc	27	230	230
– Rio Tinto Limited	28	4,535	4,911
Share premium account		4,288	4,269
Other reserves	29	11,122	12,871
Retained earnings	29	26,110	23,605
Equity attributable to owners of Rio Tinto		46,285	45,886
Attributable to non-controlling interests		8,309	7,616
Total equity		54,594	53,502

The notes on pages 110 to 174 are an integral part of these consolidated financial statements.

The financial statements on pages 103 to 184 were approved by the directors on 4 March 2015 and signed on their behalf by



Jan du Plessis
Chairman



Sam Walsh AO
Chief executive



Chris Lynch
Chief financial officer

Group statement of changes in equity

Year ended 31 December 2014

Attributable to owners of Rio Tinto

	Share capital (notes 27 and 28) US\$m	Share premium US\$m	Other reserves (note 29) US\$m	Retained earnings (note 29) US\$m	Total US\$m	Non-controlling interests US\$m	Total equity US\$m
Opening balance	5,141	4,269	12,871	23,605	45,886	7,616	53,502
Total comprehensive income for the year ^(a)	–	–	(1,689)	6,011	4,322	(370)	3,952
Currency translation arising on Rio Tinto Limited's share capital ^(b)	(376)	–	–	–	(376)	–	(376)
Dividends	–	–	–	(3,710)	(3,710)	(304)	(4,014)
Own shares purchased from Rio Tinto shareholders to satisfy share options	–	–	(129)	(31)	(160)	–	(160)
Treasury shares reissued and other movements	–	19	–	3	22	–	22
Newly consolidated operations	–	–	–	–	–	6	6
Change in equity interest held by Rio Tinto	–	–	–	36	36	(29)	7
Equity issued to holders of non-controlling interests ^(c)	–	–	–	–	–	1,291	1,291
Companies no longer consolidated	–	–	–	–	–	(18)	(18)
Employee share options and other IFRS 2 charges taken to the income statement	–	–	69	196	265	117	382
Closing balance	4,765	4,288	11,122	26,110	46,285	8,309	54,594

Year ended 31 December 2013

Attributable to owners of Rio Tinto

	Share capital (notes 27 and 28) US\$m	Share premium US\$m	Other reserves (note 29) US\$m	Retained earnings (note 29) US\$m	Total US\$m	Non-controlling interests US\$m	Total equity US\$m
Opening balance	5,945	4,244	14,868	21,496	46,553	11,187	57,740
Total comprehensive income for the year ^(a)	–	–	(1,984)	5,245	3,261	(3,092)	169
Currency translation arising on Rio Tinto Limited's share capital ^(b)	(804)	–	–	–	(804)	–	(804)
Dividends	–	–	–	(3,322)	(3,322)	(196)	(3,518)
Own shares purchased from Rio Tinto shareholders to satisfy share options	–	–	(77)	(44)	(121)	–	(121)
Treasury shares reissued and other movements	–	25	–	55	80	–	80
Change in equity interest held by Rio Tinto	–	–	–	102	102	(78)	24
Equity issued to holders of non-controlling interests	–	–	–	–	–	159	159
Companies no longer consolidated	–	–	–	–	–	(369)	(369)
Employee share options and other IFRS 2 charges taken to the income statement	–	–	64	73	137	5	142
Closing balance	5,141	4,269	12,871	23,605	45,886	7,616	53,502

Group statement of changes in equity (continued)

Year ended 31 December 2012

	Attributable to owners of Rio Tinto						
	Share capital (notes 27 and 28) US\$m	Share premium US\$m	Other reserves (note 29) US\$m	Retained earnings (note 29) US\$m	Total US\$m	Non-controlling interests US\$m	Total equity US\$m
Opening balance	5,816	4,208	14,745	27,430	52,199	6,685	58,884
Total comprehensive loss for the year ^(a)	–	–	103	(3,267)	(3,164)	141	(3,023)
Currency translation arising on Rio Tinto Limited's share capital ^(b)	133	–	–	–	133	–	133
Dividends	–	–	–	(3,038)	(3,038)	(422)	(3,460)
Share buy-back schemes	(4)	–	4	(764)	(764)	–	(764)
Own shares purchased for share options	–	–	(62)	(41)	(103)	–	(103)
Treasury shares reissued and other movements	–	36	–	3	39	–	39
Newly consolidated operations ^{(d) (e)}	–	–	–	–	–	2,902	2,902
Change in equity interest held by Rio Tinto ^(f)	–	–	–	1,128	1,128	166	1,294
Equity issued to holders of non-controlling interests ^(g)	–	–	–	–	–	1,595	1,595
Employee share options and other IFRS 2 charges taken to the income statement	–	–	78	45	123	120	243
Closing balance	5,945	4,244	14,868	21,496	46,553	11,187	57,740

(a) Refer to Group statement of comprehensive income.

(b) Refer to note 1 (d).

(c) Equity issued to holders of non-controlling interest in 2014 include US\$1,158 million of proceeds from a rights issue by Turquoise Hill Resources Ltd in January 2014.

(d) Rio Tinto gained control of the non-Oyu Tolgoi LLC (OT) assets of Turquoise Hill Resources Ltd on 24 January 2012 when its share reached 51 per cent.

Within newly consolidated operations for 31 December 2012, US\$2,678 million represents non-controlling interests in the non-OT assets, of which US\$1,439 million is the 49 per cent non-controlling interest in net loans receivable from Rio Tinto Group companies. Refer to note 37.

(e) Rio Tinto acquired a controlling interest in Richards Bay Minerals (RBM) in 2012, with consolidation effective from 3 September 2012 (the acquisition date). US\$224 million within newly consolidated operations relates to the fair value of non-controlling interests at the acquisition date. Refer to note 37.

(f) The majority of the adjustments to equity interest held by Rio Tinto in 2012 arose from the acquisition by a consortium led by Chalco of shares in Simfer Jersey Limited, a Rio Tinto subsidiary, as set out in the Simandou Joint Development Agreement. Chalco made a payment of US\$1.35 billion on 24 April 2012 in exchange for an equity interest of 47 per cent in Simfer Jersey, reimbursing Rio Tinto for historic project costs. The transfer on 24 April 2012 resulted in an adjustment to retained earnings attributable to owners of Rio Tinto of US\$1.05 billion, relating to the amount received over Rio Tinto's carrying value of the interest transferred.

(g) Equity issued to holders of non-controlling interests in 2012 include US\$0.9 billion of proceeds from a rights offering by Turquoise Hill, and cash calls of US\$480 million following the transfer described in (f), which resulted in the Chalco consortium being issued with additional equity interest in proportion to its interest.

Reconciliation with Australian Accounting Standards

The Group's financial statements have been prepared in accordance with IFRS, as defined in note 1, 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, as defined in note 1, 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\$553 million at 31 December 2014 (2013: US\$550 million).

Save for the exception described above, the Group's financial statements drawn up in accordance with IFRS are consistent with the requirements of AAS.

Outline of dual listed companies structure and basis of financial statements

The Rio Tinto Group

These are the financial statements of the Group formed through the merger of economic interests of Rio Tinto plc and Rio Tinto Limited ("Merger"), and presented by both Rio Tinto plc and Rio Tinto Limited as their consolidated accounts in accordance with both UK and Australian legislation and regulations.

Merger terms

On 21 December 1995, Rio Tinto plc and Rio Tinto Limited, which are listed respectively on Stock Exchanges in the UK and Australia, entered into a dual listed companies (DLC) merger. This was effected by contractual arrangements between the companies and amendments to Rio Tinto plc's Memorandum and Articles of Association and Rio Tinto Limited's Constitution.

As a result, Rio Tinto plc and Rio Tinto Limited and their respective groups operate together as a single economic enterprise, with neither assuming a dominant role. In particular, the arrangements:

- confer upon the shareholders of Rio Tinto plc and Rio Tinto Limited a common economic interest in both groups;
- provide for common boards of directors and a unified management structure;
- provide for equalised dividends and capital distributions; and
- provide for the shareholders of Rio Tinto plc and Rio Tinto Limited to take key decisions, including the election of directors, through an electoral procedure in which the public shareholders of the two companies effectively vote on a joint basis.

The merger involved no change in the legal ownership of any assets of Rio Tinto plc or Rio Tinto Limited, nor any change in the ownership of any existing shares or securities of Rio Tinto plc or Rio Tinto Limited, nor the issue of any shares, securities or payment by way of consideration, save for the issue by each company of one special voting share to a trustee company which provides the joint electoral procedure for public shareholders. During 2002, each of the parent companies issued a DLC Dividend Share to facilitate the efficient management of funds within the DLC structure.

Accounting standards

The financial statements have been drawn up in accordance with IFRS as defined in note 1. The Merger was accounted for as a merger under UK GAAP. As permitted under the rules governing the transition to IFRS, which are set out in IFRS 1, the Group did not restate business combinations that occurred before the transition date of 1 January 2004. As a result, the DLC merger of economic interests described above continues to be accounted for as a merger under IFRS as defined in note 1.

The main consequence of adopting merger rather than acquisition accounting is that the balance sheet of the merged Group includes the assets and liabilities of Rio Tinto plc and Rio Tinto Limited at their carrying values prior to the merger, subject to adjustments to achieve uniformity of accounting policies, rather than at their fair values at the date of the merger. For accounting purposes Rio Tinto plc and Rio Tinto Limited are viewed as a single public parent company (with their respective public shareholders being the shareholders in that single company). As a result the amounts attributable to both Rio Tinto plc and Rio Tinto Limited public shareholders are included in the amounts attributed to owners of Rio Tinto on the balance sheet, income statement and statement of comprehensive income.

Australian Corporations Act

The financial statements are drawn up in accordance with an order, under section 340 of the Australian Corporations Act 2001, issued by the Australian Securities and Investments Commission (ASIC) on 9 January 2015. The main provisions of the order are that the financial statements are prepared in accordance with the principles and requirements of International Financial Reporting Standards as adopted by the European Union (EU IFRS) and include a reconciliation from EU IFRS to the Australian equivalents of IFRS (see above).

For further details of the ASIC Class Order relief see page 183.

Notes to the 2014 financial statements

1 Principal accounting policies

Corporate information

Rio Tinto's business is finding, mining and processing mineral resources. Major products are aluminium, copper, diamonds, gold, industrial minerals (borates, titanium dioxide and salt), iron ore, thermal and metallurgical coal and uranium. Activities span the world and are strongly represented in Australia and North America with significant businesses in Asia, Europe, Africa and South America.

Rio Tinto plc is incorporated in the UK and listed on the London Stock Exchange and Rio Tinto Limited is incorporated in Australia and listed on the Australian Stock Exchange. Rio Tinto plc's registered office is at 2 Eastbourne Terrace, London W2 6LG, UK. Rio Tinto Limited's registered office is at 120 Collins Street, Melbourne, Australia, 3000.

These financial statements consolidate the accounts of Rio Tinto plc and Rio Tinto Limited (together "the Companies") and their respective subsidiaries (together "the Group") and include the Group's share of joint arrangements and associates as explained in note 1(b) below. The Group's financial statements for the year ended 31 December 2014 were authorised for issue in accordance with a directors' resolution on 4 March 2015.

Notes 33 to 36 provide more information on the Group's subsidiaries, joint arrangements and associates and note 40 provides information on the Group's other related party relationships.

Basis of preparation of the financial statements

The basis of preparation and the accounting policies used in preparing the Group's 2014 financial statements are set out below.

The financial statements have been prepared on a going concern basis in accordance with the Companies Act 2006 applicable to companies reporting under International Financial Reporting Standards and in accordance with applicable UK law, applicable Australian law as amended by the Australian Securities and Investments Commission Order dated 9 January 2015 and 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 (IFRIC) both as adopted by the European Union (EU) and which are mandatory for EU reporting as at 31 December 2014;
- IFRIC 21 "Leases" which has been adopted by the EU and is mandatory as at 31 December 2015 for EU reporting and is available for early adoption; and
- International Financial Reporting Standards as issued by the IASB and interpretations issued from time to time by the IFRIC which are mandatory as at 31 December 2014.

The above accounting standards and interpretations are collectively referred to as "IFRS" in this report. The Group has not early adopted any other amendments, standards or interpretations that have been issued but are not yet mandatory.

The Group's financial statements have been prepared on the basis of accounting policies consistent with those applied in the financial statements for the year ended 31 December 2013 except for the implementation of IFRIC 21 and a number of minor amendments issued by the IASB which applied for the first time in 2014. 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 statements have not been restated for these pronouncements.

The Group has not applied the following pronouncements which are not mandatory for 2014.

Mandatory for 2015 and endorsed by the EU

Amendments to IAS 19 "Defined Benefit Plans: Employee Contributions". The objective of the amendment is to simplify the accounting for employee or third party contributions that are independent of the number of years of employee service.

Certain Annual Improvements to IFRS 2010 to 2012 cycle

Annual Improvements to IFRS 2011 to 2013 cycle

Mandatory for 2016 and beyond (not yet endorsed by the EU)

Amendment to IAS 1 "Presentation of Financial Statements – Disclosure Initiative". The amendment provides clarification of guidance in IAS 1 on materiality and aggregation, the presentation of subtotals, the structure of financial statements and the disclosure of accounting policies.

Amendments to IAS 16 and IAS 38. The amendments provide clarification of acceptable methods of depreciation and amortisation.

Amendments to IFRS 10 and IAS 28. The amendments deal with the sale or contribution of assets between an investor and its associate or joint venture.

Amendments to IFRS 11 "Joint Arrangements". The amendments deal with the accounting for acquisitions of interests in joint operations.

Annual improvements to IFRS 2012-2014 cycle

IFRS 15 "Revenue from contracts with customers". The core principle of IFRS 15 is that an entity recognises revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

IFRS 9 "Financial Instruments". The standard includes a single approach for the classification of financial assets, based on cash flow characteristics and the entity's business model. It introduces a new expected loss impairment model which requires expected losses to be recognised when financial instruments are first recognised. The standard amends the rules on hedge accounting to align the accounting treatment with the risk management practices of an entity.

The Group is currently evaluating the impact of these pronouncements which may have an impact on the Group's earnings or shareholders' funds in future years.

Judgments in applying accounting policies and key sources of estimation uncertainty

The preparation of the financial statements requires management to make assumptions, judgments and estimates and to use judgment in applying accounting policies and in making critical accounting estimates.

These judgments, estimates and assumptions are based on management's best knowledge of the relevant facts and circumstances, having regard to previous experience, but actual results may differ materially from the amounts included in the financial statements. Key areas of judgment and estimation uncertainty are highlighted below and further information is contained in the accounting policies and/or the Notes to the financial statements.

Areas of judgment that have the most significant effect on the amounts recognised in the financial statements are:

- Merger accounting for the 1995 merger of the economic interests of Rio Tinto plc and Rio Tinto Limited into the dual listed companies (DLC) structure (see Dual listed companies structure on page 109);
- Acquisitions – note 1(b) and note 37;
- Review of asset carrying values, impairment charges and reversals and the recoverability of goodwill – note 1(e) and (i), note 6, note 12 and note 13;
- Estimation of asset lives – note 1(e) and (i);
- Determination of ore reserve and mineral resource estimates – note 1(j);
- Provision for onerous contracts – note 1(i);
- Close-down, restoration and environmental obligations – note 1(k);
- Deferral of stripping costs – note 1(h);
- Uncertain tax positions – note 1(m);
- Recognition of deferred tax on mining rights recognised in acquisitions – note 1(m);
- Recoverability of potential deferred tax assets – note 17(c), (e) and (g);
- Capitalisation of exploration and evaluation costs – note 1(f);
- Identification of functional currencies – note 1(d);
- Basis of consolidation – note 1(b);
- Contingencies – note 31; and
- Post-retirement cost assumptions – note 1(n) and note 45.

Key sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are:

- Review of asset carrying values, impairment charges and reversals and the recoverability of goodwill – note 1(e) and (i), note 6, note 12 and note 13;
- Estimation of asset lives – note 1(e) and (i);
- Determination of ore reserve and mineral resource estimates – note 1(j);
- Estimation of close-down, restoration and environmental costs and the timing of expenditure – note 1(k) and note 26;
- Estimation of obligations for post-retirement costs – note 1(n) and note 45;
- Recoverability of potential deferred tax assets – note 17 (c), (e) and (g);
- Contingencies – note 31; and
- Capitalisation of exploration and evaluation costs – note 1(f).

These areas of judgment and estimation are discussed further in critical accounting policies and estimates on page 120.

(a) Accounting convention

The financial information included in the financial statements for the year ended 31 December 2014, and for the related comparative periods, has been 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 item and the accounting for post-retirement assets and obligations. The Group's policy in respect of these items is set out in the notes below.

The Group's financial statements are presented in US dollars and all values are rounded to the nearest million (US\$m) unless otherwise stated.

Where applicable, comparatives have been adjusted to measure or present them on the same basis as current period figures.

(b) Basis of consolidation (notes 33 to 36)

All intragroup transactions and balances have been eliminated on consolidation.

Where necessary, adjustments are made to the locally reported assets, liabilities, and results of subsidiaries, joint arrangements and associates to bring their accounting policies into line with those used by the Group.

Subsidiaries: Subsidiaries are entities controlled by the Companies. Control exists where the Companies have: power over the entities, ie existing rights that give them the current ability to direct the relevant activities of the entities (those that significantly affect the Companies' returns); exposure, or rights, to variable returns from their involvement with the entities; and the ability to use their power to affect those returns. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Joint Arrangements: A joint arrangement is an arrangement of which two or more parties have joint control. Joint control is the contractually agreed sharing of control such that decisions about the relevant activities of the arrangement (those that significantly affect the Companies' returns) require the unanimous consent of the parties sharing control. The Group has two types of joint arrangement:

Joint Operations (JOs): A JO is a joint arrangement in which the parties that share joint control have rights to the assets, and obligations for the liabilities, relating to the arrangement. This includes situations where the parties benefit from the joint activity through a share of the output, rather than by receiving a share of the results of trading. In relation to its interest in a JO, the Group recognises: its share of assets and liabilities; revenue from the sale of its share of the output and its share of any revenue generated from the sale of the output by the JO; and its share of expenses. These are incorporated into the Group's financial statements under the appropriate headings.

Joint Ventures (JVs): A JV is a joint arrangement in which the parties that share joint control have rights to the net assets of the arrangement. JVs are accounted for using the equity accounting method.

Associates: An associate is an entity that is neither a subsidiary nor a joint arrangement, over which the Group has significant influence. Significant influence is presumed to exist where there is neither control nor joint control and the Group has over 20 per cent of the voting rights, unless it can be clearly demonstrated that this is not the case. Significant influence can arise where the Group holds less than 20 per cent of the voting rights if it has the power to participate in the financial and operating policy decisions affecting the entity. Investments in associates are accounted for using the equity accounting method.

1 Principal accounting policies continued

The Group uses the term “equity accounted units” (EAUs) to refer to associates and JVs collectively. For all EAUs, the carrying value will include any long-term loans to the EAUs that in substance form part of the Group’s net investment.

Under the equity accounting method the investment is recorded initially at cost to the Group, including any goodwill on acquisition. In subsequent periods the carrying amount of the investment is adjusted to reflect the Group’s share of the EAUs’ retained post-acquisition profit or loss and other comprehensive income.

When the Group’s share of losses in an EAU equals or exceeds its interest in the EAU, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the EAU.

Acquisitions (note 37)

Under the “acquisition” method of accounting for business combinations, the purchase consideration is allocated to the identifiable assets acquired and liabilities and contingent liabilities assumed (the identifiable net assets) on the basis of their fair value at the date of acquisition which is the date on which control is obtained.

The consideration transferred for the acquisition of a subsidiary comprises the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and any equity interests issued by the Group. Costs related to the acquisition of a subsidiary are expensed as incurred.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. Any shortfall is immediately recognised in the income statement.

Provisional fair values allocated at a reporting date are finalised within 12 months of the acquisition date.

On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree either at the non-controlling interest’s proportionate share of the acquiree’s identifiable net assets or at fair value. In some cases, non-controlling interests may be treated as equity options and valued on that basis. Goodwill (see note (e)) and amounts attributable to non-controlling interests will differ depending on the basis used.

Where the Group has a previously held non-controlling interest in the acquiree, this is remeasured to fair value at the date control is gained with any gain or loss recognised in the income statement. The cash cost of the share purchase that gives rise to control is included within “Investing activities” in the cash flow statement.

Where the Group increases its ownership interest in a subsidiary, the difference between the purchase price and the carrying value of the share of net assets acquired is recorded in equity. The cash cost of such purchases is included within “Financing activities” in the cash flow statement.

The results of businesses acquired during the year are included in the consolidated financial statements from the date on which control, joint control or significant influence commences.

Disposals (note 37)

Individual non-current assets or “disposal groups” (ie groups of assets and liabilities) to be disposed of, by sale or otherwise in a single transaction, are classified as “held for sale” if the following criteria are met at the period end:

- the carrying amount will be recovered principally through a sale transaction rather than through continuing use; and
- the disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for such sales; and
- the sale is highly probable.

Disposal groups held for sale are carried at the lower of their carrying amount and fair value less costs to sell. The comparative balance sheet is not restated. Disposal groups acquired with a view to resale are held at the fair value determined at the acquisition date. For these assets acquired for resale no profits or losses are recognised between the acquisition date and the disposal date, unless there is a subsequent impairment.

On classification as held for sale, the assets are no longer depreciated.

If control is lost, any interest in the entity retained by the Group is remeasured to its fair value and the change in carrying amount is recognised in the income statement. The retained interest may be subsequently accounted for as a joint venture, joint operation, associate or financial asset depending on the facts. Any amounts previously recognised in other comprehensive income in respect of the entity disposed of, or for which control, joint control or significant influence has ceased, may be recycled to the income statement in proportion to the interest disposed of. The cash proceeds of disposals are included within “Investing activities” in the cash flow statement.

Gains or losses on disposals to non-controlling interests where control is retained are recorded in equity. The cash proceeds of such disposals are included within “Financing activities” in the cash flow statement.

(c) Sales revenue

Sales revenue comprises sales to third parties at invoiced amounts. All shipping and handling costs incurred by the Group are recognised as operating costs. Amounts billed to customers in respect of shipping and handling are classified as sales revenue where the Group is responsible for freight. If the Group is acting solely as an agent, amounts billed to customers are offset against the relevant costs. Revenue from services is recognised as services are rendered and accepted by the customer.

Sales revenue excludes any applicable sales taxes. Mining royalties payable are presented as an operating cost or, where they are in substance a profit-based tax, within taxation.

Revenues from the sale of significant by-products, such as gold, are included in sales revenue. Sundry revenue, incidental to the main revenue-generating activities of the operations, and which is a consequence of producing and selling the main products, is treated as a credit to operating costs.

Third-party commodity swap arrangements for delivery and receipt of smelter grade alumina are offset within operating costs.

Sales of copper concentrate are stated at their invoiced amount which is net of treatment and refining charges.

Sales revenue is only recognised on individual sales when all of the following criteria are met:

- the significant risks and rewards of ownership of the product have been transferred to the buyer;
- neither continuing managerial involvement to the degree usually associated with ownership, nor effective control over the goods sold, has been retained;

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the sale will flow to the Group; and
- the costs incurred or to be incurred in respect of the sale can be measured reliably.

These conditions are generally satisfied when title passes to the customer. In most instances, sales revenue is recognised when the product is delivered to the destination specified by the customer, which is typically the vessel on which it will be shipped, the destination port or the customer's premises.

The Group's products are sold to customers under contracts which vary in tenure and pricing mechanisms, with some volumes sold in the spot market.

Pricing for iron ore is on a range of terms, the majority being either monthly or quarterly average pricing mechanisms, with a smaller proportion of iron ore volumes being sold on the spot market. Substantially all iron ore sales are reflected at final prices in the results for the period, based on the best available information at the period end.

Sales revenue is commonly subject to adjustment based on an inspection of the product by the customer. In such cases, sales revenue is initially recognised on a provisional basis using the Group's best estimate of contained metal, and adjusted subsequently.

Certain products are "provisionally priced", ie the selling price is subject to final adjustment at the end of a period normally ranging from 30 to 180 days after delivery to the customer. The final price is based on the market price at the relevant quotation point stipulated in the contract.

As is customary in the industry, revenue on provisionally-priced sales is recognised based on estimates of the fair value of the consideration receivable based on relevant forward market prices. At each reporting date, provisionally priced metal is marked to market based on the forward selling price for the quotational period stipulated in the contract. For this purpose, the selling price can be measured reliably for those products, such as copper, for which there exists an active and freely-traded commodity market such as the London Metals Exchange and the value of product sold by the Group is directly linked to the form in which it is traded on that market.

The marking to market of provisionally-priced sales contracts is recorded as an adjustment to sales revenue. Information on provisionally-priced sales contracts is included in note 30.

(d) Currency translation

The functional currency for each entity in the Group, and for joint arrangements and associates, is the currency of the primary economic environment in which that entity operates. For many entities, this is the currency of the country in which they are located. Transactions denominated in other currencies are converted to the functional currency at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at year end exchange rates. The Group's accounting policies for derivative financial instruments and hedge accounting are explained in more detail in note 1(p) (iii).

The Group's financial statements are presented in US dollars, as that presentation currency most reliably reflects the global business performance of the Group as a whole. On consolidation, income statement items for each entity are translated from the functional currency into US dollars at average rates of exchange where the average is a reasonable approximation of rates prevailing on the transaction date. Balance sheet items are translated into US dollars at period-end exchange rates.

Exchange differences arising on the translation of the net assets of entities with functional currencies other than the US dollar are recognised directly in the foreign currency translation reserve. These translation differences are shown in the statement of comprehensive income with the exception of translation adjustments relating to Rio Tinto Limited's share capital which are shown in the statement of changes in equity.

Where an intragroup balance is, in substance, part of the Group's net investment in an entity, exchange gains and losses on that balance are taken to the foreign currency translation reserve.

Except as noted above, or in note (p) below relating to derivative contracts, all other exchange differences are charged or credited to the income statement in the year in which they arise.

(e) Goodwill and intangible assets (excluding exploration and evaluation expenditure) (notes 12 and 13)

Goodwill is not amortised; it is tested annually for impairment or more frequently if events or changes in circumstances indicate a potential impairment. Investments in EAUs including any goodwill are tested for impairment as a single asset when a trigger for impairment has been identified. The Group's impairment policy is explained in note 1(i).

Purchased intangible assets are initially recorded at cost. Finite-life intangible assets are amortised over their useful economic lives on a straight line or units of production basis, as appropriate. Intangible assets that are deemed to have indefinite lives and intangible assets that are not yet ready for use are not amortised; they are reviewed annually for impairment or more frequently if events or changes in circumstances indicate a potential impairment in accordance with accounting policy note 1(i).

The Group considers that intangible assets have indefinite lives when, based on an analysis of all of the relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate cash flows for the Group. The factors considered in making this judgment include the existence of contractual rights for unlimited terms; or evidence that renewal of the contractual rights without significant incremental cost can be expected for indefinite future periods in view of the Group's investment intentions. The life cycles of the products and processes that depend on the asset are also considered.

(f) Exploration and evaluation (note 13)

Exploration and evaluation expenditure comprises costs that are directly attributable to:

- researching and analysing existing exploration data;
- conducting geological studies, exploratory drilling and sampling;
- examining and testing extraction and treatment methods; and/or
- compiling pre-feasibility and feasibility studies.

Exploration expenditure relates to the initial search for deposits with economic potential. Expenditure on exploration activity is not capitalised.

1 Principal accounting policies continued

Evaluation expenditure relates to a detailed assessment of deposits or other projects that have been identified as having economic potential. Capitalisation of evaluation expenditure commences when there is a high degree of confidence that the Group will determine that a project is commercially viable, ie the project will provide a satisfactory return relative to its perceived risks, and therefore it is considered probable that future economic benefits will flow to the Group.

The carrying values of capitalised evaluation expenditure are reviewed for impairment twice a year by management. In the case of undeveloped mining projects (projects for which the decision to mine has not yet been approved at the appropriate authorisation level within the Group) which have arisen through acquisition, the allocation of the purchase price consideration may result in undeveloped properties being recognised at an earlier stage of project evaluation compared with organic projects. The impairment review is based on a status report summarising the Group's intentions for development. Subsequent expenditure on acquired undeveloped projects is only capitalised if it meets the high degree of confidence threshold discussed above.

In some cases, undeveloped projects are regarded as successors to orebodies, smelters or refineries currently in production. Where this is the case, it is intended that these will be developed and go into production when the current source of ore is exhausted or to replace the output when existing smelters and/or refineries are closed.

(g) Property, plant and equipment (note 14)

Once an undeveloped mining project has been determined as commercially viable and approval to mine has been given, expenditure other than that on land, buildings, plant, equipment and capital work in progress is capitalised under "Mining properties and leases" together with any amount transferred from "Exploration and evaluation". Ore reserves may be declared for an undeveloped mining project before its commercial viability has been fully determined. Evaluation costs may continue to be capitalised during the period between declaration of ore reserves and approval to mine as further work is undertaken in order to refine the development case to maximise the project's returns.

Costs of evaluation of a smelter or refinery prior to approval to develop are capitalised under "Capital works in progress", provided that there is a high degree of confidence that the project will be deemed to be commercially viable.

Costs which are necessarily incurred whilst commissioning new assets, in the period before they are capable of operating in the manner intended by management, are capitalised. Development costs incurred after the commencement of production are capitalised to the extent they are expected to give rise to a future economic benefit. Interest on borrowings related to construction or development projects is capitalised, at the rate payable on project-specific debt if applicable, or at the Group's cost of borrowing if not, until the point when substantially all the activities that are necessary to make the asset ready for its intended use are complete.

Property, plant and equipment is stated at cost, as defined in IAS 16, less accumulated depreciation and accumulated impairment losses. The cost of property, plant and equipment includes the estimated close-down and restoration costs associated with the asset.

(h) Deferred stripping (note 14)

In open pit mining operations, overburden and other waste materials must be removed to access ore from which minerals can be extracted economically. The process of removing overburden and waste materials is referred to as stripping. During the development of a mine (or pit), before production commences, stripping costs are capitalised as part of the cost of construction of the mine (or pit) and are subsequently amortised over the life of the mine (or pit) on a units of production basis.

In order for production phase stripping costs to qualify for capitalisation as a stripping activity asset, three criteria must be met:

- it must be probable that there will be an economic benefit in a future accounting period because the stripping activity has improved access to the orebody; and
- it must be possible to identify the "component" of the orebody for which access has been improved; and
- it must be possible to reliably measure the costs that relate to the stripping activity.

A "component" is a specific section of the orebody that is made more accessible by the stripping activity. It will typically be a subset of the larger orebody that is distinguished by a separate useful economic life eg a pushback.

Production phase stripping can give rise to two benefits: the extraction of ore in the current period and improved access to ore which will be extracted in future periods. When the cost of stripping which has a future benefit is not distinguishable from the cost of producing current inventories, the stripping cost is allocated to each of these activities based on a relevant production measure using a life of component strip ratio. The ratio divides the tonnage of waste mined for the component for the period either by the quantity of ore mined for the component or by the quantity of minerals contained in the ore mined for the component. In some operations, the quantity of ore is a more appropriate basis for allocating costs, particularly where there are significant by-products. Stripping costs for the component are deferred to the extent that the current period ratio exceeds the life of component ratio. The stripping activity asset is depreciated on a "units of production" basis based on expected production of either ore or contained minerals over the life of the component unless another method is more appropriate.

The life of component ratios are based on the ore reserves of the mine (and for some mines, other mineral resources) and the annual mine plan; they are a function of the mine design and therefore changes to that design will generally result in changes to the ratios. Changes in other technical or economic parameters that impact the ore reserves (and for some mines, other mineral resources) may also have an impact on the life of component ratios even if they do not affect the mine design. Changes to the ratios are accounted for prospectively.

It may be the case that subsequent phases of stripping will access additional ore and that these subsequent phases are only possible after the first phase has taken place. Where applicable, the Group considers this on a mine-by-mine basis. Generally, the only ore attributed to the stripping activity asset for the purposes of calculating a life of component ratio, and for the purposes of amortisation, is the ore to be extracted from the originally identified component.

Where a mine operates several open pits that are regarded as separate operations for the purpose of mine planning, initial stripping costs are accounted for separately by reference to the ore from each separate pit. If, however, the pits are highly integrated for the purpose of mine planning, the second and subsequent pits are regarded as extensions of the first pit in accounting for stripping costs. In such cases, the initial stripping (ie overburden and other waste removal) of the second and subsequent pits is considered to be production phase stripping.

The Group's judgment as to whether multiple pit mines are considered separate or integrated operations depends on each mine's specific circumstances.

The following factors would point towards the initial stripping costs for the individual pits being accounted for separately:

- If mining of the second and subsequent pits is conducted consecutively with that of the first pit, rather than concurrently.
- If separate investment decisions are made to develop each pit, rather than a single investment decision being made at the outset.

- If the pits are operated as separate units in terms of mine planning and the sequencing of overburden removal and ore mining, rather than as an integrated unit.
- If expenditures for additional infrastructure to support the second and subsequent pits are relatively large.
- If the pits extract ore from separate and distinct orebodies, rather than from a single orebody.

If the designs of the second and subsequent pits are significantly influenced by opportunities to optimise output from the several pits combined, including the co-treatment or blending of the output from the pits, then this would point to treatment as an integrated operation for the purpose of accounting for initial stripping costs.

The relative importance of each of the above factors is considered in each case.

Deferred stripping costs are included in "Mining properties and leases" within "Property, plant and equipment" or within "Investments in equity accounted units", as appropriate. Amortisation of deferred stripping costs is included in "Depreciation on property, plant and equipment" within "Net operating costs" or in "Share of profit after tax of equity accounted units", as appropriate.

(i) Depreciation and impairment (notes 13 and 14)

Depreciation of non-current assets

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the mine or smelter or refinery if that is shorter and there is no reasonable alternative use for the asset.

The useful lives of the major assets of a cash-generating unit are often dependent on the life of the orebody to which they relate. Where this is the case, the lives of mining properties, and their associated refineries, concentrators and other long-lived processing equipment are generally based on the expected life of the orebody. The life of the orebody, in turn, is estimated on the basis of the life-of-mine plan. Where the major assets of a cash-generating unit are not dependent on the life of a related orebody, management applies judgment in estimating the remaining service potential of long-lived assets. Factors affecting the remaining service potential of smelters, for example, include smelter technology and electricity purchase contracts when power is not sourced from the company's, or in some cases a local government's, electricity generating capacity.

The useful lives and residual values for material assets and categories of assets are reviewed annually and changes reflected prospectively.

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

Units of production basis

For mining properties and leases and certain mining equipment, consumption of the economic benefits of the asset is linked to production. Except as noted below, these assets are depreciated on a units of production basis.

In applying the units of production method, depreciation is normally calculated based on production in the period as a percentage of total expected production in current and future periods based on ore reserves and, for some mines, other mineral resources. Other mineral resources may be included in depreciation calculations in limited circumstances and where there is a high degree of confidence that they can be extracted economically. This would be the case when the other mineral resources do not yet have the status of ore reserves merely because the necessary detailed evaluation work has not yet been performed and the responsible technical personnel agree that inclusion of a proportion of measured and indicated resources is appropriate based on historic reserve conversion rates.

Other mineral resources would usually only be included in unit of production calculations where there are very large areas of contiguous mineralisation, for which the economic viability is not sensitive to likely variations in grade, as may be the case for certain iron ore, bauxite and industrial minerals deposits. The required level of confidence is unlikely to exist for minerals that are typically found in low-grade ore, (compared with the above) such as copper or gold. In these cases, specific areas of mineralisation have to be evaluated in considerable detail before their economic status can be predicted with confidence.

Where measured and indicated resources are used in the calculation of depreciation for infrastructure, primarily rail and port, which will benefit current and future mines then the measured and indicated resources may relate to mines which are currently in production or to mines where there is a high degree of confidence that they will be brought into production in the future. The quantum of mineral resources is determined taking into account future capital costs as required by the Joint Ore Reserves Committee (JORC) code. The depreciation calculation, however, does not take into account future development costs for mines which are not yet in production. Measured and indicated resources are currently incorporated into depreciation calculations in the Group's Australian iron ore business.

Straight-line basis

Assets within operations for which production is not expected to fluctuate significantly from one year to another or which have a physical life shorter than the related mine are depreciated on a straight-line basis.

Impairment charges/reversals of non-current assets

Impairment charges and reversals are assessed at the level of cash-generating units which, in accordance with IAS 36 "Impairment of Assets", are identified as the smallest identifiable asset or group of assets that generate cash inflows, which are largely independent of the cash inflows from other assets. The existence of an active market for intermediate products is also monitored and separate cash-generating units are identified even if the majority of those products are further processed internally and therefore the cash flows are not independent. Impairment of financial assets is discussed in note (p).

In some cases, individual business units consist of several operations with independent cash-generating streams, which constitute separate cash-generating units.

Goodwill acquired through business combinations is allocated to the cash-generating unit, or groups of cash-generating units if that is the lowest level within the Group at which goodwill is monitored for internal management purposes, that are expected to benefit from the related business combination. All goodwill and intangible assets that are not yet ready for use or have an indefinite life are tested annually for impairment as at 30 September, regardless of whether there has been an impairment trigger, or more frequently if events or changes in circumstances indicate a potential impairment.

Property, plant and equipment and intangible assets with finite lives are reviewed for impairment if there is an indication that the carrying amount may not be recoverable. The Group conducts an internal review of the asset values annually as at 30 September which is used as a source of information to assess for indications of impairment or reversal of previously recognised impairment losses. External factors, such as changes in expected future prices, costs and other market factors, are also monitored to assess for indications of impairment or reversal of previously recognised impairment losses. If any such indication exists then an impairment review is undertaken, the recoverable amount is assessed by reference to the higher of value in use (being the net present value of expected future cash flows of the relevant cash-generating unit in its current condition) and fair value less costs of disposal (FVLCD).

1 Principal accounting policies continued

When the recoverable amount of the cash-generating unit is measured by reference to FVLCD, this amount is further classified in accordance with the fair value hierarchy for observable market data that is consistent with the unit of account for the cash-generating unit being tested. The Group considers that the best evidence of FVLCD is the value obtained from an active market or binding sale agreement and, in this case, the recoverable amount is classified in the fair value hierarchy as level 1. When FVLCD is based on quoted prices for equity instruments but adjusted to reflect factors such as a lack of liquidity in the market, the recoverable amount is classified as level 2 in the fair value hierarchy. No cash-generating units are currently assessed for impairment by reference to a recoverable amount based on FVLCD classified as level 2.

Where unobservable inputs are material to the measurement of the recoverable amount, FVLCD is based on the best information available to reflect the amount the Group could receive for the cash-generating unit in an orderly transaction between market participants at the measurement date. This is often estimated using discounted cash flow techniques and is classified as level 3 in the fair value hierarchy.

Where the recoverable amount is assessed using FVLCD based on discounted cash flow techniques, the resulting estimates are based on detailed “life-of-mine” and/or long term production plans. The latter may include brownfield expansions which have not yet been approved at the appropriate authorisation level in the Group.

The cash flow forecasts for FVLCD purposes are based on management’s best estimates of expected future revenues and costs, including the future cash costs of production, capital expenditure, closure, restoration and environmental costs. For the purposes of determining FVLCD from a market participant’s perspective, the cash flows incorporate management’s price and cost assumptions in the short and medium term. In the longer term, operating margins are assumed to remain constant where appropriate; as it is considered unlikely that a market participant would prepare detailed forecasts over a longer term. The cash flow forecasts may include net cash flows expected to be realised from extraction, processing and sale of material that does not currently qualify for inclusion in ore reserves. Such non-reserve material is only included when there is a high degree of confidence in its economic extraction. This expectation is usually based on preliminary drilling and sampling of areas of mineralisation that are contiguous with existing ore reserves. Typically, the additional evaluation required to achieve reserve status for such material has not yet been done because this would involve incurring evaluation costs earlier than is required for the efficient planning and operation of the mine.

As noted above, cost levels incorporated in the cash flow forecasts for FVLCD purposes are based on the current life-of-mine plan or long-term production plan for the cash-generating unit. This differs from value in use which requires future cash flows to be estimated for the asset in its current condition and therefore does not include future cash flows associated with improving or enhancing an asset’s performance. Anticipated enhancements to assets may be included in FVLCD calculations and therefore generally result in a higher value.

Where the recoverable amount of a cash-generating unit is dependent on the life of its associated orebody, expected future cash flows reflect the current life of mine or long-term production plans, which are based on detailed research, analysis and iterative modelling to optimise the level of return from investment, output and sequence of extraction. The mine plan takes account of all relevant characteristics of the orebody, including waste-to-ore ratios, ore grades, haul distances, chemical and metallurgical properties of the ore impacting on process recoveries and capacities of processing equipment that can be used. The life-of-mine plan and/or long term production plans are therefore the basis for forecasting production output and production costs in each future year.

Forecast cash flows for ore reserve estimation for JORC purposes are generally based on Rio Tinto’s commodity price forecasts, which assume short-term market prices will revert to the Group’s assessment of the long-term price, generally over a period of three to five years. For most commodities, these forecast commodity prices are derived from a combination of analyses of the marginal costs of the producers and of the incentive price of these commodities. These assessments often differ from current price levels and are updated periodically. The Group does not believe that published medium and long-term forward prices provide a good indication of future levels because they tend to be strongly influenced by spot prices. The price forecasts used for ore reserve estimation are generally consistent with those used for impairment testing unless management deems that in certain economic environments, a market participant would not assign Rio Tinto’s view on prices, in which case management estimates the assumptions that a market participant would be expected to use.

Forecast future cash flows of a cash-generating unit take into account the sales prices under existing sales contracts.

The discount rates applied to the future cash flow forecasts represent an estimate of the rate the market would apply having regard to the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted. The Group’s weighted average cost of capital is used as a starting point for determining the discount rates, with appropriate adjustments for the risk profile of the countries in which the individual cash-generating units operate. For final feasibility studies and ore reserve estimation, internal hurdle rates, which are generally higher than the Group’s weighted average cost of capital, are used.

For operations with a functional currency other than the US dollar, the impairment review is undertaken in the relevant functional currency. In estimating FVLCD, internal forecasts for long-term exchange rates take into account spot exchange rates, historical data and external forecasts, and are linked to price assumptions. The great majority of the Group’s sales are based on prices denominated in US dollars. To the extent that the currencies of countries in which the Group produces commodities strengthen against the US dollar without commodity price offset, cash flows and, therefore, net present values are reduced. Management considers that over the long term, there is a tendency for movements in commodity prices to compensate to some extent for movements in the value of the US dollar, particularly against the Australian dollar and Canadian dollar, and vice versa. However, such compensating changes are not synchronised and do not fully offset each other.

IAS 36 requires that value in use be based on exchange rates current at the time of the assessment.

Non-current assets (excluding goodwill) that have suffered impairment are reviewed whenever events or changes in circumstances indicate that the impairment loss may no longer exist, or may have decreased. If appropriate an impairment reversal will be recognised. The carrying amount of the cash generating unit after reversal must be the lower of (a) the recoverable amount, as calculated above, and (b) the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the cash-generating unit in prior periods.

An onerous contract is defined under IAS 37 “Provisions, Contingent Liabilities and Contingent Assets” as a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. However, no provision is required provided that the related assets, which may be the wider cash-generating unit of which the business unit forms part, are not fully impaired.

(j) Determination of ore reserve and mineral resource estimates

The Group estimates its ore reserves and mineral resources based on information compiled by Competent Persons as defined in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of December 2012 (the "JORC code", which is produced by the Australasian Joint Ore Reserves Committee).

Ore reserves and, for certain mines, other mineral resources, determined in this way are used in the calculation of depreciation, amortisation and impairment charges and for forecasting the timing of the payment of close-down and restoration costs and the recovery of deferred tax assets. The depreciation and impairment policy above notes instances in which mineral resources are taken into account for accounting purposes. In addition, value may be attributed to mineral resources in purchase price allocations undertaken for the purposes of business combination accounting.

(k) Close-down, restoration and environmental obligations (note 26)

The Group has provisions for close-down and restoration costs which include the dismantling and demolition of infrastructure, the removal of residual materials and the remediation of disturbed areas for mines and certain refineries and smelters. These provisions are based on all regulatory requirements and any other commitments made to stakeholders. Closure provisions are not made for those operations that have no known restrictions on their lives as the closure dates cannot be reliably estimated. This applies primarily to certain North American smelters which have water rights or power agreements with local governments.

Close-down and restoration costs are a normal consequence of mining or production, and the majority of close-down and restoration expenditure is incurred in the years following closure of the mine, refinery or smelter. Although the ultimate cost to be incurred is uncertain, the Group's businesses estimate their costs using current restoration standards and techniques.

Close-down and restoration costs are provided for in the accounting period when the obligation arising from the related disturbance occurs, based on the net present value of the estimated future costs of restoration to be incurred during the life of the operation and post closure. Where appropriate, the provision is estimated using probability weighting of the different remediation and closure scenarios. The obligation may occur during development or during the production phase of a facility.

Provisions for close-down and restoration costs do not include any additional obligations which are expected to arise from future disturbance. The costs are estimated on the basis of a closure plan, and are reviewed six monthly during the life of the operation to reflect known developments. The estimates are subject to formal review at regular intervals.

The initial close-down and restoration provision is capitalised within "Property, plant and equipment". Subsequent movements in the close-down and restoration provisions for ongoing operations, including those resulting from new disturbance related to expansions or other activities qualifying for capitalisation, updated cost estimates, changes to the estimated lives of operations, changes to the timing of closure activities and revisions to discount rates are also capitalised within "Property, plant and equipment". These costs are then depreciated over the lives of the assets to which they relate. Changes in closure provisions relating to closed operations are charged/credited to "Net operating costs" in the income statement.

Where rehabilitation is conducted systematically over the life of the operation, rather than at the time of closure, provision is made for the estimated outstanding continuous rehabilitation work at each balance sheet date and the cost is charged to the income statement.

The amortisation or "unwinding" of the discount applied in establishing the provisions is charged to the income statement in each accounting period. The amortisation of the discount is shown within "Finance items" in the income statement.

Environmental costs result from environmental damage that was not a necessary consequence of operations, and may include remediation, compensation and penalties. Provision is made for the estimated present value of such costs at the balance sheet date. These costs are charged to "Net operating costs", except for the unwinding of the discount which is shown within "Finance items".

Remediation procedures may commence soon after the time the disturbance, remediation process and estimated remediation costs become known, but can continue for many years depending on the nature of the disturbance and the remediation techniques used.

(l) Inventories (note 16)

Inventories are valued at the lower of cost and net realisable value, primarily on a weighted average cost basis. Average costs are calculated by reference to the cost levels experienced in the relevant month together with those in opening inventory. The cost of raw materials and consumable stores is the purchase price. The cost of partly-processed and saleable products is generally the cost of production, including:

- labour costs, materials and contractor expenses which are directly attributable to the extraction and processing of ore and the production of alumina and aluminium;
- the depreciation of mining properties and leases and of property, plant and equipment used in the extraction and processing of ore and the production of alumina and aluminium; and
- production overheads.

Work in progress includes ore stockpiles and other partly processed material. Stockpiles represent ore that has been extracted and is available for further processing. If there is significant uncertainty as to when the stockpiled ore will be processed, the ore is expensed as mined. If the ore will not be processed within the 12 months after the balance sheet date, it is included within non-current assets and net realisable value is calculated on a discounted cash flow basis. Quantities of stockpiled ore are assessed primarily through surveys and assays.

(m) Taxation (note 9 and note 17)

Current tax is the tax expected to be payable on the taxable income for the year calculated using rates that have been enacted or substantively enacted at the balance sheet date. It includes adjustments for tax expected to be payable or recoverable in respect of previous periods. Where the amount of tax payable or recoverable is uncertain, Rio Tinto establishes provisions based on the Group's judgment of the probable amount of the liability, or recovery.

Deferred tax is calculated in accordance with IAS 12. The Group provides for deferred tax in respect of fair value adjustments on acquisitions. These adjustments may relate to assets such as mining rights that, in general, are not eligible for income tax allowances. Provision for deferred tax is based on the difference between the carrying value of the asset and its income tax base (which may be US\$nil). Even when there is no income tax base, the existence of a tax base for capital gains tax purposes is not taken into account in determining the deferred tax provision for the assets, unless they are classified as held for sale, because it is expected that the carrying amount will be recovered primarily through use of the assets and not from disposal.

1 Principal accounting policies continued

(n) Post-employment benefits (note 45)

The Group operates a number of defined benefit plans which provide lump sums, pensions, medical benefits and life insurance to retirees. For post-retirement defined benefit plans, the difference between the fair value of any plan assets and the present value of the plan obligations is recognised as an asset or liability in the balance sheet.

The fair value of plan assets is the price that would be received to sell the assets in orderly transactions between market participants at the measurement date. Where appropriate, the recognition of assets may be restricted to the present value of any amounts the Group expects to recover by way of refunds from the plan or reductions in future contributions.

The most significant assumptions used in accounting for pension plans are the discount rate, the inflation assumption and the mortality assumptions. The discount rate is used to determine the net present value of the obligations, the interest cost on the obligations and the interest income on plan assets. The discount rate used is the yield on high-quality corporate bonds with maturities and terms that match those of the post-retirement obligations as closely as possible. Where there is no developed corporate bond market in a country, the rate on government bonds is used. The inflation assumption is used to project increases in future benefit payments for those plans that have benefits linked to inflation. The mortality assumption is used to project the future stream of benefit payments, which is then discounted to arrive at the net present value of the obligations.

Valuations of the obligations are carried out using the projected unit method which values benefits accrued at the valuation date with allowance where appropriate for future increases to pay and pensions. The values of the obligations are assessed in accordance with the advice of independent qualified actuaries.

The current service cost, any past service cost and the effect of any curtailment or settlements are recognised in the income statement. The interest cost less interest income on assets held in the plans is also charged to the income statement. All amounts charged to the income statement in respect of these plans are included within "Net operating costs" or in "Share of profit after tax of equity accounted units" as appropriate.

Actuarial gains and losses arising in the year are credited/charged to the statement of comprehensive income and comprise the effects of changes in actuarial assumptions and experience adjustments due to differences between the previous actuarial assumptions and what has actually occurred. In particular, the difference between the interest income and the actual return on plan assets is recognised in the statement of comprehensive income.

The Group's contributions to defined contribution plans are charged to the income statement in the period to which the contributions relate.

(o) Cash and cash equivalents

For the purpose of the balance sheet, cash and cash equivalents comprise: cash on hand, deposits held on call with banks, and short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value. Bank overdrafts are shown as current liabilities in the balance sheet.

For the purposes of the cash flow statement, cash and cash equivalents are net of bank overdrafts that are repayable on demand.

(p) Financial instruments (note 30)

(i) Financial assets

Classification

The Group classifies its financial assets in the following categories: at fair value through profit or loss, loans and receivables, available-for-sale and held to maturity investments. The classification depends on the purpose for which the financial assets were acquired. The Group's policy with regard to financial risk management is set out in note 30. Generally, the Group does not acquire financial assets for the purpose of selling in the short term. When the Group enters into derivative contracts these transactions are designed to reduce exposures related to assets and liabilities, firm commitments or anticipated transactions.

Management determines the classification of financial assets at initial recognition.

(a) Financial assets at fair value through profit or loss

Derivatives, including embedded derivatives separated from the host contracts, are included within financial assets at fair value through profit or loss unless they are designated as effective hedging instruments. Assets in this category are classified as current assets if expected to be settled within 12 months, otherwise they are classified as non-current.

(b) Loans and receivables

Loans and receivables comprise non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Trade receivables are included within this category; however, trade receivables subject to provisional pricing are valued as explained in note 1(c) Sales revenue.

(c) Held to maturity

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity that the Group has the intention and ability to hold to maturity and which do not qualify as loans and receivables. Assets in this category are classified as Other investments and are classified as current assets or non-current assets based on their maturity.

(d) Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either designated as available-for-sale or not classified in any of the other categories. They are included in non-current assets unless the Group intends to dispose of the assets within 12 months of the balance sheet date or the asset matures within 12 months.

Recognition and measurement

Regular purchases and sales of financial assets are recognised on the trade-date, being the date on which the Group commits to purchase or sell the asset. Financial assets are de-recognised when the rights to receive cash flows from the assets have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership.

Available-for-sale financial assets and financial assets at fair value through profit or loss are initially recognised at fair value with transaction costs expensed in the income statement, and are subsequently carried at fair value. Loans and receivables and held to maturity financial assets are initially recognised at fair value plus transactions costs and are subsequently carried at amortised cost using the effective interest method.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where relevant market prices are available, these are used to determine fair values, adjusted where necessary for market liquidity, bid/offer spreads and credit considerations. In other cases, fair values are calculated using quotations from independent financial institutions, or by using valuation techniques consistent with general market practice applicable to the instrument.

The fair values of cash, short-term borrowings and loans to joint ventures and associates approximate to their carrying values, as a result of their short maturity or because they carry floating rates of interest. The fair values of the various derivative instruments used for hedging purposes are disclosed in note 30. Movements on the hedging reserve are disclosed in note 29.

Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

Impairment of financial assets

The Group assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets is impaired. If impairment is identified for a financial asset carried at amortised cost the carrying amount of the asset is reduced through the use of an allowance account and the loss is recognised in the income statement.

In the case of equity securities classified as available-for-sale, an evaluation is made as to whether a decline in fair value is "significant" or "prolonged" based on an analysis of indicators such as significant adverse changes in the technological, market, economic or legal environment in which the company invested in operates. If such evidence exists for available-for-sale financial assets, the cumulative loss, measured as the difference between acquisition cost and the current fair value, less any impairment loss previously recognised in the income statement, is removed from equity and recognised in the income statement.

(ii) Financial liabilities

Borrowings and other financial liabilities (including trade payables but excluding derivative liabilities) are recognised initially at fair value, net of transaction costs incurred, and are subsequently stated at amortised cost.

Any difference between the amounts originally received for borrowings and other financial liabilities (net of transaction costs) and the redemption value is recognised in the income statement over the period to maturity using the effective interest method.

The fair values of medium and long-term borrowings are calculated as the present value of the estimated future cash flows using quoted prices in active markets or an appropriate market based yield curve. The carrying value of the borrowings is amortised cost.

Where an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a de-recognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in the income statement.

(iii) Derivative financial instruments and hedging activities

Derivatives embedded in host contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts. In some cases, derivatives and embedded derivatives may be designated as hedges.

Derivatives are initially recognised at their fair value on the date the derivative contract is entered into and transaction costs are expensed in the income statement. They are subsequently re-measured to fair value at each balance sheet date. Gains or losses on derivatives which are not designated as hedges are taken to the income statement. The method of recognising the resulting gain or loss for derivatives designated as hedging instruments depends on the nature of the item being hedged. The Group designates certain derivatives as either; hedges of the fair value of recognised assets or liabilities or of firm commitments (fair value hedges) or, hedges of a particular risk associated with a recognised asset or liability or of a highly probable forecast transaction (cash flow hedges).

Fair value hedges: Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with any changes in the fair value of the hedged asset or liability or firm commitment that is attributable to the hedged risk.

When a fair value interest rate hedging instrument expires or is sold, or when a fair value interest rate hedge no longer meets the criteria for hedge accounting, the fair value adjustments which have been made to the hedged item are amortised through the income statement over the remaining life of the hedged item or written off immediately when the hedged item is de-recognised.

Cash flow hedges: The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in the income statement. Amounts accumulated in equity are recycled in the income statement in the period when the hedged item affects profit or loss, for example when the forecast sale that is being hedged takes place. When the forecast transaction that is being hedged results in the recognition of a non-financial asset, for example, property, plant and equipment, the gains and losses previously deferred in equity are transferred from equity and adjust the cost of the asset. The gains and losses are recognised subsequently in the income statement when the non-financial asset is amortised or sold.

When a cash flow hedging instrument expires or is sold, or when a cash flow hedge no longer meets the criteria for hedge accounting, although the forecast transaction is still expected to occur, any cumulative gain or loss relating to the instrument which is held in equity at that time remains in equity and is recognised in the income statement at the same time as the forecast transaction. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that is held in equity is immediately recognised in the income statement.

(q) Share-based payments (note 44)

The fair value of the Group's share plans is recognised as an expense over the expected vesting period with a corresponding entry to retained earnings for Rio Tinto plc plans and to other reserves for Rio Tinto Limited plans.

The Group uses fair values provided by independent actuaries calculated using either a lattice-based option valuation model or a Monte Carlo simulation model. The fair value of the share plans is determined at the date of grant, taking into account any market-based vesting conditions attached to the award. Non-market-based vesting conditions (eg earnings per share targets) are taken into account in estimating the number of awards likely to vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet date up to the vesting date, at which point the estimate is adjusted to reflect the actual awards issued. No adjustment is made after the vesting date even if the awards are forfeited or not exercised.

1 Principal accounting policies continued

The terms of each plan are considered at the balance sheet date to determine whether they should be accounted for as equity or cash settled. The Group no longer operates any plans as cash-settled. However the Performance Share Plan can, at the discretion of the directors, offer employees an equivalent amount in cash. This is not standard practice. In some jurisdictions, employees are granted cash-settled awards where equity-settled awards are prohibited by local laws and regulations. The value of these awards is immaterial.

The Group's equity-settled share plans are settled either by: the issue of shares by the relevant parent company, the purchase of shares on market, or the use of shares previously acquired as part of a share buy-back. If the cost of shares acquired to satisfy the plans differs from the expense charged, the difference is taken to retained earnings or other reserves as appropriate.

(r) Share capital (notes 27 and 28)

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of new shares are shown in equity as a deduction, net of tax, from the proceeds.

Where any Group company purchases the Group's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs (net of income taxes) is deducted from equity attributable to owners of Rio Tinto. Where such shares are subsequently reissued, any consideration received, net of any directly-attributable incremental transaction costs and the related income tax effects, is included in equity attributable to owners of Rio Tinto.

(s) Segment reporting (notes 2 and 3)

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker (CODM). The CODM, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as Rio Tinto's chief executive.

Critical accounting policies and estimates

(i) Dual listed companies reporting

As described in the "Outline of dual listed companies structure and basis of financial statements", the consolidated financial statements of the Rio Tinto Group deal with the results, assets and liabilities of both of the dual listed companies, Rio Tinto plc and Rio Tinto Limited, and their subsidiaries. Rio Tinto plc and Rio Tinto Limited are viewed as a single parent company with their respective shareholders being the shareholders in that single company.

The 2014 Annual report satisfies the obligations of Rio Tinto Limited to prepare consolidated accounts under Australian company law, as amended by an order issued by the Australian Securities and Investments Commission on 9 January 2015. The 2014 financial statements disclose the effect of the adjustments to the Group's consolidated profit/(loss), consolidated total comprehensive income/(loss) and consolidated shareholders' funds as prepared under IFRS as defined on page 110 that would be required under the version of International Financial Reporting Standards that is applicable in Australia, referred to as Australian Accounting Standards (AAS).

The US dollar is the presentation currency used in these financial statements, as it most reliably reflects the Group's global business performance.

(ii) Acquisitions (note 37)

The determination of the fair values of net identifiable assets acquired, and of any goodwill, involves significant judgment. This is particularly the case when the acquisition involves little or no cash, for example when the Group gains control of a company in stages or by the issuance of shares. The allocation of fair value between intangible assets, and the tangible assets with which they are used, is also judgmental. The Group engages third-party valuers to advise on the purchase price allocation for significant acquisitions.

(iii) Impairment review of asset carrying values (notes 6, 12 and 13)

Events or changes in circumstances can give rise to significant impairment charges or reversals of impairment.

Estimates in respect of the timing of project expansions and the cost to complete asset construction are critical to determining the recoverable amounts for cash-generating units.

Where the recoverable amounts of the Group's cash-generating units are assessed by analyses of discounted cash flows, the resulting valuations are also sensitive to changes in estimates of long-term commodity prices, production timing and recovery rates, exchange rates, operating costs, reserve estimates and discount rates.

Note 6 outlines the significant judgments and assumptions made in measuring the impairments recorded and notes 12 and 13 outline judgments in relation to the testing of cash-generating units containing goodwill and indefinite-lived intangible assets respectively.

(iv) Estimation of asset lives and determination of ore reserve and mineral resource estimates

Intangible assets are considered to have indefinite lives when, based on an analysis of all of the relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate cash flows for the Group. The factors considered in making this judgment include the existence of contractual rights for unlimited terms; or evidence that renewal of the contractual rights without significant incremental cost can be expected for indefinite periods into the future in view of the Group's investment intentions.

Rio Tinto estimates its ore reserves and mineral resources based on information compiled by Competent Persons as defined in the JORC code (see note 1(j)). The amounts presented under IFRS and AAS are based on the ore reserves, and in some cases mineral resources, determined under the JORC code.

The estimation of ore reserves and mineral resources requires judgment to interpret available geological data and then to select an appropriate mining method and establish an extraction schedule. It also requires assumptions about future commodity prices, exchange rates, production costs, recovery rates and discount rates and, in some instances, the renewal of mining licences. There are many uncertainties in the estimation process and assumptions that are valid at the time of estimation may change significantly when new information becomes available.

New geological data, as well as changes in assumptions, may change ore reserve and mineral resource estimates and may ultimately result in their restatement. Changes in ore reserves and, in some cases, mineral resources, could have an impact on: depreciation and amortisation rates; the carrying values of intangible assets and property, plant and equipment; deferred stripping calculations; provisions for close-down and restoration costs and the recovery of deferred tax assets.

(v) Close-down, restoration and environmental obligations (note 26)

Provision is made for close-down, restoration and environmental costs when the obligation occurs, based on the net present value of estimated future costs with, where appropriate, probability weighting of the different remediation and closure scenarios. The ultimate cost of close-down and restoration is uncertain and

management uses its judgment and experience to provide for these costs over the life of the operations. Cost estimates can vary in response to many factors including: changes to the relevant legal or local/national government ownership requirements and any other commitments made to stakeholders; review of remediation and relinquishment options; the emergence of new restoration techniques; the timing of the expenditures; and the effects of inflation. Experience gained at other mine or production sites is also a significant consideration although elements of the restoration and rehabilitation of each site are relatively unique to the site and, in some cases, there may be relatively limited restoration and rehabilitation activity and historical precedent against which to benchmark cost estimates. Where appropriate, external experts support the cost estimation process.

Cost estimates are updated throughout the life of the operation and must comply with the Group's Capital Project Framework once the operation is ten years from expected closure. The expected timing of expenditure included in cost estimates can also change, for example in response to changes to expectations relating to ore reserves and mineral resources, production rates, operating licences or economic conditions. Expenditure may occur before and after closure and can continue for an extended period of time depending on the specific site requirements. Some expenditure can continue into perpetuity.

Cash flows must be discounted if this has a material effect. The selection of appropriate sources on which to base the calculation of the risk-free discount rate used for such obligations requires judgment.

As a result of all of the above factors, there could be significant adjustments to the provision for close-down, restoration and environmental costs which would affect future financial results. Increases and decreases in environmental obligations are charged or credited directly to the income statement. Increases and decreases in close-down obligations for operating businesses are accounted for as indicated in note (k) above. An increase in capitalised close-down and restoration provisions would increase the unwind of the discount and depreciation charges in the income statement in future years and increase the carrying value of property, plant and equipment, potentially impacting any future impairment charges or reversals.

(vi) Deferral of stripping costs (note 14)

Stripping of waste materials takes place throughout the production phase of a surface mine or pit. The identification of components within a mine and of life of component strip ratios is dependent on an individual mine's design. Changes to that design may introduce new components and/or change the life of component strip ratios. Changes in other technical or economic parameters that impact on ore reserves may also have an impact on the life of component strip ratios even if they do not affect the mine's design. Changes to the life of component strip ratios are accounted for prospectively.

The Group's judgment as to whether multiple pit mines are considered separate or integrated operations determines whether initial stripping of a pit is deemed to be pre-production or production phase stripping and therefore the amortisation base for those costs. The judgment depends on each mine's specific circumstances and the analysis requires judgment; another mining company could make a different judgment even where the fact pattern appears to be similar.

(vii) Recognition of deferred tax liabilities on mining rights recognised in acquisitions

Deferred tax is provided in respect of fair value adjustments on acquisitions. These adjustments may relate to assets such as mining rights that, in general, are not eligible for income tax allowances. Provision for deferred tax is based on the difference between the carrying value of the asset and its income tax base (which may be US\$nil). Even where there is no income tax base, the existence of a tax base for capital gains tax purposes is not taken into account in determining the deferred tax liability for the assets, unless they are classified as held for sale, because it is expected that the carrying amount will be recovered primarily through use of the assets and not from disposal. For acquisitions after 1 January 2004, such a deferred tax liability on acquisition results in a consequential increase in the amounts attributed to goodwill. For acquisitions prior to 1 January 2004, such deferred tax was recognised in equity on transition to IFRS.

(viii) Capitalisation of exploration and evaluation costs and development costs prior to the decision to mine/construct (note 13)

Under the Group's accounting policy, exploration expenditure is not capitalised. Evaluation expenditure is capitalised when there is a high degree of confidence that the Group will determine that a project is commercially viable and therefore it is considered probable that future economic benefits will flow to the Group.

A project's commercial viability is determined based on whether it will provide a satisfactory return relative to its perceived risks. Once commercial viability has been established, the Group will decide, at the appropriate authorisation level (ie the Rio Tinto Investment Committee and the board where appropriate) whether the project should proceed. In determining whether to approve a mining project, the Investment Committee reviews the ore reserves estimate together with analyses of the net present value of the project and sensitivity analyses for the key assumptions.

There are occasions when the Group concludes that the asset recognition criteria are met at an earlier stage than approval to proceed. In these cases, evaluation expenditure is capitalised if there is a high degree of confidence that the Group will determine the project is commercially viable. The Group's view is that a high degree of confidence is greater than "more likely than not" (that is greater than 50 per cent certainty) and less than "virtually certain" (that is less than 90 per cent certainty). Determining whether there is a high degree of confidence that the Group will determine that an evaluation project is commercially viable requires a significant degree of judgment and assessment of all relevant factors such as the nature and objective of the project; the project's current stage; project timeline; current estimates of the project's net present value including sensitivity analyses for the key assumptions; and the main risks of the project. Development expenditure incurred prior to the decision to proceed is subject to the same criteria for capitalisation, being a high degree of confidence that the Group will determine that a project is commercially viable.

In accordance with IFRS 6 "Exploration for and Evaluation of Mineral Resources", the criteria for the capitalisation of evaluation costs are applied consistently from period to period.

Subsequent recovery of the carrying value for evaluation costs depends on successful development or sale of the undeveloped project. If a project does not prove viable, all irrecoverable costs associated with the project net of any related impairment provisions are charged to the income statement.

(ix) Identification of functional currencies

The functional currency for each subsidiary, joint operation and equity accounted unit, is the currency of the primary economic environment in which it operates. Determination of functional currency involves significant judgment and other companies may make different judgments based on similar facts. For many of Rio Tinto's businesses, their functional currency is the currency of the country in which they operate. The Group reconsiders the functional currency of its businesses if there is a change in the underlying transactions, events and conditions which determine their primary economic environment.

The determination of functional currency affects the carrying value of non-current assets included in the balance sheet and, as a consequence, the amortisation of those assets included in the income statement. It also impacts exchange gains and losses included in the income statement and in equity.

1 Principal accounting policies continued

(x) Estimation of obligations for post-employment costs (note 45)

The value of the Group's obligations for post-retirement benefits is dependent on the amount of benefits to be paid out and is discounted to the balance sheet date. This amount will vary depending on the assumptions made about the future pay increases received by members of final pay plans, the level of inflation (for those benefits that are subject to some form of inflation protection), the number of individuals and how long individuals live in retirement. Most of the Group's defined benefit pension plans are closed to new entrants and the majority of the obligations relate to former employees. As a consequence, the carrying value of the Group's post-retirement obligations is less sensitive to assumptions about future salary increases than it is to assumptions regarding future inflation. The assumption regarding future inflation is based on market yields on inflation-linked instruments where possible, combined with consensus views on future inflation, and is derived using the same process at each reporting date. Changes to the assumption therefore reflect changes to the market and consensus views of future inflation.

The Group reviews the actual mortality rates of retirees in its major pension plans on a regular basis and uses these rates to set its current mortality assumptions. It also allows for future improvements in mortality having regard to standard improvement scales in each country.

The discount rate used to value post-retirement obligations is based upon the yields on high quality corporate bonds in the relevant currency and which have durations consistent with the nature of the obligations. The discount rate will vary from one period to another in line with movements in corporate bond yields, but at any given measurement date there is relatively little estimation uncertainty. This rate is also used to calculate the interest cost on obligations and interest income on plan assets.

Details of the key assumptions, how they have moved since the previous balance sheet date and the sensitivity of the carrying value to changes in the assumptions are set out in note 45.

For 2014, the charge against income for post-retirement benefits net of tax and non-controlling interests was US\$418 million. This charge included both pension and post-retirement healthcare benefits. The charge is net of interest income of US\$475 million after tax and non-controlling interests.

The weighted average future increase in compensation levels was assumed to be 3.6 per cent in 2014 and will be 3.3 per cent for 2015. The average discount rate used was 4.4 per cent in 2014 and will be 3.5 per cent in 2015 reflecting the net impact of changes in corporate bond yields in the currencies in which the Group has pension obligations.

Based on the known changes in assumptions noted above and other expected circumstances, the expected impact of post-retirement costs on the Group's net earnings in 2015 would be US\$48 million more than in 2014. The actual charge may be impacted by other factors that cannot be predicted, such as the effect of changes in benefits, number of employees and exchange rates.

The table below sets out the potential change in the Group's 2014 net earnings (after tax and non-controlling interests) that would result from hypothetical changes to post-retirement assumptions and estimates. The sensitivities are viewed for each assumption in isolation although a change in one assumption is likely to result in some offset elsewhere. The figures in the table only show the impact on underlying and net earnings. Changing the assumptions would also have an impact on the balance sheet and this is shown in note 45.

	US\$ million
Sensitivity of the Group's 2014 underlying and net earnings to changes in:	
Discount rate	
increase of 0.5 percentage points	47
decrease of 0.5 percentage points	(43)
Inflation	
increase of 0.5 percentage points	(33)
decrease of 0.5 percentage points	31
Salary increases	
increase of 0.5 percentage points	(9)
decrease of 0.5 percentage points	8
Demographic – allowance for additional future mortality improvements	
participants assumed to have the mortality rates of individuals who are one year older	18
participants assumed to have the mortality rates of individuals who are one year younger	(18)

(xi) Recoverability of potential deferred tax assets (note 17)

The Group has tax losses, and other deductible temporary differences, mainly in UK, French, Canadian, US and Australian taxable entities that have the potential to reduce tax payments in future years. Deferred tax assets have been recognised to the extent that their recovery is probable, having regard to the projected future taxable income of these taxable entities and after taking account of specific risk factors that affect the recovery of these assets.

(xii) Contingencies (note 31)

Disclosure is made of material contingent liabilities unless the possibility of any loss arising is considered remote.

(xiii) Basis of consolidation (notes 33 to 36)

Judgment is sometimes required to determine whether the Group has control, joint control or significant influence over an entity.

2 Operating segments

	2014 US\$m	2013 US\$m	2012 US\$m
Gross sales revenue ^(a)			
Iron Ore	23,281	25,994	24,279
Aluminium	12,123	12,463	12,170
Copper	6,282	5,916	6,661
Energy	4,308	5,454	6,062
Diamonds & Minerals	4,150	4,193	4,056
Other operations	241	1,761	3,898
Reportable segments total	50,385	55,781	57,126
Inter-segment transactions	(344)	(1,182)	(1,560)
Product group total	50,041	54,599	55,566
Items excluded from underlying earnings	–	(24)	31
Share of equity accounted units and adjustments for inter-subsiary/equity accounted units sales	(2,377)	(3,404)	(4,655)
Consolidated sales revenue per income statement	47,664	51,171	50,942
Depreciation and amortisation ^(b)			
Iron Ore	1,953	1,627	1,485
Aluminium	1,180	1,151	1,287
Copper	1,051	962	794
Energy	548	766	770
Diamonds & Minerals	484	513	421
Other operations	34	67	214
Reportable segments total	5,250	5,086	4,971
Other items	82	106	113
Less: depreciation and amortisation of equity accounted units	(472)	(401)	(460)
Depreciation and amortisation per note 4	4,860	4,791	4,624
Underlying earnings ^(c)			
Iron Ore	8,107	9,858	9,247
Aluminium	1,248	557	54
Copper	912	821	1,059
Energy	(210)	33	309
Diamonds & Minerals	401	350	149
Other operations	(243)	(281)	(582)
Reportable segments total	10,215	11,338	10,236
Inter-segment transactions	–	(4)	(8)
Other items	(593)	(730)	(750)
Exploration and evaluation not attributed to product groups	(156)	(145)	(97)
Net finance costs	(161)	(242)	(112)
Underlying earnings	9,305	10,217	9,269
Items excluded from underlying earnings ^(d)	(2,778)	(6,552)	(12,297)
Net earnings/(loss) attributable to owners of Rio Tinto per income statement	6,527	3,665	(3,028)
Tax charge			
Iron Ore	3,698	5,290	4,273
Aluminium	303	(18)	(205)
Copper	170	236	(67)
Energy	(164)	12	8
Diamonds & Minerals	224	177	84
Other operations	(132)	(227)	(235)
Reportable segments total	4,099	5,470	3,858
Other items	(193)	(302)	(266)
Exploration and evaluation not attributed to product groups	(34)	(23)	(26)
Net finance costs	(396)	(77)	(81)
	3,476	5,068	3,485
Tax credit excluded from underlying earnings ^(d)	(423)	(2,642)	(2,896)
Tax charge per income statement	3,053	2,426	589

2 Operating segments continued

	2014 US\$m	2013 US\$m	2012 US\$m
Capital expenditure			
Capital expenditure			
Iron Ore	4,211	6,814	7,152
Aluminium	2,021	2,226	2,755
Copper	1,958	2,813	4,455
Energy	224	732	1,877
Diamonds & Minerals	508	1,009	1,814
Other operations	(56)	278	432
Reportable segments total	8,866	13,872	18,485
Other items	(416)	145	161
Less: capital expenditure of equity accounted units	(1,032)	(1,073)	(1,071)
Capital expenditure per financial information by business units	7,418	12,944	17,575
Add: Proceeds from disposal of property, plant and equipment	744	57	40
Capital expenditure per cash flow statement	8,162	13,001	17,615

Rio Tinto's management structure is based on the principal product groups shown above together with the global functions that support the business. The chief executive of each product group reports to the chief executive of Rio Tinto. The chief executive of Rio Tinto monitors the performance of each product group based on a number of measures including capital expenditure and operating cash flows, with underlying earnings being the key financial performance indicator. Finance costs and net debt are managed on a Group basis.

Generally, business units are allocated to product groups based on their primary product. The Energy product group includes both coal and uranium businesses. The Diamonds & Minerals product group includes businesses with products such as borates, salt and titanium dioxide feedstock together with diamond operations and the Simandou iron ore project, which is the responsibility of the Diamonds & Minerals product group chief executive. The Copper group includes certain gold operations in addition to copper.

The financial information by business unit provided on page 178 of these financial statements provides additional voluntary disclosure which the Group considers useful to the users of the financial statements.

(a) Gross sales revenue

Gross sales revenue includes the sales revenue of equity accounted units (after adjusting for sales to subsidiaries) of US\$2,533 million (2013: US\$3,757 million, 2012: US\$5,067 million) which are not included in consolidated sales revenue. Consolidated sales revenue includes subsidiary sales of US\$156 million (2013: US\$353 million, 2012: US\$412 million) to equity accounted units which are not included in gross sales revenue.

(b) Depreciation and amortisation

Product group depreciation and amortisation totals include 100 per cent of subsidiaries' depreciation and amortisation and include Rio Tinto's share of the depreciation and amortisation of equity accounted units. Rio Tinto's share of the depreciation and amortisation charge of equity accounted units is deducted to arrive at depreciation and amortisation excluding equity accounted units as shown in note 4. These figures exclude impairment charges and reversals, which are excluded from underlying earnings.

(c) Underlying earnings

Underlying earnings is reported by Rio Tinto to provide greater understanding of the underlying business performance of its operations and to enhance comparability of reporting periods.

The measure of underlying earnings is used by the chief executive of Rio Tinto to assess the performance of the product groups. Underlying earnings and net earnings both represent amounts net of tax attributable to owners of Rio Tinto. The following items are excluded from net earnings in arriving at underlying earnings each period irrespective of materiality:

- Net (losses)/gains on disposal and consolidation of interests in businesses.
- Impairment charges and reversals.
- Profit/(loss) after tax from discontinued operations.
- Exchange and derivative gains and losses. This exclusion includes exchange gains/(losses) on US dollar net debt and intragroup balances, gains/(losses) on currency and interest rate derivatives not qualifying for hedge accounting and gains/(losses) on commodity derivatives not qualifying for hedge accounting.

In addition, there is a final judgmental category which includes, where applicable, other credits and charges that, individually or in aggregate if of a similar type, are of a nature or size to require exclusion in order to provide additional insight into underlying business performance.

Product group earnings include earnings of subsidiaries and equity accounted units stated before finance items but after the amortisation of discount.

Rio Tinto's share of the underlying earnings of equity accounted units amount to US\$626 million in 2014 (2013: US\$710 million; 2012: US\$1,051 million). This amount is attributable as follows: US\$622 million profit to the Copper group and US\$4 million profit to other product groups (2013: US\$780 million profit attributable to the Copper product group and US\$70 million loss to other product groups; 2012: US\$793 million profit attributable to the Copper product group and US\$258 million profit to other product groups). These amounts are included in underlying earnings of the relevant product groups and include the underlying earnings of the Group's tolling entities which process alumina. Tolling entities recharge the majority of their costs and generally have minimal earnings.

The Copper product group's underlying earnings in 2013 included US\$131 million impairment after tax in relation to the group's investment in Northern Dynasty Minerals Ltd following a strategic review of this shareholding by the group.

The Energy product group's underlying earnings in 2012 included US\$258 million profit after tax in relation to the divestments of equity interest in Extract Resources and Kalahari Minerals.

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

	Pre-tax ⁽ⁱ⁾ 2014 US\$m	Taxation 2014 US\$m	Non-controlling interests 2014 US\$m	Net amount 2014 US\$m	Net amount 2013 US\$m	Net amount 2012 US\$m
Exclusions from underlying earnings						
Impairment charges net of reversals (note 6)	(473)	335	–	(138)	(3,428)	(14,360)
Net (losses)/gains on disposal and consolidation of interests in businesses ^(e)	(563)	203	11	(349)	847	827
Exchange and derivative (losses)/gains:						
– Exchange (losses)/gains on US dollar net debt and intragroup balances	(1,997)	164	(25)	(1,858)	(2,929)	425
– (Losses)/gains on currency and interest rate derivatives not qualifying for hedge accounting	(39)	14	3	(22)	2	59
– Gains on commodity derivatives not qualifying for hedge accounting	15	15	–	30	196	66
(Write-off)/recognition of deferred tax asset following the MRRT repeal	–	(401)	39	(362)	–	1,130
Gain on disposal of the Group's St James's Square properties	341	15	–	356	–	–
Simandou IFRS 2 charge ⁽ⁱ⁾	(230)	–	114	(116)	–	–
Restructuring costs including global headcount reductions	(123)	37	4	(82)	(367)	(77)
Kennecott Utah Copper ^(g)	–	–	–	–	(283)	–
Clermont/Blair Athol ^(h)	–	–	–	–	(173)	–
Deferred tax asset write-off	–	–	–	–	(114)	(134)
Other exclusions ⁽ⁱ⁾	(263)	41	(15)	(237)	(303)	(233)
Total excluded from underlying earnings	(3,332)	423	131	(2,778)	(6,552)	(12,297)
Net earnings/(loss)	9,552	(3,053)	28	6,527	3,665	(3,028)
Underlying earnings	12,884	(3,476)	(103)	9,305	10,217	9,269

(e) Pre-tax losses of US\$563 million arose mainly from further adjustments in respect of contractual obligations for product sales and delivery which remain with the Group following sale of the Group's interest in the Clermont mine on 29 May 2014, the disposal of the Group's interest in Rio Tinto Mozambique on 7 October 2014 and indemnities provided in respect of prior disposals.

Net gains on disposal and consolidation of interests in businesses during 2013 mainly related to US\$590 million from the Group's divestment of its remaining interest in Constellium (formerly Alcan Engineering Products), and US\$388 million from the disposal of interest in the Northparkes mine.

(f) A pre-tax charge of US\$230 million before non-controlling interests, calculated in accordance with IFRS 2 "Share-based Payment", which reflects the discount to an estimate of fair value at which shares are transferrable to the Government of Guinea under the Investment Framework, ratified on 26 May 2014.

(g) On 10 April 2013, Kennecott Utah Copper's, Bingham Canyon mine experienced a slide along a geological fault line of its north-eastern wall. Charges relating to the slide, which have been excluded from underlying earnings, primarily comprise the write-off of certain deferred stripping assets and damaged equipment. Adjustments for settlement of insurance claims have been made to the amount excluded from underlying earnings, and will continue as insurance claims are settled.

(h) Adjustments in relation to Clermont and Blair Athol arose in 2013 following reclassification to disposal groups held for sale, and reflect contractual obligations for product sales and funding of closure activities, which will remain with the Group following completion of the divestments.

(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. In 2014, other exclusions include adjustments relating to the five year community support package for Nhulunbuy area and community following the Gove refinery curtailment. In 2013, other exclusions included adjustments relating to inventory sold by Richards Bay Minerals during the period, which had been recognised at fair value on initial consolidation in 2012.

(j) Exclusions from underlying earnings relating to equity accounted units, after tax, are included in the column "Pre-tax".

3 Operating segments – additional information

Gross sales revenue by destination ^(a)	2014 %	2013 %	2012 %	2014 US\$m	2013 US\$m	2012 US\$m
China	38.2	35.4	32.3	19,101	19,331	17,948
Japan	15.4	16.1	15.8	7,719	8,770	8,787
Other Asia	15.8	16.1	16.1	7,913	8,781	8,933
USA	12.9	13.1	12.7	6,439	7,142	7,085
Europe (excluding UK)	8.8	10.2	11.5	4,407	5,552	6,380
Canada	2.8	2.3	3.3	1,421	1,276	1,823
Australia	2.2	2.0	2.6	1,114	1,114	1,420
UK	1.0	1.1	1.2	481	617	678
Other	2.9	3.7	4.5	1,446	1,992	2,543
Total	100.0	100.0	100.0	50,041	54,575	55,597
Share of equity accounted units sales and inter-subsidiary equity accounted units sales and items excluded from underlying earnings				(2,377)	(3,404)	(4,655)
Consolidated sales revenue				47,664	51,171	50,942

(a) Gross 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.

3 Operating segments – additional information continued

Gross sales revenue by product

Gross sales revenues of the Group are derived from the following products sold to external customers:

	2014 US\$m	2013 US\$m	2012 US\$m
Iron Ore	23,178	26,235	24,756
Aluminium	11,667	12,059	12,535
Copper	4,815	4,766	4,749
Coal	3,685	4,557	5,060
Industrial Minerals	3,238	3,330	3,460
Diamonds	901	859	754
Gold	1,007	402	614
Other	1,550	2,367	3,669
Total	50,041	54,575	55,597
Share of equity accounted units sales and inter-subsidiary equity accounted units sales and items excluded from underlying earnings	(2,377)	(3,404)	(4,655)
Consolidated sales revenue	47,664	51,171	50,942

Non-current assets other than excluded items

The total of non-current assets other than items excluded is shown by location below. This is allocated based on the location of the business units holding the assets.

Non-current assets other than excluded items ^(b)	2014 US\$m	2013 US\$m
Australia	38,162	38,100
Canada	17,065	18,567
Mongolia	7,842	8,315
US	5,163	4,739
Africa	5,838	5,486
South America	3,552	3,146
UK	236	1,246
Indonesia	1,116	968
France	491	602
Europe (excluding France and the UK)	460	524
Other countries	1,417	782
	81,342	82,475
Non-current assets excluded from analysis above:		
Deferred tax assets	3,540	3,555
Derivatives and other financial assets (excluding tax recoverable)	722	899
Loans to equity accounted units ^(c)	228	277
Tax recoverable	70	83
Accounts receivable	800	1,454
Total non-current assets per balance sheet	86,702	88,743

(b) Allocation of non-current assets by country is based on the location of the business units holding the assets, and includes investments in equity accounted units totalling US\$4,640 million (2013: US\$3,681 million) which represents the Group's share of net assets excluding quasi equity loans shown separately within "Loans to equity accounted units" above.

(c) Loans to equity accounted units comprise quasi equity loans of US\$228 million (2013: US\$276 million) included in "Investments in equity accounted units" on the face of the balance sheet and non-quasi equity loans of US\$nil (2013: US\$1 million) shown within "Other financial assets".

4 Net operating costs

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Raw materials, consumables, repairs and maintenance		11,044	11,164	13,056
Amortisation of intangible assets	13	237	255	310
Depreciation of property, plant and equipment	14	4,623	4,536	4,314
Employment costs	5	6,659	7,568	8,671
Shipping and other freight costs		3,370	3,513	3,524
Decrease in finished goods and work in progress		1,284	199	100
Royalties		2,516	2,883	2,374
Amounts charged by equity accounted units ^(a)		1,554	1,728	2,154
Net foreign exchange (losses)/gains		(34)	(71)	2
Other external costs		3,074	4,025	3,027
Provisions (including exchange differences on provisions)	26	1,138	1,449	886
Research and development		112	231	246
Costs included above qualifying for capitalisation		(738)	(582)	(544)
Other operating income		(929)	(794)	(586)
Net operating costs (excluding items shown separately)		33,910	36,104	37,534

(a) Amounts charged by equity accounted units relate to toll processing and also include purchases from equity accounted units of bauxite and aluminium which are then processed by the product group or sold to third parties. Generally, purchases are in proportion to the Group's share of the equity accounted unit but in 2014, US\$463 million (2013: US\$529 million; 2012: US\$690 million) related to purchases of the other investor's share of production.

Information on auditors' remuneration is included in note 39.

5 Employment costs

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Total employment costs				
– Wages and salaries		5,878	7,181	8,382
– Social security costs		467	421	156
– Net post retirement charge	45	590	805	823
– Share option charge	44	152	142	240
		7,087	8,549	9,601
Less: charged within provisions		(428)	(981)	(930)
Employment costs	4	6,659	7,568	8,671

6 Impairment charges and reversals

	Pre-tax 2014 US\$m	Taxation 2014 US\$m	Non- controlling interests 2014 US\$m	Net amount 2014 US\$m	Pre-tax amount 2013 US\$m	Pre-tax amount 2012 US\$m
Aluminium – Kitimat	(1,092)	292	–	(800)	(950)	(613)
Aluminium – Pacific Aluminium	1,224	(175)	–	1,049	–	(1,382)
Aluminium – Other	(46)	6	–	(40)	(847)	(2,751)
Aluminium – Goodwill	–	–	–	–	–	(7,468)
Copper – Molybdenum Autoclave Process	(559)	212	–	(347)	–	–
Copper – Oyu Tolgoi	–	–	–	–	(4,716)	–
Copper – SouthGobi	–	–	–	–	(269)	–
Energy – Rio Tinto Coal Mozambique	–	–	–	–	(497)	(3,269)
Diamonds	–	–	–	–	–	(659)
Other	–	–	–	–	(252)	(85)
Total impairment charge net of reversals	(473)	335	–	(138)	(7,531)	(16,227)
Allocated as:						
Goodwill (note 12)	–				(1,149)	(8,009)
Intangible assets (note 13)	–				(1,287)	(1,817)
Property, plant and equipment (note 14)	(1,034)				(4,882)	(4,686)
Investment in equity accounted units	589				(216)	(1,526)
Other assets	(28)				3	(189)
Total impairment charge net of reversals	(473)				(7,531)	(16,227)
Comprising:						
Impairment charges net of reversals of consolidated balances				(1,062)	(7,315)	(14,701)
Impairment reversals/(charges) of investments in equity accounted units (pre-tax)				841	(230)	(2,217)
Total impairment charge net of reversals in the financial information by business unit (page 179)				(221)	(7,545)	(16,918)
Taxation (including related to EAUs)				83	1,561	2,536
Non-controlling interests				–	2,556	22
Total impairment net of reversals in the income statement				(138)	(3,428)	(14,360)

Aluminium

Kitimat, Canada

During the first half of 2014, further revisions to future capital required to complete the modernisation project at Kitimat in British Columbia, and related impacts on the project, led to a reduction in the recoverable value of the Kitimat cash-generating unit. Additional capital of US\$1.5 billion was approved by the board in August 2014, taking the total approved capital cost of the project to US\$4.8 billion.

The recoverable amount for the Kitimat cash-generating unit at 30 June 2014 was determined to be US\$2,184 million assessed by reference to a fair value less cost of disposal (FVLCD) model, in line with the accounting policy set out in note 1(i). The reduction in the recoverable amount resulted in a pre-tax impairment charge of US\$1,092 million to property, plant and equipment. The recoverable amount is classified as level 3 under the fair value hierarchy. In arriving at FVLCD, post-tax cash flows expressed in real terms were estimated over the useful economic life of the modernised smelter, which is the principal asset of the cash-generating unit, and discounted using a post-tax real discount rate of 7.3 per cent (2013: 7.3 per cent).

First production from the Kitimat Modernisation Project is expected during the first half of 2015. The most critical assumption for the FVLCD calculation is the forecast cost to complete the project which is unchanged since the half year. Other key assumptions to which the calculation of FVLCD for Kitimat is sensitive are: the aluminium sales price (aluminium price plus regional and product premiums), discount rates, the Canadian dollar to US dollar exchange rate and operating cost assumptions. The long-term aluminium price for impairment testing purposes was unchanged at 30 June 2014 in real terms from the prior year (2013: decrease of 6.5 per cent), marginally above the mid-point of the range published for 2018 by market commentators of US\$1,993 and US\$2,469 per tonne, with an average of US\$2,246 per tonne. No subsequent impairment indicators have been identified in the second half of 2014 in relation to the Kitimat Modernisation Project.

In 2013, the annual impairment review of the Group's Aluminium cash-generating units with indefinite-lived intangible assets resulted in a pre-tax impairment charge of US\$950 million in the Kitimat cash-generating unit. The indefinite-lived intangible assets relating to water rights at Kitimat were fully impaired following the allocation of this impairment loss.

Pacific Aluminium, Australia and New Zealand

The annual review of asset values at 30 September 2014 of the Pacific Aluminium cash-generating unit provides evidence that the impairment losses primarily recorded in respect of Tomago, Bell Bay, Gladstone Power Station and Boyne Smelters in 2011 and 2012 have reversed as a result of significant cost improvements and high regional and product premiums. There has also been a regulatory change in Australia with carbon tax legislation being repealed on 17 July 2014 for a period of five years with effect from 1 July 2014.

A pre-tax impairment reversal of US\$635 million has been recorded against the property, plant and equipment of Tomago, Bell Bay and Gladstone Power Station and a post-tax impairment reversal of US\$589 million relating to Boyne Smelters has been recorded against investments in equity accounted units. The recoverable amount of these assets has been determined on a FVLCD basis, classified as level 3 in the fair value hierarchy, modelled with cash flows expressed in real terms and discounted using a post-tax real discount rate of 7.2 per cent. The recoverable amount of the assets is greater than the amount at which these assets would have been carried, net of depreciation, had no impairment loss been recognised in prior periods and therefore the impairment reversal is based on the latter amount.

The Tiwai Point smelter in New Zealand, also part of the Pacific Aluminium cash-generating unit, is currently profitable as a result of high regional and product premiums and operational cost improvements; however, operational uncertainties indicate that the impairment losses previously recognised are yet to reverse.

Aluminium Other and 2012 impairments

In 2014, a pre-tax impairment loss of US\$46 million was recorded in relation to other aluminium businesses.

In 2013, a pre-tax impairment loss of US\$847 million was recorded in the Group's Aluminium business relating to the full write-off of property, plant and equipment at the Gove alumina refinery following the decision to curtail operations and at the Shawinigan aluminium smelter following the decision to close the plant.

In 2012 the Group's Aluminium cash-generating units were tested for impairment in aggregate as the goodwill was allocated and monitored at the segment level. This goodwill was fully written off in 2012 and the remaining loss allocated to specific cash-generating units including Kitimat and Pacific Aluminium. The 2012 impairment testing of the Group's Aluminium business resulted in a pre-tax impairment charge of US\$7,468 million to goodwill, a pre-tax impairment charge of US\$229 million to intangible assets, a pre-tax impairment charge of US\$3,944 million to property, plant and equipment, a post-tax impairment charge of US\$379 million to investments in equity accounted units, and a pre-tax adjustment of US\$194 million to other assets and liabilities.

Copper

Molybdenum Autoclave Process, US

A review of the investment case for the Molybdenum Autoclave Process project in Utah, US has concluded that the project, which has been on care and maintenance since early 2013, will be terminated. The recoverable amount has been determined based on the anticipated net disposal proceeds. As a result, a pre-tax impairment charge of US\$559 million has been recorded against property, plant and equipment.

Oyu Tolgoi, Mongolia

The annual review of cash-generating units identified indicators that an impairment loss may have occurred at the Oyu Tolgoi cash-generating unit, primarily as a result of delays in developing the underground mine. The recoverable amount for Oyu Tolgoi was determined by reference to a FVLCD model and exceeded the US\$8.2 billion carrying value of the cash-generating unit at 30 September 2014. No further impairment indicators were identified subsequent to the annual testing date. As such, no impairment charge has been recognised in the income statement (2013: pre-tax impairment charge of US\$4,716 million).

The recoverable amount of the Oyu Tolgoi cash-generating unit is classified as level 3 under the fair value hierarchy. In arriving at FVLCD, post-tax cash flows expressed in real terms have been estimated until the end of the life of mine plan and discounted using an asset specific post-tax real discount rate of 8.3 per cent (2013: 8.7 per cent).

The assumption subject to the most estimation uncertainty for the FVLCD calculation is the timing of the underground project. If this is further delayed, it would have an adverse impact upon the recoverable amount at the testing date due to the delay in commencing full underground production, partially offset by delaying project spend. To illustrate this sensitivity, the recoverable amount would be reduced by US\$0.5 billion (2013: US\$0.8 billion) if the timing of first drawbell ore were delayed by 12 months compared with the forecast timing of related cash flows in Rio Tinto's FVLCD model as of 30 September 2014. The recoverable amount in this illustration would continue to exceed the carrying value of the cash-generating unit. The year-on-year decrease in sensitivity is primarily the result of mine plan optimisation which has been undertaken while construction of the underground has been delayed.

Other key assumptions to which the calculation of FVLCD for Oyu Tolgoi is most sensitive are: long-term copper prices, discount rates and operating costs. Other assumptions include the long-term gold price, and Mongolian tugrik and Chinese yuan exchange rates against the US dollar. Future selling prices and operating costs have been estimated in line with the policy set out in note 1(i).

SouthGobi, Mongolia

The expansion and undeveloped properties in SouthGobi were recognised in accordance with the requirement in IFRS as defined in note 1, to fair value assets on first consolidation and were therefore recorded as an accounting uplift when Rio Tinto obtained control of Turquoise Hill Resources Ltd on 24 January 2012. These assets were not amortised and were fully written-off as a result of the 2013 impairment testing.

Energy

Rio Tinto Coal Mozambique

As described in note 37, the sale of Rio Tinto Coal Mozambique was completed during 2014. In previous years, the annual review of carrying values resulted in impairment losses based on recoverable amounts assessed by reference to FVLCD models, in line with the accounting policy set out in note 1(i).

In 2013, a post-tax impairment loss of US\$216 million (2012: US\$1,147 million) was allocated to the Benga cash-generating unit, which was included in investments in equity accounted units, and a pre-tax impairment loss of US\$259 million (2012: US\$1,581 million) was allocated to the Zambeze cash-generating unit intangible assets and property, plant and equipment of US\$22 million (2012: no impairment charge). The impairment loss recorded in 2012 also included the full write-off of goodwill of US\$541 million which was monitored and tested at the business unit level.

7 Share of profit after tax of equity accounted units

	2014 US\$m	2013 US\$m	2012 US\$m
Sales revenue: Rio Tinto share ^(a)	2,852	4,113	5,498
Operating costs	(1,804)	(2,871)	(3,779)
Profit before finance items and taxation	1,048	1,242	1,719
Finance items	(49)	(97)	(68)
Share of profit after tax of equity accounted units	30	31	47
Profit before taxation	1,029	1,176	1,698
Taxation	(404)	(478)	(642)
Profit for the year (Rio Tinto share)	625	698	1,056

(a) Sales revenue of equity accounted units excludes charges by equity accounted units to Group subsidiaries.

Additional information relating to the Group's interests in joint ventures and associates is given in notes 35 and 36.

8 Finance income and finance costs

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Finance income from equity accounted units (Rio Tinto share)		10	14	14
Other finance income (including bank deposits and other financial assets)		54	68	102
Total finance income		64	82	116
Interest payable and similar charges ^(a)		(1,119)	(1,234)	(1,059)
Amounts capitalised	14	470	727	766
Total finance costs		(649)	(507)	(293)

(a) Interest payable and similar charges relate to interest on bank loans and other borrowings. This includes a fair value gain on interest rate swaps designated as fair value hedges of US\$199 million (2013: US\$266 million loss; 2012: US\$25 million loss) and a fair value loss on bonds and notes attributable to interest rate risk of US\$200 million (2013: US\$257 million gain; 2012: US\$13 million loss).

9 Taxation

	Note	2014 US\$m	2013 US\$m	2012 US\$m
Taxation charge				
- Current		3,402	4,102	3,887
- Deferred	17	(349)	(1,676)	(3,298)
		3,053	2,426	589
Prima facie tax reconciliation	Note	2014 US\$m	2013 US\$m	2012 US\$m
Profit/(loss) before taxation		9,552	3,505	(2,431)
Deduct: share of profit after tax of equity accounted units		(625)	(698)	(1,056)
(Deduct)/add: (impairment reversal)/impairment after tax of investments in equity accounted units ^(a)		(589)	216	1,526
Parent companies', subsidiaries' and joint operations profit/(loss) before tax		8,338	3,023	(1,961)
Prima facie tax payable at UK rate of 21% (2013: 23%; 2012: 24%)		1,751	695	(471)
Higher rate of taxation on Australian earnings		1,038	1,411	838
Impact of items excluded in arriving at underlying earnings:				
Impairment charges net of reversals		(112)	135	1,683
Gains and losses on disposal and consolidation of businesses		(85)	(199)	(185)
Foreign exchange on excluded finance items		231	77	(44)
Impact of tax law changes on recognition of deferred tax assets ^(b)		401	-	(1,205)
Other exclusions		(35)	(7)	157
Impact of changes in tax rates and laws		(11)	12	(5)
Other tax rates applicable outside the UK and Australia		5	(63)	(74)
Resource depletion and other depreciation allowances		(121)	(103)	(121)
Research, development and other investment allowances		(34)	(49)	(57)
Recognition of previously unrecognised deferred tax assets		(106)	-	(84)
Unrecognised current year operating losses		73	339	200
Other items ^(c)		58	178	(43)
Total taxation charge ^(d)		3,053	2,426	589

(a) Impairment reversals/impairment of investments in equity accounted units is net of a tax charge of US\$252 million for the year ended 31 December 2014 (31 December 2013: tax credit of US\$14 million; 31 December 2012: tax credit of US\$691 million).

- (b) The remaining Minerals Resource Rent Tax (MRRT) starting base deferred tax asset was derecognised on repeal of the tax in Australia effective 30 September 2014.
- (c) Other items include various adjustments to provisions for taxation in prior periods.
- (d) 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\$404 million (31 December 2013: US\$478 million; 31 December 2012: US\$642 million).

	2014 Total US\$m	2013 Total US\$m	2012 Total US\$m
Tax on exchange adjustments	(3)	(17)	(1)
Fair value movements:			
– Cash flow hedge fair value losses/(gains)	2	(34)	26
– Cash flow hedge gains/(losses) transferred to the income statement	–	19	(50)
– Losses on revaluation of available for sale securities	1	2	6
– (Losses)/gains on revaluation of available for sale securities transferred to the income statement	(1)	(20)	1
Currency translation reclassified	–	–	–
Tax credit/(charge) on actuarial losses/(gains) on post retirement benefit plans	215	(641)	83
Other	(8)	(6)	(8)
Tax relating to components of other comprehensive loss/(income) for the year ^(a)	206	(697)	57

- (a) This comprises deferred tax credit of US\$205 million (2013: charge of US\$697 million; 2012: credit of US\$54 million) and current tax credit of US\$1 million (2013: US\$nil; 2012: credit of US\$3 million), plus share of tax on other comprehensive income of equity accounted units shown separately. See note 17.

10 Earnings/(loss) per ordinary share

	2014 Earnings US\$m	2014 Weighted average number of shares (millions)	2014 Per share amount (cents)	2013 Earnings US\$m	2013 Weighted average number of shares (millions)	2013 Per share amount (cents)
Basic earnings per share attributable to ordinary shareholders of Rio Tinto – continuing operations ^(a)	6,527	1,848.4	353.1	3,665	1,847.3	198.4
Diluted earnings per share attributable to ordinary shareholders of Rio Tinto – continuing operations ^(b)	6,527	1,858.7	351.2	3,665	1,857.7	197.3
				2012 Loss US\$m	2012 Weighted average number of shares (millions)	2012 Per share amount (cents)
Basic loss per share attributable to ordinary shareholders of Rio Tinto – continuing operations				(3,021)	1,849.1	(163.4)
Basic loss per share attributable to ordinary shareholders of Rio Tinto – discontinued operations				(7)	1,849.1	(0.4)
Total basic loss per share – profit for the year ^(a)				(3,028)	1,849.1	(163.8)

- (a) The weighted average number of shares is calculated as the average number of Rio Tinto plc shares outstanding not held as treasury shares of 1,413.0 million (2013: 1,411.6 million; 2012: 1,413.4 million) plus the average number of Rio Tinto Limited shares outstanding of 435.4 million (2013: 435.7 million; 2012: 435.8 million). No Rio Tinto Limited shares were held by Rio Tinto plc in any of the periods presented.
- (b) For the purposes of calculating diluted earnings per share, the effect of dilutive securities of 10.3 million shares (2013: 10.4 million shares) is added to the weighted average number of shares described in (a) above. This effect is calculated under the treasury stock method. The Group's only potential dilutive ordinary shares are share options for which terms and conditions are described in note 44.

In accordance with IAS 33 "Earnings per share", the effects of anti-dilutive potential have not been included when calculating diluted loss per share for the year ended 31 December 2012. As a result the dilutive loss per share attributable to ordinary shareholders of Rio Tinto is the same as the basic loss per share attributable to ordinary shareholders of Rio Tinto.

11 Dividends

	2014 US\$m	2013 US\$m	2012 US\$m
Rio Tinto plc previous year final dividend paid	1,533	1,311	1,295
Rio Tinto plc interim dividend paid	1,299	1,213	1,054
Rio Tinto Limited previous year final dividend paid	473	406	380
Rio Tinto Limited interim dividend paid	405	392	309
Dividends paid during the year	3,710	3,322	3,038
Dividends per share: paid during the year	204.5c	178.0c	163.5c
Dividends per share: proposed in the announcement of the results for the year	119.0c	108.5c	94.5c
	Dividends per share 2014	Dividends per share 2013	Dividends per share 2012
Rio Tinto plc previous year final (pence)	65.82p	60.34p	57.33p
Rio Tinto plc interim (pence)	56.90p	54.28p	46.43p
Rio Tinto Limited previous year final – fully franked at 30% (Australian cents)	120.14c	91.67c	84.20c
Rio Tinto Limited interim – fully franked at 30% (Australian cents)	103.09c	93.00c	68.51c
	Number of shares 2014 (millions)	Number of shares 2013 (millions)	Number of shares 2012 (millions)
Rio Tinto plc previous year final	1,413.2	1,411.9	1,417.6
Rio Tinto plc interim	1,413.8	1,412.5	1,410.9
Rio Tinto Limited previous year final	435.6	435.8	435.8
Rio Tinto Limited interim	435.7	435.5	435.8

The dividends paid in 2014 are based on the following US cents per share amounts: 2013 final – 108.5 cents, 2014 interim – 96.0 cents (2013 dividends paid: 2012 final – 94.5 cents, 2013 interim – 83.5 cents; 2012 dividends paid: 2011 final – 91.0 cents, 2012 interim – 72.5 cents).

The number of shares on which Rio Tinto plc dividends are based excludes those held as treasury shares and those held by employee share trusts which waived the right to dividends. Employee share trusts waived dividends on 207,766 Rio Tinto plc ordinary shares for the 2013 final dividend and on 90,304 Rio Tinto plc ordinary shares for the 2014 interim dividend (2013: 150,361 Rio Tinto plc ordinary shares for the 2012 final dividend and 124,636 Rio Tinto plc ordinary shares for the 2013 interim dividend, 2012: 248,955 Rio Tinto plc ordinary shares for the 2011 final dividend and 153,119 Rio Tinto plc ordinary shares for the 2012 interim dividend). In 2014, 2013 and 2012, no Rio Tinto Limited shares were held by Rio Tinto plc.

The number of shares on which Rio Tinto Limited dividends are based excludes those held by shareholders who have waived the rights to dividends. Employee share trusts waived dividends on 183,981 Rio Tinto Limited shares for the 2013 final dividend and on 24,046 Rio Tinto Limited shares for the 2014 interim dividend (2013: There were no applicable waivers in respect of Rio Tinto Limited shares for the 2012 final dividend. Dividend waivers applied to 222,439 Rio Tinto Limited shares for the 2013 interim dividend, 2012: There were no applicable dividend waivers in respect of Rio Tinto Limited shares for the 2011 final dividend and 2012 interim dividend).

In addition, the directors of Rio Tinto announced a final dividend of 119.0 cents per share on 12 February 2015. This is expected to result in payments of US\$2,202 million (Rio Tinto plc: US\$1,683 million, Rio Tinto Limited US\$519 million). The dividends will be paid on 9 April 2015 to Rio Tinto plc and Rio Tinto Limited shareholders on the register at the close of business on 6 March 2015.

The proposed Rio Tinto Limited dividends will be franked out of existing franking credits or out of franking credits arising from the payment of income tax during 2015.

The approximate amount of the Rio Tinto Limited consolidated tax group's retained profits and reserves that could be distributed as dividends and franked out of credits, that arose from net payments of income tax in respect of periods up to 31 December 2014 (after deducting franking credits expected to be utilised on the 2014 final dividend declared), is US\$18,290 million.

12 Goodwill

	2014 US\$m	2013 US\$m
Net book value		
At 1 January	1,349	2,774
Adjustment on currency translation	(121)	(253)
Company no longer consolidated	–	(23)
Impairment charges ^(a)	–	(1,149)
At 31 December	1,228	1,349
– cost	20,122	22,678
– accumulated impairment	(18,894)	(21,329)
At 1 January		
– cost	22,678	24,451
– accumulated impairment	(21,329)	(21,677)

At 31 December, goodwill has been allocated as follows:

	2014 US\$m	2013 US\$m
Net book value		
Richards Bay Minerals	591	656
Pilbara	409	445
Other	228	248
	1,228	1,349

(a) During 2013, the goodwill impairment charge of US\$1,149 million represented the full impairment of goodwill allocated to Oyu Tolgoi. Refer to note 6 for further details.

Impairment tests for goodwill

Richards Bay Minerals

The Group consolidated Richards Bay Minerals on 3 September 2012. Goodwill arose in accordance with the requirement in IFRS, as defined in note 1, to recognise a deferred tax asset or liability on the difference between the fair value of newly consolidated assets and liabilities and their tax base and is retranslated at each period end for changes in the South African rand. The recognition of Richards Bay Minerals' identifiable assets and liabilities in the balance sheet was based on fair values at the acquisition date determined with the assistance of an independent third party valuer.

Richards Bay Minerals' annual impairment review resulted in no impairment charge for 2014 (2013: no impairment charge). The recoverable amount has been assessed by reference to FVLCD, in line with the policy set out in note 1(i) and classified as level 3 under the fair value hierarchy. FVLCD was determined by estimating cash flows until the end of the life of mine plan including anticipated expansions. In arriving at FVLCD, a post-tax discount rate of 9.2 per cent (2013: 7.3 per cent) has been applied to the post-tax cash flows expressed in real terms.

The key assumptions to which the calculation of FVLCD for Richards Bay Minerals is most sensitive and the corresponding decrease in FVLCD are set out below:

	US\$ million
5% decrease in the titanium slag price	174
1% increase in the discount rate applied to post-tax cash flows	296
10% strengthening of the South African rand	770

Other assumptions include the long-term pig iron and zircon prices and operating costs. Future selling prices and operating costs have been estimated in line with the policy set out in note 1(i). The recoverable amount of the cash-generating unit exceeds the carrying value for each of these sensitivities applied in isolation.

Pilbara

The recoverability of goodwill arising from the acquisition of Robe River and monitored at the Pilbara CGU level has been assessed by reference to FVLCD using discounted cash flows, which is in line with the policy set out in note 1(i) and is classified as level 3 under the fair value hierarchy. In arriving at FVLCD, a post-tax discount rate of 7.2 per cent (2013: 7.3 per cent) has been applied to the post-tax cash flows expressed in real terms. The recoverable amounts were determined to be significantly in excess of carrying value, and there are no reasonably possible changes in key assumptions that would cause the remaining goodwill to be impaired.

Other

The recoverability of the Other goodwill has been assessed by reference to FVLCD using discounted cash flows, which is in line with the policy set out in note 1(i). The recoverable amounts were determined to be in excess of carrying value, and there are no reasonably possible changes in key assumptions that would cause the remaining goodwill to be impaired by a significant amount.

13 Intangible assets

	Exploration and evaluation ^(a) US\$m	Trademarks, patented and non-patented technology US\$m	Contract based intangible assets ^(b) US\$m	Other intangible assets US\$m	Total US\$m
Year ended 31 December 2014					
Net book value					
At 1 January 2014	1,854	198	2,831	538	5,421
Adjustment on currency translation	(86)	(21)	(195)	(55)	(357)
Expenditure during the year	142	–	–	307	449
Amortisation for the year ^(c)	–	(20)	(116)	(101)	(237)
Disposals, transfers and other movements ^(d)	686	(1)	(66)	(15)	604
At 31 December 2014	2,596	156	2,454	674	5,880
– cost	2,770	294	4,341	1,536	8,941
– accumulated amortisation and impairment	(174)	(138)	(1,887)	(862)	(3,061)
Year ended 31 December 2013					
Net book value					
At 1 January 2013	2,053	212	4,120	495	6,880
Adjustment on currency translation	(96)	7	(290)	(47)	(426)
Expenditure during the year	368	–	9	159	536
Amortisation for the year ^(c)	–	(21)	(123)	(111)	(255)
Impairment charges ^(e)	(379)	–	(908)	–	(1,287)
Disposals, transfers and other movements	(92)	–	23	42	(27)
At 31 December 2013	1,854	198	2,831	538	5,421
– cost	4,507	334	4,830	1,357	11,028
– accumulated amortisation and impairment	(2,653)	(136)	(1,999)	(819)	(5,607)

(a) Exploration and evaluation assets' useful lives are not determined until transferred to property, plant and equipment. The reduction in cost and accumulated amortisation and impairment from 2013 to 2014 mainly relates to the disposal of the fully impaired assets of Rio Tinto Coal Mozambique (RTCM) (see note 37). The impairment charge in 2013 of US\$379 million mainly related to exploration and evaluation assets within RTCM and SouthGobi Resources Limited (see note 6).

(b) The Group benefits from certain intangible assets acquired with Alcan including power supply contracts, customer contracts and water rights. The water rights are expected to contribute to the efficiency and cost effectiveness of operations for the foreseeable future: accordingly, these rights are considered to have indefinite lives and are not subject to amortisation but are tested annually for impairment. These water rights constitute the majority of the amounts in "Contract based intangible assets".

(c) Finite life intangible assets are amortised over their useful economic lives on a straight line or units of production basis, as appropriate. Where amortisation is calculated on a straight line basis, the following useful lives have been determined:

Trademark, patented and non-patented technology

Trademarks: 14 to 20 years

Patented and non-patented technology: 10 to 20 years

Contract based intangible assets

Power contracts: 2 to 39 years

Other purchase and customer contracts: 5 to 15 years

Other intangible assets

Internally generated intangible assets and computer software: 2 to 5 years

Other intangible assets: 2 to 20 years

(d) Disposals, transfers and other movements for exploration and evaluation include US\$700 million previously classified as non-current receivables pending ratification of the Simandou project Investment Framework. The incorporation of the Investment Framework into Guinean law was completed following ratification by the Guinean National Assembly, Presidential promulgation and its publication in August 2014. The project partners are continuing to work towards the completion of a bankable feasibility study, completion of which has been delayed due to the Ebola outbreak, and are aiming to establish a funding consortium to build the infrastructure necessary to develop the Simandou project.

(e) The US\$908 million 2013 impairment charge to the contract based intangible asset class related to the full write-off of the water right indefinite-lived intangible assets at the Kitimat cash-generating unit (see note 6).

The remaining carrying value of the water rights (US\$1,981 million) as at 31 December 2014 relates wholly to the Quebec smelters cash-generating unit. The Quebec smelters cash-generating unit was tested for impairment and it was determined that its recoverable amount on a FVLCD basis exceeds the carrying amount by US\$3,311 million.

The recoverable amount of the Quebec smelters is classified as level 3 under the fair value hierarchy. In arriving at FVLCD, post-tax cash flows expressed in real terms have been estimated over the expected useful economic lives of the underlying smelting assets and discounted using a post-tax real discount rate of 7.2 per cent (2013: 7.3 per cent).

The key assumptions to which the calculation of FVLCD for the Quebec smelters is most sensitive and the corresponding decrease in FVLCD are set out below:

	US\$ million
0.5% increase in discount rate applied to post-tax cash flows	659
5% decrease in aluminium and alumina prices	1,220
5% strengthening of the Canadian dollar	396
5% increase in operating costs	914

Each of the sensitivities has been determined by assuming that the relevant key assumption moves in isolation, except where modifying the aluminium price directly affects the price assumption for certain input costs, and further assumes that there is no mitigating action by management. The recoverable amount of the cash-generating unit exceeds the carrying value for each of these sensitivities in isolation.

In 2012 and previous years, the Group's Aluminium cash-generating units were tested for impairment in aggregate as the goodwill was allocated and monitored at the segment level. The remaining goodwill was fully impaired in 2012. Refer to note 6 for further details.

Exploration and evaluation expenditure

The charge for the year and the net amount of intangible assets capitalised during the year are as follows:

	2014 US\$m	2013 US\$m	2012 US\$m
Net expenditure in the year (net of proceeds of US\$11 million (2013: US\$27 million; 2012: US\$217 million) on disposal of undeveloped projects)	(872)	(1,317)	(2,608)
Changes in accruals (including impairment of undeveloped projects of US\$nil (2013: US\$159 million; 2012: US\$nil) and non-cash proceeds on disposal of undeveloped projects)	(53)	(160)	207
Amount capitalised during the year	142	368	924
Net charge for the year	(783)	(1,109)	(1,477)
Reconciliation to income statement			
Exploration and evaluation costs	(747)	(948)	(1,971)
(Loss)/profit on disposal of interests in undeveloped projects	(36)	(161)	494
Net charge for the year	(783)	(1,109)	(1,477)

At 31 December 2014, a total of US\$2.9 billion had been capitalised related to projects which had not yet been approved to proceed. This comprised evaluation costs of US\$2.6 billion included above and US\$0.3 billion of early works expenditure within property, plant and equipment (31 December 2013: a total of US\$2.3 billion had been capitalised comprising: evaluation costs of US\$1.9 billion included above and US\$0.4 billion of early works expenditure within property, plant and equipment).

14 Property, plant and equipment

Year ended 31 December 2014	Mining properties and leases ^(a) US\$m	Land and buildings ^(b) US\$m	Plant and equipment US\$m	Capital works in progress US\$m	Total US\$m
Net book value					
At 1 January 2014	10,880	7,410	38,466	14,071	70,827
Adjustment on currency translation	(687)	(564)	(2,918)	(545)	(4,714)
Adjustments to capitalised closure costs (note 26)	525	–	–	–	525
Interest capitalised ^(c) (note 8)	–	–	2	468	470
Additions	554	302	1,369	5,571	7,796
Depreciation for the year ^(a) ^(d)	(649)	(432)	(3,542)	–	(4,623)
Impairment (charges), net of reversals ^(e)	139	(10)	277	(1,440)	(1,034)
Disposals	–	(162)	(61)	(14)	(237)
Subsidiaries no longer consolidated	–	–	(31)	–	(31)
Transfers and other movements ^(f)	1,151	541	6,248	(8,226)	(286)
At 31 December 2014	11,913	7,085	39,810	9,885	68,693
– cost	23,045	10,845	69,835	11,544	115,269
– accumulated depreciation and impairment	(11,132)	(3,760)	(30,025)	(1,659)	(46,576)
Non-current assets held under finance leases ^(g)	–	12	1	–	13
Other non-current assets pledged as security ^(h)	1,261	173	2,823	259	4,516

14 Property, plant and equipment continued

Year ended 31 December 2013	Mining properties and leases ^(a) US\$m	Land and buildings ^(b) US\$m	Plant and equipment US\$m	Capital works in progress US\$m	Total US\$m
Net book value					
At 1 January 2013	16,902	7,187	31,601	21,295	76,985
Adjustment on currency translation	(1,303)	(629)	(3,670)	(1,612)	(7,214)
Adjustments to capitalised closure costs (note 26)	391	–	–	–	391
Interest capitalised ^(c) (note 8)	–	–	2	725	727
Additions	397	214	1,444	9,879	11,934
Depreciation for the year ^{(a) (d)}	(816)	(439)	(3,281)	–	(4,536)
Impairment (charges), net of reversals ^(e)	(3,976)	(67)	(676)	(163)	(4,882)
Disposals	(1)	(5)	(89)	(27)	(122)
Subsidiaries no longer consolidated	(401)	(62)	(274)	(334)	(1,071)
Transfers and other movements ^(f)	(313)	1,211	13,409	(15,692)	(1,385)
At 31 December 2013	10,880	7,410	38,466	14,071	70,827
– cost	21,521	11,328	68,429	14,487	115,765
– accumulated depreciation and impairment	(10,641)	(3,918)	(29,963)	(416)	(44,938)
Non-current assets held under finance leases ^(g)	–	14	9	–	23
Other non-current assets pledged as security ^(h)	1,435	175	2,872	97	4,579

- (a) At 31 December 2014, the net book value of capitalised production phase stripping costs totalled US\$1.8 billion, with US\$1.4 billion within Property, plant and equipment and a further US\$0.4 billion within Investments in equity accounted units (2013 total of US\$1.3 billion with US\$0.9 billion in Property, plant and equipment and a further US\$0.4 billion within Investments in equity accounted units). During the period capitalisation of US\$0.7 billion was partly offset by depreciation of US\$0.2 billion. Amortisation of deferred stripping costs of US\$84 million (2013: US\$70 million; 2012: US\$105 million) is included within “Depreciation for the year”.
- (b) At 31 December 2014, the net book value amount for land and buildings includes freehold US\$6,899 million (2013: US\$6,847 million); long leasehold US\$186 million (2013: US\$562 million); and no short leasehold (2013: US\$1 million).
- (c) Interest is capitalised at a rate based on the Group’s cost of borrowing or at the rate on project specific debt, where applicable. The Group’s average borrowing rate used for capitalisation of interest is 4.0 per cent (2013: 4.0 per cent).
- (d) Assets within operations for which production is not expected to fluctuate significantly from one year to another or which have a physical life shorter than the related mine are depreciated on a straight line basis as follows:
- Land and buildings*
Land: Not depreciated
Buildings: 5 to 50 years
- Plant and equipment*
Other plant and equipment: 3 to 50 years
Power assets: 25 to 50 years
Capital work in progress: Not depreciated
- (e) During 2014 and 2013 impairment charges primarily related to the aluminium and copper business. In 2014, impairment charges, of US\$1,669 million were offset by US\$635 million of impairment reversals.
- (f) “Transfers and other movements” includes reclassifications between categories, including transfer to assets of disposal groups held for sale.
- (g) The finance leases under which these assets are held are disclosed in note 23.
- (h) Excludes assets held under finance leases. Non-current assets pledged as security represent amounts pledged as collateral against US\$587 million (2013: US\$865 million) of loans, which are included in note 22.

15 Investments in equity accounted units

Summary balance sheet (Rio Tinto share)	2014 US\$m	2013 US\$m
Rio Tinto’s share of assets		
Non-current assets	6,605	5,860
Current assets	901	1,197
	7,506	7,057
Rio Tinto’s share of liabilities		
Current liabilities	(681)	(791)
Non-current liabilities	(1,957)	(2,309)
	(2,638)	(3,100)
Rio Tinto’s share of net assets ^{(a) (b)}	4,868	3,957

- (a) Further details of investments in equity accounted units are set out in notes 35 and 36.

- (b) The impact of impairment charges and impairment reversals on the Group's investments in equity accounted units are summarised in note 6.
(c) At 31 December 2014 and 2013 the Group had no investments in equity accounted units with shares listed on recognised stock exchanges.
(d) At 31 December 2014, net debt of equity accounted units, excluding amounts due to Rio Tinto, was US\$922 million (2013: US\$991 million).

16 Inventories

	2014 US\$m	2013 US\$m
Raw materials and purchased components	726	1,116
Consumable stores	1,411	1,596
Work in progress	1,490	1,721
Finished goods and goods for resale	1,120	1,815
	4,747	6,248
Comprising:		
Expected to be used within one year	4,350	5,737
Expected to be used after more than one year	397	511
	4,747	6,248

Inventory write-downs, net of reversals, amounting to US\$94 million (2013: US\$201 million; 2012: US\$208 million) were recognised during the year.

17 Deferred taxation

	2014 US\$m	2013 US\$m
At 1 January	585	1,669
Adjustment on currency translation	(36)	(201)
Credited to the income statement (note 9)	(349)	(1,676)
(Credited)/charged to statement of comprehensive income ^(a)	(205)	697
Newly consolidated operations (note 37)	–	1
Disposals	10	–
Other movements ^(b)	29	95
At 31 December	34	585
Comprising:		
– deferred tax liabilities ^{(c) (d)}	3,574	4,140
– deferred tax assets ^{(c) (e) (f) (g)}	(3,540)	(3,555)

Deferred tax balances for which there is a right of offset within the same tax jurisdiction are presented net on the face of the balance sheet as permitted by IAS 12. The closing deferred tax liabilities and assets, prior to this offsetting of balances, are shown below.

	Total 2014 US\$m	Total 2013 US\$m
Deferred tax liabilities arising from:		
Capital allowances	6,018	6,391
Unremitted earnings ^(d)	659	637
Capitalised interest	368	348
Unrealised exchange gains	255	91
Other temporary differences	248	761
	7,548	8,228
Deferred tax assets arising from:		
Tax losses ^(e)	(2,276)	(2,496)
Provisions	(2,096)	(2,084)
Capital allowances ^(f)	(877)	(1,289)
Post retirement benefits	(1,165)	(1,036)
Unrealised exchange losses	(658)	(184)
Other temporary differences	(442)	(554)
	(7,514)	(7,643)

17 Deferred taxation continued

	Total 2014 US\$m	Total 2013 US\$m
Credited/(charged) to the income statement		
Unrealised exchange losses	(365)	(566)
Tax losses	72	(563)
Provisions	(122)	(434)
Capital allowances	272	(44)
Tax on unremitted earnings	2	(3)
Post retirement benefits	34	68
Other temporary differences	(242)	(134)
	(349)	(1,676)

- (a) The amounts credited directly to the Statement of comprehensive income include provisions for tax on exchange differences on intragroup loans qualifying for reporting as part of the net investment in subsidiaries, on cash flow hedges and on actuarial gains and losses on pension schemes, and on post retirement healthcare plans.
- (b) "Other movements" include deferred tax relating to tax payable recognised by subsidiary holding companies on the profits of the equity accounted units to which it relates.
- (c) The deferred tax liability of US\$3,574 million (2013: US\$4,140 million) includes US\$3,555 million (2013: US\$4,139 million) due in more than one year. The deferred tax asset of US\$3,540 million (2013: US\$3,555 million) includes US\$3,405 million (2013: US\$3,426 million) receivable in more than one year. All amounts are shown as non-current on the face of the balance sheet as required by IAS 12.
- (d) Deferred tax is not recognised on the unremitted earnings of subsidiaries and joint ventures where the Group is able to control the timing of the remittance and it is probable that there will be no remittance in the foreseeable future. If these earnings were remitted, tax of US\$202 million (2013: US\$183 million) would be payable.
- (e) There is a limited time period, the shortest of which is two years, for the recovery of US\$1,347 million (2013: US\$1,384 million) of tax losses and other tax assets which have been recognised as deferred tax assets in the financial statements.
- (f) As at 31 December 2013, deferred tax assets arising from capital allowances included amounts arising following the introduction of the MRRT on 1 July 2012. At 31 December 2014, no deferred tax is recognised in respect of MRRT following the repeal of MRRT during 2014. Refer to note 9.
- (g) Recognised and unrecognised deferred tax assets are shown in the table below and totalled US\$6,885 million at 31 December 2014 (2013: US\$ 17,755 million). Of this total, US\$3,540 million has been recognised as deferred tax assets (2013: US\$3,555 million), leaving US\$3,345 million (2013: US\$14,200 million) unrecognised, as recovery is not considered probable.

The recognised amounts do not include deferred tax assets that have been netted off against deferred tax liabilities.

	Recognised		Unrecognised	
	2014 US\$m	2013 US\$m	2014 US\$m	2013 US\$m
At 31 December				
UK	131	104	150	215
France ⁽ⁱ⁾	377	444	1,184	1,339
Canada	491	297	371	181
US	932	560	16	16
Australia ⁽ⁱⁱ⁾	1,324	1,880	287	11,000
Other	285	270	1,337	1,449
Total ⁽ⁱⁱⁱ⁾	3,540	3,555	3,345	14,200

- (i) US\$1,184 million (2013: US\$1,274 million) of the unrecognised assets relate to trading losses in France, which were acquired as part of the Alcan acquisition. The amount recognised takes account of legislation which restricts the recovery of losses.
- (ii) The recognised and unrecognised amounts for 2013 include temporary differences that are deductible for the purposes of MRRT. At 31 December 2014 the recognised and unrecognised amounts for MRRT are US\$nil following the repeal of MRRT.
- (iii) US\$688 million (2013: US\$652 million) of the unrecognised assets relate to realised or unrealised capital losses, recovery of which depends on the existence of capital gains in future years. There is a time limit, the shortest of which is one year, for the recovery of US\$353 million of the unrecognised assets (2013: US\$343 million).

18 Trade and other receivables

	Non-current 2014 US\$m	Current 2014 US\$m	Total 2014 US\$m	Non-current 2013 US\$m	Current 2013 US\$m	Total 2013 US\$m
Trade receivables ^(a)	5	2,483	2,488	5	2,987	2,992
Other receivables ^(b)	435	884	1,319	1,150	1,212	2,362
Prepayment of tolling charges to equity accounted units ^(c)	387	–	387	479	–	479
Pension surpluses (note 45)	353	–	353	290	–	290
Amounts due from equity accounted units	–	36	36	–	136	136
Other prepayments	124	220	344	216	332	548
	1,304	3,623	4,927	2,140	4,667	6,807

- (a) At 31 December 2014, trade and other receivables are stated net of provisions for doubtful debts of US\$39 million (2013: US\$12 million). Amounts of US\$35 million (2013: US\$10 million) were impaired; the majority of these receivables were more than 90 days overdue.

- (b) As at 31 December 2013 non-current other receivables included a capitalised prepayment on an intangible asset of the Simandou iron ore project of US\$700m. This was transferred to intangible assets (see note 13) in 2014 on the ratification of the settlement agreement.
- (c) Rio Tinto Aluminium has made certain prepayments to equity accounted units for toll processing of alumina. These prepayments will be charged to Group operating costs as processing takes place.

There is no material element of trade and other receivables that is interest bearing.

The fair value of current trade and other receivables and the majority of amounts classified as non-current assets approximates their carrying value.

As of 31 December 2014, trade receivables of US\$82 million (2013: US\$178 million) were past due but not impaired. The ageing of these receivables is as follows:

	2014 US\$m	2013 US\$m
less than 30 days overdue	34	57
between 30 and 60 days overdue	11	71
between 60 and 90 days overdue	30	47
more than 90 days overdue	7	3
	82	178

These relate to a number of customers for whom there is no recent history of default.

With respect to trade and other receivables that are neither impaired nor past due, there are no indications as of the reporting date that the debtors will not meet their payment obligations.

19 Assets and liabilities held for sale

At 31 December 2014 assets and liabilities held for sale comprised the Group's 71.2 per cent interest in the Blair Athol coal project (Blair Athol) and its 28.4 per cent indirect interest in SouthGobi Resources Limited, which was acquired as part of the gain of control of Turquoise Hill Resources Ltd in 2012.

At 31 December 2013 assets and liabilities held for sale comprised the Group's 50.1 per cent interest in the Clermont Joint Venture (Clermont), its 71.2 per cent interest in Blair Athol, and Zululand Anthracite Colliery (ZAC), which was acquired with Rio Tinto Coal Mozambique in 2011. At 31 December 2014 ZAC was no longer held for sale. On 25 October 2013, Rio Tinto announced that it had reached a binding agreement to sell its interest in Clermont to GS Coal Pty Ltd, a company jointly owned by Glencore and Sumitomo Corporation, for US\$1,015 million. The sale was completed on 29 May 2014.

20 Other financial assets (including tax recoverable and loans to equity accounted units)

	Non-current 2014 US\$m	Current 2014 US\$m	Total 2014 US\$m	Non-current 2013 US\$m	Current 2013 US\$m	Total 2013 US\$m
Derivative financial instruments	393	43	436	403	63	466
Equity shares and quoted funds	103	96	199	157	122	279
Other investments, including loans	226	61	287	339	167	506
Loans to equity accounted units	–	71	71	1	93	94
Tax recoverable	70	146	216	83	265	348
	792	417	1,209	983	710	1,693

Detailed information relating to other financial assets is given in note 30.

21 Cash and cash equivalents

	Note	2014 US\$m	2013 US\$m
Cash at bank and in hand		1,146	1,548
Money market funds and other cash equivalents		11,277	8,668
Balance per Group balance sheet		12,423	10,216
Bank overdrafts repayable on demand (unsecured)	22	(23)	(7)
Balance per Group cash flow statement		12,400	10,209

Cash and cash equivalents of US\$631 million (2013: US\$570 million) are held in countries where there are restrictions on remittances. Of this balance US\$455 million (2013: US\$402 million) could be used to repay subsidiaries' third party borrowings.

There are also restrictions on a further US\$404 million (2013: US\$652 million) of cash and cash equivalents, the majority of which is held by partially owned entities and is not available for use in the wider Group due to the legal and contractual restrictions currently in place. Of this balance US\$24 million (2013: US\$119 million) could be used to repay subsidiaries' third party borrowings.

22 Borrowings and other financial liabilities

	Note	Non-current 2014 US\$m	Current 2014 US\$m	Total 2014 US\$m	Non-current 2013 US\$m	Current 2013 US\$m	Total 2013 US\$m
Borrowings at 31 December							
USD Commercial Paper		—	—	—	—	156	156
Rio Tinto Finance (USA) Limited Bonds 8.95% 2014 ^(a)		—	—	—	—	1,907	1,907
Alcan Inc. Global Notes 5.2% due 2014 ^(a)		—	—	—	—	499	499
Rio Tinto Finance (USA) Limited Bonds 1.875% 2015		—	500	500	500	—	500
Rio Tinto Finance (USA) plc Bonds 1.125% 2015		—	500	500	499	—	499
Rio Tinto Finance (USA) plc Bonds LIBOR plus 0.55% 2015		—	250	250	250	—	250
Alcan Inc. Global Notes 5.0% due 2015 ^(a)		—	496	496	499	—	499
Rio Tinto Finance (USA) Limited Bonds 2.500% 2016		698	—	698	698	—	698
Rio Tinto Finance (USA) Limited Bonds 2.250% 2016		498	—	498	498	—	498
Rio Tinto Finance (USA) plc Bonds 1.375% 2016		998	—	998	996	—	996
Rio Tinto Finance (USA) plc Bonds LIBOR plus 0.84% 2016		500	—	500	499	—	499
Rio Tinto Finance (USA) plc Bonds 2.0% 2017		499	—	499	499	—	499
Rio Tinto Finance (USA) plc Bonds 1.625% 2017		1,245	—	1,245	1,243	—	1,243
Rio Tinto Finance (USA) Limited Bonds 6.5% 2018 ^(a)		1,935	—	1,935	1,979	—	1,979
Rio Tinto Finance (USA) plc Bonds 2.250% 2018		1,239	—	1,239	1,238	—	1,238
Rio Tinto Finance (USA) Limited Bonds 9.0% 2019		1,474	—	1,474	1,467	—	1,467
Rio Tinto Finance (USA) Limited Bonds 3.5% 2020		996	—	996	995	—	995
Rio Tinto Finance plc Euro Bonds 2.0% due 2020 ^{(a) (b)}		934	—	934	999	—	999
Rio Tinto Finance (USA) Limited Bonds 4.125% 2021		998	—	998	996	—	996
Rio Tinto Finance (USA) Limited Bonds 3.750% 2021		1,144	—	1,144	1,145	—	1,145
Rio Tinto Finance (USA) plc Bonds 3.5% 2022 ^(a)		995	—	995	992	—	992
Rio Tinto Finance (USA) plc Bonds 2.875% 2022 ^(a)		988	—	988	985	—	985
Rio Tinto Finance plc Euro Bonds 2.875% due 2024 ^{(a) (b)}		646	—	646	639	—	639
Rio Tinto Finance (USA) Limited Bonds 7.125% 2028 ^(a)		1,008	—	1,008	934	—	934
Alcan Inc. Debentures 7.25% due 2028		106	—	106	107	—	107
Rio Tinto Finance plc Sterling Bonds 4.0% due 2029 ^{(a) (b)}		774	—	774	822	—	822
Alcan Inc. Debentures 7.25% due 2031		429	—	429	430	—	430
Alcan Inc. Global Notes 6.125% due 2033		745	—	745	739	—	739
Alcan Inc. Global Notes 5.75% due 2035		279	—	279	284	—	284
Rio Tinto Finance (USA) Limited Bonds 5.2% 2040		1,145	—	1,145	1,147	—	1,147
Rio Tinto Finance (USA) plc Bonds 4.75% 2042		490	—	490	490	—	490
Rio Tinto Finance (USA) plc Bonds 4.125% 2042		726	—	726	725	—	725
Loans from equity accounting units		—	52	52	9	77	86
Other secured loans		376	211	587	651	214	865
Other unsecured loans		497	627	1,124	551	1,049	1,600
Finance leases	23	49	5	54	39	7	46
Bank overdrafts	21	—	23	23	—	7	7
Total borrowings including overdrafts ^(c)		22,411	2,664	25,075	24,544	3,916	28,460

(a) These borrowings are subject to the hedging arrangements summarised below.

(b) Rio Tinto has a US\$10 billion (2013: US\$10 billion) European Debt Issuance Programme (EDIP) against which the cumulative amount utilised was US\$2.3 billion equivalent at 31 December 2014 (2013: US\$2.6 billion). The carrying value of these bonds after hedge accounting adjustments amounted to US\$2.4 billion (2013: US\$ 2.5 billion) in aggregate.

(c) The Group's borrowings of US\$25.1 billion (2013: US\$28.5 billion) include some US\$3.5 billion (2013: US\$3.3 billion) which relates to subsidiary entity borrowings that are without recourse to the Group, of which US\$0.6 billion (2013: US\$0.7 billion) are subject to various financial and general covenants with which the respective borrowers were in compliance as at 31 December 2014.

	Non-current 2014 US\$m	Current 2014 US\$m	Total 2014 US\$m	Non-current 2013 US\$m	Current 2013 US\$m	Total 2013 US\$m
Other financial liabilities						
Derivative financial instruments	67	14	81	31	10	41
Other financial liabilities	57	6	63	50	—	50
Total other financial liabilities	124	20	144	81	10	91
Total borrowings and other financial liabilities	22,535	2,684	25,219	24,625	3,926	28,551

Swap arrangements

At 31 December 2014, US\$3.7 billion (2013: US\$4.2 billion) US dollar notional of the fixed rate US dollar borrowings were swapped to floating US dollar rates and US\$1.5 billion (2013: US\$1.6 billion) US dollar notional equivalent of euro borrowings were fully swapped to floating US dollar rates.

During the year fair value hedge accounting has been applied to items marked (a) in the above table except for: US\$750 million (2013: US\$750 million) of the Rio Tinto Finance (USA) Limited Bonds 6.5% due 2018, US\$250 million (2013: US\$1,000 million) of the Rio Tinto Finance (USA) plc Bonds 3.5% due 2022, US\$250 million (2013: US\$1,000 million) of the Rio Tinto Finance (USA) plc Bonds 2.875% due 2022, US\$75 million (2013: US\$75 million) of the Rio Tinto Finance (USA) Limited Bonds 7.125% due 2028, US\$250 million (2013: US\$250 million) of the Rio Tinto Finance (USA) Limited Bonds 8.95% due 2014 and US\$200 million (2013: US\$200 million) of the Alcan Inc. Global Notes 5.2% due 2014. These portions are held at amortised cost.

The Rio Tinto Finance plc Sterling Bond 4.0% due 2029 at US\$0.8 billion (2013: US\$0.8 billion) US dollar notional equivalent of sterling was fully swapped to fixed US dollar rates. Cash flow hedging was applied to the annual interest coupons and principal of this bond. The hedge was fully effective in 2014 and 2013 financial years.

The fair value of interest rate and cross currency interest rate swaps at 31 December 2014 was US\$200 million (2013: US\$192 million) asset and US\$54 million (2013: US\$14 million) liability, respectively. These are included in "Other financial assets" and "Other financial liabilities" in the balance sheet.

Details of the major interest rate and cross currency interest rate swaps are shown in note 30.

23 Capitalised finance leases

	Note	2014 US\$m	2013 US\$m
Present value of minimum lease payments			
Total minimum lease payments		55	48
Effect of discounting		(1)	(2)
	14	54	46
Payments under capitalised finance leases			
Due within 1 year		5	7
Between 1 and 3 years		29	13
Between 3 and 5 years		6	11
More than 5 years		14	15
	14	54	46

24 Consolidated net debt

	2014 US\$m	2013 US\$m
Analysis of changes in consolidated net debt ^(a)		
Opening balance	(18,055)	(19,192)
Adjustment on currency translation	1,039	2,051
Exchange losses charged to the income statement ^(b)	(1,070)	(2,120)
Cash movements excluding exchange movements	5,357	1,076
Other movements	234	130
Closing balance	(12,495)	(18,055)
Total borrowings in balance sheet (note 22)	(25,075)	(28,460)
Derivatives related to net debt (included in "Other financial assets/liabilities") (note 30)	146	173
Equity accounted unit funded balances excluded from net debt ^(c)	11	16
Adjusted total borrowings	(24,918)	(28,271)
Cash and cash equivalents (note 21)	12,423	10,216
Consolidated net debt	(12,495)	(18,055)
	2014 US\$m	2013 US\$m
Exchange (losses)/gains on US dollar net debt and intragroup balances excluded from underlying earnings		
Exchange (losses)/gains on US dollar net debt	(1,056)	(2,098)
Exchange (losses)/gains on intragroup balances	(940)	(1,574)
Exchange gains on loans from equity accounted units	1	–
Exchange gains on settlement of dividend	–	–
(Charged)/credited to income statement	(1,995)	(3,672)

(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) Exchange losses taken to the income statement include amounts excluded from underlying earnings.

(c) Equity accounted unit funded balances are defined as amounts owed by partially owned subsidiaries to equity accounted units, where such funding was provided to the equity accounted unit by the Group.

Further information relating to the currency and interest rate exposures arising from net debt and related derivatives is given in note 30.

25 Trade and other payables

	Non-current 2014 US\$m	Current 2014 US\$m	Total 2014 US\$m	Non-current 2013 US\$m	Current 2013 US\$m	Total 2013 US\$m
Trade payables	5	2,592	2,597	2	3,095	3,097
Accruals and deferred income	248	2,123	2,371	146	2,481	2,627
Other payables ^(a)	359	1,201	1,560	164	1,112	1,276
Employee entitlements	–	905	905	–	861	861
Royalties and mining taxes	2	526	528	2	682	684
Amounts owed to equity accounted units	147	78	225	135	155	290
Government grants deferred	110	12	122	127	14	141
	871	7,437	8,308	576	8,400	8,976

(a) “Other payables” include deferred consideration of US\$29 million (2013: US\$54 million) relating to acquired assets. All other accounts payable and accruals are non-interest bearing.

Due to their short term maturities, the fair value of trade and other payables approximates their carrying value.

26 Provisions (including post retirement benefits)

	Pensions and post retirement healthcare ^(a) US\$m	Other employee entitlements ^(b) US\$m	Close down and restoration/ environmental ^{(c)(d)(e)} US\$m	Other US\$m	Total 2014 US\$m	Total 2013 US\$m
At 1 January	3,599	941	8,582	959	14,081	16,981
Adjustment on currency translation	(223)	(47)	(584)	(109)	(963)	(1,081)
Adjustments to mining properties (note 14)						
– changes in estimate	–	–	525	–	525	391
Charged/(credited) to profit:						
– increases to existing provisions	236	132	125	430	923	1,171
– new provisions	–	87	5	202	294	455
– unused amounts reversed	2	(31)	(46)	(95)	(170)	(169)
– exchange gains/(losses) on provisions	–	–	42	49	91	(8)
– amortisation of discount	–	2	356	26	384	377
Utilised in year	(296)	(339)	(368)	(266)	(1,269)	(1,506)
Actuarial gains/(losses) recognised in equity	776	–	–	–	776	(2,204)
Newly consolidated operations (note 37)	–	1	10	–	11	18
Subsidiaries no longer consolidated	–	–	–	23	23	(260)
Transfers to assets held for sale	(6)	(1)	(20)	4	(23)	(104)
Transfers and other movements	(2)	(146)	3	64	(81)	20
At 31 December	4,086	599	8,630	1,287	14,602	14,081
Balance sheet analysis:						
Current	117	430	355	397	1,299	1,738
Non-current	3,969	169	8,275	890	13,303	12,343
Total	4,086	599	8,630	1,287	14,602	14,081

(a) The main assumptions used to determine the provision for pensions and post retirement healthcare, and other information, including the expected level of future funding payments in respect of those arrangements, are given in note 45.

(b) The provision for other employee entitlements includes a provision for long service leave of US\$354 million (2013: US\$314 million), based on the relevant entitlements in certain Group operations and includes US\$113 million (2013: US\$193 million) of provision for redundancy and severance payments.

(c) The Group’s policy on close-down and restoration costs is described in note 1(k) and in paragraph (v) under “Critical accounting policies and estimates” on pages 117 and 120. Close-down and restoration costs are a normal consequence of mining, and the majority of close-down and restoration expenditure is incurred in the years following closure of the mine, refinery or smelter. Remaining lives of operations and infrastructure range from one to over 50 years with an average for all sites, weighted by closure provision, of around 18 years (2013: 21 years). Although the ultimate cost to be incurred is uncertain, the Group’s businesses estimate their respective costs based on current restoration standards and techniques. Provisions of US\$8,630 million (2013: US\$8,582 million) for close-down and restoration costs and environmental clean up obligations are based on risk adjusted cash flows. These estimates have been discounted to their present value at a real risk free rate of 2 per cent per annum, based on an estimate of the long term, risk free, pre-tax cost of borrowing.

(d) Non-current provisions for close down and restoration/environmental expenditure include amounts relating to environmental clean-up of US\$341 million (2013: US\$327 million) expected to take place between one and five years from the balance sheet date, and US\$798 million (2013: US\$909 million) expected to take place later than five years after the balance sheet date.

(e) Close-down and restoration/environmental liabilities at 31 December 2014 have not been adjusted for amounts of US\$108 million (2013: US\$142 million) relating to insurance recoveries and other financial assets held for the purposes of meeting these obligations.

27 Share capital – Rio Tinto plc

	2014 Number (million)	2013 Number (million)	2012 Number (million)	2014 US\$m	2013 US\$m	2012 US\$m
Issued and fully paid up share capital of 10p each						
At 1 January	1,425.377	1,425.376	1,453.400	230	230	234
Ordinary shares issued ^{(a) (c)}	0.001	0.001	–	–	–	–
Ordinary shares purchased but uncanceled on 1 January ^(b)	–	–	(1.800)	–	–	–
Own shares purchased and cancelled ^(b)	–	–	(26.224)	–	–	(4)
At 31 December	1,425.378	1,425.377	1,425.376	230	230	230
Shares held by public						
At 1 January	1,412.695	1,411.257	1,436.542			
Shares reissued from treasury ^(a)	1.451	1.437	0.939			
Shares purchased and cancelled ^(b)	–	–	(26.224)			
Ordinary shares issued ^{(a) (c)}	0.001	0.001	–			
At 31 December	1,414.147	1,412.695	1,411.257			
Shares repurchased and held in treasury	11.231	12.682	14.119			
Shares held by public	1,414.147	1,412.695	1,411.257			
Total share capital	1,425.378	1,425.377	1,425.376			
Other share classes						
Special Voting Share of 10p each ^(d)	1 only	1 only	1 only			
DLC Dividend Share of 10p each ^(d)	1 only	1 only	1 only			
Equalisation Share of 10p each ^(d)	1 only	1 only	1 only			

(a) 971 Ordinary shares were issued in 2014 under the Global Employee Share Plan. 1,450,659 Ordinary shares were reissued from treasury during the year resulting from the exercise of options under Rio Tinto plc employee share based payment plans, with exercise prices between £10.979p and £36.275p per share (2013: 951 ordinary shares were issued, and 1,436,542 Ordinary shares reissued from treasury with exercise prices between £10.43p and £35.76p per share; 2012: no new ordinary shares issued and 939,423 Ordinary shares reissued from treasury with exercise prices between £10.43p and £39.46p per share).

(b) The authority for the Company to buy back its Ordinary shares was renewed at the 2014 annual general meeting. No shares were bought back and held in treasury in 2013 and 2014. From January to March 2012, 26,223,910 shares were bought back and cancelled and 1,800,000 shares purchased and awaiting cancellation at 31 December 2011 were cancelled.

(c) The aggregate consideration for new shares issued under the Global Employee Share Plan was US\$0.05 million (2013 restated: US\$0.04 million; 2012 restated: US\$nil). The difference between the nominal value and the issue price of the shares issued was credited to the share premium account. The aggregate consideration received for treasury shares reissued was US\$22 million (2013 restated: US\$32 million; 2012: US\$39 million). No new shares were issued as a result of the exercise of options under Rio Tinto plc employee share based payment plans in 2014, 2013 and 2012.

(d) The "Special Voting Share" was issued to facilitate the joint voting by shareholders of Rio Tinto plc and Rio Tinto Limited on Joint Decisions, following the DLC merger. The "DLC Dividend Share" was issued to facilitate the efficient management of funds within the DLC structure. Directors have the ability to issue an Equalisation Share if that is required under the terms of the DLC Merger Sharing Agreement.

During 2014, US\$49.5 million of shares and ADRs (2013: US\$42 million of shares and ADRs; 2012: US\$41 million of shares) were purchased by employee share ownership trusts on behalf of Rio Tinto plc to satisfy future share options and awards as they vest. At 31 December 2014, 794,330 shares and 25,502 ADRs were held in the employee share ownership trusts on behalf of Rio Tinto plc.

Information relating to share options and other share based incentive schemes is given in note 44 on share based payments.

28 Share Capital – Rio Tinto Limited

	2014 Number (million)	2013 Number (million)	2012 Number (million)	2014 US\$m	2013 US\$m	2012 US\$m
Issued and fully paid up share capital						
At 1 January	435.76	435.76	435.76	4,911	5,715	5,582
Adjustment on currency translation	–	–	–	(376)	(804)	133
At 31 December	435.76	435.76	435.76	4,535	4,911	5,715
– Special Voting Share ^(a)	1 only	1 only	1 only			
– DLC Dividend Share ^(a)	1 only	1 only	1 only			
Total share capital ^(a)	435.76	435.76	435.76			

(a) The “Special Voting Share” was issued to facilitate the joint voting by shareholders of Rio Tinto Limited and Rio Tinto plc on Joint Decisions following the DLC merger. The “DLC Dividend Share” was issued to facilitate the efficient management of funds within the DLC structure. Directors have the ability to issue an Equalisation Share if that is required under the terms of the DLC Merger Sharing Agreement.

Share options exercised during the year to 31 December 2014 under various Rio Tinto Limited employee share option schemes were satisfied by the on-market purchase of Rio Tinto Limited shares by a third party on the Group's behalf.

Information relating to share options and other share based incentive schemes is given in note 44.

29 Other reserves and retained earnings

	2014 US\$m	2013 US\$m	2012 US\$m
Capital redemption reserve ^(a)			
At 1 January	28	28	24
Own shares purchased and cancelled	–	–	4
At 31 December	28	28	28
Hedging reserves ^(b)			
At 1 January	3	(68)	(44)
Parent and subsidiaries' net cash flow hedge fair value (losses)/gains	(48)	149	(60)
Parent and subsidiaries' net cash flow hedge losses/(gains) transferred to the income statement	55	(69)	47
Tax on the above	2	(9)	(11)
At 31 December	12	3	(68)
Available for sale revaluation reserves ^(c)			
At 1 January	(117)	(179)	193
Losses on available for sale securities	(19)	(67)	(25)
Losses/(gains) on available for sale securities transferred to the income statement	6	146	(355)
Tax on the above	–	(17)	8
At 31 December	(130)	(117)	(179)
Other reserves ^(d)			
At 1 January	11,766	11,778	11,765
Own shares purchased from Rio Tinto Limited shareholders to satisfy share options	(129)	(77)	(62)
Employee share options: value of services	69	64	78
Deferred tax on share options	(2)	1	(3)
At 31 December	11,704	11,766	11,778
Foreign currency translation reserve ^(e)			
At 1 January	1,191	3,309	2,807
Parent and subsidiaries currency translation and exchange adjustments	(1,690)	(2,138)	664
Equity accounted units currency translation adjustments	(43)	(44)	(158)
Currency translation reclassified on disposal	53	81	(3)
Tax on the above	(3)	(17)	(1)
At 31 December	(492)	1,191	3,309
Total other reserves per balance sheet	11,122	12,871	14,868

	2014 US\$m	2013 US\$m	2012 US\$m
Retained earnings ^(f)			
At 1 January	23,605	21,496	27,430
Parent and subsidiaries' profit/(loss) for the year	5,243	2,796	(3,859)
Equity accounted units' profit after tax for the year	1,284	869	831
Actuarial (losses)/gains ^(g)	(720)	2,211	(311)
Tax relating to components of other comprehensive income	204	(631)	72
Total comprehensive income/(loss) for the year	6,011	5,245	(3,267)
Share buy-back scheme	–	–	(764)
Dividends paid	(3,710)	(3,322)	(3,038)
Change in equity interest held by Rio Tinto	36	102	1,128
Own shares purchased/treasury shares reissued for share options and other movements	(28)	11	(38)
Employee share options: value of services and other IFRS 2 charges taken to the income statement	196	73	45
At 31 December	26,110	23,605	21,496

- (a) The capital redemption reserve was set up to comply with section 733 of the Companies Act 2006 (previously section 170 of the Companies Act 1985) when shares of a company are redeemed or purchased wholly out of the company's profits. Balances reflect the amount by which the Company's issued share capital is diminished in accordance with this section.
- (b) The hedging reserve records gains or losses on cash flow hedges that are recognised initially in equity, as described in note 1 (p) (iii).
- (c) The available for sale revaluation reserves record fair value gains or losses relating to available for sale securities, as described in note 1 (p) (i) (d).
- (d) Other reserves include the cumulative amount recognised under IFRS 2 in respect of options granted but not exercised to acquire shares in Rio Tinto Limited, less, where applicable, the cost of shares purchased to satisfy share options exercised. The cumulative amount recognised under IFRS 2 in respect of options granted but not exercised to acquire shares in Rio Tinto plc is recorded in retained earnings.
- Other reserves also include US\$11,936 million which represents the difference between the nominal value and issue price of the shares issued arising from Rio Tinto plc's rights issue completed in July 2009. No share premium was recorded in the Rio Tinto plc financial statements through the operation of the merger relief provisions of the Companies Act 1985.
- (e) Exchange differences arising on the translation of the Group's net investment in foreign controlled companies are taken to the foreign currency translation reserve, as described in note 1(d). The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.
- (f) Retained earnings and movements in reserves of subsidiaries include those arising from the Group's share of joint operations.
- (g) In 2014, there were no actuarial losses relating to equity accounted units (2013: US\$nil; 2012: US\$nil).

30 Financial instruments and risk management

Except where stated, the information given below relates to the financial instruments of the parent companies and their subsidiaries and joint operations, and excludes those of equity accounted units. The information is grouped in the following sections:

A – Financial assets and liabilities by categories

B – Derivative financial instruments

C – Fair values

A (a) Financial assets and liabilities by categories

At 31 December 2014	Note	Total US\$m	Loans and receivables US\$m	Available for sale securities US\$m	Held at fair value US\$m	Held to maturity assets/other financial liabilities US\$m
Financial assets						
Cash and cash equivalents	21	12,423	12,423	–	–	–
Trade and other receivables ^(a)		3,727	3,715	–	12	–
Equity shares and quoted funds	20	199	–	199	–	–
Other investments, including loans	20	287	118	–	164	5
Currency and commodity derivatives: designated as hedges ^(b)	20	17	–	–	17	–
Derivatives and embedded derivatives not related to net debt: not designated as hedges ^(b)	20	219	–	–	219	–
Derivatives related to net debt ^(b)	20,22,24	200	–	–	200	–
Loans to equity accounted units including quasi equity loans		299	299	–	–	–
Total financial assets		17,371	16,555	199	612	5
Financial liabilities						
Trade and other payables ^(c)		(6,155)			(24)	(6,131)
Short term borrowings and bank overdrafts	22	(2,664)			–	(2,664)
Medium and long term borrowings	22	(22,411)			–	(22,411)
Derivatives related to net debt ^(b)	22,24	(54)			(54)	–
Other derivatives and embedded derivatives: not designated as hedges ^(b)	22	(27)			(27)	–
Other financial liabilities	22	(63)			–	(63)
Total financial liabilities		(31,374)			(105)	(31,269)

At 31 December 2013	Note	Total US\$m	Loans and receivables US\$m	Available for sale securities US\$m	Held at fair value US\$m	Held to maturity assets/other financial liabilities US\$m
Financial assets						
Cash and cash equivalents	21	10,216	10,216	–	–	–
Trade and other receivables ^(a)		5,412	5,412	–	–	–
Equity shares and quoted funds	20	279	–	279	–	–
Other investments, including loans	20	506	179	–	322	5
Currency and commodity derivatives: designated as hedges ^(b)	20	21	–	–	21	–
Derivatives and embedded derivatives not related to net debt: not designated as hedges ^(b)	20	253	–	–	253	–
Derivatives related to net debt ^(b)	20,22,24	192	–	–	192	–
Loans to equity accounted units including quasi equity loans		370	370	–	–	–
Total financial assets		17,249	16,177	279	788	5
Financial liabilities						
Trade and other payables ^(c)		(6,899)			–	(6,899)
Short term borrowings and bank overdrafts	22	(3,916)			–	(3,916)
Medium and long term borrowings	22	(24,544)			–	(24,544)
Derivatives related to net debt ^(b)	22,24	(19)			(19)	–
Other derivatives and embedded derivatives not designated as hedges ^(b)	22	(22)			(22)	–
Other financial liabilities	22	(50)			–	(50)
Total financial liabilities		(35,450)			(41)	(35,409)

(a) This excludes pension surpluses, prepayment of tolling charges to equity accounted units and other prepayments and specific items within other receivables and will therefore not agree to note 18.

(b) These financial assets and liabilities in aggregate agree to total derivative financial instruments disclosed in notes 20 and 22.

(c) Trade and other payables excludes deferred income, Government grants, royalties, mining taxes and employee entitlements and will therefore not agree to note 25.

A (b) Financial risk management

Funding and exposure management

The Group's policies on financial risk management are clearly defined and consistently applied. They are a fundamental part of the Group's long-term strategy covering areas such as foreign exchange risk, interest rate risk, commodity price risk, credit risk, liquidity risk and capital management.

The Group mainly sells commodities it has produced and also enters into third party transactions and physical swaps on alumina to balance regional positions and to balance the loading on production facilities.

The Group has a diverse portfolio of commodities and operates in a number of markets, which have varying responses to the economic cycle. The relationship between commodity prices and the currencies of most of the countries in which the Group operates provides a further natural hedge in the long term. Production of minerals, aluminium and alumina is an important contributor to the gross domestic products of Australia and Canada, countries in which the Group has a large presence. As a consequence, the Australian and Canadian currencies have historically tended to strengthen when commodity prices are high. In addition, US dollar floating interest rates have historically also tended to be high when commodity prices are high, and vice versa, and hence the Group's interest rate policy is to generally borrow and invest, after the impact of hedging, at floating interest rates. However, in certain circumstances the Group may decide to maintain a higher proportion of borrowings at fixed rates. These natural hedges significantly reduce the necessity for using derivatives or other forms of synthetic hedging. Such hedging is therefore undertaken to a strictly limited degree, as described below.

Treasury operations

Treasury operates as a service to the businesses of the Group and not as a profit centre. Strict limits on the size and type of transactions permitted are laid down by the board and are subject to rigorous internal controls. Senior management is advised of corporate cash and debt positions, as well as commodity, currency and interest rate derivatives through a monthly reporting framework.

Treasury policy

Rio Tinto does not acquire or issue derivative financial instruments for trading or speculative purposes; nor does it believe that it has material exposure to such trading or speculative holdings through its investments in equity accounted units. Derivatives are used to separate funding and cash management decisions from currency exposure and interest rate management. Bank counterparty exposures are managed within allocated credit limits. Investment, funding and cash management activities are managed and co-ordinated by Treasury.

(i) Foreign exchange risk

Management policy

The Group's shareholders' equity, earnings and cash flows are influenced by a wide variety of currencies due to the geographic diversity of the Group's sales and the countries in which it operates. The US dollar, however, is the currency in which the majority of the Group's sales are denominated. Operating costs are influenced by the currencies of those countries where the Group's mines and processing plants are located and also by those currencies in which the costs of

30 Financial instruments and risk management continued

imported equipment and services are determined. The Australian and Canadian dollars are the most important currencies (apart from the US dollar) influencing costs. In any particular year, currency fluctuations may have a significant impact on Rio Tinto's financial results. A strengthening of the US dollar against the currencies in which the Group's costs are partly determined has a positive effect on Rio Tinto's underlying earnings.

Given the dominant role of the US currency in the Group's affairs, the US dollar is the currency in which financial results are presented both internally and externally. It is also the most appropriate currency for financing the Group's operations. Borrowings and cash are predominantly denominated in US dollars, either directly or through the use of derivatives.

Certain US dollar debt and other financial assets and liabilities, including intragroup balances, are not held in the functional currency of the relevant subsidiary. This results in an accounting exposure to exchange gains and losses as the financial assets and liabilities are translated into the functional currency of the subsidiary that holds those assets and liabilities. These exchange gains and losses are recorded in the Group's income statement except to the extent that they can be taken to equity under the Group's accounting policy which is explained in note 1(d). Gains and losses on US dollar net debt and on all intragroup balances are excluded from Underlying earnings. Other exchange gains and losses are included in underlying earnings.

See section B for the details of cross currency interest rate swaps relating to borrowings.

After taking into account relevant swap instruments, almost all of the Group's net debt is denominated in US dollars. The table below summarises, by currency, the net debt, after taking into account relevant cross currency interest rate swaps and foreign exchange contracts:

Net funds/(debt) by currency	Cash and cash equivalents US\$m	Total borrowings in note 22 US\$m	Derivatives related to net debt US\$m	EAU funded balances excluded from net debt US\$m	Net funds/ (debt) 2014 US\$m	Net funds/ (debt) 2013 US\$m
US dollar	11,605	(23,895)	146	–	(12,144)	(17,359)
Australian dollar	364	(500)	–	11	(125)	(376)
Euro	18	(145)	–	–	(127)	(218)
South African rand	239	(324)	–	–	(85)	(201)
Canadian dollar	23	(192)	–	–	(169)	(115)
Sterling	4	–	–	–	4	95
Other	170	(19)	–	–	151	119
Total	12,423	(25,075)	146	11	(12,495)	(18,055)

Hedging strategy

Under normal market conditions, the Group does not generally believe that active currency hedging of transactions would provide long-term benefits to shareholders. The Group reviews its exposure on a regular basis and reserves the right to enter into hedges to maintain financial stability. Currency protection measures may be deemed appropriate in specific commercial circumstances, typically hedging of capital expenditures and other significant financial items such as acquisitions, disposals, tax and dividends, and are subject to strict limits laid down by the board. A monthly treasury report is provided to senior management which summarises corporate debt exposed to currency risks after the impact of derivatives. Refer to section B for the details of currency forward, cross currency interest rate and option contracts used to manage the currency risk exposures of the Group at 31 December 2014.

Sensitivities

The table below gives the estimated retranslation effect on financial assets and financial liabilities of a ten per cent strengthening in the closing exchange rate of the US dollar against significant currencies. The impact is expressed in terms of the effect on net earnings, underlying earnings and equity, assuming that each exchange rate moves in isolation. The sensitivities are based on financial assets and financial liabilities held at 31 December 2014, where balances are not denominated in the functional currency of the subsidiary or joint operation, and exclude financial assets and liabilities held by equity accounted units. These balances will not remain constant throughout 2015, and therefore the following information should be used with care.

At 31 December 2014

Gains/(losses) associated with ten per cent strengthening of the US dollar

Currency exposure	Closing exchange rate US cents	Effect on net earnings US\$m	Of which amount impacting underlying earnings US\$m	Net impact on equity US\$m
Australian dollar	82	(855)	27	5
Canadian dollar	86	(1,537)	22	(1)
Euro	122	48	(16)	–
New Zealand dollar	78	28	–	–

At 31 December 2013 (restated)
Gains/(losses) associated with ten per cent strengthening of the US dollar

Currency exposure	Closing exchange rate US cents	Effect on net earnings US\$m	Of which amount impacting underlying earnings US\$m	Net impact on equity US\$m
Australian dollar	89	(1,450)	19	20
Canadian dollar	94	(1,603)	16	–
Euro	138	330	(24)	6
New Zealand dollar	82	51	–	–

Ten per cent is the annual exchange rate movement that management deems to be reasonably probable (on an annual basis over the long run) for one of the Group's significant currencies and as such provides an appropriate representation.

(ii) Interest rate risk

Management policy

Interest rate risk refers to the risk that the value of a financial instrument or cash flows associated with the instrument will fluctuate due to changes in market interest rates. The Group's interest rate management policy is generally to borrow and invest at floating interest rates. This approach is based on a historical correlation between interest rates and commodity prices. However, in certain circumstances the Group may decide to maintain a higher proportion of borrowings at fixed rates.

Hedging strategy

As noted above, the Group hedges its interest rate risk by entering into interest rate derivatives to achieve its policies. The market value of such instruments moves in alignment with the market and at times can act as an alternative source of funding. The Group reviews the positions on a regular basis and may act to monetise in-the-money instruments either to take advantage of favourable market conditions or manage counterparty credit risk. During 2014 and 2013, no interest rate swaps were closed out in this manner.

At the end of 2014, US\$17.6 billion (2013: US\$20.4 billion) of the Group's adjusted total borrowings was at fixed rates after taking into account interest and currency interest rate swaps, resulting in a fixed to floating debt ratio of 71 per cent fixed to 29 per cent floating (2013: 72 per cent fixed to 28 per cent floating). On a net debt basis, the fixed to floating debt ratio was 139 per cent fixed liability to (39) per cent floating asset (2013: 111 per cent fixed liability to (11) per cent floating asset). The weighted average interest rate on total adjusted borrowings as at 31 December 2014 was 3.7 per cent (2013: 3.8 per cent) and the weighted average maturity was approximately 8 years (2013: 8 years). The weighted average maturity and weighted average effective interest rate are based on current interest rates and the carrying value of gross borrowings at the year end.

The net debt ratio at the end of 2014 and 2013 reflects the high level of cash, cash equivalents and other liquid resources held by the Group and the impact of borrowings held at fixed rates.

See note 22 for the details of debt outstanding at 31 December 2014.

Sensitivities

Based on the Group's net debt (refer to note 24) and other floating rate financial instruments outstanding as at 31 December 2014, the effect on net earnings of a half percentage point increase in US dollar LIBOR interest rates, with all other variables held constant, would be an increase of US\$20 million (2013: increase of US\$9 million) reflecting the high level of cash at the period end. The Group has an exposure to interest rate volatility within shareholders' equity arising from fair value movements on derivatives in the cash flow reserve. These derivatives have an underlying exposure to sterling and US dollar rates. With all factors remaining constant and based on the composition of derivatives impacting the cash flow reserve at 31 December 2014, the sensitivity of a 100 basis point increase in interest rates in each of the currencies in isolation would impact equity, before tax, by US\$112 million charge (2013: US\$106 million charge) for sterling and US\$108 million credit (2013: US\$101 million credit) for US dollar. A 100 basis point decrease would have broadly the same impact in the opposite direction. These balances will not remain constant throughout 2015, and therefore this information should be used with care.

(iii) Commodity price risk

Management policy

The Group's normal policy is to sell its products at prevailing market prices. Exceptions to this rule are subject to strict limits laid down by the board and to rigid internal controls.

Metals such as copper and aluminium are generally sold under contracts which vary in tenure and pricing mechanisms, with some volumes sold in the spot market. The prices are determined by reference to prevailing market prices on terminal markets, such as the London Metal Exchange (LME) and COMEX in New York. Prices fluctuate widely in response to changing levels of supply and demand but, in the long run, prices are related to the marginal cost of supply. Gold is also priced in an active market in which prices respond to daily changes in quantities offered and sought. Newly mined gold is only one source of supply; investment and disinvestment can be important elements of supply and demand.

Certain products, predominantly copper concentrate, are "provisionally priced", that is the selling price is determined normally 30 to 180 days after delivery to the customer, based on the market price at the relevant quotation point stipulated in the contract. Revenue is recognised on provisionally priced sales based on estimates of fair value of the consideration receivable which is based on forward market prices. At each reporting date provisionally priced metal sales are marked to market based on the forward selling price for the period stipulated in the contract. For this purpose the selling price can be measured reliably for those products such as copper concentrate for which the price is directly related to the price of copper for which an active and freely traded commodity market exists, such as the LME, and the value of product sold by the Group is directly linked to the form in which it is traded on that market.

30 Financial instruments and risk management continued

The marking to market of provisionally priced sales contracts is recorded as an adjustment to sales revenue.

At the end of 2014, the Group had 331 million pounds of copper sales (2013: 254 million pounds) that were provisionally priced at US 288 cents per pound (2013: US 333 cents per pound). The final price of these sales will be determined during the first half of 2015. A ten per cent change in the price of copper realised on the provisionally priced sales, all other factors held constant, would increase or reduce net earnings by US\$51 million (2013: US\$49 million).

Hedging strategy

Rio Tinto's exposure to commodity prices is diversified by virtue of its broad commodity base and the Group does not generally believe commodity price hedging would provide a long term benefit to shareholders. The Group may hedge certain commitments with some of its customers or suppliers. Details of commodity derivatives held at 31 December 2014 are set out in section B.

Sensitivities

The Group's commodity derivatives are impacted by changes in market prices and include those aluminium forward and option contracts embedded in electricity purchase contracts outstanding at 31 December 2014. A ten per cent increase in market prices would reduce net earnings by US\$97 million (2013: US\$164 million), and a ten per cent decrease in prices would increase net earnings by US\$84 million (2013: US\$93 million). A ten per cent change in prices would impact equity, before tax, by US\$4 million (2013: US\$8 million).

The Group's "own use contracts" are excluded from the sensitivity analysis as they are outside the scope of IAS 39. Such contracts to buy or sell non-financial items can be net settled but were entered into and continue to be held for the purpose of the receipt or delivery of the non-financial item in accordance with the business unit's expected purchase, sale or usage requirements.

(iv) Credit risk

Treasury management policy

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily from customer receivables) and from its financing activities, including investments in government securities, deposits with banks and financial institutions, other short term investments, interest rate and currency derivative contracts and other financial instruments.

Credit risks related to receivables

Customer credit risk is managed by each business unit subject to the Group's established policy, procedures and controls relating to customer credit risk management. Credit limits are established for all customers based on internal or external rating criteria. Where customers are rated by an independent credit rating agency, these ratings are used to set credit limits. In circumstances where no independent credit rating exists, the credit quality of the customer is assessed based on an extensive credit rating scorecard. Outstanding customer receivables are regularly monitored and any credit concerns highlighted to senior management. High risk shipments to major customers are generally covered by letters of credit or other forms of credit insurance.

At 31 December 2014, the Group had approximately 105 customers (2013: 120 customers) that owed the Group more than US\$5 million each and these balances accounted for approximately 77 per cent (2013: 93 per cent) of all receivables owing. There were 22 customers (2013: 46 customers) with balances greater than US\$20 million accounting for just over 43 per cent (2013: just over 65 per cent) of total amounts receivable. Details of trade and other receivables past due but not impaired are provided in note 18.

The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets (refer to table of financial assets and liabilities reported above). The Group does not hold collateral as security for any trade receivables.

Credit risk related to financial instruments and cash deposits

Credit risk from investments in government securities (primarily US Government treasuries and funds) or money market funds and balances with banks and financial institutions is managed by Group Treasury in accordance with a board approved policy. Investments of surplus funds are made only with approved counterparties and within credit limits assigned to each counterparty mainly based upon specific assessment criteria. Counterparty credit limits are reviewed by the board at least annually. The limits are set to minimise the concentration of credit risk and therefore mitigate the potential for financial loss through counterparty failure.

The maximum credit risk exposure of the Group's financial assets at the balance sheet date is as follows:

	Note	2014 US\$m	2013 US\$m
Cash and cash equivalents	21	12,423	10,216
Trade and other receivables		3,727	5,412
Investments	20	287	506
Derivative assets	20	436	466
Total		16,873	16,600

(v) Liquidity and capital risk management

Management policy

The Group's overriding objective when managing capital is to safeguard the business as a going concern whilst maximising returns for shareholders. In practice, this involves regular reviews by the board and senior management. These reviews take into account the Group's strategic priorities, economic and business conditions and opportunities that are identified to invest across all points of the commodities cycle, and the focus on the progressive dividend policy, and other forms of shareholder return whilst also striving to maintain the Group's "A-" credit rating. The resulting capital structure provides the Group with a high degree of financial flexibility at a low cost of capital.

To maintain an "A-" credit rating, the Group considers various financial metrics including the overall level of borrowings and their maturity profile, liquidity levels, total capital, cash flow, EBITDA and interest cover ratios either on a statutory reported basis or as expected to be adjusted by the credit rating agencies.

The Group's total capital, which is defined as equity attributable to owners of Rio Tinto plus equity attributable to non-controlling interests plus net debt, amounted to US\$67.1 billion at 31 December 2014 (2013: US\$71.6 billion).

	2014 US\$m	2013 US\$m
Total capital		
Equity attributable to owners of Rio Tinto (see Group balance sheet)	46,285	45,886
Equity attributable to non-controlling interests (see Group balance sheet)	8,309	7,616
Net debt (note 24)	12,495	18,055
Total capital	67,089	71,557

Net debt is a measure used by management and the board of directors to manage the Group's capital structure and liquidity risks and therefore is linked to the Group's financial and operational excellence strategic driver. It is also used to manage the Group's interest rate risks and foreign exchange risks on borrowings and cash. Net debt is disclosed and defined in note 24. Net debt decreased from US\$18.1 billion at 31 December 2013 to US\$12.5 billion at 31 December 2014 as operating cash inflows, working capital improvements and divestment proceeds were partly offset by outflows relating to capital expenditure and the increase in the dividend. At 31 December 2014 net debt to total capital was 19 per cent (2013: 25 per cent) and interest cover was 13 times (2013: 13 times).

The unified credit status of the Group is maintained through cross guarantees whereby contractual obligations of Rio Tinto plc and Rio Tinto Limited are automatically guaranteed by the other. The table below summarises the credit ratings attributed to the Group as at 31 December.

	2014	2013
Standard & Poor's (S&P)		
Long term rating	A-	A-
Short term rating	A-2	A-2
Outlook ^(a)	Stable	Negative
Moody's		
Long term rating	A3	A3
Short term rating	P-2	P-2
Outlook	Stable	Stable

(a) On 27 February 2014, S&P revised its Rio Tinto outlook to 'stable'.

The Group has access to various forms of financing including its US Shelf Programme, European Debt Issuance Programme, Commercial Paper and credit facilities. The Group did not issue any listed debt in 2014 under the various finance programmes listed. In June 2013, under its US Shelf Programme, the Group issued four Rio Tinto Finance (USA) Plc bonds: US\$1,000 million 1.375% bond due 2016, US\$1,250 million 2.250% bond due 2018, US\$250 million LIBOR plus 0.55% bond due 2015 and US\$500 million LIBOR plus 0.840% bond due 2016.

Rio Tinto Finance plc and Rio Tinto Finance Limited entered into new facility agreements for the aggregate amount of US\$7.5 billion on 15 November 2013 as borrowers with a syndicate of banks. The facilities are guaranteed by Rio Tinto plc and Rio Tinto Limited. The facilities comprise a US\$1,875 million three-year multi-currency revolving credit facility and a US\$5,625 million five-year multi-currency revolving credit facility (including a US\$ denominated same day access swing-line facility). Both facilities have been extended for one year on the first anniversary and can be extended for a further year on the second anniversary of the date of the facility agreements by mutual agreement of the parties to the agreement. The funds made available under the facility agreements may be used for the general corporate purposes of the Group. The new facilities replaced the US\$6 billion multi-currency revolving credit facility dated 12 November 2010 and the US\$2 billion bilateral bank facility agreements entered in the last quarter of 2012 which were closed out on 15 November 2013.

Advances under the revolving facilities bear an interest rate per annum based on LIBOR (or EURIBOR, CDOR or BBSW) in relation to any euro, Canadian dollar or Australian dollar loans, respectively plus a margin (which is dependent on the Group's long-term credit rating as determined by Moody's and Standard & Poor's and the level of drawdown). The facility agreements contain no financial covenants. At 31 December 2014, the facilities were undrawn.

During the last quarter of 2012, the Group entered into bilateral bank facility agreements amounting to US\$2 billion in aggregate. The facilities were denominated in US dollars and had a term of one year that was extendable, at the Group's option, by a further 364 days. Any borrowings under either facility were at prevailing LIBOR rates plus an agreed margin dependent on the amount of drawdown and the credit rating of the Group. The facilities were not subject to financial covenants. The facilities were undrawn and closed out on 15 November 2013.

In November 2010, the Group entered into a US\$6 billion multi-currency committed revolving credit facility maturing in November 2015 with its relationship banks. Any borrowings under this facility were at prevailing LIBOR rates plus an agreed margin dependent on the amount of drawdown and the credit rating of the Group. The facility was not subject to any financial covenants. The overall agreement also enabled same day access to a US\$ swing-line facility. The funds available under the facility agreement could have been used for general corporate purposes of the Group. The facility was undrawn and closed out on 15 November 2013.

Further details of the Group's credit facilities are set out in note 22.

30 Financial instruments and risk management continued

A (c) Financial liability analysis

The table below analyses the Group's financial liabilities by relevant maturity groupings based on the remaining period from the balance sheet date to the contractual maturity date. As the amounts disclosed in the table are the contractual undiscounted cash flows, these balances will not necessarily agree with the amounts disclosed in the balance sheet.

At 31 December 2014

(Outflows)/inflows	Within 1 year or on demand US\$m	Between 1 and 2 years US\$m	Between 2 and 3 years US\$m	Between 3 and 4 years US\$m	Between 4 and 5 years US\$m	After 5 years US\$m	Total US\$m
Non-derivative financial liabilities							
Trade and other payables	(5,640)	(515)	–	–	–	–	(6,155)
Borrowings before swaps	(2,664)	(2,868)	(1,973)	(3,139)	(1,524)	(12,535)	(24,703)
Expected future interest payments ^(a)	(927)	(883)	(838)	(816)	(608)	(5,492)	(9,564)
Other financial liabilities	(49)	(67)	(3)	(1)	–	–	(120)
Derivative financial liabilities ^(b)							
Derivatives related to net debt – gross settled ^(a) :							
gross inflows	36	36	36	36	36	1,614	1,794
gross outflows	(28)	(28)	(28)	(28)	(28)	(1,705)	(1,845)
Derivatives not related to net debt – net settled	(11)	(8)	–	(1)	–	–	(20)
Derivatives not related to net debt – gross settled:							
gross inflows	423	–	–	–	–	–	423
gross outflows	(423)	–	–	–	–	–	(423)
Total	(9,283)	(4,333)	(2,806)	(3,949)	(2,124)	(18,118)	(40,613)

At 31 December 2013

(Outflows)/inflows	Within 1 year or on demand US\$m	Between 1 and 2 years US\$m	Between 2 and 3 years US\$m	Between 3 and 4 years US\$m	Between 4 and 5 years US\$m	After 5 years US\$m	Total US\$m
Non-derivative financial liabilities							
Trade and other payables	(6,585)	(314)	–	–	–	–	(6,899)
Borrowings before swaps	(4,011)	(1,926)	(2,844)	(1,984)	(3,022)	(14,684)	(28,471)
Expected future interest payments ^(a)	(1,007)	(928)	(889)	(857)	(804)	(6,164)	(10,649)
Other financial liabilities	(39)	(67)	(18)	–	(1)	(1)	(126)
Derivative financial liabilities ^(b)							
Derivatives related to net debt – net settled ^{(a) (b)}	–	–	–	–	–	(5)	(5)
Derivatives related to net debt – gross settled ^(a) :							
gross inflows	516	20	20	20	20	797	1,393
gross outflows	(510)	(12)	(12)	(12)	(12)	(720)	(1,278)
Total	(11,636)	(3,227)	(3,743)	(2,833)	(3,819)	(20,777)	(46,035)

(a) Interest payments have been projected using interest rates at the end of the applicable financial year. Where debt is subject to variable interest rates, future interest payments are subject to change in line with market rates.

(b) The maturity grouping is based on the earliest payment date.

(c) The maximum carrying value of borrowings repayable, after the impact of swaps, maturing in any financial year is US\$3.3 billion (2013: US\$3.2 billion).

Offsetting and enforceable master netting agreements

Financial assets and liabilities are offset and the net amount reported in the consolidated balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. There were no material amounts offset in the balance sheet and no material enforceable master netting agreements were identified.

B Derivative financial instruments

The Group's derivatives, including embedded derivatives, as at 31 December 2014, are summarised below:

	Total fair value			
	2014		2013	
	Asset US\$m	Liability US\$m	Asset US\$m	Liability US\$m
Derivatives designated as hedges				
Aluminium forward contracts embedded in electricity purchase contracts ^(a)	17	–	21	–
Interest rate swaps ^(b)	189	–	138	–
Cross currency interest rate swaps ^(c)	11	(54)	54	(14)
Total derivatives designated as hedges	217	(54)	213	(14)
Derivatives not designated as hedges	US\$m	US\$m	US\$m	US\$m
Currency forward contracts and swaps	–	(5)	4	(1)
Aluminium forward contracts ^(d)	13	(20)	6	(19)
Aluminium options embedded in electricity purchase contracts ^(a)	15	–	85	(2)
Aluminium forward contracts embedded in electricity purchase contracts ^(a)	182	–	128	–
Other embedded derivatives	9	–	30	–
Other commodity contracts	–	(2)	–	–
Currency options embedded in borrowing contracts	–	–	–	(5)
Total derivatives not designated as hedges	219	(27)	253	(27)
Total derivative instruments	436	(81)	466	(41)
Analysed by maturity:				
Less than 1 year	43	(14)	63	(10)
Between 1 and 5 years	102	(13)	109	(11)
More than 5 years	291	(54)	294	(20)
Total	436	(81)	466	(41)
Total net derivative instruments	355		425	
Reconciliation to balance sheet	2014 US\$m		2013 US\$m	
– non-current assets (note 20)	393		403	
– current assets (note 20)	43		63	
– current liabilities (note 22)	(14)		(10)	
– non-current liabilities (note 22)	(67)		(31)	
Total net derivatives instruments, detailed above	355		425	

- (a) Aluminium embedded derivatives (forward contracts and options) are contained within certain aluminium smelter electricity purchase contracts. These contracts reduce the Group's margin exposure to movements in the aluminium price.
- (b) The interest rate swaps are used to convert certain fixed rate borrowings to a floating rate. For further details, see note 22.
- (c) The cross currency interest rate swaps are used to convert non US dollar denominated borrowings to either fixed or floating US dollar borrowings. For further details see note 22.
- (d) The aluminium forward contracts are entered into to convert aluminium sales made at a fixed price to LME cash. In 2014, \$15 million ineffective portion arising from cash flow hedges was recognised in the income statement (2013: nil).

The aluminium forward contracts which were taken out to convert aluminium sales made at a fixed price to LME cash are not designated as hedges as they largely offset.

C Fair values

The carrying amounts and fair values of all of the Group's financial instruments which are not carried at an amount which approximates their fair value at 31 December 2014 and 31 December 2013 are shown in the following table. The fair values of the Group's cash and loans to equity accounted units approximate their carrying values as a result of their short maturity or because they carry floating rates of interest.

	31 December 2014		31 December 2013	
	Carrying value US\$m	Fair value US\$m	Carrying value US\$m	Fair value US\$m
Short term borrowings (note 22)	(2,664)	(2,711)	(3,916)	(3,924)
Medium and long term borrowings (note 22)	(22,411)	(23,657)	(24,544)	(25,746)

Borrowings with a carrying value of US\$23.2 billion (2013: US\$25.2 billion) relate to listed bonds with a fair value of US\$24.5 billion (2013: US\$26.2 billion) and are categorised as level 1 in the fair value hierarchy. The remaining borrowings have a fair value measured by discounting estimated cash flows with an applicable market quoted yield and are categorised as level 2 in the fair value hierarchy.

30 Financial instruments and risk management continued

C (a) Valuation hierarchy

The table below shows the financial instruments carried at fair value by valuation method at 31 December 2014:

	Total	Level 1 ^(a)	Level 2 ^(b)	Level 3 ^(c)	Not held at fair value
Assets					
Equity shares and quoted funds (note 20)	199	56	85	12	46
Other investments, including loans ^(d) (note 20)	287	108	–	56	123
Trade receivables ^(e)	2,488	12	–	–	2,476
	2,974	176	85	68	2,645
Derivatives ^(f)					
Forward contracts: designated as hedges (Section B)	17	–	–	17	–
Forward contracts and option contracts, not designated as hedges (Section B)	192	(2)	(3)	197	–
Derivatives related to net debt (Section B)	146	–	146	–	–
	3,329	174	228	282	2,645

The table below shows the financial instruments carried at fair value by valuation method at 31 December 2013:

	Total	Level 1 ^(a)	Level 2 ^(b)	Level 3 ^(c)	Not held at fair value
Assets					
Equity shares and quoted funds (note 20)	279	139	79	15	46
Other investments, including loans ^(d) (note 20)	506	106	1	215	184
	785	245	80	230	230
Derivatives ^(f)					
Forward contracts: designated as hedges (Section B)	21	–	–	21	–
Forward contracts and option contracts, not designated as hedges (Section B)	231	2	19	210	–
Derivatives related to net debt (Section B)	173	–	173	–	–
	1,210	247	272	461	230

(a) Valuation is based on unadjusted quoted prices in active markets for identical financial instruments. This category includes listed equity shares and other quoted funds.

(b) Valuation is based on inputs that are observable for the financial instruments which includes quoted prices for similar instruments or identical instruments in markets which are not considered to be active, or inputs, either directly or indirectly based on observable market data.

(c) Valuation is based on inputs for the asset or liability that are not based on observable market data (unobservable inputs).

(d) Other investments, including loans, comprise: cash deposits in rehabilitation funds, government bonds and royalty amounts receivable. The royalty receivables are valued based on an estimate of forward sales subject to the royalty agreement.

(e) Trade receivables includes provisionally priced receivables relating to sales contracts where selling price is determined after delivery to the customer, based on the market price at the relevant quotation point stipulated in the contract. Revenue is recognised on provisionally priced sales based on the forward selling price for the period stipulated in the contract. Not included within the balance above are provisionally priced trade payables of US\$24 million, wherein the fair value of the expected final price has fallen below the initial consideration received.

(f) Level 3 derivatives consist of derivatives embedded in electricity purchase contracts linked to the LME with terms expiring between 2015 and 2030 (2013: 2014 and 2040). The embedded derivatives are measured using discounted cash flows and option model valuation techniques. Long-term embedded derivatives with a fair value of US\$196 million at 31 December 2014 (2013: US\$196 million) are valued using significant unobservable inputs as the term of the derivative extends beyond the forward curve for aluminium. Aluminium prices are flatlined beyond the market forward curve and increased by projected inflation up to the date of expiry of the contract. The range of market prices are US\$2,320 per metric tonne in 2025 to US\$2,578 in 2030 (2013: US\$2,413 per metric tonne in 2024 to US\$3,157 in 2040). The other contracts with a fair value of US\$18 million at 31 December 2014 (2013: US\$35 million) are categorised as level three as the market premium assumptions used represent unobservable inputs.

(g) Interest rate and currency interest rate swaps are valued using applicable market quoted swap yield curves adjusted for relevant basis and credit default spreads. Currency interest rate swap valuations also use market quoted foreign exchange rates. A discounted cash flow approach is applied to the cash flows derived from the inputs to determine fair value.

(h) There were no transfers between Level 1 and Level 2, or between Level 2 and Level 3 in the year ended 31 December 2014 or the year ended 31 December 2013.

C (b) Level 3 Financial assets and Financial liabilities

The table below shows the summary of changes in the fair value of the Group's Level 3 financial assets and financial liabilities for the year ended 31 December 2014 and 31 December 2013.

	31 December 2014 Level 3 financial assets and financial liabilities	31 December 2013 Level 3 financial assets and financial liabilities
Opening balance	461	189
Currency translation adjustments	(17)	(8)
Total realised (losses) or gains included in:		
– Consolidated sales revenue	–	(20)
– Net operating costs	(8)	150
Total unrealised gains or (losses) included in:		
– Consolidated sales revenue	–	2
– Net operating costs	18	127
Total unrealised (losses) or gains transferred into other comprehensive income	(5)	21
Additions	8	–
Disposals/maturity of financial instruments	(175)	–
Closing balance	282	461
Total (losses)/gains for the year included in the income statement for assets and liabilities held at year end	(11)	130

Sensitivity analysis in respect of Level 3 derivatives

Forward contracts and options whose carrying value are valued using unobservable inputs are calculated using appropriate discounted cashflow and option model valuation techniques. The most significant of these assumptions relate to long term pricing wherein internal pricing assumptions are used after the ten year LME curve. A ten per cent increase in long term metal pricing assumptions would result in a US\$39 million (31 December 2013: US\$165 million) decrease in carrying value. A ten per cent decrease in long term metal pricing assumptions would result in a US\$71 million (31 December 2013: US\$94 million) increase in carrying value.

31 Contingencies and commitments

	2014 US\$m	2013 US\$m
Capital commitments excluding the Group's share of Joint Venture Capital Commitments		
Within 1 year	1,838	5,098
Between 1 and 3 years	96	364
Between 3 and 5 years	23	6
After 5 years	30	31
Total	1,987	5,499
Group's share of Joint Venture Capital Commitments		
Within 1 year	782	831
Between 1 and 3 years	331	789
Between 3 and 5 years	–	127
After 5 years	–	–
Total	1,113	1,747

Unrecognised commitments to contribute funding or resources to joint ventures

For Minera Escondida Limitada and Sohar Aluminium Company L.L.C. the Group, along with the other joint venturers, has made various commitments to provide shareholder funding as required, subject to approved thresholds. In particular, Minera Escondida Limitada holds a shareholder line of credit for US\$225 million (Rio Tinto share) which is currently undrawn. This line of credit was also available in 2013.

The Group has a commitment to purchase and market a portion (which may be different to the Group's ownership interest) of the output of Sohar Aluminium Company LLC, an aluminium smelter in which the Group is a joint venturer. The Group subsequently sells the purchased products to third parties.

Operating leases

The aggregate amount of minimum lease payments under non-cancellable operating leases are as follows:

	2014 US\$m	2013 US\$m
Within 1 year	429	439
Between 1 and 3 years	690	667
Between 3 and 5 years	460	540
After 5 years	766	832
Total	2,345	2,478

31 Contingencies and commitments continued

Purchase obligations

The aggregate amount of future payment commitments under purchase obligations outstanding at 31 December was:

	2014 US\$m	2013 US\$m
Within 1 year	2,912	3,178
Between 1 and 2 years	2,434	2,434
Between 2 and 3 years	2,026	2,202
Between 3 and 4 years	1,660	1,865
Between 4 and 5 years	1,479	1,743
After 5 years	19,572	14,359
Total	30,083	25,781

Purchase obligations are agreements to purchase goods or services that are enforceable and legally binding and specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transactions. Purchase obligations between subsidiaries and joint arrangements are included to the extent that they relate to other venturers.

	2014 US\$m	2013 US\$m
Contingent liabilities (subsidiaries and joint operations)		
Indemnities and other performance guarantees ^{(a) (b)}	239	489

(a) Indemnities and other performance guarantees represent the potential outflow of funds from the Group for the satisfaction of obligations including those under contractual arrangements (for example undertakings related to supplier agreements) not provided for in the balance sheet, where the likelihood of the guarantees or indemnities being called is assessed as possible rather than probable or remote.

(b) There were no material contingent liabilities arising in relation to the Group's joint ventures and associates.

There are a number of legal claims currently outstanding against the Group. No material loss to the Group is expected to result from these claims.

Guarantees by parent companies

Rio Tinto plc and Rio Tinto Limited have, jointly and severally, fully and unconditionally guaranteed the following securities issued by wholly owned finance subsidiaries: US\$18.5 billion (31 December 2013: US\$20.5 billion) Rio Tinto Finance (USA) Limited and Rio Tinto Finance (USA) plc Bonds with maturity dates up to 2042; US\$nil (31 December 2013: US\$157 million) Rio Tinto America Inc Commercial Paper; and US\$2.3 billion (31 December 2013: US\$2.5 billion) on the European Debt Issuance Programme. In addition, Rio Tinto Finance plc and Rio Tinto Finance Limited have entered into facility arrangements for an aggregate amount of US\$7.5 billion (31 December 2013: US\$7.5 billion); the facilities are guaranteed by Rio Tinto plc and Rio Tinto Limited.

Contingent assets

The Group has various insurance claims outstanding with reinsurers including claims relating to the Manefay slide at Kennecott Utah Copper in April 2013. An interim progress payment was received on this claim in 2013. Further receipts are considered probable but the amount cannot currently be reliably estimated.

32 Average number of employees

	Subsidiaries and joint operations			Equity accounted units (Rio Tinto share) ^(a)			Group total		
	2014	2013	2012	2014	2013	2012	2014	2013	2012
The principal locations of employment were:									
Australia and New Zealand	23,447	24,740	25,301	711	749	808	24,158	25,489	26,109
Canada	12,187	12,830	13,688	–	–	–	12,187	12,830	13,688
Europe	3,499	4,210	5,760	88	2,427	3,184	3,587	6,637	8,944
Africa	5,699	6,787	7,055	1,560	1,505	2,226	7,259	8,292	9,281
United States	3,503	4,039	4,564	–	285	375	3,503	4,324	4,939
Mongolia	3,212	3,289	2,904	–	–	–	3,212	3,289	2,904
Indonesia	2,959	2,467	2,467	–	–	–	2,959	2,467	2,467
South America	356	511	235	1,509	1,409	1,307	1,865	1,920	1,542
Other countries	1,045	980	1,143	–	103	202	1,045	1,083	1,345
	55,907	59,853	63,117	3,868	6,478	8,102	59,775	66,331	71,219

(a) Employee numbers, which represent the average for the year, include 100 per cent of employees of subsidiary companies. Employee numbers for joint operations and equity accounted units are proportional to the Group's interest under contractual agreements. Average employee numbers include a part year effect for companies acquired or disposed of during the year.

Part time employees are included on a full time equivalent basis. Temporary employees are included in employee numbers.

People employed by contractors are not included.

33 Principal subsidiaries

At 31 December 2014

Company and country of incorporation/operation	Principal activities	Class of shares held	Proportion of class held (%)	Group interest (%)	Non-controlling interest (%)
Australia					
Argyle Diamond Limited	Mining and processing of diamonds	Ordinary	100	100	—
Coal & Allied Industries Limited ^(a)	Coal mining	Ordinary	80	80	20
Dampier Salt Limited	Salt production	Ordinary	68.36	68.36	31.64
Energy Resources of Australia Limited	Uranium mining	Ordinary	68.39	68.39	31.61
Hamersley Iron Pty Limited	Iron ore mining	Ordinary	100	100	—
Queensland Coal Pty Limited ^(b)	Coal mining	Ordinary	100	100	—
Rio Tinto Aluminium (Holdings) Limited	Bauxite mining; alumina production; primary aluminium smelting	Ordinary	100	100	—
Robe River Mining Co Pty Ltd ^(c)	Iron ore mining	Class A Class B	40 76.36	60	40
North Mining Limited ^(c)	Iron ore mining	Ordinary	100		
Brazil					
Alcan Alumina Ltda. ^(d)	Alumina production and bauxite mining	Quota	100	100	—
Canada					
Rio Tinto Canada Uranium Corporation	Uranium projects	Common shares	100	100	—
Iron Ore Company of Canada Inc. ^(e)	Iron ore mining; iron ore pellets	Common shares	58.72	58.72	41.28
Rio Tinto Fer et Titane inc.	Titanium dioxide feedstock; high purity iron and steel	Common shares	100	100	—
		Class B preference shares	100	100	—
		CAD 0.01 preferred shares	100	100	—
Rio Tinto Alcan Inc.	Bauxite mining; alumina refining; aluminium smelting	Common shares	100	100	—
Rio Tinto Diamonds and Minerals Canada Holding Inc. ^(f)	Diamond mining and processing	Class A, B, C	100	100	—
		Class P1 preferred	100	100	—
Guinea					
Simfer Jersey Limited ^(g)	Iron ore project	Ordinary	53	53	47
Madagascar					
QIT Madagascar Minerals SA ^(h)	Ilmenite mining	Common shares	80	80	15
		Investment certificates	n/a	5	
Mongolia					
Turquoise Hill Resources Ltd (including Oyu Tolgoi LLC and SouthGobi Resources Ltd) ⁽ⁱ⁾	Copper and gold mining	Common Shares	50.79	50.79	49.21
Namibia					
Rössing Uranium Limited ^(j)	Uranium mining	B N\$1 C N10c	71.16 70.59	68.58	31.42
South Africa					
Richards Bay Titanium (Proprietary) Limited ^(k)	Titanium dioxide/high purity iron production	B Ordinary	100	74	26
		B preference	100		
		Parent Preference shares	100		
Richards Bay Mining (Proprietary) Limited ^(k)	Ilmenite, rutile and zircon mining	B Ordinary	100	74	26
		B Preference	100		
		Parent Preference Shares	100		
United States of America					
Kennecott Holdings Corporation (including Kennecott Utah Copper, Kennecott Land and Kennecott Exploration)	Copper and gold mining, smelting and refining, land development and exploration activities	Common US\$0.01	100	100	—
U.S. Borax Inc.	Mining, refining and marketing of borates	Common US\$0.10	100	100	—

33 Principal subsidiaries continued

The Group comprises a large number of companies and it is not practical to include all of them in this list. The list therefore only includes those companies that have a more significant impact on the profit or assets of the Group.

The Group's principal subsidiaries are mostly held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

- (a) Of the Group's 80 per cent interest in Coal & Allied Industries Limited, an indirect share of 4.29 per cent is held through its investment in an equity accounted unit. Coal & Allied forms part of the Rio Tinto Coal Australia business unit.
- Through a series of intermediate companies, Coal & Allied holds interests in Bengalla (40 per cent), Mount Thorley (80 per cent) and Warkworth (55.6 per cent). The Group's beneficial interests are therefore: Bengalla: 32 per cent; Mount Thorley: 64 per cent; Warkworth: 44.5 per cent. These are unincorporated arrangements that are not entities; the Group recognises its share of assets, liabilities, revenues and expenses relating to these arrangements. Coal & Allied also owns 100 per cent of Hunter Valley Operations.
- (b) Queensland Coal Pty Limited is the main legal entity that holds the Group's interests in Hail Creek (82 per cent), Blair Athol (71.2 per cent) and Kestrel (80 per cent). These are unincorporated arrangements that are not entities; the Group recognises its share of assets, liabilities, revenues and expenses relating to these arrangements. Queensland Coal forms part of the Rio Tinto Coal Australia business unit.
- (c) Robe River Mining Co Pty Ltd (which is 60 per cent owned by the Group) holds a 30 per cent interest in Robe River Iron Associates ("Robe River"). North Mining Ltd (which is wholly owned by the Group) holds a 35 per cent interest in Robe River. Through these companies the Group recognises a 65 per cent share of the assets, liabilities, revenues and expenses of Robe River, with a 12 per cent non-controlling interest. The Group therefore has a 53 per cent beneficial interest in Robe River.
- (d) Alcan Alumina Ltda holds the Group's 10 per cent interest in Consórcio De Alumínio Do Maranhão, a joint operation in which the Group participates but is not a joint operator. The Group recognises its share of assets, liabilities, revenues and expenses relating to this arrangement.
- (e) Iron ore Company of Canada Inc. is incorporated in the United States of America, but operates in Canada.
- (f) Rio Tinto Diamonds and Minerals Canada Holdings Inc. is the legal entity that owns the Group's 60 per cent interest in the Diavik Diamond Mine (Diavik), an unincorporated arrangement that is not an entity. The Group recognises its share of assets, liabilities, revenue and expenses relating to this arrangement.
- (g) Simfer Jersey Limited, a company incorporated in Jersey in which the Group has a 53 per cent interest, has an 87.88 per cent interest in Simfer S.A. the company that operates the Simandou mining project in Guinea. The Group therefore has a 46.57 per cent indirect interest in Simfer S.A. These entities are consolidated as subsidiaries and together referred to as the Simandou iron ore project.
- (h) The Group's shareholding in QIT Madagascar Minerals SA carries an 80 per cent economic interest and 80 per cent of the total voting rights, a further 5 per cent economic interest is held through non-voting investment certificates to give an economic interest of 85 per cent. The non-controlling interests have a 15 per cent economic interest and 20 per cent of the total voting rights.
- (i) The Group obtained a controlling interest in Turquoise Hill Resources Ltd. (formerly Ivanhoe Mines Limited) on 24 January 2012. Ivanhoe was renamed Turquoise Hill Resources Ltd. (Turquoise Hill) on 2 August 2012. Refer to note 37 for further details relating to the consolidation of Turquoise Hill in 2012. The Group has a 50.79 per cent interest in Turquoise Hill which holds a 66 per cent interest in Oyu Tolgoi (OT) and a 47.91 per cent interest in SouthGobi Resources Ltd (SouthGobi); these companies are subsidiaries of Turquoise Hill. The Group therefore has a 33.5 per cent indirect interest in OT and a 28.4 per cent indirect economic interest in SouthGobi. SouthGobi is consolidated by virtue of Turquoise Hill's ability, in practice, to control the majority of effective votes at general meetings.
- This entity is incorporated in Canada but operates in Mongolia.
- (j) The Group's shareholding in Rössing Uranium Limited holds 35.54 per cent of the total voting rights; the non-controlling interests hold 64.46 per cent of the total voting rights. Rössing is consolidated by virtue of board control. The Government of Namibia has the ability to veto matters that are considered not to be in the interest of Namibia, this is considered to be a protective right. Rio Tinto therefore has control of Rössing and consolidates it as a subsidiary.
- (k) Additional classes of shares issued by Richards Bay Titanium (Proprietary) Limited and Richards Bay Mining (Proprietary) Limited representing non-controlling interests are not shown. The Group's total legal and beneficial interest in Richards Bay Titanium (Proprietary) Limited and Richards Bay Mining (Proprietary) Limited is 74 per cent.

Summary financial information for subsidiaries that have non-controlling interests that are material to the Group

This summarised financial information is shown on a 100 per cent basis. It represents the amounts shown in the subsidiaries' financial statements prepared in accordance with IFRS under Group accounting policies, including fair value adjustments, and before intercompany eliminations.

	Iron Ore Company of Canada 2014	Iron Ore Company of Canada 2013	Energy Resources of Australia 2014	Energy Resources of Australia 2013	Simfer Jersey ^(a) 2014	Simfer Jersey ^(a) 2013	Turquoise Hill ^(b) 2014	Turquoise Hill ^(b) 2013
Revenue	1,696	2,258	345	339	–	–	1,765	237
Profit/(loss) after tax	222	485	(167)	(132)	(334)	(87)	(156)	(5,080)
– attributable to non-controlling interests	93	200	(54)	(41)	(171)	(44)	(164)	(3,203)
– attributable to Rio Tinto	129	285	(113)	(91)	(163)	(43)	8	(1,877)
Other comprehensive loss	(192)	(61)	(38)	(114)	–	–	(34)	(96)
Total comprehensive income/(loss)	30	424	(205)	(246)	(334)	(87)	(190)	(5,176)
Non-current assets	2,944	3,209	565	793	1,769	1,702	8,337	8,536
Current assets	442	501	372	563	53	107	1,382	1,192
Current liabilities	(332)	(414)	(75)	(141)	(36)	(45)	(409)	(2,771)
Non-current liabilities	(949)	(904)	(427)	(573)	(16)	(34)	(595)	(425)
Net assets	2,105	2,392	435	642	1,770	1,730	8,715	6,532
– attributable to non-controlling interests	871	988	138	203	877	862	4,010	3,052
– attributable to Rio Tinto	1,234	1,404	297	439	893	868	4,705	3,480
Cashflow from operations	506	924	(61)	(4)	(98)	(93)	864	(807)
Dividends paid to non-controlling interests	(120)	(106)	–	–	–	–	–	–

- (a) During 2013 Chalco sold its interest to Chinalco, its parent company. These figures represent the consolidated position of both Simfer Jersey and Simfer S.A. which together form the Simandou Iron Ore project.
- (b) Turquoise Hill Resources Ltd holds controlling interests in OT and SouthGobi. Turquoise Hill's rights issue at the beginning of 2014 increased non-controlling interests by US\$1,158 million.

	Robe River Mining Co Pty Ltd 2014	Robe River Mining Co Pty Ltd 2013	Other companies and eliminations ^(c) 2014	Other companies and eliminations ^(c) 2013	Robe River 2014	Robe River 2013
Revenue	1,687	2,074	1,968	2,417	3,655	4,491
Profit after tax	766	1,021	1,036	1,093	1,802	2,114
– attributable to non-controlling interests	300	398	–	–	300	398
– attributable to Rio Tinto	466	623	1,036	1,093	1,502	1,716
Other comprehensive loss	(364)	(620)	(187)	(348)	(551)	(968)
Total comprehensive income	402	401	849	745	1,251	1,146
Non-current assets	4,444	4,545	5,296	5,329	9,740	9,874
Current assets	73	149	86	176	159	325
Current liabilities	(112)	(213)	(271)	(396)	(383)	(609)
Non-current liabilities	(287)	(314)	(2,969)	(2,436)	(3,258)	(2,750)
Net assets	4,116	4,167	2,142	2,673	6,258	6,840
– attributable to non-controlling interests	1,620	1,645	–	–	1,620	1,645
– attributable to Rio Tinto	2,496	2,522	2,142	2,673	4,638	5,195
Cashflow from operations	1,438	1,570	1,578	1,801	3,016	3,371
Dividends paid to non-controlling interests	(181)	(78)	–	–	(181)	(78)

(c) 'Other companies and eliminations' includes the branch of North Mining Limited, a wholly owned subsidiary of the Group, that accounts for its interest in Robe River and the goodwill of US\$409 million (2013: US\$445 million) that arose on acquisition of the Group's interest in Robe River. During 2014, US\$1,354 million was transferred from the branch to the company. Cumulatively, US\$2,251 million has been transferred and this amount is shown within liabilities above.

34 Principal joint operations

At 31 December 2014

Name and country of operation	Principal activities	Group interest (%)
Australia		
Tomago Aluminium Joint Venture	Aluminium smelting	51.6
Kestrel	Coal mining	80
Gladstone Power Station	Power generation	42.1
Hope Downs Joint Venture	Iron ore mining	50
Queensland Alumina Limited ^{(a) (b)}	Alumina production	80
New Zealand		
New Zealand Aluminium Smelters Limited ^{(a) (b)}	Aluminium smelting	79.4
Canada		
Alouette	Aluminium production	40
Indonesia		
Grasberg expansion ^(c)	Copper and gold mining	40
United States of America		
Pechiney Reynolds Quebec Inc ^{(b) (d)}	Aluminium smelting	50.3

The Group comprises a large number of operations, and it is not practical to include all of them in this list. The list therefore only includes those joint operations that have a more significant impact on the profit or operating assets of the Group.

The Group's joint operations are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

- (a) Although the Group has a 79.4 per cent interest in New Zealand Aluminium Smelters Limited and an 80 per cent interest in Queensland Alumina Limited, decisions about activities that significantly affect the returns that are generated require agreement of both parties to the arrangements, giving rise to joint control.
- (b) Queensland Alumina Limited, New Zealand Aluminium Smelters Limited and Pechiney Reynolds Quebec Inc. are joint arrangements that are primarily designed for the provision of output to the parties sharing joint control; this indicates that the parties have rights to substantially all the economic benefits of the assets. The liabilities of the arrangements are in substance satisfied by cash flows received from the parties; this dependence indicates that the parties effectively have obligations for the liabilities. It is these facts and circumstances that give rise to the classification for these entities as Joint Operations.
- (c) Under the terms of a contractual agreement, Rio Tinto is entitled to 40 per cent of additional material mined as a consequence of expansions and developments of the Grasberg facilities since 1998.
- (d) Pechiney Reynolds Quebec Inc. has a 50.1 per cent interest in the Aluminerie de Becancour aluminium smelter, which is located in Canada.

35 Principal joint ventures

At 31 December 2014

Company and country of incorporation/operation	Principal activities	Number of shares held	Class of shares held	Proportion of class held (%)	Group interest (%)
Chile					
Minera Escondida Limitada ^(a)	Copper mining and refining			30	30
Oman					
Sohar Aluminium Company L.L.C. ^(b)	Aluminium smelting/power generation	37,500	Ordinary	20	20

The Group comprises a large number of operations and it is not practical to include all of them in this list. The list therefore only includes those joint ventures that have a more significant impact on the profit or operating assets of the Group.

The Group's principal joint ventures are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

(a) Although the Group has a 30 per cent interest in Minera Escondida Limitada, participant and management agreements allow for an Owners' Council whereby significant commercial and operational decisions about the relevant activities that significantly affect the returns that are generated require the joint approval of both Rio Tinto and BHP Billiton (holders of a 57.5 per cent interest). It is therefore determined that Rio Tinto participates in joint control.

The year end of Minera Escondida Limitada is 30 June. The amounts included in the consolidated financial statements of Rio Tinto are however based on accounts of Minera Escondida Limitada that are coterminous with those of the Group.

(b) Although the Group holds a 20 per cent interest in Sohar Aluminium Company L.L.C., decisions about relevant activities that significantly affect the returns that are generated require agreement of all parties to the arrangement. It is therefore determined that Rio Tinto participates in joint control.

Summary information for joint ventures that are material to the Group

This summarised financial information is shown on a 100 per cent basis. It represents the amounts shown in the joint ventures' financial statements prepared in accordance with IFRS under Group accounting policies, including fair value adjustments and amounts due to and from Rio Tinto.

	Minera Escondida Limitada ^(a) 2014	Minera Escondida Limitada ^(a) 2013	Rio Tinto Benga (Mauritius) Limited ^(d) 2014	Rio Tinto Benga (Mauritius) Limited ^(e) 2013
Revenue	7,607	8,553	91	135
Depreciation and amortisation	(1,027)	(720)	—	(43)
Impairment charges ^(e)	—	—	—	(354)
Other operating costs	(3,237)	(3,697)	(220)	(289)
Operating profit/(loss)	3,343	4,136	(129)	(551)
Finance expense	(33)	17	(11)	(3)
Income tax	(1,237)	(1,543)	—	22
Profit/(loss) after tax	2,073	2,610	(140)	(532)
Total comprehensive income/(loss)	2,073	2,610	(140)	(532)
Non-current assets	12,093	9,823	—	389
Current assets	2,453	2,653	—	166
Current liabilities	(1,567)	(1,031)	—	(136)
Non-current liabilities	(2,170)	(2,152)	—	(328)
Net assets	10,809	9,293	—	91
Assets and liabilities above include:				
Cash and cash equivalents	263	319	—	—
Current financial liabilities	(203)	(56)	—	(54)
Non-current financial liabilities	(1,060)	(1,084)	—	(223)
Dividends received from Joint Venture (Rio Tinto share)	251	432	—	—

Reconciliation of the above amounts to the Investment recognised in the Group balance sheet.

Group interest	30%	30%	(d)	65%
Net assets	10,809	9,293	—	91
Group's ownership interest	3,243	2,788	—	59
Other adjustments	(6)	2	—	—
Carrying value of Group's interest	3,237	2,790	—	59

- (c) In addition to its 'Investment in Equity Accounted Unit', the Group recognises deferred tax liabilities of US\$546 million (2013: US\$511 million) relating to tax on unremitted earnings.
- (d) On 7 October 2014, Rio Tinto completed the sale of Rio Tinto Coal Mozambique, which comprises the Benga coal mine and other projects in the Tete province of Mozambique. See Note 37.
- (e) In 2013, the Group recognised a US\$216 million post tax impairment of its investment in Rio Tinto Benga (Mauritius) Limited. The investment was recognised at fair value on acquisition and it is this investment that was impaired.

36 Principal associates

At 31 December 2014

Company and country of incorporation/operation	Principal activities	Number of shares held	Class of shares held	Proportion of class held (%)	Group interest (%)
Australia					
Boyne Smelters Limited ^(a)	Aluminium smelting	153,679,560	Ordinary	59.4	59.4
Brasil					
Mineração Rio do Norte S.A. ^(b)	Bauxite mining	25,000,000 47,000,000	Ordinary Preferred } }	12.5 11.8 } }	12
United States of America					
Halco (Mining) Inc	(c)	4,500	Common	45	45

The Group's principal associates are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

The Group comprises a large number of operations and it is not practical to include all of them in this list. The list therefore only includes those associates that have a more significant impact on the profit or operating assets of the Group.

- (a) The parties that collectively control Boyne Smelters Limited do so through decisions that are determined on an aggregate voting interest that can be achieved by several combinations of the parties; although each combination requires Rio Tinto's approval, this is not joint control as defined under IFRS 11. Rio Tinto is therefore determined to have significant influence over this company.
- (b) Although the Group holds only 12 per cent of Mineração Rio do Norte S.A., it has representation on its board of directors and a consequent ability to participate in the financial and operating policy decisions. It is therefore determined that Rio Tinto has significant influence.
- (c) Halco has a 51 per cent indirect interest in Compagnie des Bauxites de Guinée, a bauxite mine, the core assets of which are located in Guinea.

Summary information for associates that are material to the Group

This summarised financial information is shown on a 100 per cent basis. It represents the amounts shown in the associate's financial statements prepared in accordance with IFRS under Group accounting policies, including amounts due to and from Rio Tinto.

	Boyne Smelters Limited ^(d) 2014	Boyne Smelters Limited ^(d) 2013
Revenue	–	–
Profit/(loss) after tax ^(f)	1,072	(47)
Other comprehensive loss ^(e)	(82)	–
Total comprehensive income/(loss)	990	(47)
Non-current assets ^(f)	1,813	1,086
Current assets	86	111
Current liabilities	(108)	(101)
Non-current liabilities	(1,369)	(1,697)
Net assets	422	(601)
Group interest	59%	59%
Net assets	422	(601)
Group's ownership interest	251	(357)
Loans to equity accounted units	228	276
Carrying value of Group's interest	479	(81)

- (d) Boyne Smelters Limited is a tolling operation; as such it is dependent on its participants for funding which is provided through cash calls. Rio Tinto Aluminium has made certain prepayments to Boyne for toll processing of alumina; these are charged to Group operating costs as processing takes place.
- (e) "Other comprehensive loss" is net of amounts recognised by subsidiaries in relation to quasi equity loans.
- (f) In 2014, a post tax impairment reversal of US\$589 million has been recorded. See note 6.

36 Principal associates continued

Summary information for joint ventures and associates that are not individually material to the Group

	Joint Ventures 2014	Joint Ventures 2013	Associates 2014	Associates 2013
Carrying value of Group's interest	403	405	749	784
Profit/(loss) after tax	16	(29)	30	102
Other comprehensive loss	(30)	(7)	(14)	(38)
Total comprehensive (loss)/ income	(14)	(36)	16	64

37 Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses

2014 acquisitions

There were no material acquisitions during the year ended 31 December 2014.

2013 acquisitions

There were no material acquisitions during the year ended 31 December 2013.

2012 acquisitions

Consolidation of Turquoise Hill Resources Ltd.

On 24 January 2012, Rio Tinto increased its ownership of shares in Turquoise Hill to a controlling 51.01 per cent interest (31 December 2014: 50.79 per cent interest). The acquisition gave Rio Tinto control of the assets in Turquoise Hill other than those relating to Oyu Tolgoi (OT), control of which the Group had previously gained in 2010.

Total consideration to acquire the controlling interest in Turquoise Hill amounted to US\$839 million, comprising US\$678 million relating to the fair value of the Group's interest in Turquoise Hill prior to the acquisition date, and US\$161 million of cash price paid to acquire the controlling interest after adjusting for amounts attributable to OT and net intragroup balances between Rio Tinto and Turquoise Hill. Fair values on acquisition of Turquoise Hill were determined and finalised during 2012.

Consolidation of Richards Bay Minerals

On 7 September 2012, Rio Tinto increased its holding in RBM to 74 per cent with consolidation effective from 3 September 2012, following the completion of its acquisition of BHP Billiton's entire interests including BHP Billiton's 37 per cent indirect equity voting interests in the RBM operating companies.

The acquisition price was US\$1.9 billion before contractual adjustments for cash payments made by RBM to BHP Billiton since the acquisition trigger date of 1 February 2012. This price included US\$0.6 billion for BHP Billiton's 37 per cent equity interest in RBM, US\$1.0 billion for a 50 per cent interest in outstanding RBM shareholder financing arrangements and US\$0.3 billion for a royalty stream.

Provisional fair values recognised on acquisition were finalised by 3 September 2013, 12 months after the consolidation date. No adjustments were made to provisional fair values as a result of finalisation.

2014 disposals

On 29 May 2014, Rio Tinto completed the sale of its 50.1 per cent interest in the Clermont Joint Venture to GS Coal for US\$1,015 million (before finalisation of net debt and working capital adjustments). The net assets and liabilities of Clermont were included within assets and liabilities of disposal groups held for sale in the Group balance sheet at 31 December 2013.

On 7 October 2014, Rio Tinto completed the sale of Rio Tinto Coal Mozambique, which comprises the Benga coal mine and other projects in the Tete province of Mozambique, to International Coal Ventures Private Limited for US\$50 million (before net debt and working capital adjustments).

Rio Tinto completed the sale of its 50 per cent share in Søral to Norsk Hydro Aluminium ASA on 31 October 2014 and the sale of its 46.67 per cent share in Alucam to the Government of Cameroon on 31 December 2014.

On 26 May 2014, Rio Tinto and its Simandou project partners signed an Investment Framework with the Government of Guinea and agreed to transfer an equity interest in Simfer S.A., to the state. The arrangement allows the Government of Guinea to acquire equity interests of up to 25 per cent of Simfer S.A. at a discount to fair value and a further 10 per cent at full fair value. Arrangements to transfer an interest in a subsidiary undertaking at a discount to fair value are considered to be a share-based payment. The discount provided or value given on the 25 per cent interest in Simfer S.A. has been calculated in accordance with IFRS 2 "Share based payment" as a loss of US\$230 million.

The first tranche of shares comprising 7.5 per cent Non-Contributory Shares was transferred free of charge to the Government of Guinea on 26 May 2014. A second tranche comprising 10 per cent Ordinary Contributory Shares may be acquired at any time for a pro rata share of historical mining cost. The third tranche of shares comprising 7.5 per cent Non-Contributory Shares may be transferred at any time after 22 April 2016 free of charge. The remaining two tranches of 5 per cent Ordinary Contributing Shares may be acquired by the Government of Guinea at market value at any time after 22 April 2026 and 22 April 2031 respectively.

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 sale agreement.

2013 disposals

Significant divestments and disposals of interests in businesses during the year ended 31 December 2013 are summarised below:

On 1 December 2013, Rio Tinto completed the sale of its 80 per cent interest in Northparkes Mine to China Molybdenum Co. Ltd for consideration of US\$820 million.

On 23 May 2013, the initial public offering of Constellium (formerly Alcan Engineered Products) was launched, resulting in Rio Tinto reducing its holding from 36.6 per cent to 27.5 per cent. Rio Tinto subsequently divested the remainder of its holding in two further tranches. Total consideration from these transactions was US\$671 million, inclusive of a special dividend and proceeds from sale of Rio Tinto's equity shareholding, which are included within dividends from equity accounted units and sales of financial assets respectively in the Group's cash flow statement.

On 31 July 2013 Rio Tinto completed the sale of its 57.7 per cent interest in Palabora Mining Company for US\$373 million. The purchaser of was a consortium comprising South African and Chinese entities led by the Industrial Development Corporation of South Africa and Hebei Iron & Steel Group.

Turquoise Hill Resources Ltd., a 50.8 per cent owned subsidiary of Rio Tinto, completed the sale of its 50 per cent interest in Altynalmas Gold and 57 per cent interest in Inova Resources Limited on 29 November 2013 and 1 November 2013 respectively. Sumeru Gold B.V. (consideration paid of US\$ 235 million) and Shanxi Donghui Coal Coking & Chemicals Group Co. (consideration paid of US\$81 million) were the respective buyers.

On 17 July 2013, Rio Tinto completed the sale of its 100 per cent interest in the Eagle nickel-copper project to Lundin Mining Corporation for consideration of US\$315 million.

2012 disposals

Chalco Joint Venture and Settlement Agreement with Government of Guinea (GoG) for the Simandou iron ore project

On 24 April 2012, Rio Tinto and Chalco, a listed subsidiary of The Aluminium Corporation of China (Chinalco), completed the formation of their joint venture to develop and operate the Simandou iron ore project in Guinea, following the completion of all Chinese regulatory approvals. To complete earn in to a 44.65 per cent net economic interest in the Simandou project, a consortium led by Chalco made a payment to Rio Tinto of US\$1.35 billion, in line with an agreement reached with Rio Tinto on 29 July 2010. In late 2013 Chalco completed the transfer of 65 per cent of their interest in Simandou to their holding company, Chinalco, who now holds the Simandou interest directly.

Under the Settlement Agreement signed by Rio Tinto and the GoG on 22 April 2011, the GoG has an option to take an interest of up to 35 per cent in Simfer S.A.(Simfer), the Rio Tinto subsidiary that will undertake the mining portion of the Simandou project.

The Settlement Agreement provides for the transfer of ownership of railway and port infrastructure from Simfer to a newly formed infrastructure entity (InfraCo) in which the GoG had indicated its intention to fund a 51 per cent interest.

Amendment to Simfer's mining convention and the terms of a new infrastructure convention, required to give effect to the Settlement Agreement (including the GoG participation in the project), need to be finalised and will require legislative ratification.

The eventual basis of accounting for InfraCo remains to be determined pending finalisation of the detailed infrastructure agreements.

Other disposals

During 2012, Rio Tinto completed the sale of Alcan Cable, the Specialty Alumina businesses, and the Lynemouth Power Station. Finalisation of working capital adjustments took place where applicable and did not result in a material impact on the Group.

38 Directors' and key management remuneration

Aggregate remuneration, calculated in accordance with the Companies Act 2006, of the directors of the parent companies was as follows:

	2014 US\$'000	2013 US\$'000	2012 US\$'000
Emoluments	11,090	14,061	11,165
Long term incentive plans	5,304	3,719	–
	16,394	17,780	11,165
Pension contributions: defined contribution plans	55	108	66
Gains made on exercise of share options	–	5,888	1,668

The Group defines key management personnel as the directors and members of the Executive Committee. The Executive Committee comprises the executive directors, product group chief executive officers (PGCEOs) and Group executives.

The aggregate remuneration incurred by Rio Tinto plc in respect of its directors was US\$6,653,000 (2013: US\$11,451,000; 2012: US\$7,357,000). The aggregate pension contribution to defined contribution plans was US\$55,000 (2013: US\$44,000, 2012: US\$nil). The aggregate remuneration, including pension contributions and other retirement benefits, incurred by Rio Tinto Limited in respect of its directors was US\$9,796,000 (2013: US\$6,437,000; 2012: US\$3,874,000). The aggregate pension contribution to defined contribution plans was US\$nil (2013: US\$64,000; 2012: US\$66,000).

During 2014, one director (2013: three; 2012: three) accrued retirement benefits under defined benefit arrangements, and one director (2013: two; 2012: one) accrued retirement benefits under defined contribution arrangements.

Emoluments included in the table above have been translated from local currency at the average rate for the year with the exception of bonus payments which, together with amounts payable under long term incentive plans, have been translated at the year end rate.

Detailed information concerning directors' remuneration, shareholdings and options is shown in the Remuneration report, including tables 1 to 3, on pages 64 to 100 of the 2014 Annual report.

38 Directors' and key management remuneration continued

Aggregate compensation, representing the expense recognised under IFRS, as defined in note 1, of the Group's key management, including directors, was as follows:

	2014 US\$'000	2013 US\$'000	2012 US\$'000
Short term employee benefits and costs	30,137	30,696	27,164
Post employment benefits	1,449	2,741	5,121
Share based payments	19,676	26,392	32,435
	51,262	59,829	64,720

The figures shown above include employment costs which comprise social security and accident premiums in the UK and US and payroll taxes in Australia paid by the employer as a direct additional cost of hire. In total, they amount to US\$2,870,000 (2013: US\$2,897,000; 2012: US\$2,863,000) and although disclosed here, are not included in table 1 of the Remuneration report.

More detailed information concerning the remuneration of key management is shown in the Remuneration report, including tables 1 to 3 on pages 64 to 100 of the 2014 Annual report.

39 Auditors' remuneration

	2014 US\$m	2013 US\$m	2012 US\$m
Group Auditors' remuneration ^(a)			
Audit of the company	4.0	3.8	3.1
Audit of subsidiaries	10.7	11.5	14.1
Total audit	14.7	15.3	17.2
Audit related assurance services	1.1	1.2	1.5
Other assurance services ^(b)	1.0	3.0	3.8
Total assurance services	2.1	4.2	5.3
Tax compliance ^(c)	0.4	0.5	0.3
Tax advisory services ^(c)	0.5	0.4	0.4
Services related to corporate finance transactions not covered above			
– services in connection with bond issues/capital raising	0.1	0.4	0.6
– services in connection with divestment programme	–	0.5	0.3
Other non-audit services not covered above	0.3	0.4	0.5
Total non-audit services	1.3	2.2	2.1
	18.1	21.7	24.6
Audit fees payable to other accounting firms			
Audit of the accounts of the Group's subsidiaries	2.7	3.0	2.9
Fees in respect of pension scheme audits	0.4	0.3	0.1
	3.1	3.3	3.0

(a) The remuneration payable to PwC, the Group Auditors, is approved by the Audit committee. The committee sets the policy for the award of non-audit work to the auditors and approves the nature and extent of such work, and the amount of the related fees, to ensure that independence is maintained. The fees disclosed above consolidate all payments made to member firms of PwC by the Companies and their subsidiaries, together with the Group's share of the payments made by joint operations. Non-audit services arise largely from assurance and/or regulation related work.

(b) Other assurance services are mainly related to carve-out financial statements, sustainability assurance and assurance over the "Taxes paid" report.

(c) "Taxation services" includes tax compliance and advisory services. Tax compliance involves the preparation or review of returns for corporation, income, sales and excise taxes. Tax advisory services includes advice on non-recurring acquisitions and disposals, advice on transfer pricing and advice on employee global mobility.

40 Related party transactions

Information about material related party transactions of the Rio Tinto Group is set out below:

Subsidiary companies and joint operations

Details of investments in principal subsidiary companies are disclosed in note 33. Information relating to joint operations can be found in note 34.

Equity accounted units

Transactions and balances with equity accounted units are summarised below. Purchases, trade and other receivables, and trade and other payables relate largely to amounts charged by equity accounted units for toll processing of alumina and purchasing of bauxite and aluminium. Sales relate largely to charges for supply of coal to jointly controlled marketing entities for onward sale to third party customers.

Income statement items	2014 US\$m	2013 US\$m	2012 US\$m
Purchases from equity accounted units	(1,835)	(1,953)	(2,283)
Sales to equity accounted units	625	1,569	1,742
Cash flow statement items	US\$m	US\$m	US\$m
Net funding of equity accounted units	(117)	(88)	(223)
Balance sheet items	US\$m	US\$m	US\$m
Investments in equity accounted units (note 15) ^(a)	4,868	3,957	3,941
Loans to equity accounted units	71	94	282
Loans from equity accounted units	(52)	(86)	(116)
Trade and other receivables: amounts due from equity accounted units	423	615	722
Trade and other payables: amounts due to equity accounted units (note 25)	(225)	(290)	(357)

(a) Further information about investments in equity accounted units is set out in notes 35 and 36.

Pension funds

Information relating to pension fund arrangements is disclosed in note 45.

Directors and key management

Details of directors' and key management remuneration are set out in note 38 and in the Remuneration report on pages 64 to 100.

41 Exchange rates in US\$

The principal exchange rates used in the preparation of the 2014 financial statements are:

	Annual average			Year end		
	2014	2013	2012	2014	2013	2012
Sterling	1.65	1.56	1.58	1.56	1.65	1.62
Australian dollar	0.90	0.97	1.04	0.82	0.89	1.04
Canadian dollar	0.91	0.97	1.00	0.86	0.94	1.00
South African rand	0.092	0.104	0.122	0.086	0.096	0.122
Euro	1.33	1.33	1.29	1.22	1.38	1.32

42 Bougainville Copper Limited (BCL)

The Group owns 53.83 per cent of the issued share capital of BCL. Mining has been suspended at the Panguna mine since 1989. Safe access by company employees has not been possible since that time and an accurate assessment of the condition of the assets cannot therefore be made. Considerable funding would be required to recommence operations to the level which applied at the time of the mine's closure in 1989. An Order of Magnitude study completed by BCL in 2013 indicated an estimated capital requirement of US\$5.2 billion to reopen the mine assuming all site infrastructure is replaced. Rio Tinto does not have control over BCL under IFRS, as defined in note 1, as it does not have the current ability to direct the activities that affect its returns, being the mining and sale of ore from the Panguna mine; it is therefore not a subsidiary.

On 18 August 2014, in light of developments in Papua New Guinea, including the new mining legislation passed earlier that month by the Autonomous Bougainville Government, the Group announced a strategic review of all options in relation to the 53.83 per cent stake in BCL.

43 Events after the balance sheet date

On 12 February 2015, the Group announced a share buy-back of US\$2 billion comprising a A\$500 million (c US\$0.4 billion) off-market share buy-back tender of Rio Tinto Limited shares and the balance of approximately US\$1.6 billion as an on-market buy-back of Rio Tinto plc shares. Ordinary shares of Rio Tinto plc have been bought back since 18 February 2015 and announcements have been made to the relevant stock exchanges. Shares so purchased have been cancelled.

No Rio Tinto Limited shares have been purchased at the date of this report.

Other than the items above, no events were identified after the balance sheet date which could be expected to have a material impact on the consolidated financial statements.

44 Share based payments

Rio Tinto plc and Rio Tinto Limited (the Companies) have a number of share based payment plans, which are described in detail in the Remuneration Report. These plans have been accounted for in accordance with the fair value recognition provisions of IFRS 2 Share-based Payment.

The charge that has been recognised in the income statement for Rio Tinto's share-based compensation plans, and the related liability (for cash-settled plans), is set out in the table below.

	Charge/(credit) recognised for the year			Liability at the end of the year	
	2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m
Equity-settled plans	152	142	243	–	–
Cash-settled plans	–	–	(3)	1	1
Total	152	142	240	1	1

The main Rio Tinto plc and Rio Tinto Limited plans are as follows:

Share Savings Plans

Awards under these plans are settled in equity and accounted for accordingly. The fair value of each award on the day of grant was estimated using a lattice-based option valuation model, including allowance for the exercise price being at a discount to market price.

Awards are no longer granted under the Share Savings Plans as these plans were replaced by the Global Employee Share Plan in 2012. Charges will continue to be incurred until prior period awards have vested.

Share Option Plan

The Group has a policy of settling awards made under the Share Option Plan in equity, although the directors at their discretion can offer a cash alternative. The awards are accounted for in accordance with the requirements applying to equity-settled, share-based payment transactions. The performance conditions in relation to Total Shareholder Return (TSR) have been incorporated in the measurement of fair value for these awards by modelling the correlation between Rio Tinto's TSR and that of the HSBC Global Mining Index. The relationship between Rio Tinto's TSR and the index was simulated many thousands of times to derive a distribution which, in conjunction with the lattice-based option valuation model, was used to determine the fair value of the options.

Awards are no longer granted under the Share Option Plans as the LTIP arrangements have been simplified and awards are now only made under the Performance Share Plan. Charges will continue to be incurred until prior period awards have vested.

UK Share Plan (formerly the Share Ownership Plan)

The fair values of Matching and Free Shares made by Rio Tinto are taken to be the market value of the shares on the date of purchase. These awards are settled in equity.

Performance Share Plan

Participants are generally assigned shares in settlement of their awards and therefore the Plan is accounted for in accordance with the requirements applying to equity-settled share-based payment transactions.

For the awards or parts of awards with TSR performance conditions, the fair value of the awards was calculated using a Monte Carlo simulation model taking into account the TSR performance conditions. One-third of the 2013 and 2014 awards must satisfy an earnings target relative to ten global mining comparators for vesting. As this is a non-market related performance condition, under IFRS 2, the fair value recognised is reviewed at each accounting date based on the directors' expectations for the proportion vesting. As at 31 December 2014 it was assumed 100 per cent of awards subject to the condition would vest. Forfeitures are assumed prior to vesting at three per cent per annum of outstanding awards.

Management Share Plan

The Management Share Plan was introduced during 2007 to provide conditional share-based awards to management. The vesting of these awards is dependent on service conditions being met. In general, the awards will be settled in equity including the dividends accumulated from date of award to vesting. The awards are accounted for in accordance with the requirements applying to equity-settled share-based payment transactions.

The fair value of each award on the day of grant is equal to the share price on the day of grant less a small adjustment for the timing of dividends. Forfeitures are assumed prior to vesting at seven per cent per annum of outstanding awards (2013: five per cent per annum).

Bonus Deferral Plan

The Bonus Deferral Plan was originally introduced during 2009 for the mandatory deferral of the 2008 bonuses for executive directors, product group executives and for other executives. Additional Bonus Deferral Awards have been made each year since 2011 (made in respect of the 2010 bonus) for the mandatory deferral of 50 per cent of the bonuses for executive directors and product group executives and ten per cent of the bonuses for other executives.

The vesting of these awards is dependent only on service conditions being met. In general, the awards will be settled in equity including the dividends accumulated from date of award to vesting. The awards are accounted for in accordance with the requirements applying to equity-settled share-based payment transactions. The fair value of each award on the day of grant is equal to share price on the day of grant less a small adjustment for the timing of dividends vesting. Forfeitures are assumed prior to vesting at three per cent per annum of outstanding awards.

Global Employee Share Plan

The Global Employee Share Plan was introduced during 2012. The company provides matching shares for each share purchased. The vesting of these matching awards is dependent on service conditions being met. These awards are settled in equity. The fair value of each matching share on the day of grant is equal to share price on the date of purchase. Forfeitures are assumed prior to vesting at five per cent per annum of outstanding awards.

Summary of options outstanding

A summary of the status of the Companies' equity-settled share option plans at 31 December 2014 is presented below.

Options outstanding at 31 December 2014	Number	Weighted average exercise price per option £/A\$	Weighted average remaining contractual life Years	Aggregate intrinsic value 2014 US\$m
Rio Tinto plc Share Savings Plan (exercise price £21 – £29)	299,561	26.32	0.8	2
Rio Tinto Limited Share Savings Plan (exercise price A\$48 – A\$60)	609,426	53.40	1.1	2
Rio Tinto plc Share Option Plan (exercise price £15 – £43)	1,438,972	32.31	5.2	8
Rio Tinto Limited Share Option Plan (exercise price A\$30 – A\$77)	450,964	51.43	3.5	4
	2,798,923			16

As at 31 December 2013 there were 4,216,531 options outstanding with an aggregate intrinsic value of US\$57 million.

Options exercisable at 31 December 2014				
Rio Tinto plc Share Option Plan (exercise price £15 – £43)	1,128,973	31.52	4.7	8
Rio Tinto Limited Share Option Plan (exercise price A\$30 – A\$77)	450,964	51.43	3.5	4
	1,579,937			12

As at 31 December 2014 and 31 December 2013, there were no options exercisable under either the Rio Tinto plc or the Rio Tinto Limited Share Savings Plans.

The Management Share Plan, Performance Share Plan, Bonus Deferral Plan, Global Employee Share Plan and UK Share Plan together represent 93 per cent (2013: 91 per cent) of the total IFRS 2 charge for Rio Tinto plc and Rio Tinto Limited plans in 2014.

Performance Share Plan

	Rio Tinto plc awards				Rio Tinto Ltd awards			
	2014 Number	Weighted average fair value at grant date 2014 £	2013 Number	Weighted average fair value at grant date 2013 £	2014 Number	Weighted average fair value at grant date 2014 A\$	2013 Number	Weighted average fair value at grant date 2013 A\$
Non-vested shares at 1 January	3,161,952	27.91	2,705,545	30.40	2,023,519	53.29	1,541,776	60.46
Awarded	950,148	22.73	949,588	19.06	626,072	44.40	651,435	36.17
Forfeited	(230,496)	20.98	(303,008)	31.20	(127,726)	40.31	(137,408)	57.40
Failed performance conditions	(233,736)	36.33	(14,070)	13.61	(124,431)	75.65	(2,423)	32.74
Vested	(719,867)	36.27	(176,103)	13.91	(372,558)	75.66	(29,861)	32.74
Non-vested shares at 31 December	2,928,001	24.05	3,161,952	27.91	2,024,876	45.87	2,023,519	53.29
	2014 Number	Weighted average share price 2014 £	2013 Number	Weighted average share price 2013 £	2014 Number	Weighted average share price 2014 A\$	2013 Number	Weighted average share price 2013 A\$
Shares issued in respect of vested awards during the year	719,867	33.24	176,103	34.69	355,548	65.98	29,861	69.03
Vested awards settled in cash during the year	–	–	–	–	17,010	65.98	–	–

In addition to the equity-settled awards shown above, there were 1,261 Rio Tinto plc cash-settled awards outstanding at 31 December 2014. The total liability for these awards at 31 December 2014 was less than US\$1 million (2013: less than US\$1 million).

44 Share based payments continued

Management Share Plan, Bonus Deferral Plan, Global Employee Share Plan and UK Share Plan (combined)

	Rio Tinto plc awards				Rio Tinto Ltd awards			
	2014 Number	Weighted average fair value at grant date 2014 £	2013 Number	Weighted average fair value at grant date 2013 £	2014 Number	Weighted average fair value at grant date 2014 A\$	2013 Number	Weighted average fair value at grant date 2013 A\$
Non-vested awards at 1 January	2,277,219	32.72	2,073,129	37.21	2,058,902	61.64	1,574,153	71.73
Awarded	1,420,588	31.87	1,420,445	29.09	1,357,091	61.74	1,301,055	55.36
Forfeited	(191,039)	30.67	(237,265)	34.13	(206,134)	58.86	(165,591)	62.36
Expired	–	–	(5,172)	36.97	–	–	(219)	76.02
Vested	(759,422)	36.70	(973,918)	36.61	(630,778)	70.93	(650,496)	73.17
Non-vested awards at 31 December	2,747,346	30.89	2,277,219	32.72	2,579,081	59.83	2,058,902	61.64
Comprising of								
– Management Share Plan	1,807,727	32.16	1,708,472	33.38	1,638,119	59.46	1,505,507	62.93
– Bonus Deferral Plan	202,651	33.58	206,336	32.20	199,724	58.24	205,242	59.10
– Global Employee Share Plan	693,230	26.72	353,049	29.93	741,238	61.08	348,153	57.57
– UK Share Plan	43,738	31.82	9,362	29.11				
	2014 Number	Weighted average share price 2014 £	2013 Number	Weighted average share price 2013 £	2014 Number	Weighted average share price 2014 A\$	2013 Number	Weighted average share price 2013 A\$
Shares issued in respect of vested awards during the year (including dividend shares applied on vesting)								
– Management Share Plan	631,359	31.84	843,009	33.82	461,835	63.70	582,493	65.09
– Bonus Deferral Plan	144,916	29.44	106,335	32.23	128,528	58.48	65,297	64.77
– Global Employee Share Plan	42,910	31.10	12,335	30.92	32,780	60.70	10,324	60.34
– UK Share Plan	4,096	32.77	35,250	29.72				

In addition to the equity-settled awards shown above, there were 16,985 Rio Tinto plc cash-settled awards outstanding at 31 December 2014. The total liability for these awards at 31 December 2014 was less than US\$1 million (2013: less than US\$1 million).

45 Post retirement benefits

Description of plans

The Group operates a number of pension and post retirement healthcare plans around the world. Some of these plans are defined contribution and some are defined benefit, with assets held in separate trusts, foundations and similar entities.

Defined benefit pension and post retirement healthcare plans expose the Group to a number of risks:

Uncertainty in benefit payments	The value of the Group's liabilities for post retirement benefits will ultimately depend on the amount of benefits paid out. This in turn will depend on the future pay increases, the level of inflation (for those benefits that are subject to some form of inflation protection) and how long individuals live.
Volatility in asset values	The Group is exposed to future movements in the values of assets held in pension plans to meet future benefit payments.
Uncertainty in cash funding	Movements in the values of the obligations or assets may result in the Group being required to provide higher levels of cash funding, although changes in the level of cash required can often be spread over a number of years. In some countries control over the rate of cash funding or over the investment policy for pension assets might rest to some extent with a trustee body or other body that is not under the Group's direct control. In addition the Group is also exposed to adverse changes in pension regulation.

For these reasons the Group has a policy of moving away from defined benefit pension provision and towards defined contribution arrangements instead. The defined benefit pension plans for salaried employees are closed to new entrants in almost all countries. For unionised employees some plans remain open but others are closed.

The Group does not usually participate in multiemployer plans in which the risks are shared with other companies using those plans. The Group's participation in such plans is immaterial and consequently no detailed disclosures are provided in this note.

Pension plans

The majority of the Group's defined benefit pension obligations are in Canada, the UK, the US, Switzerland and the Eurozone.

In Canada the benefits for salaried staff are generally linked to final average pay and are closed to new entrants. Benefits for bargaining employees are reviewed in negotiation with unions and are typically either linked to final average pay or to a flat monetary amount per year of service. Some of these plans have been closed to new entrants but some remain open at present. The plans are subject to the regulatory requirements that apply to Canadian pension plans in the relevant provinces and territories (predominantly Quebec). Pension Committees are responsible for ensuring that the plans operate in a manner that is compliant with the relevant regulations. The Pension Committees generally have a number of members appointed by the sponsor and a number appointed by the plan participants. In some cases there is also an independent Committee member.

The defined benefit sections of the UK arrangements are linked to final pay and are closed to new members. New employees are admitted to defined contribution sections. The plans are subject to the regulatory requirements that apply to UK pension plans. Trustees are responsible for ensuring that the plans operate in a manner that is compliant with UK regulations. Trustee boards have a number of directors appointed by the sponsor and a number appointed by the plan participants. In some cases there is also an independent trustee director.

A number of defined benefit pension plans are sponsored by the US entities. Benefits for salaried staff are generally linked to final average pay and closed to new entrants, while benefits for bargaining employees are reviewed in negotiation with unions and are typically a flat monetary amount per year of service. A Benefits Governance Committee is responsible for ensuring that the plans are compliant with US regulations. Members of that Committee are appointed by the sponsor.

In Europe, there are defined benefit plans in Switzerland, the Netherlands, Germany and France. The largest single plan is in Switzerland and provides benefits linked to final average pay. The Swiss plan is overseen by a Foundation Board which is responsible for ensuring that the plan complies with Swiss regulations. Foundation Board members are appointed by the plan sponsor, by employees and by retirees.

In Australia, the main arrangements are principally defined contribution in nature but there are sections providing defined benefits linked to final pay, typically paid in lump sum form. The defined benefit sections are closed to new entrants.

The Group also operates a number of unfunded defined benefit plans, which are included in the figures below.

Post retirement healthcare plans

Certain subsidiaries of the Group, mainly in the US and Canada, provide health and life insurance benefits to retired employees and in some cases to their beneficiaries and covered dependants. Eligibility for cover is dependent upon certain age and service criteria. These arrangements are generally unfunded, and are included in the figures below.

Plan assets

The assets of the pension plans are invested predominantly in a diversified range of equities, bonds and property. Consequently the funding level of the pension plans is affected by movements in the level of equity markets and also by movements in interest rates. The Group monitors its exposure to changes in interest rates and equity markets and also measures its balance sheet pension risk using a Value at Risk approach. These measures are considered when deciding whether significant changes in investment strategy are required. Asset-liability studies are conducted on a periodic basis for the main pension plans to determine the optimal investment mix bearing in mind the Group's tolerance for risk, the risk tolerance of the local sponsor companies and the views of the Pension Committees and Trustee boards who are legally responsible for the investments of the plans. In Canada, the UK and Switzerland the Group works with the trustees to ensure that the investment policy adopted is consistent with the Group's tolerance for risk. In the US the Group has direct control over the investment policy, subject to the local investment regulations.

The proportions of the total fair value of assets in the pension plans for each asset class at the balance sheet date were:

	2014	2013
Equities	39.1%	45.3%
– Quoted	35.4%	42.1%
– Private	3.7%	3.2%
Bonds	46.9%	40.4%
– Government fixed income	13.6%	10.7%
– Government inflation-linked	11.8%	10.3%
– Corporate and other publicly quoted	20.7%	18.5%
– Private	0.8%	0.9%
Property	10.1%	8.7%
– Quoted property funds	6.0%	4.6%
– Unquoted property funds	4.0%	4.0%
– Directly held property	0.1%	0.1%
Qualifying Insurance Policies	0.5%	1.7%
Cash & Other	3.4%	3.9%
	100.0%	100.0%

The assets of the plans are managed on a day-to-day basis by external specialist fund managers. These managers may invest in the Group's securities subject to limits imposed by the relevant fiduciary committees and local legislation. The approximate total holding of Group securities within the plans is US\$22 million (2013: US\$40 million).

The holdings of quoted equities are invested either in pooled funds or segregated accounts held in the name of the relevant pension funds. These equity portfolios are well diversified in terms of the geographic distribution and market sectors.

The holdings of government bonds are generally invested in the debt of the country in which a pension plan is situated. Corporate and other quoted bonds are usually of investment grade. Private debt is mainly in North America.

45 Post retirement benefits continued

The quoted property funds are invested in a diversified range of properties. The directly held property is owned by the Swiss pension fund and is predominantly invested in properties in and around Zurich.

The holdings of Cash and Other are predominantly cash and short-term money market instruments.

Investments in private equity, private debt, unquoted property funds and directly held property are less liquid than the other investment classes listed above and therefore the Group's investment in those asset classes is restricted to a level that does not endanger the liquidity of the pension plans.

The Group does not currently utilise derivatives to manage risk in its pension plans. However, fund managers may use derivatives to hedge currency movements within their portfolios and, in the case of bond managers, to take positions that could be taken using direct holdings of bonds but more efficiently.

Maturity of defined benefit obligations

An approximate analysis of the maturity of the obligations is given in the table below:

	Pension benefits	Other benefits	2014 Total %	2013 Total %	2012 Total %
Proportion relating to current employees	25%	22%	25%	25%	29%
Proportion relating to former employees not yet retired	11%	2%	11%	11%	11%
Proportion relating to retirees	64%	76%	64%	64%	60%
Total	100%	100%	100%	100%	100%
Average duration of obligations (years)	14.0	13.0	13.9	13.3	14.1

Geographical distribution of defined benefit obligations

An approximate analysis of the geographic distribution of the obligations is given in the table below:

	Pension benefits	Other benefits	2014 Total %	2013 Total %	2012 Total %
Canada	47%	44%	46%	45%	49%
UK	29%	2%	27%	27%	23%
US	12%	52%	15%	14%	15%
Switzerland	5%	0%	5%	6%	5%
Eurozone	4%	0%	4%	5%	5%
Australia	2%	0%	2%	2%	2%
Other	1%	2%	1%	1%	1%
Total	100%	100%	100%	100%	100%

Total expense recognised in the income statement

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m	2012 Total US\$m
Current employer service cost for defined benefit plans	(187)	(9)	(196)	(284)	(270)
Past service income/(cost)	–	66	66	1	(4)
Curtailment (losses)/gains	(1)	–	(1)	44	59
Settlement gains	22	–	22	2	–
Net interest cost on defined benefit liability	(83)	(50)	(133)	(209)	(240)
Non-investment expenses paid from the plans	(19)	–	(19)	(22)	(20)
Total defined benefit expense	(268)	7	(261)	(468)	(475)
Current employer service cost for defined contribution and industry-wide plans	(328)	(1)	(329)	(337)	(348)
Total expense recognised in the income statement	(596)	6	(590)	(805)	(823)

The above expense amounts are included as an employee cost within net operating costs. In 2014, US\$2 million (pre-tax) of curtailment and settlement gains relating to the closure of a site have been excluded from underlying earnings (2013: US\$21 million, 2012: US\$34 million, both relating to divestments).

The curtailments shown in the table above relate primarily to headcount reductions at various operations and divestments during 2014 and previous years. The settlement gains in 2014 and 2013 relate mainly to an exercise in the US in which deferred vested participants were offered a one-time lump sum payment in place of their future pension payments. The other benefits past service income during 2014 relates to design changes to US post-retirement medical plans.

Total amount recognised in other comprehensive income before tax

	2014 US\$m	2013 US\$m	2012 US\$m
Actuarial (losses)/gains	(1,853)	1,092	(1,235)
Return on assets (net of interest on assets)	1,127	1,212	903
Loss on application of asset ceiling	(9)	(44)	–
Total (loss)/gain recognised in other comprehensive income	(735)	2,260	(332)

Amounts recognised in the balance sheet

The following amounts were measured in accordance with IAS 19 at 31 December:

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m
Total fair value of plan assets	15,219	–	15,219	15,527
Present value of obligations – funded	(16,869)	–	(16,869)	(16,699)
Present value of obligations – unfunded	(983)	(1,047)	(2,030)	(2,093)
Present value of obligations – total	(17,852)	(1,047)	(18,899)	(18,792)
Effect of asset ceiling	(53)	–	(53)	(44)
Net deficit to be shown in the balance sheet	(2,686)	(1,047)	(3,733)	(3,309)
Comprising:				
– Deficits	(3,039)	(1,047)	(4,086)	(3,599)
– Surpluses	353	–	353	290
Net deficits on pension plans	(2,686)	–	(2,686)	(2,215)
Unfunded post retirement healthcare obligation	–	(1,047)	(1,047)	(1,094)

The surplus amounts shown above are included in the balance sheet as Trade and other receivables. See note 18.

Deficits are shown in the balance sheet within Provisions (including post retirement benefits). See note 26.

Funding policy and contributions to plans

The Group reviews the funding position of its major pension plans on a regular basis and considers whether to provide funding above the minimum level required in each country. In Canada and the US the minimum level is prescribed by legislation. In the UK and Switzerland the minimum is negotiated with the local Trustee or Foundation in accordance with the funding guidance issued by the local regulators. In deciding whether to provide funding above the minimum level the Group takes into account other possible uses of cash within the Group, the tax situation of the local sponsoring entity and any strategic advantage that the Group might obtain by accelerating contributions. The Group does not generally pre-fund post-retirement healthcare arrangements.

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m	2012 Total US\$m
Contributions					
Contributions to defined benefit plans	291	62	353	734	727
Contributions to defined contribution plans	309	1	310	317	328
Contributions to industry-wide plans	19	–	19	20	20
Total	619	63	682	1,071	1,075

Contributions to defined benefit pension plans for 2015 are estimated to be around US\$375 million. This is kept under regular review and actual contributions will be determined in line with the Group's wider financing strategy, taking into account relevant minimum funding requirements. As contributions to many plans are reviewed on at least an annual basis, the contributions for 2015 and subsequent years cannot be determined in advance and may be higher or lower than this. Healthcare plans are generally unfunded and contributions for future years will be equal to benefit payments net of participant contributions. The Group's contributions are expected to be similar to the amounts paid in 2014.

Movements in the net defined benefit liability

A summary of the movement in the net defined benefit liability is shown in the first table below. The subsequent tables provide a more detailed analysis of the movements in the present value of the obligations, the fair value of assets and the effect of the asset ceiling.

The amounts shown below include, where appropriate, 100 per cent of the costs, contributions, gains and losses in respect of employees who participate in the plans and who are employed in associates and joint arrangements. Consequently, the costs, contributions, gains and losses may not correspond directly to the amounts disclosed above in respect of the Group. Defined contribution plans and industry-wide plans are excluded from the movements below.

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m
Change in the net defined benefit liability:				
Net defined benefit liability at start of the year	(2,215)	(1,094)	(3,309)	(6,051)
Amounts recognised in Income	(268)	7	(261)	(468)
Amounts recognised in Other Comprehensive Income	(668)	(67)	(735)	2,260
Employer contributions	291	62	353	734
Divestments/newly included arrangements	13	–	13	19
Currency exchange rate movements	161	45	206	197
Net defined benefit liability at end of the year	(2,686)	(1,047)	(3,733)	(3,309)

45 Post retirement benefits continued

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m
Change in present value of obligation:				
Present value of obligation at start of the year	(17,698)	(1,094)	(18,792)	(20,722)
Current employer service cost	(187)	(9)	(196)	(284)
Past service cost	–	66	66	1
Curtailments	(1)	–	(1)	44
Settlements	326	–	326	131
Interest on obligations	(733)	(50)	(783)	(776)
Contributions by plan participants	(32)	(5)	(37)	(41)
Benefits paid	975	67	1,042	1,086
Experience gain	27	29	56	90
Changes in financial assumptions (loss)/gain	(1,624)	(94)	(1,718)	965
Changes in demographic assumptions (loss)/gain	(189)	(2)	(191)	37
Arrangements divested	58	–	58	94
Currency exchange rate gain	1,226	45	1,271	583
Present value of obligation at end of the year	(17,852)	(1,047)	(18,899)	(18,792)

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m
Change in plan assets:				
Fair value of plan assets at the start of the year	15,527	–	15,527	14,671
Settlements	(304)	–	(304)	(129)
Interest on assets	655	–	655	567
Contributions by plan participants	32	5	37	41
Contributions by employer	291	62	353	734
Benefits paid	(975)	(67)	(1,042)	(1,086)
Non-investment expenses	(19)	–	(19)	(22)
Return on plan assets (net of interest on assets)	1,127	–	1,127	1,212
Arrangements divested	(45)	–	(45)	(75)
Currency exchange rate loss	(1,070)	–	(1,070)	(386)
Fair value of plan assets at the end of the year	15,219	–	15,219	15,527

	Pension benefits	Other benefits	2014 Total US\$m	2013 Total US\$m
Change in the effect of the asset ceiling:				
Effect of the asset ceiling at the start of the year	(44)	–	(44)	–
Interest on the effect of the asset ceiling	(5)	–	(5)	–
Movement in the effect of the asset ceiling	(9)	–	(9)	(44)
Currency exchange rate gain	5	–	5	–
Effect of the asset ceiling at the end of the year	(53)	–	(53)	(44)

In determining the extent to which the asset ceiling has an effect, the Group considers the funding legislation in each country and the rules specific to each pension plan. The calculation takes into account any minimum funding requirements that may be applicable to the plan, whether any reduction in future Group contributions is available, and whether a refund of surplus may be available. Where the plan rules and legislation both permit the employer to take a refund of surplus the asset ceiling may have no effect, although it may be the case that a refund will only be available many years in the future.

Main assumptions (rates per annum)

The main assumptions for the valuations of the plans under IAS 19 are set out below.

	Canada	UK	US	Switzerland	Eurozone	Australia	Other (mainly Africa) ^(a)
At 31 December 2014							
Rate of increase in salaries	3.1%	3.8%	3.6%	2.3%	2.1%	4.0%	9.1%
Rate of increase in pensions	0.7%	2.6%	–	0.0%	1.5%	2.1%	7.1%
Discount rate	3.9%	3.4%	3.8%	0.9%	1.8%	2.7%	9.0%
Inflation ^(b)	1.8%	3.0%	2.1%	1.3%	1.7%	2.1%	7.1%
At 31 December 2013							
Rate of increase in salaries	3.3%	5.0%	3.8%	2.3%	2.6%	4.4%	9.0%
Rate of increase in pensions	0.8%	3.0%	–	0.2%	1.5%	2.7%	7.0%
Discount rate	4.6%	4.4%	4.6%	2.2%	3.4%	4.1%	9.1%
Inflation ^(b)	2.0%	3.4%	2.3%	1.3%	1.9%	2.7%	7.0%

(a) The assumptions vary by location for the 'Other' plans. Assumptions shown are for Southern Africa.

(b) The inflation assumption shown for the UK is for the Retail Price Index. The assumption for the Consumer Price Index at 31 December 2014 was 2.0 per cent (2013: 2.4 per cent).

The main financial assumptions used for the healthcare plans, which are predominantly in the US and Canada, were: discount rate: 3.9 per cent (2013: 4.6 per cent), medical trend rate: 6.7 per cent reducing to 5.1 per cent by the year 2022 broadly on a straight line basis (2013: 6.8 per cent, reducing to 5.1 per cent by the year 2022), claims costs based on individual company experience.

For both the pension and healthcare arrangements the post retirement mortality assumptions allow for future improvements in longevity. The mortality tables used imply that a man aged 60 at the balance sheet date has a weighted average expected future lifetime of 26 years (2013: 25 years) and that a man aged 60 in 2034 would have a weighted average expected future lifetime of 28 years (2013: 27 years).

Sensitivity

The values reported for the defined benefit obligations are sensitive to the actuarial assumptions used for projecting future benefit payments and discounting those payments. In order to estimate the sensitivity of the obligations to changes in assumptions we calculate what the obligations would be if we were to make small changes to each of the key assumptions in isolation. The difference between this figure and the figure calculated using our stated assumptions is an indication of the sensitivity to changes in each assumption. The results of this sensitivity analysis are summarised in the table below. Note that this approach is valid for small changes in the assumptions but will be less accurate for larger changes in the assumptions.

Assumption	Change in assumption	2014		2013	
		Approximate (increase)/ decrease in obligations		Approximate (increase)/ decrease in obligations	
		Pensions US\$m	Other US\$m	Pensions US\$m	Other US\$m
Discount rate	increase of 0.5 percentage points	1,166	63	1,095	62
	decrease of 0.5 percentage points	(1,250)	(68)	(1,169)	(66)
Inflation	increase of 0.5 percentage points	(653)	(23)	(626)	(32)
	decrease of 0.5 percentage points	620	20	594	29
Salary increases	increase of 0.5 percentage points	(100)	(2)	(100)	(3)
	decrease of 0.5 percentage points	97	2	97	2
Demographic – allowance for future improvements in longevity	participants assumed to have the mortality rates of individuals who are one year older	477	18	437	16
	participants assumed to have the mortality rates of individuals who are one year younger	(477)	(18)	(437)	(16)
Medical cost trend rates	increase of 1.0 percentage points	–	(41)	–	(59)
	decrease of 1.0 percentage points	–	35	–	54

Information on the sensitivity of the Group's earnings to the main assumptions is set out in note 1 (Critical accounting policies and estimates section (x)) on page 122.

46 Rio Tinto Limited parent company disclosures

As at 31 December	2014 A\$m	2013 A\$m
Assets		
Current assets	16,523	1,490
Non-current assets	11,302	11,480
Total assets	27,825	12,970
Liabilities		
Current liabilities	(8,230)	(1,336)
Non-current liabilities	(38)	(329)
Total liabilities	(8,268)	(1,665)
Net assets	19,557	11,305
Shareholders' equity		
Share capital	4,113	4,113
Other reserves	377	272
Retained earnings	15,067	6,920
Total equity	19,557	11,305
Profit of the parent company	9,121	4,861
Total comprehensive income of the parent company	9,122	4,861

Prepared under Australian Accounting Standards (AAS). In relation to Rio Tinto Limited there are no significant measurement differences between AAS and IFRS as defined in note 1.

Rio Tinto Limited guarantees

Rio Tinto Limited provides a number of guarantees in respect of Group companies.

Rio Tinto plc and Rio Tinto Limited have jointly guaranteed the Group's external listed debt under the US Shelf Programme, European Debt Issuance Programme and Commercial Paper Programme which totalled A\$25.4 billion at 31 December 2014 (31 December 2013: A\$26.0 billion); in addition these entities also jointly guarantee the Group's undrawn credit facility which was A\$9.1 billion at 31 December 2014 (31 December 2013: A\$8.4 billion).

Rio Tinto Limited has guaranteed external debt held by Rio Tinto Group entities which totalled A\$0.1 billion at 31 December 2014 (31 December 2013: A\$0.1 billion) and provided guarantees in respect of certain derivative contracts which were in a liability position of A\$6 million at 31 December 2014 (31 December 2013: A\$nil).

In addition, Rio Tinto Limited has provided a guarantee of certain obligations of Rio Tinto Finance Limited, a wholly owned subsidiary.

Pursuant to the DLC merger, both Rio Tinto plc and Rio Tinto Limited issued deed poll guarantees by which each company guaranteed contractual obligations incurred by the other or guaranteed by the other.

Company balance sheet

At 31 December

	Note	2014 US\$m	2013 US\$m
Fixed assets			
Investments	B	36,139	36,107
		36,139	36,107
Current assets			
Amounts owed by subsidiaries		940	119
Cash at bank and in hand		3	3
		943	122
Creditors – amounts falling due within one year			
Amounts owed to subsidiaries	C	(11,922)	(13,082)
Dividends payable		(17)	(9)
		(11,939)	(13,091)
Net current liabilities		(10,996)	(12,969)
Total assets less current liabilities		25,143	23,138
Creditors – amounts falling due after more than one year		–	(58)
Net assets		25,143	23,080
Capital and reserves			
Called up share capital	D	230	230
Share premium account	E	4,288	4,269
Other reserves	E	11,982	11,982
Profit and loss account	E	8,643	6,599
Equity shareholders' funds		25,143	23,080

- (a) The Rio Tinto plc company balance sheet has been prepared in accordance with UK Generally Accepted Accounting Practice (UK GAAP). Note A explains the principal accounting policies.
- (b) Profit after tax for the year amounted to US\$4,821 million (2013: US\$1,805 million profit). As permitted by section 408 of the United Kingdom Companies Act 2006, no profit and loss account for the Rio Tinto plc parent company is shown. The company is not required to prepare a cash flow statement under the terms of FRS 1 (revised 1996). The company is also not required under the terms of FRS 8 to disclose related party transactions with wholly owned subsidiaries.

The Rio Tinto plc company balance sheet, profit and loss account and the related notes were approved by the directors on 4 March 2015 and the balance sheet is signed on their behalf by



Jan du Plessis
Chairman



Sam Walsh AO
Chief executive



Chris Lynch
Chief financial officer

Rio Tinto plc

Registered number: 719885

A Principal accounting policies under UK GAAP

a Basis of Accounting

The Rio Tinto plc entity financial statements have been prepared under UK GAAP using the historical cost convention, except for financial guarantees which have been measured at fair value as set out in note (e) below, and in accordance with applicable UK accounting standards and the Companies Act 2006. The directors have reviewed the Company's existing accounting policies and consider that they are consistent with the requirements of Financial Reporting Standard (FRS) 18 "Accounting Policies" and with last year. The financial statements have been prepared on a going concern basis.

The principal accounting policies have been applied consistently throughout the year and are set out below.

b Deferred tax

Full provision is made for deferred taxation on all timing differences that have arisen but not reversed at the balance sheet date, except that deferred tax assets are only recognised to the extent that it is more likely than not that they will be recovered. Deferred tax is measured at the average tax rates that are expected to apply in the periods in which the timing differences are expected to reverse, based on tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax is measured on an undiscounted basis. There are no unprovided amounts relating to deferred tax.

c Currency translation

The Company's local or 'functional' currency is the US dollar. Transactions denominated in other currencies, including the issue of shares, are translated at the rate of exchange ruling on the date of the transaction. Monetary assets and liabilities denominated in other currencies are translated at the rate of exchange ruling at the end of the financial year. Exchange rates used are consistent with the rates used by the Group as disclosed in the consolidated financial statements (see note 41). Exchange differences are charged or credited to the profit and loss account in the year in which they arise.

d Investments

Fixed asset investments are valued at cost less impairment provisions. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. When a review for impairment is conducted, the recoverable amount is assessed by reference to the net present value of expected future cash flows of the relevant income generating unit or disposal value if higher. The discount rate applied is based upon the Company's weighted average cost of capital, with appropriate adjustment for the risks associated with the relevant unit.

e Financial guarantees

Obligations for financial guarantees issued by the Company to other Group companies are reflected as liabilities at fair value, in accordance with FRS 26 "Financial instruments – measurement". Such obligations result in corresponding increases in the carrying value of amounts owed by subsidiaries. Payments received are set off against the asset recognised which is initially recorded at fair value.

f Share based payments

The fair value of the grant is recognised as an addition to the cost of the investment in the subsidiary in which the relevant employees work. The fair value is recognised over the relevant vesting period, with a corresponding adjustment to the profit and loss account reserve. Payments received from the Company's subsidiaries in respect of these share based payments result in a credit to reduce the cost of the investment. The fair value of the share plans is determined at the date of grant, taking into account any market based vesting conditions attached to the award (eg total shareholder return). When market prices are not available, the Company uses fair values provided by independent actuaries using a lattice based option valuation model.

Non-market vesting conditions (eg earnings per share targets) are taken into account in estimating the number of awards likely to vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet date up to the vesting date, at which point the estimate is adjusted to reflect the actual awards issued. No adjustment is made after the vesting date even if the awards are forfeited or not exercised.

g Revenue recognition

Interest is accounted for on the accruals basis. Dividend income is recognised when the right to receive payment is established.

h Dividends

Dividends payable are recognised when they meet the criteria for a present obligation (ie when they have been approved).

i Treasury shares

The consideration paid for shares repurchased by the Company and held as treasury shares is recognised as a reduction in shareholders' funds through the profit and loss account reserve.

B Rio Tinto plc fixed assets

	2014 US\$m	2013 US\$m
Fixed asset investments		
<i>Shares in Group companies:</i>		
At 1 January	36,107	36,111
Additions	78	69
Other adjustments	(46)	(73)
At 31 December	36,139	36,107

The directors believe that the carrying value of the individual investments is supported by their underlying net assets.

C Amounts owed to subsidiaries

Amounts owed to subsidiaries are subject to interest rates based on LIBOR and are unsecured and repayable on demand.

D Rio Tinto plc called up share capital

	2014 US\$m	2013 US\$m
Allotted and fully paid up share capital ^(a)		
At 1 January	230	230
Ordinary shares purchased and cancelled ^(b)	–	–
At 31 December	230	230

(a) 971 new shares were issued during the year (2013: 951 new shares), and 1,450,659 shares (2013: 1,436,542 shares) were reissued from treasury pursuant to share plans.

(b) During the year no shares were purchased from Rio Tinto Limited (2013: nil).

E Rio Tinto plc share premium and reserves

	Share premium account US\$m	Other reserves US\$m	Profit and loss account US\$m
At 31 December 2014			
At 1 January	4,269	11,982	6,599
Adjustment for share based payments and other items ^(a)	19	–	80
Profit for the financial year	–	–	4,821
Dividends paid	–	–	(2,857)
At 31 December	4,288	11,982	8,643
At 31 December 2013			
At 1 January	4,244	11,982	7,259
Adjustment for share based payments and other items	25	–	49
Profit for the financial year	–	–	1,805
Dividends paid	–	–	(2,514)
At 31 December	4,269	11,982	6,599

(a) Other reserves include US\$11,936 million which represents the difference between the nominal value and issue price of the shares issued arising from Rio Tinto plc's rights issue completed in July 2009.

F Rio Tinto plc guarantees

Rio Tinto plc provides a number of guarantees in respect of Group companies.

Rio Tinto plc and Rio Tinto Limited have jointly guaranteed the Group's external listed debt under the US Shelf Programme, European Debt Issuance Programme and Commercial Paper Programme which totalled US\$20.8 billion at 31 December 2014 (31 December 2013: US\$23.2 billion); in addition these entities also jointly guarantee the Group's undrawn credit facility which was US\$7.5 billion at 31 December 2014 (31 December 2013: US\$7.5 billion). Rio Tinto plc has provided guarantees in respect of certain derivative contracts that are in a liability position of US\$55 million at 31 December 2014 (31 December 2013: US\$47 million).

Rio Tinto plc has provided a number of guarantees in relation to various pension funds. Subject to certain conditions, Rio Tinto plc would pay any contributions due from Group companies participating in these funds in the event that the companies fail to meet their contribution requirements. The guarantees were not called upon in 2014. The aggregate of the company contributions to these plans in 2014 was US\$65 million.

Other guarantees issued by Rio Tinto plc in relation to Rio Tinto Group entities as at 31 December 2014 amount to US\$439 million (31 December 2013: US\$445 million), included within this balance is US\$59 million (31 December 2013: US\$53 million) in relation to non-wholly owned subsidiaries.

Pursuant to the DLC merger, both Rio Tinto plc and Rio Tinto Limited issued deed poll guarantees by which each company guaranteed contractual obligations incurred by the other or guaranteed by the other.

G Events after the balance sheet date

On 12 February 2015, the Group announced a share buy-back of US\$2 billion comprising a A\$500 million (c US\$0.4 billion) off-market share buy-back tender of Rio Tinto Limited shares and the balance of approximately US\$1.6 billion as an on-market buy-back of Rio Tinto plc shares. Ordinary shares of Rio Tinto plc have been bought back since 18 February 2015 and announcements have been made to the relevant stock exchanges. Shares so purchased have been cancelled.

No Rio Tinto Limited shares have been purchased at the date of this report.

Rio Tinto financial information by business unit

	Rio Tinto interest %	Gross revenue ^(a) for the year ended 31 December			EBITDA ^(b) for the year ended 31 December			Net earnings ^(c) for the year ended 31 December		
		2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m
Iron Ore										
Pilbara	(d)	21,482	23,633	22,185	13,701	16,511	15,143	7,956	9,568	9,142
Iron Ore Company of Canada	58.7	1,696	2,258	1,972	516	927	665	144	305	230
Product group operations		23,178	25,891	24,157	14,217	17,438	15,808	8,100	9,873	9,372
Evaluation projects/other		103	103	122	27	4	(129)	7	(15)	(125)
		23,281	25,994	24,279	14,244	17,442	15,679	8,107	9,858	9,247
Aluminium										
Bauxite	(e)	1,956	2,012	1,710	752	765	648	429	377	326
Alumina		2,158	2,090	2,274	(54)	(226)	(237)	(209)	(265)	(343)
Intrasegment		(834)	(739)	(687)						
Bauxite & Alumina		3,280	3,363	3,297	698	539	411	220	112	(17)
Primary Metal		5,867	5,771	5,623	1,604	976	806	629	200	65
Pacific Aluminium		2,483	2,348	2,447	524	252	66	291	126	(92)
Intersegment & Other		(2,087)	(2,087)	(2,006)	(43)	8	(53)	(6)	15	(18)
Integrated Operations		9,543	9,395	9,361	2,783	1,775	1,230	1,134	453	(62)
Other Product Group Items		2,373	2,866	2,650	36	32	74	26	28	52
Product group operations		11,916	12,261	12,011	2,819	1,807	1,304	1,160	481	(10)
Evaluation projects/other		207	202	159	111	87	66	88	76	64
		12,123	12,463	12,170	2,930	1,894	1,370	1,248	557	54
Copper										
Kennecott Utah Copper	100.0	2,186	2,194	2,412	958	840	977	523	428	511
Escondida	30.0	2,282	2,566	2,566	1,292	1,453	1,597	612	777	835
Grasberg joint venture	(f)	49	39	17	6	2	2	(17)	(21)	(17)
Oyu Tolgoi	(g)	1,736	55	–	401	(225)	–	(14)	(90)	–
Palabora	(h)	–	526	1,072	–	105	64	–	42	3
Northparkes	(h)	–	351	453	–	227	247	–	141	144
Product group operations		6,253	5,731	6,520	2,657	2,402	2,887	1,104	1,277	1,476
Evaluation projects/other		29	185	141	(321)	(652)	(1,040)	(192)	(456)	(417)
		6,282	5,916	6,661	2,336	1,750	1,847	912	821	1,059
Energy										
Rio Tinto Coal Australia	(i)	3,560	4,413	4,998	450	1,041	1,030	21	367	402
Rio Tinto Coal Mozambique	(j)	59	88	10	(96)	(114)	(64)	(93)	(142)	(92)
Rössing	68.6	221	309	352	10	44	3	(7)	4	(21)
Energy Resources of Australia	68.4	345	339	416	(97)	67	65	(119)	(95)	(131)
Product group operations		4,185	5,149	5,776	267	1,038	1,034	(198)	134	158
Evaluation projects/other		123	305	286	(16)	(132)	218	(12)	(101)	151
		4,308	5,454	6,062	251	906	1,252	(210)	33	309
Diamonds & Minerals										
Diamonds	(k)	901	852	741	315	257	106	104	53	(25)
Rio Tinto Iron & Titanium	(l)	2,168	2,251	2,232	689	728	793	248	264	409
Rio Tinto Minerals		675	657	656	212	205	215	121	131	140
Dampier Salt	68.4	398	404	416	67	43	23	18	7	(4)
Product group operations		4,142	4,164	4,045	1,283	1,233	1,137	491	455	520
Simandou iron ore project		–	–	–	(97)	(71)	(328)	(55)	(43)	(262)
Evaluation projects/other		8	29	11	(42)	(77)	(129)	(35)	(62)	(109)
		4,150	4,193	4,056	1,144	1,085	680	401	350	149
Other Operations	(m)	241	1,761	3,898	(291)	(401)	(527)	(243)	(281)	(582)
Intersegment transactions		(344)	(1,182)	(1,560)	–	(4)	(10)	–	(4)	(8)
Product Group Total		50,041	54,599	55,566	20,614	22,672	20,291	10,215	11,334	10,228

Refer to notes (a) to (p) on page 182.

	Rio Tinto interest %	Gross revenue ^(a) for the year ended 31 December			EBITDA ^(b) for the year ended 31 December			Net earnings ^(c) for the year ended 31 December		
		2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m
Product Group Total		50,041	54,599	55,566	20,614	22,672	20,291	10,215	11,334	10,228
Other items					(755)	(995)	(928)	(593)	(730)	(750)
Exploration and evaluation					(194)	(168)	(118)	(156)	(145)	(97)
Net interest								(161)	(242)	(112)
Underlying EBITDA/earnings					19,665	21,509	19,245	9,305	10,217	9,269
Items excluded from underlying EBITDA/earnings		–	(24)	31	(825)	(556)	350	(2,778)	(6,552)	(12,297)
EBITDA/net earnings					18,840	20,953	19,595	6,527	3,665	(3,028)
Reconciliation to Group income statement										
Share of equity accounted unit sales and intra-subsiary/equity accounted units sales		(2,377)	(3,404)	(4,655)						
Depreciation & amortisation in subsidiaries excluding capitalised depreciation					(4,828)	(4,470)	(4,563)			
Impairment charges					(221)	(7,545)	(16,918)			
Depreciation & amortisation in equity accounted units					(472)	(401)	(460)			
Taxation and finance items in equity accounted units					(759)	(625)	(49)			
Consolidated sales revenue/profit/(loss) on ordinary activities before finance items and tax		47,664	51,171	50,942	12,560	7,912	(2,395)			

Refer to notes (a) to (p) on page 182.

Rio Tinto financial information by business unit continued

	Rio Tinto interest %	Capital expenditure ⁽ⁿ⁾ for the year ended 31 December			Depreciation & amortisation for the year ended 31 December			Operating assets ^(o) as at 31 December			Employees for the year ended 31 December		
		2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m	2014 Number	2013 Number	2012 Number
Iron Ore													
Pilbara	(d)	4,038	6,480	6,410	1,789	1,461	1,356	19,524	19,498	19,367	12,032	12,143	10,913
Iron Ore Company of Canada	58.7	173	334	742	164	166	129	1,460	1,553	1,674	2,580	2,620	2,591
Other		–	–	–	–	–	–	3	11	16	–	18	18
		4,211	6,814	7,152	1,953	1,627	1,485	20,987	21,062	21,057	14,612	14,781	13,522
Aluminium	(e)												
Bauxite		122	144	190	126	130	128	1,366	1,454	1,590	2,613	2,525	2,381
Alumina		166	166	369	212	232	239	3,166	3,609	4,385	2,228	2,163	2,310
Bauxite & Alumina		288	310	559	338	362	367	4,532	5,063	5,975	4,841	4,688	4,691
Primary Metal		1,781	1,767	1,980	692	666	717	11,455	12,165	12,477	9,270	10,414	10,896
Pacific Aluminium		129	134	196	135	109	183	1,421	405	690	2,395	2,377	2,444
Intersegment and Other		(177)	15	20	15	14	20	889	1,181	1,319	311	318	583
Integrated Operations		2,021	2,226	2,755	1,180	1,151	1,287	18,297	18,814	20,461	16,817	17,797	18,614
Copper													
Kennecott Utah Copper	100.0	642	783	896	324	296	300	2,603	2,634	2,490	1,976	2,093	2,438
Escondida	30.0	947	947	765	308	216	249	2,999	2,524	1,913	1,344	1,248	1,151
Grasberg joint venture	(f)	193	176	136	36	38	31	878	761	618	2,955	2,441	2,463
Oyu Tolgoi	(g), (o)	157	749	2,271	340	272	67	4,693	4,863	5,323	2,854	2,831	2,431
Palabora	(h)	–	18	45	–	–	71	–	–	–	–	1,145	2,290
Northparkes	(h)	–	18	61	–	25	44	–	–	405	–	269	373
Other		19	122	281	43	115	32	(592)	1,288	1,572	711	1,146	1,230
		1,958	2,813	4,455	1,051	962	794	10,581	12,070	12,321	9,840	11,173	12,376
Energy													
Rio Tinto Coal Australia	(i)	165	547	1,527	406	486	432	3,099	3,945	5,628	3,187	3,826	3,954
Rio Tinto Coal Mozambique	(j)	2	32	109	–	28	29	7	119	556	183	263	312
Rössing	68.6	37	47	75	25	23	30	65	99	141	850	1,141	1,528
Energy Resources of Australia	68.4	17	106	166	110	229	279	66	120	129	389	513	624
Other		3	–	–	7	–	–	557	589	715	729	27	19
		224	732	1,877	548	766	770	3,794	4,872	7,169	5,338	5,770	6,437
Diamonds & Minerals													
Diamonds	(k)	148	319	680	168	168	144	1,124	1,279	1,307	1,268	1,255	1,622
Rio Tinto Iron & Titanium	(l)	185	274	274	233	264	205	4,424	4,859	5,300	4,787	4,955	4,426
Rio Tinto Minerals		69	115	97	41	36	31	650	669	593	1,024	1,110	1,246
Dampier Salt	68.4	21	28	46	28	29	30	193	228	291	479	512	497
Simandou iron ore project		85	273	717	14	14	10	864	808	567	958	1,011	977
Other		–	–	–	–	2	1	53	57	3	78	92	88
		508	1,009	1,814	484	513	421	7,308	7,900	8,061	8,594	8,935	8,856
Other Operations	(m)	(56)	278	432	34	67	214	418	544	979	849	3,891	7,359
Product Group Total		8,866	13,872	18,485	5,250	5,086	4,971	61,385	65,262	70,048	56,050	62,347	67,164
Intersegment transactions								238	276	213			
Net assets of disposal groups held for sale	(p)	–	–	–	–	–	–	(48)	771	351	–	–	–
Other items		(416)	145	161	82	106	113	(2,784)	(2,352)	(4,836)	3,725	3,984	4,055
Less: equity accounted units		(1,032)	(1,073)	(1,071)	(472)	(401)	(460)						
Total		7,418	12,944	17,575	4,860	4,791	4,624	58,791	63,957	65,776	59,775	66,331	71,219

	Rio Tinto interest %	Capital expenditure(n) for the year ended 31 December			Depreciation & amortisation for the year ended 31 December			Operating assets ^(o) as at 31 December			Employees for the year ended 31 December		
		2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m	2014 US\$m	2013 US\$m	2012 US\$m	2014 Number	2013 Number	2012 Number
Total		7,418	12,944	17,575				58,791	63,957	65,776			
Add back: Proceeds from disposal of property, plant and equipment		744	57	40									
Total capital expenditure per cash flow statement		8,162	13,001	17,615									
Less: Net debt								(12,495)	(18,055)	(19,192)			
Less: EAU funded balances excluded from net debt								(11)	(16)	(31)			
Equity attributable to owners of Rio Tinto								46,285	45,886	46,553			

Notes to financial information by business unit

Business units are classified according to the Group's management structure. Where presentational revisions are made, comparative amounts are adjusted accordingly.

- (a) Includes 100 per cent of subsidiaries' sales revenue and the Group's share of the sales revenue of equity accounted units (after adjusting for sales to subsidiaries).
- (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 year. 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 Rio Tinto. 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 percent holding in Hamersley and 65 per cent holding of Robe River Iron Associates. 30 per cent of Robe River Iron Associates is held through a 60 per cent owned subsidiary and therefore the Group's net beneficial interest is 53 per cent.
- (e) Presented on an integrated operations basis splitting activities between Bauxite and 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. Following reintegration in 2013, the four aluminium smelters and the Gove bauxite mine previously grouped within Pacific Aluminium in Other Operations are included within the Aluminium group. The Gove alumina refinery is reported within Other Operations.
- (f) Under the terms of a contractual agreement, Rio Tinto is entitled to 40 per cent of additional material mined as a consequence of expansions and developments of the Grasberg facilities since 1998.
- (g) Rio Tinto's interest in Oyu Tolgoi LLC is held indirectly through its 50.8 per cent investment in Turquoise Hill Resources Ltd. which in turn owns 66 per cent of Oyu Tolgoi.
- (h) Rio Tinto completed the divestment of its 57.7 per cent interest in Palabora Mining Company on 31 July 2013 and of its 80 per cent interest in the Northparkes mine on 1 December 2013.
- (i) Includes Rio Tinto's 80 per cent interest in Coal & Allied, through which Rio Tinto holds its beneficial interests in Bengalla, Mount Thorley and Warkworth of 32 per cent, 64 per cent and 44.5 per cent respectively.
- (j) On 7 October 2014, Rio Tinto disposed of its interest in Rio Tinto Coal Mozambique (RTCM), including its interests in the Benga project, a 65:35 joint venture with Tata Steel Limited. Zululand Anthracite Colliery (ZAC), which was retained, is reported within Other Energy.
- (k) Includes Rio Tinto's interests in Argyle (100 per cent), Diavik (60 per cent) and Murowa (77.8 per cent).
- (l) Includes Rio Tinto's interests in Rio Tinto Fer et Titane (100 per cent), QIT Madagascar Minerals (80 per cent) and Richards Bay Minerals (attributable interest of 74 per cent).
- (m) Other Operations include Rio Tinto's 100 per cent interest in the Gove alumina refinery (refer to note e) and Rio Tinto Marine.
- (n) 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 equity accounted units.
- (o) 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). In addition, Oyu Tolgoi's operating assets are shown net of Turquoise Hill's public shareholders' interest in intragroup receivables from Oyu Tolgoi, previously shown in Other Copper. Comparative amounts have been adjusted accordingly.
- (p) Comprising Rio Tinto's interests in the Blair Athol thermal coal mine and assets and liabilities relating to the anticipated disposal of SouthGobi Resources Limited. Net assets held for sale at 31 December 2013 comprised the Clermont and Blair Athol thermal coal mines, and ZAC which is no longer reported as held for sale. Amounts are presented after deducting non-controlling interests, including the non-controlling interests' share of third party net debt and balances owed with Rio Tinto Group subsidiaries.

Australian Corporations Act – summary of ASIC relief

Pursuant to section 340 of the Corporations Act 2001 ('Corporations Act'), the Australian Securities and Investments Commission issued an order dated 9 January 2015 that granted relief to Rio Tinto Limited from certain requirements of the Corporations Act in relation to the Company's financial statements and associated reports. The order essentially continues the relief that has applied to Rio Tinto Limited since the formation of the Group's Dual Listed Companies (DLC) structure in 1995. The order applies to Rio Tinto Limited's financial reporting obligations for the financial year ended 31 December 2014.

In essence, instead of being required under the Corporations Act to prepare consolidated financial statements covering only itself and its controlled entities, the order allows Rio Tinto Limited to prepare consolidated financial statements in which it, Rio Tinto plc and their respective controlled entities are treated as a single economic entity. In addition, those consolidated financial statements are to be prepared:

- in accordance with the principles and requirements of International Financial Reporting Standards as adopted by the European Union (EU IFRS) rather than the Australian Accounting Standards (AAS) (except for one limited instance in the case of any concise report), and in accordance with United Kingdom financial reporting obligations generally;
- on the basis that the transitional provisions of International Financial Reporting Standard 1 First-time Adoption of International Financial Reporting Standards should be applied using the combined financial statements previously prepared for Rio Tinto Limited, Rio Tinto plc and their respective controlled entities under Generally Accepted Accounting Principles in the United Kingdom, under which the DLC merger between Rio Tinto Limited and Rio Tinto plc was accounted for using 'merger', rather than 'acquisition', accounting (reflecting that neither Rio Tinto Limited nor Rio Tinto plc was acquired by, or is controlled by, the other, and meaning that the existing carrying amounts, rather than fair values, of assets and liabilities at the time of the DLC merger were used to measure those assets and liabilities at formation);
- on the basis that Rio Tinto Limited and Rio Tinto plc are a single company (with their respective shareholders being the shareholders in that single company); and
- with a reconciliation, from EU IFRS to AAS, of the following amounts: consolidated profit for the financial year, total consolidated income for the financial year and total consolidated equity at the end of the financial year (see page 109).

Those consolidated financial statements must also be audited in relation to their compliance with relevant Australian and United Kingdom requirements. Rio Tinto Limited must also prepare a Directors' report which satisfies the content requirements of the Corporations Act (applied on the basis that for these purposes the consolidated entity is the Group, and the consolidated financial statements cover the Group). This includes a Remuneration report (see pages 64 to 100) prepared in accordance with the requirements of the Corporations Act.

Rio Tinto Limited is also required to comply generally with the lodgement and distribution requirements of the Corporations Act (including timing requirements) in relation to those consolidated financial statements (including any concise financial statements), the Auditor's report and the Directors' report. The Corporations Act also requires that a non-binding resolution to adopt the Remuneration report be voted on by shareholders at the Company's annual general meeting.

Rio Tinto Limited is not required to prepare separate consolidated financial statements solely for it and its controlled entities. Rio Tinto Limited is also not required to prepare and lodge parent entity financial statements for itself in respect of each relevant financial year.

However, Rio Tinto Limited must in accordance with the Corporations Act include in the consolidated financial statements for the Group, as a note, various parent entity information regarding Rio Tinto Limited (including in relation to assets, liabilities, shareholders' equity, profit and loss, income, guarantees, contingent liabilities, and contractual commitments) prepared in accordance with AAS (see page 174).

Directors' declaration

Directors' statement of responsibilities in relation to the Group financial statements, Rio Tinto plc financial statements and Rio Tinto Limited financial statements

The directors are responsible for preparing the Annual report, the Remuneration report and the financial statements in accordance with applicable law and regulations.

UK and Australian company law requires the directors to prepare financial statements for each financial year. Under UK laws the directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and the Rio Tinto plc financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under Australian law, the directors are also required to prepare certain Rio Tinto Limited parent company financial statements in accordance with Australian Accounting Standards (AAS). In preparing the Group financial statements, the directors have also elected to comply with IFRSs, issued by the International Accounting Standards Board (IASB).

Under UK and Australian company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the companies as at the end of the financial year and of the profit or loss of the companies and Group for the period (as applicable).

In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether IFRSs as adopted by the European Union, applicable UK Accounting Standards and AAS have been followed, subject to any material departures disclosed and explained in the Group and parent company financial statements respectively; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and the companies will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the transactions of the companies and the Group and disclose with reasonable accuracy at any time the financial position of the companies and the Group and enable them to ensure that:

- the Group financial statements comply with the UK Companies Act 2006, the Australian Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 9 January 2015 and Article 4 of the IAS Regulation,
- the Rio Tinto plc financial statements comply with the Companies Act 2006;
- the Rio Tinto Limited parent company disclosures comply with the Corporations Act as amended by the Australian Securities and Investments Commission Order dated 9 January 2015; and
- the Remuneration Report complies with the Companies Act 2006 and the Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 9 January 2015.

They are also responsible for safeguarding the assets of the companies and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the Group's website. Legislation governing the preparation and dissemination of financial statements may differ between jurisdictions in which the Group reports.

Each of the current directors, whose names and function are listed on pages 49 to 51 in the Governance section confirm that, to the best of their knowledge:

- the Rio Tinto Group financial statements and notes, which have been prepared in accordance with IFRS as adopted by the EU, the Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 9 January 2015, the Companies Act 2006 and Article 4 of the IAS Regulation, give a true and fair view of the assets, liabilities, financial position and loss of the Group;
- the Rio Tinto plc financial statements and notes, which have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice give a true and fair view of the assets, liabilities, financial position and profit of the company;
- the Rio Tinto Limited parent company disclosures, which have been prepared in accordance with Australian Accounting Standards (AAS) and Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 9 January 2015 give a true and fair view of the assets, liabilities, financial position and profit of the company;
- the Overview and Performance sections of the Annual report include a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces; and
- there are reasonable grounds to believe that each of the Rio Tinto Group, Rio Tinto plc and Rio Tinto Limited will be able to pay its debts as and when they become due and payable.

The directors have been given the declarations by the chief executive and chief financial officer required by section 295A of the Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 9 January 2015.

Disclosure of information to auditors

The directors in office at the date of this report have each confirmed that:

- so far as he or she is aware, there is no relevant audit information of which the Group's auditors are unaware; and
- he or she has taken all the steps that he or she ought to have taken as a director to make himself or herself aware of any relevant audit information and to establish that the Group's auditors are aware of that information.

This declaration is made in accordance with a resolution of the board.



Jan du Plessis
Chairman
4 March 2015



Sam Walsh AO
Chief executive
4 March 2015



Chris Lynch
Chief financial officer
4 March 2015

Auditor's independence declaration

As lead auditor for the audit of Rio Tinto Limited for the year ended 31 December 2014, I declare that to the best of my knowledge and belief, there have been:

- (a) no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and
- (b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Rio Tinto Limited and the entities it controlled during the period.

Paul Bendall
Partner

PricewaterhouseCoopers
Melbourne
4 March 2015

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Independent auditors' report of PricewaterhouseCoopers LLP to the members of Rio Tinto plc and PricewaterhouseCoopers to the members of Rio Tinto Limited

For the purpose of this report, the terms “we” and “our” denote PricewaterhouseCoopers LLP in relation to UK legal, professional and regulatory responsibilities and reporting obligations to the members of Rio Tinto plc and PricewaterhouseCoopers in relation to Australian legal, professional and regulatory responsibilities and reporting obligations to the members of Rio Tinto Limited.

The relevant legislation governing the companies is the United Kingdom Companies Act 2006 for Rio Tinto plc and the Corporations Act 2001 as amended by the ASIC order dated 9 January 2015 (the “ASIC Order”) for Rio Tinto Limited.

Report on the financial statements

Opinion of PricewaterhouseCoopers LLP on the financial statements to the members of Rio Tinto plc

In our opinion:

- The financial statements, defined below, give a true and fair view of the state of the Group's and of Rio Tinto plc's affairs as at 31 December 2014 and of the Group's profit and cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (“IFRSs”) as adopted by the European Union;
- the Rio Tinto plc company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

Separate opinion of PricewaterhouseCoopers LLP in relation to IFRSs as issued by the IASB

As explained in note 1 to the financial statements, the Group, in addition to applying IFRSs as adopted by the European Union, has also applied IFRSs as issued by the International Accounting Standards Board (IASB).

In our opinion, the Group financial statements comply with IFRSs as issued by the IASB.

Opinion of PricewaterhouseCoopers on the financial report to the members of Rio Tinto Limited

In our opinion:

- the financial report of Rio Tinto Limited is in accordance with the Corporations Act 2001 as amended by the ASIC Order, including:
 - i. giving a true and fair view of the Group's financial position as at 31 December 2014 and of its performance for the year ended on that date;
 - ii. complying with the Australian Accounting Standards (including the Australian Accounting Interpretations) and the Corporations Regulations 2001; and
- The Group's financial report also complies with IFRSs as disclosed in note 1.

What we have audited

The Rio Tinto Group financial statements comprise:

- the Group balance sheet as at 31 December 2014;
- the Group income statement and statement of comprehensive income for the year then ended;
- the Group cash flow statement for the year then ended;
- the Group statement of changes in equity for the year then ended;
- notes 1 – 46 to the financial statements, which include a summary of significant accounting policies and other explanatory information;
- the outline of dual listed companies structure and basis of financial statements; and
- the Rio Tinto financial information by business unit.

The Group's financial statements and the Rio Tinto plc company financial statements are referred to in this report as the “financial statements”.

Certain required disclosures have been presented elsewhere in the Annual Report rather than in the notes to the financial statements. These are cross-referenced from the financial statements and are identified as audited.

PricewaterhouseCoopers LLP has audited the Rio Tinto plc company financial statements for the year ended 31 December 2014 which comprise the Rio Tinto plc company balance sheet and the related notes. PricewaterhouseCoopers has audited the Reconciliation with Australian Accounting Standards and the Rio Tinto Limited financial report, which comprises the financial statements and the Directors' declaration on page 184.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law in the United Kingdom, applicable law in Australia as amended by the ASIC Order (described in the Annual Report under the heading “Australian Corporations Act – Summary of ASIC relief”) and International Financial Reporting Standards (IFRSs) as adopted by the European Union and as issued by the IASB.

The financial reporting framework that has been applied in the preparation of the Rio Tinto plc company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Our audit approach

Overview

Materiality	Overall group materiality: \$600 million which represents 5% of profit before tax adjusted for items excluded from underlying earnings (as defined in note 2 to the financial statements).
Scope	We identified 3 business units which, in our view, required an audit of their complete financial information, either due to their size or their risk characteristics. Those business units were Hamersley Iron, Robe River and Escondida. Specific audit procedures on certain balances and transactions were performed at a further 14 business units.
Areas of focus	<ul style="list-style-type: none"> – Impairment assessments (including indicators of impairment and impairment reversal) of indefinite-lived intangible assets (Rio Tinto Alcan) and property, plant & equipment (both Rio Tinto Alcan and Oyu Tolgoi). – Taxation including provisions for uncertain tax positions and accounting for the consequences of the repeal of the Mineral Resource Rent Tax (MRRT). – Provisions for close-down, restoration and environmental obligations. – Defined benefit pension plan surpluses and deficits. – Impact of finance transformation, including shared services transition, on the control environment.

The scope of our audit and our areas of focus

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) ("ISAs (UK & Ireland)") and Australian Auditing Standards ("ASAs").

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

The risks of material misstatement that had the greatest effect on our audit, including the allocation of our resources and effort, are identified as "areas of focus" in the table below. We have also set out how we tailored our audit to address these specific areas in order to provide an opinion on the financial statements as a whole, and any comments we make on the results of our procedures should be read in this context. This is not a complete list of all risks identified by our audit.

Area of focus	How our audit addressed the area of focus
<p>Impairment/reversal of impairment assessment</p> <p>Rio Tinto has goodwill of \$1,228 million, indefinite-lived intangible assets of \$1,981 million and property, plant & equipment of \$68,693 million as at 31 December 2014, contained within 54 cash generating units ("CGUs"). Impairment charges to goodwill, indefinite-lived intangible assets and property, plant & equipment have been recognised in prior periods.</p> <p>For the CGUs which contain Rio Tinto's goodwill, indefinite-lived intangible assets and property, plant and equipment, the determination of recoverable amount, being the higher of value-in-use and fair value less costs to dispose, requires judgement on the part of management in both identifying and then valuing the relevant CGUs. Recoverable amounts are based on management's view of variables such as future commodity prices, timing and approval of future capital and operating expenditure and the most appropriate discount rate.</p> <p>All CGUs containing goodwill and indefinite-lived intangible assets must be tested for impairment on an annual basis.</p> <p>Management must also determine the recoverable amount for other assets including property, plant & equipment when impairment indicators are identified. As at 30 September 2014, being management's testing date, the Oyu Tolgoi CGU had a carrying value of \$8,163 million and management identified an impairment indicator due to the ongoing delays in the development of the underground project and therefore performed a full impairment assessment to determine the recoverable amount of these assets.</p> <p>As well as considering indicators of impairment, for assets other than goodwill and indefinite-lived intangible assets management must determine whether any indicators of reversal of previous impairments are apparent. In particular, for certain business units within Rio Tinto Alcan, management assessed whether previously recorded impairments against property, plant & equipment should be reversed in light of improved profitability and cash flows.</p> <p>Refer to note 6 for management's conclusions.</p>	<p>We satisfied ourselves as to the appropriateness of management's identification of the Group's CGUs and controls over the impairment assessment process, including indicators of impairment and impairment reversal.</p> <p>We benchmarked key market related assumptions in management's valuation models, including commodity prices, foreign exchange rates and discount rates, against external data where available, using our valuations expertise.</p> <p>We verified the mathematical accuracy of the cash flow models and agreed relevant data to the latest Life of Mine/production plans and budgets.</p> <p>For Oyu Tolgoi we also read the latest feasibility study and assessed through sensitivity analysis the potential impact of further delays to the restart of the underground project.</p> <p>In assessing potential impairment reversals within the Primary Metal – Pacific Aluminium CGU of Rio Tinto Alcan, we considered the sustainability of cost improvements and regional and product price premia in the determination of the CGU's recoverable amount.</p> <p>We validated the appropriateness of the related disclosures in note 6 of the financial statements, including the sensitivities provided with respect to Oyu Tolgoi.</p>

Independent auditors' report of PricewaterhouseCoopers LLP to the members of Rio Tinto plc and PricewaterhouseCoopers to the members of Rio Tinto Limited continued

Area of focus

Taxation

Provisions for uncertain tax positions:

The Group operates across a large number of jurisdictions and is subject to periodic challenges by local tax authorities on a range of tax matters during the normal course of business including transfer pricing, indirect taxes and transaction related tax matters. As at 31 December 2014, the Group has current and non-current taxes payable of \$1,170 million. Where the amount of tax payable or recoverable is uncertain, Rio Tinto establishes provisions based on the Group's judgement of the probable amount of the liability or recovery.

Minerals Resource Rent Tax:

In 2014 the Australian government repealed the Minerals Resource Rent Tax (MRRT) with effect from 30 September 2014. The nature of MRRT and the complexity of the associated accounting considerations made this an area of focus.

How our audit addressed the area of focus

We assessed the Group's process for identifying uncertain tax positions and the related accounting policy of provisioning for tax exposures.

We used our specialist tax knowledge to gain an understanding of the current status of tax investigations and monitored changes in ongoing disputes by reading recent rulings and correspondence with local tax authorities, as well as external advice received by the Group where relevant, to establish that the tax provisions had been appropriately adjusted to reflect the latest external developments.

We verified the accuracy of the utilisation of the MRRT deferred tax asset from 1 January 2014 to the date of repeal and the subsequent write-off of the remaining MRRT deferred tax asset at that date.

We also satisfied ourselves that the classification of the write-off of the MRRT deferred tax asset as an exclusion from underlying earnings was consistent with the Group's accounting policies and appropriately disclosed in the financial statements.

Close-down, restoration and environmental obligations

Rio Tinto has provisions for close-down, restoration and environmental obligations of \$8,630 million at 31 December 2014.

The calculation of these provisions requires management judgement in estimating these future costs, given the unique nature of each site and the potential associated obligations, taking into account for example likely advances in technology prior to the work commencing and determining the timing of any such work taking place. These calculations also require management to determine an appropriate rate to discount these future costs back to their net present value.

The judgement required to estimate such costs is further compounded by the fact that the restoration and rehabilitation of each site is relatively unique and there has been limited restoration and rehabilitation activity and historical precedent against which to benchmark estimates of future costs.

The Group reviews the close-down, restoration and environment obligations on a semi-annual basis, using experts to provide support in its assessment as appropriate. This review incorporates the effects of any changes in local regulations and management's expected approach to restoration and rehabilitation.

We assessed management's process for the review of provisions, and performed detailed testing of the movements in the provision during the year for 5 business units based on the associated risk of misstatement and materiality.

As part of our testing, we evaluated the legal and/or constructive obligations with respect to the restoration and rehabilitation for each of these business units to assess the appropriateness of the intended method of restoration and rehabilitation and associated cost estimate.

We also considered the competence and objectivity of management's experts, whether internal or external to Rio, who produced the cost estimates. We validated the accuracy of calculations and the appropriateness of the discount rate.

Defined benefit pension plan surpluses and deficits

The Group has approximately 60 defined benefit pension plans. The total fair value of plan assets is \$15,219 million, and total present value of obligations is \$17,852 million, which are significant in the context of the overall balance sheet of the Group.

The valuation of the pension liabilities requires judgement in determining appropriate assumptions, such as inflation levels, discount rates and mortality rates. Movements in these assumptions can have a material impact on the determination of the liability. Management uses external actuaries to assist in assessing these assumptions.

Judgement is also involved in the measurement of the fair value of certain pension assets.

We used our actuarial expertise to satisfy ourselves that the assumptions used in calculating the pension plan liabilities, including comparing salary increases and mortality rate assumptions, were consistent with relevant national and industry benchmarks. We also verified that the discount and inflation rates used in the valuation of the pension liabilities were consistent with our internally developed benchmarks and with other companies reporting as at 31 December 2014.

For pension plan assets, we obtained third party confirmations of ownership and valuations of pension assets, and re-performed a sample of the valuations independently.

Area of focus

How our audit addressed the area of focus

Finance transformation – Shared services transition

The shared services transition element of Rio Tinto's Finance transformation programme includes the centralisation and outsourcing of certain back office finance activities (excluding key controls) to a third-party provider. The programme commenced in 2014 and is expected to run during 2015 and into 2016.

Certain of the activities being transitioned were previously undertaken in Rio Tinto's own shared services centres. A number of business unit finance processes have also been, or are being, transitioned.

This centralisation of processes and transfer of responsibilities creates a risk of loss of knowledge which could adversely affect the controls during the transition period. There is also a risk that controls over financial reporting, which rely on those activities that have been, or are to be, transitioned may not be designed and/or operate effectively.

We obtained a detailed understanding of the Group's shared services transition plans, including the timing of business unit transitions and extent of activities being transferred. We assessed the implementation of management's plans through the following procedures:

- We visited the outsourced shared service centre to observe the manner in which the knowledge transfer was being conducted.
- We assessed the design effectiveness of internal controls over financial reporting in the processes impacted at both the Group and business unit levels.
- We tested the operating effectiveness of key controls which operate within Rio Tinto's retained organisation.
- In respect of the third-party outsourced service provider:
 - We evaluated the 'Statement of Works' governing the service level agreements with Rio Tinto and the associated key performance indicators.
 - We obtained a report from an independent third party on the Service Organisation Controls performed in accordance with the Statement on Standards for Attestation Engagements (SSAE) No. 16. This provided evidence about the operating effectiveness of governance and entity level controls operated by the outsourced service provider.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the geographic structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The Group is organised into five product groups being Aluminium, Copper, Diamonds & Minerals, Energy, and Iron Ore, which are all supported by centralised functions. Each product group is made up of a number of operating businesses which represent separate business units. The Group financial statements are a consolidation of business units, comprising the Group's operating businesses and centralised functions. Based on this, we determined the appropriate business units to perform work over based on factors such as the size of the balances, the areas of focus as noted above, known or historical accounting issues and the desire to include some unpredictability in our audit procedures.

In establishing the overall approach to the group audit, we determined the type of work that needed to be performed at business units by us, as the Group engagement team, or component auditors from either other PwC network firms or non-PwC firms operating under our instruction. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those business units to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole. In 2014, we identified 3 business units which, in our view, required an audit of their complete financial information, either due to their size or their risk characteristics. Those business units were Hamersley Iron, Robe River and Escondida. Specific audit procedures on certain balances and transactions were performed at a further 14 business units.

We performed work centrally in the areas of IT general controls, manual journals, taxation, pensions and treasury related procedures. In 2014, we also performed procedures on the shared services transition as noted above.

Our Group engagement team involvement included site visits, conference calls with our component audit teams, review of our component auditor work papers, attendance at component audit clearance meetings, and other forms of communication as considered necessary depending on the significance of the component and the extent of accounting and audit issues arising.

Materiality

The scope of our audit is influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

Overall group materiality	\$600 million (2013: \$600 million).
How we determined it	5% of profit before tax adjusted for items excluded from underlying earnings (as defined in note 2 to the financial statements).
Rationale for benchmark applied	We consider an adjusted measure to be the most relevant in assessing the recurring financial performance of the Group.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above \$50 million (2013: \$50 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

Going concern

Under the Listing Rules we are required to review the directors' statement, set out on page 101, in relation to going concern. We have nothing to report having performed our review.

As noted in the directors' statement, the directors have concluded that it is appropriate to prepare the financial statements using the going concern basis of accounting. The going concern basis presumes that the Group and Parent Companies (in respect of Rio Tinto plc and Rio Tinto Limited) have adequate resources to remain in operation, and that the directors intend them to do so, for at least one year from the date the financial statements were signed. As part of our audit we have concluded that the directors' use of the going concern basis is appropriate.

Independent auditors' report of PricewaterhouseCoopers LLP to the members of Rio Tinto plc and PricewaterhouseCoopers to the members of Rio Tinto Limited continued

However, because not all future events or conditions can be predicted, these statements are not a guarantee as to the Group's and Parent Companies' ability to continue as a going concern.

Other required reporting – PricewaterhouseCoopers LLP

Consistency of other information

Companies Act 2006 opinion

In our opinion, the information given in the Strategic Report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

ISAs (UK & Ireland) reporting

Under ISAs (UK & Ireland) we are required to report to you if, in our opinion:

Information in the Annual Report is:

- materially inconsistent with the information in the audited financial statements; or
- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the Group and Company acquired in the course of performing our audit; or
- otherwise misleading.

We have no exceptions to report arising from this responsibility.

The statement given by the directors on page 63, in accordance with provision C.1.1 of the UK Corporate Governance Code ("the Code"), that they consider the Annual Report taken as a whole to be fair, balanced and understandable and provides the information necessary for members to assess the Group's and Rio Tinto plc's performance, business model and strategy is materially inconsistent with our knowledge of the group and company acquired in the course of performing our audit.

We have no exceptions to report arising from this responsibility.

The section of the Annual Report on page 57, as required by provision C.3.8 of the Code, describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.

We have no exceptions to report arising from this responsibility.

Adequacy of accounting records and information and explanations received

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by Rio Tinto plc, or returns adequate for our audit have not been received from branches not visited by us; or
- the Rio Tinto plc financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Directors' remuneration

Directors' Remuneration Report – Companies Act 2006 opinion

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Other Companies Act 2006 reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion, certain disclosures of directors' remuneration specified by law are not made.

We have no exceptions to report arising from this responsibility.

Corporate governance statement

Under the Listing Rules we are required to review the part of the Corporate Governance Statement relating to Rio Tinto plc's compliance with ten provisions of the UK Corporate Governance Code. We have nothing to report having performed our review.

Other required reporting – PricewaterhouseCoopers

Directors' remuneration

Directors' Remuneration Report – Corporations Act 2001 opinion

Under the Corporations Act 2001 (in respect of Rio Tinto Limited) we are required to express an opinion on the Directors' Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards. The directors of Rio Tinto Limited are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001 as amended by the ASIC Order.

In our opinion, the Remuneration Report included in the accompanying Annual Report complies with the requirements of section 300A of the Corporations Act 2001 as amended by the ASIC Order.

Directors' report

Consistency of information in Directors' report – Corporations Act 2001 opinion

In our opinion, the information given in the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Independence

In conducting our audit, we have complied with the independence requirements of the Corporations Act 2001.

Responsibilities for the financial statements and the audit

Our responsibilities and those of the directors

As explained more fully in the Directors' responsibilities statement set out on page 184, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view and for such internal control as the directors determine is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and ISAs (UK & Ireland) and Australian Auditing Standards. Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors and relevant ethical requirements relating to audit engagements in Australia.

This report, including the opinions, has been prepared for and only for the members of Rio Tinto plc and Rio Tinto Limited as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 (in respect of Rio Tinto plc) and the Corporations Act 2001 as amended by the ASIC Order (in respect of Rio Tinto Limited) and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

What an audit of financial statements involves

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of:

- whether the accounting policies are appropriate to the Group's and the Companies' circumstances and have been consistently applied and adequately disclosed;
- the reasonableness of significant accounting estimates made by the directors; and
- the overall presentation of the financial statements.

The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement of the financial statements whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.

We primarily focus our work in these areas by assessing the directors' judgements against available evidence, forming our own judgements, and evaluating the disclosures in the financial statements.

We test and examine information, using sampling and other auditing techniques, to the extent we consider necessary to provide a reasonable basis for us to draw conclusions. We obtain audit evidence through testing the effectiveness of controls, substantive procedures or a combination of both.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

Richard Hughes (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London, United Kingdom
4 March 2015

Paul Bendall, Partner
for and on behalf of PricewaterhouseCoopers
Chartered Accountants and Statutory Auditors
Melbourne, Australia
4 March 2015

- (a) The maintenance and integrity of the Rio Tinto Group website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
- (b) Legislation in the United Kingdom and Australia governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Financial summary 2005-2014

US\$m	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Gross sales revenue ^(a)	20,742	25,440	33,518	56,905	42,734	59,008	65,298	55,597	54,575	50,041
Share of equity accounted units' sales revenue and items excluded from underlying earnings	(1,709)	(2,975)	(3,818)	(4,044)	(2,472)	(3,837)	(4,769)	(4,655)	(3,404)	(2,377)
Consolidated sales revenue	19,033	22,465	29,700	52,861	40,262	55,171	60,529	50,942	51,171	47,664
Underlying profit before interest and tax (PBIT)	7,301	9,912	10,517	17,683	9,843	21,128	23,662	13,467	16,039	13,851
Finance costs ^(c)	(207)	(193)	(570)	(1,706)	(1,058)	(909)	(759)	(616)	(794)	(967)
Exchange differences and derivatives ^(d)	(191)	83	253	(322)	528	529	2	695	(3,362)	(2,021)
Other exclusions from Underlying earnings	409	438	(364)	(6,477)	(1,453)	(257)	(9,633)	(15,977)	(8,378)	(1,311)
Profit/(loss) before tax (PBT)	7,312	10,240	9,836	9,178	7,860	20,491	13,272	(2,431)	3,505	9,552
Tax on Exclusions	33	(357)	60	988	(91)	42	135	2,896	2,642	423
Tax on Underlying PBT	(1,847)	(2,016)	(2,150)	(4,730)	(1,985)	(5,338)	(6,607)	(3,485)	(5,068)	(3,476)
Loss after tax from discontinued operations	–	–	–	(827)	(449)	(97)	(10)	(7)	–	–
Attributable to non-controlling interests	(283)	(429)	(434)	(933)	(463)	(860)	(955)	(1)	2,586	28
Net earnings/(loss)	5,215	7,438	7,312	3,676	4,872	14,238	5,835	(3,028)	3,665	6,527
Underlying/Adjusted earnings ^(b)	4,955	7,338	7,443	10,303	6,298	13,987	15,572	9,269	10,217	9,305
Earnings/(loss) per share (basic) – continuing operations ⁽ⁿ⁾	312.6c	456.2c	464.9c	286.8c	301.7c	731.0c	303.9c	(163.4)c	198.4c	353.1c
Underlying earnings per share (basic) – continuing operations ⁽ⁿ⁾	297.0c	450.1c	473.2c	656.2c	357.1c	713.3c	809.7c	501.3c	553.1c	503.4c
Dividends per share: declared for year ^(e)										
Rio Tinto shareholders (US cents)	65.46c	85.07c	111.23c	111.22c	45.00c	108.00c	145.00c	167.00c	192.00c	215.00c
Rio Tinto plc (pence)	36.91p	44.22p	56.20p	67.49p	28.84p	67.35p	90.47p	106.77p	120.10p	134.88p
Rio Tinto Limited (Aus. cents)	86.26c	110.69c	125.72c	146.22c	51.56c	111.21c	134.01c	160.18c	213.14c	256.07c
Net assets										
Fixed assets ⁽ⁱ⁾	20,848	25,803	75,888	67,651	72,706	83,895	91,529	90,580	81,554	80,669
Other assets less liabilities	2,587	3,026	11,609	8,469	10,078	4,394	1,632	8,478	8,224	4,596
Provisions (including deferred tax)	(6,383)	(7,007)	(16,013)	(14,987)	(17,998)	(19,706)	(25,935)	(22,126)	(18,221)	(18,176)
Net debt	(1,313)	(2,437)	(45,191)	(38,672)	(18,861)	(4,071)	(8,342)	(19,192)	(18,055)	(12,495)
Non-controlling interests	(791)	(1,153)	(1,521)	(1,823)	(2,094)	(6,265)	(6,685)	(11,187)	(7,616)	(8,309)
Equity attributable to owners of Rio Tinto	14,948	18,232	24,772	20,638	43,831	58,247	52,199	46,553	45,886	46,285
Capital expenditure ^(g)	(2,590)	(3,992)	(5,000)	(8,574)	(5,388)	(4,591)	(12,573)	(17,615)	(13,001)	(8,162)
Acquisitions	(2)	(303)	(37,539)	(9)	(396)	(907)	(4,156)	(1,335)	4	–
Disposals	323	24	13	2,572	2,424	3,800	386	251	1,896	887
Net cash generated from operating activities ^(h)	6,717	7,803	8,491	14,883	9,212	18,277	20,235	9,430	15,078	14,286
Cash flows before financing activities ⁽ⁱ⁾	4,460	3,714	(34,251)	8,702	5,855	16,566	3,245	(8,813)	4,132	7,783
Ratios										
Operating margin ^(j)	37%	42%	34%	32%	24%	37%	37%	25%	30%	28%
Net debt to total capital ^(k)	8%	11%	63%	63%	29%	6%	12%	25%	25%	19%
Underlying earnings: owners' equity ^(l)	37%	44%	35%	45%	20%	27%	28%	19%	22%	20%
Interest cover ^(m)	59	89	20	10	9	27	27	13	13	13

- (a) Gross sales revenue includes 100 per cent of subsidiaries' sales revenue and the Group's share of the sales revenue of equity accounts units (after adjusting for sales to subsidiaries)
- (b) Underlying earnings is an additional measure of earnings, which is reported by Rio Tinto with its IFRS (as defined in note 1) results to provide greater understanding of the underlying business performance of its operations. It is defined in note 2 to the Financial Statement. Underlying profit before interest and tax (PBIT) is similar to underlying earnings except that it is stated before tax and interest.
- (c) Finance costs include net interest and amortisation of discount.
- (d) Under IFRS, as defined in note 1, certain gains and losses on exchange and on revaluation of derivatives are included in the Group's Net earnings. These items are excluded from underlying earnings.
- (e) Dividends per share are the amounts declared in respect of each financial year. These usually include an Interim dividend paid in the year, and a Final dividend paid after the end of the year. The Special dividend of 90 US cents per share paid in 2006 is not included in the table. 2005 to 2008 ordinary dividends per share have been restated using a number of shares which reflects the discounted price of the July 2009 rights issues (the bonus factor).
- (f) Fixed assets include property, plant and equipment, intangible assets, goodwill, and investments in and long term loans to equity accounted units.
- (g) Capital expenditure is presented gross, before taking into account any disposals of property, plant and equipment.
- (h) Net cash generated from operating activities represents the cash generated by the Group's consolidated operations, after payment of interest, taxes, and dividends to non-controlling interests in subsidiaries.
- (i) Cash flow before financing activities is stated before deducting dividends payable to owners of Rio Tinto.
- (j) Operating margin is the percentage of underlying PBIT, after excluding tax on equity accounted units, to Gross sales revenue.
- (k) Total capital comprises equity attributable to owners of Rio Tinto plus net debt and non-controlling interests.
- (l) Underlying earnings: owners' equity represents underlying earnings expressed as a percentage of the mean of opening and closing equity attributable to owners of Rio Tinto.
- (m) Interest cover represents the number of times interest payable less receivable (excluding the amortisation of discount but including capitalised interest) is covered by Underlying operating profit, less amortisation of discount, plus dividends from equity accounted units. Underlying operating profit is similar to underlying earnings but is stated before tax, interest and share of profit after tax of equity accounted units.
- (n) 2009 earnings per share from continuing operations and underlying earnings per share have been calculated using a number of shares which reflects the discounted price of the July rights issues (the bonus factor). 2004 to 2008 comparatives have been restated accordingly.

Summary financial data in Australian dollars, Sterling and US dollars

2014 A\$m	2013 A\$m	2014 £m	2013 £m		2014 US\$m	2013 US\$m
55,430	56,353	30,367	34,882	Gross sales revenue	50,041	54,575
52,797	52,838	28,925	32,706	Consolidated sales revenue	47,664	51,171
10,581	3,619	5,797	2,240	Profit before tax from continuing operations	9,552	3,505
7,199	1,114	3,944	690	Profit for the year from continuing operations	6,499	1,079
7,230	3,784	3,961	2,342	Net earnings attributable to owners of Rio Tinto	6,527	3,665
10,307	10,550	5,647	6,530	Underlying earnings ^(a)	9,305	10,217
391.1c	204.9c	214.3p	126.8p	Basic earnings per ordinary share from continuing operations ^(b)	353.1c	198.4c
557.6c	571.1c	305.5p	353.5p	Basic underlying earnings per ordinary share ^{(a)(b)}	503.4c	553.1c
				Dividends per share to owners of Rio Tinto		
223.23c	184.67c	122.72p	114.62p	– paid	204.5c	178.0c
152.98c	120.14c	77.98p	65.82p	– proposed final dividend	119.0c	108.5c
8,621	4,267	4,723	2,641	Cash flow before financing activities	7,783	4,132
(15,243)	(20,240)	(8,026)	(10,929)	Net debt	(12,495)	(18,055)
56,463	51,438	29,729	27,775	Equity attributable to owners of Rio Tinto	46,285	45,886

(a) Underlying earnings exclude net impairment and other charges of US\$2,778 million (2013 charges: of US\$6,552 million), which are analysed on page 125.

(b) Basic earnings per ordinary share and basic underlying earnings per ordinary share do not recognise the dilution resulting from share options in issue.

The financial data above has been extracted from the financial information set out on pages 103 to 174. 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 payable.

Metals and minerals production

		2014 Production		2013 Production		2012 Production	
	Rio Tinto % share ^(a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
ALUMINA ('000 tonnes)							
Jonquière (Vaudreuil) (Canada) (b)	100.0	1,444	1,444	1,439	1,439	1,397	1,397
Queensland Alumina (Australia)	80.0	3,568	2,854	3,384	2,707	3,693	2,954
São Luis (Alumar) (Brazil)	10.0	3,639	364	3,425	343	3,409	341
Yarwun (Australia)	100.0	2,688	2,688	2,446	2,446	2,175	2,175
Jonquière (Vaudreuil) specialty plant (Canada)	100.0	108	108	103	103	101	101
			7,458		7,037		6,968
Other Aluminium							
Gove refinery (Australia) (c)	100.0	676	676	2,270	2,270	2,742	2,742
Specialty plants (France/Germany) (d)	–	–	–	–	–	331	331
			676		2,270		3,073
Rio Tinto total			8,134		9,307		10,041
ALUMINIUM ('000 tonnes)							
Alma (Canada)	100.0	455	455	440	440	208	208
Alouette (Sept-Îles) (Canada)	40.0	583	233	582	233	593	237
Alucam (Edéa) (Cameroon) (e)	–	93	43	75	35	52	24
Arvida (Canada)	100.0	173	173	175	175	177	177
Arvida AP60 (Canada) (f)	100.0	59	59	9	9	–	–
Bécancour (Canada)	25.1	446	112	435	109	429	107
Bell Bay (Australia)	100.0	188	188	187	187	185	185
Boyne Island (Australia)	59.4	553	328	561	333	569	338
Dunkerque (France)	100.0	270	270	258	258	256	256
Grande-Baie (Canada)	100.0	222	222	224	224	223	223
ISAL (Reykjavik) (Iceland)	100.0	206	206	197	197	190	190
Kitimat (Canada)	100.0	125	125	172	172	182	182
Laterrière (Canada)	100.0	244	244	239	239	233	233
Lochaber (UK)	100.0	42	42	44	44	45	45
Saint-Jean-de-Maurienne (France) (g)	–	–	–	85	85	93	93
Shawinigan (Canada) (h)	100.0	–	–	74	74	81	81
Sohar (Oman)	20.0	364	73	354	71	360	72
SØRAL (Husnes) (Norway) (i)	–	76	38	89	45	92	46
Tiwai Point (New Zealand)	79.4	327	260	324	257	325	258
Tomago (Australia)	51.6	561	289	545	281	546	281
			3,361		3,468		3,236
Other Aluminium							
Lynemouth (UK) (j)	100.0	–	–	–	–	15	15
Sebree (US) (k)	–	–	–	87	87	205	205
					87		220
Rio Tinto total			3,361		3,555		3,456

See notes on page 198.

Metals and minerals production continued

		2014 Production		2013 Production		2012 Production	
	Rio Tinto % share ^(a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
BAUXITE ('000 tonnes)							
Gove (Australia)	100.0	6,528	6,528	8,029	8,029	7,944	7,944
Porto Trombetas (MRN) (Brazil)	12.0	16,376	1,965	15,729	1,887	15,512	1,861
Sangaredi (Guinea)	23.0 ⁽ⁱ⁾	15,803	7,111	15,437	6,947	14,001	6,301
Weipa (Australia)	100.0	26,266	26,266	26,341	26,341	23,257	23,257
Rio Tinto total			41,871		43,204		39,363
BORATES ('000 tonnes) (m)							
Rio Tinto Minerals – Boron (US)	100.0	508	508	495	495	453	453
Rio Tinto Minerals – Tincalayu (Argentina) (n)	–	–	–	–	–	9	9
Rio Tinto total			508		495		463
COAL (hard coking) ('000 tonnes)							
Rio Tinto Coal Australia							
Hail Creek Coal (Australia)	82.0	6,492	5,324	6,839	5,608	7,174	5,882
Kestrel Coal (Australia)	80.0	2,163	1,730	2,553	2,043	2,468	1,974
Total Australian hard coking coal			7,054		7,651		7,857
Rio Tinto Coal Mozambique							
Benga (o)	–	641	416	867	564	289	188
Rio Tinto total hard coking coal			7,471		8,214		8,044
COAL (semi-soft coking) ('000 tonnes)							
Rio Tinto Coal Australia							
Hunter Valley (Australia)	80.0	1,935	1,548	2,634	2,107	2,119	1,695
Mount Thorley (Australia)	64.0	1,952	1,250	1,846	1,182	1,584	1,014
Warkworth (Australia)	44.5	933	415	1,281	569	1,296	576
Rio Tinto total semi-soft coking coal			3,213		3,859		3,286
COAL (thermal) ('000 tonnes)							
Rio Tinto Coal Australia							
Bengalla (Australia)	32.0	8,558	2,739	8,232	2,634	7,026	2,248
Blair Athol (Australia) (p)	71.2	–	–	–	–	2,587	1,843
Clermont (Australia) (q)	–	4,832	2,421	11,782	5,903	8,189	4,103
Hail Creek Coal (Australia) (r)	82.0	2,304	1,890	191	157	–	–
Hunter Valley (Australia)	80.0	11,924	9,539	11,002	8,802	9,836	7,869
Kestrel Coal (Australia)	80.0	564	451	463	371	350	280
Mount Thorley (Australia)	64.0	2,241	1,434	2,357	1,508	2,497	1,598
Warkworth (Australia)	44.5	6,803	3,027	6,995	3,110	5,477	2,435
Total Australian thermal coal			21,501		22,485		20,376
Rio Tinto Coal Mozambique							
Benga (o)	–	593	385	754	490	419	272
Rio Tinto total thermal coal			21,886		22,975		20,648

See notes on page 198.

		2014 Production		2013 Production		2012 Production	
	Rio Tinto % share ^(a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
COPPER (mined) ('000 tonnes)							
Bingham Canyon (US)	100.0	204.3	204.3	211.0	211.0	163.2	163.2
Escondida (Chile)	30.0	1,137.6	341.3	1,121.5	336.5	1,047.4	314.2
Grasberg – Joint Venture (Indonesia) (s)	40.0	19.2	7.7	15.7	6.3	0.0	0.0
Northparkes (Australia) (t)	–	–	–	50.6	40.4	53.8	43.1
Oyu Tolgoi (Mongolia) (u)	33.5	148.4	49.8	76.7	25.7	–	–
Palabora (South Africa) (v)	–	–	–	22.2	11.6	49.1	28.3
Rio Tinto total			603.1		631.5		548.8
COPPER (refined) ('000 tonnes)							
Escondida (Chile)	30.0	301.5	90.5	305.3	91.6	310.3	93.1
Kennecott Utah Copper (US)	100.0	204.1	204.1	193.6	193.6	162.7	162.7
Palabora (South Africa) (v)	–	–	–	25.8	14.9	40.9	23.6
Rio Tinto total			294.6		300.1		279.4
DIAMONDS ('000 carats)							
Argyle (Australia)	100.0	9,188	9,188	11,359	11,359	8,471	8,471
Diavik (Canada)	60.0	7,233	4,340	7,243	4,346	7,230	4,338
Murowa (Zimbabwe)	77.8	442	344	414	322	403	313
Rio Tinto total			13,872		16,027		13,122
GOLD (mined) ('000 ounces)							
Barneys Canyon (US)	100.0	0.4	0.4	0.4	0.4	1.2	1.2
Bingham Canyon (US)	100.0	259.8	259.8	206.7	206.7	199.8	199.8
Escondida (Chile)	30.0	90.1	27.0	94.2	28.3	97.6	29.3
Grasberg – Joint Venture (Indonesia) (s)	40.0	5.6	2.3	0.0	0.0	0.0	0.0
Northparkes (Australia) (t)	–	–	–	61.6	49.3	72.2	57.7
Oyu Tolgoi (Mongolia) (u)	33.5	588.7	197.3	157.0	52.6	–	–
Palabora (South Africa) (v)	–	–	–	5.5	3.1	10.9	6.3
Rio Tinto total			486.8		340.4		294.3
GOLD (refined) ('000 ounces)							
Kennecott Utah Copper (US)	100.0	252.2	252.2	192.3	192.3	279.2	279.2
IRON ORE ('000 tonnes)							
Hamersley mines (Australia)	(w)	163,163	163,163	143,347	143,347	135,932	135,932
Hamersley – Channar (Australia)	60.0	10,913	6,548	11,047	6,628	10,947	6,568
Hope Downs (Australia)	50.0	42,715	21,358	33,788	16,894	30,793	15,396
Iron Ore Company of Canada (Canada)	58.7	14,775	8,676	15,368	9,024	14,079	8,267
Robe River – Pannawonica (Australia)	53.0	34,535	18,304	33,308	17,654	32,304	17,121
Robe River – West Angelas (Australia)	53.0	29,264	15,510	29,093	15,419	29,404	15,584
Rio Tinto total			233,557		208,966		198,869
MOLYBDENUM ('000 tonnes)							
Bingham Canyon (US)	100.0	11.5	11.5	5.7	5.7	9.4	9.4
SALT ('000 tonnes)							
Dampier Salt (Australia)	68.4	9,938	6,793	9,841	6,728	9,996	6,833
SILVER (mined) ('000 ounces)							
Bingham Canyon (US)	100.0	2,935	2,935	2,876	2,876	2,086	2,086
Escondida (Chile)	30.0	4,883	1,465	4,032	1,210	3,501	1,050
Grasberg – Joint Venture (Indonesia) (s)(x)	40.0	0	0	0	0	0	0
Oyu Tolgoi (Mongolia) (u)	33.5	893	299	489	164	–	–
Others	–	0	0	687	515	685	521
Rio Tinto total			4,699		4,765		3,657

See notes on page 198.

Metals and minerals production continued

	Rio Tinto % share ^(a)	2014 Production		2013 Production		2012 Production	
		Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
SILVER (refined) ('000 ounces)							
Kennecott Utah Copper (US)	100.0	2,811	2,811	2,158	2,158	2,451	2,451
TITANIUM DIOXIDE FEEDSTOCK ('000 tonnes)							
Rio Tinto Iron & Titanium (Canada/South Africa) (y)(z)	100.0	1,443	1,443	1,622	1,622	1,594	1,594
URANIUM ('000 lbs U₃O₈)							
Energy Resources of Australia (Australia) (aa)	68.4	2,569	1,757	6,525	4,462	8,179	5,594
Rössing (Namibia) (bb)	68.6	3,401	2,333	5,312	3,643	5,951	4,082
Rio Tinto total			4,089		8,105		9,675

Production data notes:

Mine production figures for metals refer to the total quantity of metal produced in concentrates, leach liquor or doré bullion irrespective of whether these products are then refined onsite, except for the data for bauxite and iron ore which can represent production of marketable quantities of ore plus concentrates and pellets. Production figures are sometimes more precise than the rounded numbers shown, hence small differences may result from calculation of Rio Tinto share of production.

- (a) Rio Tinto percentage share, shown above, is as at the end of 2014. The footnotes below include all ownership changes over the three years. The Rio Tinto share varies at individual mines and refineries in the "others" category and thus no value is shown.
- (b) Jonquière's (Vaudreuil's) production shows smelter grade alumina only and excludes hydrate produced and used for specialty alumina.
- (c) The curtailment of production at the Gove refinery was completed on 28 May 2014.
- (d) Rio Tinto sold its interest in these specialty alumina assets with an effective date of 1 August 2012. Production data are shown up to that date.
- (e) Rio Tinto sold its 46.7 per cent interest in the Alucam (Edéa) smelter with an effective date of 31 December 2014. Production data are shown up to that date.
- (f) Rio Tinto started production at the Arvida AP60 Technology Centre in the fourth quarter of 2013.
- (g) Rio Tinto sold its 100 per cent interest in the Saint-Jean-de-Maurienne smelter with an effective date of 16 December 2013. Production data are shown up to that date.
- (h) The Shawinigan smelter ceased production on 29 November 2013.
- (i) Rio Tinto sold its 50 per cent interest in the SØRAL (Husnes) smelter with an effective date of 31 October 2014. Production data are shown up to that date.
- (j) Rio Tinto closed the Lynemouth aluminium smelter on 29 March 2012.
- (k) Rio Tinto sold its 100 per cent interest in the Sebree aluminium smelter with an effective date of 1 June 2013. Production data are shown up to that date.
- (l) Rio Tinto has a 22.95 per cent shareholding in the Sangaredi mine but benefits from 45.0 per cent of production.
- (m) Borate quantities are expressed as B₂O₃.
- (n) Rio Tinto sold its interest in Borax Argentina with an effective date of 21 Aug 2012. Production data are included up to that date.
- (o) Rio Tinto completed the sale of Rio Tinto Coal Mozambique and its 65 per cent interest in the Benga mine with an effective date of 7 October 2014. Production data are shown up to that date. Commercial production had commenced in the third quarter of 2012.

- (p) Blair Athol closed in the last quarter of 2012. Rio Tinto agreed to sell its 71.2 per cent interest in Blair Athol in October 2013.
- (q) Rio Tinto sold its 50.1 per cent interest in the Clermont mine with an effective date of 29 May 2014. Production data are shown up to that date.
- (r) Hail Creek commenced production of thermal coal from a processing plant by-product stream following completion of a successful trial in the third quarter of 2013.
- (s) Through a joint venture agreement with Freeport-McMoRan (FCX), Rio Tinto is entitled to 40 per cent of additional material mined as a consequence of expansions and developments of the Grasberg facilities since 1998. Total production reflects the quantities attributable to the joint venture.
- (t) Rio Tinto sold its 80 per cent interest in Northparkes with an effective date of 1 December 2013. Production data are shown up to that date.
- (u) Rio Tinto owns a 33.52 per cent indirect interest in Oyu Tolgoi through its 50.79 per cent interest in Turquoise Hill Resources Ltd. Production included in the table is from 1 May 2013.
- (v) The sale of Rio Tinto's 57.7 per cent interest in Palabora Mining Company was completed on 31 July 2013. Production data have been reported up to 30 June 2013.
- (w) Includes 100 per cent of production from Paraburdoo, Mt Tom Price, Marandoo, Yandicoogina, Brockman, Nammuldi and the Eastern Range mines. Whilst Rio Tinto owns 54 per cent of the Eastern Range mine, under the terms of the joint venture agreement, Hamersley Iron manages the operation and is obliged to purchase all mine production from the joint venture and therefore all of the production is included in Rio Tinto's share of production.
- (x) The 2014 silver production from Grasberg did not exceed the metal attributable to PT Freeport Indonesia per the joint venture agreement for the year. Accordingly, Rio Tinto's share of joint venture silver production was zero for the year 2014.
- (y) On 7 September 2012, Rio Tinto increased its stake in Richards Bay Minerals (RBM) from 37 per cent to 74 per cent through the acquisition of BHP Billiton's interest in RBM.
- (z) Quantities comprise 100 per cent of Rio Tinto Fer et Titane and Rio Tinto's share of Richards Bay Minerals' production. Ilmenite mined in Madagascar is being processed in Canada.
- (aa) ERA production has been restated from "produced ready for packing" to "drummed" U₃O₈, in line with production reported by Energy Resources of Australia Ltd to the Australian Stock Exchange (ASX).
- (bb) Rössing production has been restated from "produced ready for packing" to "drummed" U₃O₈, to allow reporting of aggregated production.

Ore reserves

Ore Reserves and Mineral Resources for Rio Tinto managed operations are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2012 (the JORC Code) as required by the Australian Securities Exchange (ASX). Codes or guidelines similar to JORC with only minor regional variations have been adopted in South Africa, Canada, the US, Chile, Peru, the Philippines, the UK, Ireland and Europe. Together these Codes represent current best practice for reporting Ore Reserves and Mineral Resources.

The JORC Code envisages the use of reasonable investment assumptions, including the use of projected long-term commodity prices, in calculating Ore Reserve estimates. However, for US reporting, the US Securities and Exchange Commission requires historical price data to be used. For this reason, some Ore Reserves reported to the SEC in the Form 20-F may differ from those reported below.

Ore Reserve and Mineral Resource information in the tables below is based on information compiled by Competent Persons (as defined by JORC), most of whom are full time employees of Rio Tinto or related companies. Each has had a minimum of five years' relevant estimation experience and is a member of a recognised professional body whose members are bound by a professional code of ethics. Each Competent Person consents to the inclusion in this report of information they have provided in the form and context in which it appears. Competent Persons responsible for the estimates are listed on pages XX and XX, by operation, along with their professional affiliation, employer and accountability for Ore Reserves and/or Mineral Resources. Where operations are not managed by Rio Tinto, the Ore Reserves are published as received from the managing company. The Ore Reserve figures in the following tables are as of 31 December 2014. Summary data for year end 2013 are shown for comparison. Metric units are used throughout. The figures used to calculate Rio Tinto's share of Ore Reserves are often more precise than the rounded numbers shown in the tables, hence small differences might result if the calculations are repeated using the tabulated figures.

	Type of mine ^(a)	Proved ore reserves at end 2014		Probable ore reserves at end 2014		Total ore reserves 2014 compared with 2013				Rio Tinto share			
		Tonnage		Grade		Tonnage		Grade		Interest %	Recoverable Mineral		
						2014		2013					
		millions of tonnes	% Al ₂ O ₃	millions of tonnes	% Al ₂ O ₃	millions of tonnes	% Al ₂ O ₃	millions of tonnes	% Al ₂ O ₃				
BAUXITE (b)												millions of tonnes	
Reserves at operating mines													
Gove (Australia)	O/P	135	49.4	11	49.2	146	150	49.4	49.3	100.0	146		
Porto Trombetas (MRN) (Brazil)	O/P	73	49.3	22	49.9	94	104	49.5	49.5	12.0	11		
Sangaredi (Guinea)	O/P	98	49.4	180	49.5	278	303	49.4	49.6	23.0	64		
Weipa (Australia)	O/P	501	52.2	983	52.7	1,485	1,511	52.5	52.5	100.0	1,485		
Total												1,706	
												Marketable product	
BORATES (c)												millions of tonnes	
Reserves at operating mine													
Rio Tinto Minerals – Boron (US)	O/P	11		11		22	23			100.0	22		
		Reserves		Marketable reserves		Marketable reserves		Marketable coal quality		Average % yield to give marketable reserves	Marketable reserves		
Coal type ^(d)		Proved	Probable at end 2014	Proved	Probable at end 2014	Total 2014	Total 2013	(e)	(e)				
COAL (f)												millions of tonnes	
Reserves at operating mines													
Rio Tinto Coal Australia													
Bengalla (g) (h)	O/C	SC	163	106	131	86	217	120	27.40	0.50	81	32.0	69
Clermont (i)	O/C	SC					–	153	–	–	–	–	–
Hail Creek (j)	O/C	SC + MC	107	20	72	13	85	60	25.74	0.35	67	82.0	70
Hunter Valley Operations (k) (h)	O/C	SC + MC	391	190	274	130	404	277	29.25	0.56	69	80.0	323
Kestrel Coal	U/G	MC	37	95	32	79	110	112	31.60	0.59	84	80.0	88
Mount Thorley Operations (l)	O/C	SC + MC	19	7	13	5	18	21	29.78	0.44	68	64.0	12
Warkworth (m)	O/C	SC + MC	192	154	125	101	226	233	29.80	0.45	65	44.5	100
Sub-total												662	
Rio Tinto Coal Mozambique													
Benga (n)	O/C	SC + MC					–	112	–	–	–	–	–
Total reserves at operating mines												662	
Other undeveloped reserves (o)													
Rio Tinto Coal Australia													
Mount Pleasant (p) (h)	O/C	SC		625		474	474	326	27.24	0.50	76	80.0	379

See notes on page 202.

Ore reserves continued

	Type of mine ^(a)	Proved ore reserves at end 2014		Probable ore reserves at end 2014		Total ore reserves 2014 compared with 2013				Average mill recovery		Rio Tinto share
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		recovery %	Interest %	Recoverable metal
						2014	2013	2014	2013			
		millions of tonnes	% Cu	millions of tonnes	% Cu	millions of tonnes	millions of tonnes	% Cu	% Cu			millions of tonnes
COPPER												
Reserves at operating mines												
Bingham Canyon (US)												
– open pit and stockpiles	O/P	226	0.40	467	0.47	693	748	0.45	0.47	88	100.0	2.717
Escondida (Chile)												
– sulphide	O/P	3,506	0.74	1,603	0.59	5,109	5,063	0.69	0.71	83	30.0	8.856
– sulphide leach (q)	O/P	1,613	0.45	607	0.39	2,220	2,004	0.43	0.44	32	30.0	0.922
– oxide (r)	O/P	84	0.80	48	0.64	133	152	0.74	0.79	67	30.0	0.199
Grasberg (Indonesia)	O/P + U/G	804	1.17	1,464	0.93	2,269	2,358	1.02	1.01	88	(s)	6.773
Oyu Tolgoi (Mongolia)												
– Oyut open pit (t)	O/P	383	0.54	612	0.40	995	1,014	0.45	0.46	79	33.5	1.195
– Oyut stockpiles (u) (t)		26	0.37			26	18	0.37	0.37	83	33.5	0.027
Total												
20.689												
Reserves at development projects												
Oyu Tolgoi (Mongolia)												
– Hugo Dummett North	U/G			464	1.66	464	460	1.66	1.80	92	33.5	2.371
– Hugo Dummett North Extension (v)	U/G			35	1.59	35	31	1.59	1.73	92	30.0	0.153
Total												
2.524												
Recoverable diamonds												
		millions of tonnes	carats per tonne	millions of tonnes	carats per tonne	millions of tonnes	millions of tonnes	carats per tonne	carats per tonne			millions of carats
DIAMONDS (b)												
Reserves at operating mines												
Argyle (Australia) (w)	U/G			41	2.4	41	49	2.4	2.4		100.0	97.6
Diavik (Canada) (x)	O/P + U/G	13	3.0	5.0	2.7	18	16	2.9	2.9		60.0	32.0
Murowa (Zimbabwe) (y)	O/P			4.0	1.0	4.0	4.4	1.0	0.9		77.8	3.0
Total												
132.6												
Recoverable metal												
		millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	millions of tonnes	grammes per tonne	grammes per tonne			millions of ounces
GOLD												
Reserves at operating mines												
Bingham Canyon (US)												
– open pit and stockpiles	O/P	226	0.14	467	0.19	693	748	0.18	0.19	67	100.0	2.615
Grasberg (Indonesia)	O/P + U/G	804	1.00	1,464	0.74	2,269	2,358	0.83	0.84	67	(s)	11.904
Oyu Tolgoi (Mongolia)												
– Oyut open pit (t)	O/P	383	0.39	612	0.23	995	1,014	0.29	0.31	70	33.5	2.200
– Oyut stockpiles (u) (t)		26	0.23			26	18	0.23	0.21	79	33.5	0.051
Total												
16.770												
Reserves at development projects												
Oyu Tolgoi (Mongolia)												
– Hugo Dummett North	U/G			464	0.34	464	460	0.34	0.37	83	33.5	1.408
– Hugo Dummett North Extension (v)	U/G			35	0.55	35	31	0.55	0.62	84	30.0	0.156
Total												
1.564												

See notes on page 202.

	Type of mine ^(a)	Proved ore reserves at end 2014		Probable ore reserves at end 2014		Total ore reserves 2014 compared with 2013				Average mill recovery %	Rio Tinto share	
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade			Interest %	Marketable product
						2014	2013	2014	2013			
		millions of tonnes	% Fe	millions of tonnes	% Fe	millions of tonnes	millions of tonnes	% Fe	% Fe			millions of tonnes
IRON ORE ^{(b) (z)}												
Reserves at operating mines												
Hammersley Iron (Australia)												
– Brockman 2 (Brockman ore) (aa)	O/P	30	62.7	32	62.8	62	41	62.8	61.9	100.0		62
– Brockman 4 (Brockman ore)	O/P	365	62.3	151	60.7	516	516	61.9	62.0	100.0		516
– Marandoo (Marra Mamba ore)	O/P	170	63.6	23	61.4	193	205	63.3	63.2	100.0		193
– Mt Tom Price (Brockman ore) (bb)	O/P	11	64.0	36	63.8	46	53	63.8	63.6	100.0		46
– Mt Tom Price (Marra Mamba ore)	O/P	8	60.9	1	58.8	9	9	60.8	60.8	100.0		9
– Nammuldi (Marra Mamba ore)	O/P	73	62.9	91	62.4	164	165	62.6	62.6	100.0		164
– Paraburdoo (Brockman ore) (cc)	O/P	8	61.7	8	63.6	16	14	62.7	63.5	100.0		16
– Western Turner Syncline (Brockman ore)	O/P	241	62.4	78	61.2	319	331	62.1	62.0	100.0		319
– Yandicoogina (Pisolite ore HG) (dd)	O/P	246	58.7	1	59.1	247	298	58.7	58.7	100.0		247
Channar JV (Australia)												
– Brockman ore (ee)	O/P	27	62.8	33	61.4	60	40	62.0	62.9	60.0		36
Eastern Range JV (Australia)												
– Brockman ore (ff)	O/P	45	62.3	14	61.3	59	47	62.0	62.7	54.0		32
Hope Downs JV (Australia)												
– Hope Downs 1 (Marra Mamba ore)	O/P	5	61.4	206	61.6	212	225	61.6	61.6	50.0		106
– Hope Downs 4 (Brockman ore) (gg)	O/P	64	63.0	90	63.2	154	138	63.1	63.1	50.0		77
Robe River JV (Australia)												
– Pannawonica (Pisolite ore) (hh)	O/P	128	57.2	88	56.3	216	260	56.8	56.9	53.0		115
– West Angelas (Marra Mamba ore)	O/P	129	62.0	56	60.2	185	196	61.5	61.5	53.0		98
Iron Ore Company of Canada (Canada) (ii)	O/P	276	65.0	280	65.0	556	592	65.0	65.0	58.7		326
Total										2,363		
Reserves at development projects												
Hammersley Iron (Australia)												
– Koodaideri (Brockman ore) (jj)	O/P	253	62.1	213	61.5	467	418	61.8	61.8	100.0		467
– Silvergrass East (Marra Mamba ore)	O/P	113	62.7	33	60.4	146	144	62.1	62.2	100.0		146
– Turee Central (Brockman ore)	O/P	72	62.0	6	61.4	78	78	61.9	61.9	100.0		78
Simandou (Guinea) (kk)	O/P			1,844	65.5	1,844	1,844	65.5	65.5	46.6		859
Total										1,549		
										Recoverable metal		
MOLYBDENUM		millions of tonnes	% Mo	millions of tonnes	% Mo	millions of tonnes	millions of tonnes	% Mo	% Mo	millions of tonnes		
Reserves at operating mine												
Bingham Canyon (US)												
– open pit and stockpiles (ll)	O/P	226	0.035	467	0.036	693	748	0.036	0.043	67	100.0	0.165
Total										0.165		
SILVER		millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	millions of tonnes	grammes per tonne	grammes per tonne	millions of ounces		
Reserves at operating mines												
Bingham Canyon (US)												
– open pit and stockpiles	O/P	226	1.75	467	2.19	693	748	2.04	2.08	67	100.0	30.499
Grasberg (Indonesia)	O/P + U/G	804	4.58	1,464	4.18	2,269	2,358	4.32	4.26	70	(s)	77.868
Oyu Tolgoi (Mongolia) (mm)												
– Oyut open pit (t)	O/P	383	1.41	612	1.12	995	–	1.23	–	76	33.5	10.026
– Oyut stockpiles (u) (t)		26	0.35			26	–	0.35	–	77	33.5	0.076
Total										118.469		
Reserves at development projects												
Oyu Tolgoi (Mongolia) (mm)												
– Hugo Dummett North	U/G			464	3.37	464	–	3.37	–	86	33.5	14.579
– Hugo Dummett North Extension (v)	U/G			35	3.72	35	–	3.72	–	86	30.0	1.079
Total										15.657		

See notes on page 202.

Ore reserves continued

	Type of mine ^(a)	Proved ore reserves at end 2014		Probable ore reserves at end 2014		Total ore reserves 2014 compared with 2013				Average mill recovery %	Interest %	Rio Tinto share
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade				Marketable product
						2014	2013	2014	2013			
TITANIUM DIOXIDE FEEDSTOCK (nn)		millions of tonnes	%Ti Minerals	millions of tonnes	%Ti Minerals	millions of tonnes	millions of tonnes	%Ti Minerals	%Ti Minerals		millions of tonnes	
Reserves at operating mines												
QMM (Madagascar)	D/O	405	3.8	78	3.1	483	519	3.7	3.7	80.0	6.4	
RBM (South Africa)	D/O	1,049	2.1	798	2.5	1,847	1,909	2.3	2.3	74.0	13.9	
RTFT (Canada) (oo)	O/P			121	83.9	121	143	83.9	83.1	100.0	44.7	
Total										65.0		
										Recoverable metal		
URANIUM		millions of tonnes	% U ₃ O ₈	millions of tonnes	% U ₃ O ₈	millions of tonnes	millions of tonnes	% U ₃ O ₈	% U ₃ O ₈		millions of tonnes	
Reserves at operating mines												
Energy Resources of Australia (Australia)												
– Ranger #3 stockpiles				5.0	0.123	5.0	5.5	0.123	0.123	84	0.004	
Rössing SJ (Namibia) (pp)	O/P	15	0.031	106	0.035	121	148	0.034	0.032	82	0.024	
Total										0.027		
										Marketable Product		
ZIRCON (qq)		millions of tonnes	% Zircon	millions of tonnes	% Zircon	millions of tonnes	millions of tonnes	% Zircon	% Zircon		millions of tonnes	
Reserves at operating mines												
QMM (Madagascar)	D/O	405	0.2	78	0.1	483	519	0.2	0.2	80.0	0.5	
RBM (South Africa)	D/O	1,049	0.3	798	0.4	1,847	1,909	0.3	0.3	74.0	3.2	
Total										3.7		

Notes

- Type of mine: O/P = open pit, O/C = open cut, U/G = underground, D/O = dredging operation.
- Reserves of iron ore, bauxite and diamonds are shown as recoverable Reserves of marketable product after accounting for all mining and processing losses. Mill recoveries are therefore not shown.
- Reserves of borates are expressed in terms of marketable product (B₂O₃) after all mining and processing losses.
- Coal type: SC: steam/thermal coal, MC: metallurgical/coking coal.
- Coals have been analysed on an “air dried” moisture basis in accordance with Australian Standards and gross calorific value and sulphur content are reported here on that basis. Marketable Reserves tonnages are reported on a product moisture basis.
- For coal, the yield factors shown reflect the impact of further processing, where necessary, to provide marketable coal.
- The increase in Bengalla Marketable Reserves tonnes follows the conversion of Resources to Reserves.
- Bengalla, Hunter Valley Operations and Mount Pleasant have had material Reserves changes since previous publication. A JORC table 1 in support of these changes was released to the market on 28 November 2014 and a copy can be found at riotinto.com/factsheets/JORC.
- Rio Tinto sold its 50.1 per cent interest in the Clermont mine with an effective date of 29 May 2014.
- Hail Creek Marketable Reserves tonnes increased due to the inclusion of a thermal coal product derived from coarse plant rejects. A JORC table 1 in support of this change will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/factsheets/JORC.
- Reserves tonnes have increased at Hunter Valley Operations following re-optimisation and the subsequent inclusion of the Southern Pit and extension of the Cheshunt Pit. The end 2014 Reserves include production depletion and mine design changes subsequent to the JORC table 1 release.

- Marketable Reserves tonnes at Mount Thorley Operations decreased following ex-pit production.
- An appeal of the project approval for Warkworth Reserves west of Wallaby Scrub Road was upheld (disapproved) by the NSW Land and Environment Court in April 2013. A 350 metre modification within this area was subsequently secured in January 2014 and Rio Tinto Coal Australia management are working through a process that should result in further approval in 2015. Should this not occur, there is a potential reduction in Reserves of approximately 113 million tonnes ROM (consisting of 30 million tonnes ROM Proved and 83 million tonnes ROM Probable).
- Rio Tinto completed the sale of Rio Tinto Coal Mozambique and its 65 per cent interest in the Benga mine with an effective date of 7 October 2014.
- The term “other undeveloped reserves” is used here to describe material that is economically viable on the basis of technical and economic studies but for which mining and processing permits may have yet to be requested or obtained. There is a reasonable, but not absolute, certainty that the necessary permits will be issued and that mining can proceed when required.
- The increase in Marketable Reserves at Mount Pleasant follows a re-optimisation of the mine plan.
- Escondida – sulphide leach Reserves tonnes increased due to a model update and reclassification of material.
- Escondida – oxide Reserves tonnes decreased following a model update.
- Under the terms of a joint venture agreement between Rio Tinto and FCX, Rio Tinto is entitled to a direct 40 per cent share in Reserves discovered after 31 December 1994 and it is this entitlement that is shown.
- Oyut was previously reported as South Oyut.
- Oyut stockpiles Reserves increased following ex-pit production.
- Hugo Dummett North Extension Reserves tonnes increased following a model update.
- Argyle Reserves tonnes have decreased following production depletion, mine and operational design changes along with adjustments to geotechnical performance, dilution and recovery assumptions. Argyle Reserves are based on a nominal 1 millimetre lower cut-off size and a final re-crushing size of 8 millimetres

- (x) Diavik Reserves tonnes increased following the conversion of A21 Pipe Resources to open pit Reserves which are reported for the first time. A JORC table 1 summary supporting this Reserve increase will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/factsheets/JORC. Diavik Reserves are based on a nominal 1 millimetre lower cut-off size and a final re-crushing size of 5 millimetres.
- (y) Murowa Reserves are based on a nominal 1 millimetre lower cut-off size and a final re-crushing size of 19 millimetres.
- (z) Australian and Guinean iron ore Reserves tonnes are reported on a dry weight basis.
- (aa) The Brockman 2 (Brockman ore) Reserves tonnes increase is due to an updated geological model and pit design modifications.
- (bb) Mt Tom Price (Brockman ore) Reserves tonnes decreased following production depletion and updated geological models.
- (cc) Paraburdoo (Brockman ore) Reserves tonnes decreased following production depletion and updated geological models.
- (dd) Production depletion reduced the Yandicoogina (Pisolite ore HG) Reserves tonnes.
- (ee) The Channar JV – Brockman ore Reserves tonnes increase is a result of cut-off grade changes, updated geological models and pit redesign.
- (ff) The Eastern Range JV – Brockman ore Reserves tonnes increase is a result of cut-off grade changes and updated geological models.
- (gg) The Hope Downs 4 (Brockman ore) Reserves tonnes increase follows updated pit designs.
- (hh) The Reserves tonnage decrease at Pannawonica follows a geological model update and production depletion.
- (ii) Reserves at Iron Ore Company of Canada are reported as marketable product (60 per cent pellets and 40 per cent concentrate for sale) at a natural moisture content of two per cent using process upgrade factors derived from current IOC concentrating and pellet operations. The marketable product is obtained from mined material comprising 686 million dry tonnes at 38.5 per cent iron (Proved) and 703 million dry tonnes at 37.9 per cent iron (Probable).
- (jj) The increase in Reserves tonnes at Koodaideri follows pit design modifications and updated geological models. A JORC table 1 in support of this change will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/factsheets/JORC.
- (kk) With the signing of the Investment Framework in May 2014, the Republic of Guinea acquired a 7.5 per cent share in Simandou with all other joint venture partners' shares decreasing proportionally. Subsequently Rio Tinto's interest in Simandou decreased from 50.4 per cent to 46.6 per cent.
- (ll) Bingham Canyon Reserves molybdenum grades interpolated from exploration drilling assays have been factored based on a long reconciliation history to blast hole and mill samples. The grade factor applied in 2014 was decreased based on an update of the reconciliation between resource and production drilling and mill sample assays. A further reduction in molybdenum recovery has also been applied based on modified processing assumptions.
- (mm) Silver is reported here for the first time to align with the reporting policies of the Oyu Tolgoi mine operators.
- (nn) This year titanium dioxide feedstock Reserves are expressed as in situ tonnes. The marketable product (TiO₂ slag) is shown after all mining and processing losses. To improve reporting clarity and consistency, Rio Tinto now also reports Ti minerals aggregated grade across these operations. The equivalent 2013 figures have been included for comparison.
- (oo) RTFT Reserve tonnes decreased following a pit redesign.
- (pp) Rossing SJ Reserves tonnes have decreased following adjustments to processing and recovery assumptions.
- (qq) To improve reporting clarity and consistency, Rio Tinto now reports zircon across these operations. The equivalent 2013 figures have been included for comparison.

Mineral resources

As required by the Australian Securities Exchange, the following tables contain details of other mineralisation that has a reasonable prospect of being economically extracted in the future but which is not yet classified as Proved or Probable Ore Reserves. This material is defined as Mineral Resources under the JORC Code. Estimates of such material are based largely on geological information with only preliminary consideration of mining, economic and other factors. While in the judgment of the Competent Person there are realistic expectations that all or part of the Mineral Resources will eventually become Proved or Probable Ore Reserves, there is no guarantee that this will occur as the result depends on further technical and economic studies and prevailing economic conditions in the future. As in the case of Ore Reserves, managed operations' estimates are completed using or testing against Rio Tinto, long-term pricing and market forecasts/scenarios. Mineral Resources are stated as additional to the Ore Reserves reported earlier. Where operations are not managed by Rio Tinto, the Mineral Resources are published as received from the managing company. Where new project Mineral Resources or Ore Reserves are footnoted as being reported for the first time, additional information about them can be viewed on the Rio Tinto website.

	Likely mining method ^(a)	Measured resources at end 2014		Indicated resources at end 2014		Inferred resources at end 2014		Total resources 2014 compared with 2013				Rio Tinto Interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
		millions of tonnes	% Al ₂ O ₃	millions of tonnes	% Al ₂ O ₃	millions of tonnes	% Al ₂ O ₃	2014 millions of tonnes	2013 millions of tonnes	2014 % Al ₂ O ₃	2013 % Al ₂ O ₃	
BAUXITE												
Gove (Australia)	O/P	16	49.2	32	49.4	3.7	50.1	52	48	49.4	49.6	100.0
Porto Trombetas (MRN) (Brazil)	O/P	293	49.6	40	48.9	134	49.9	468	440	49.6	50.0	12.0
Sangaredi (Guinea)	O/P	62	45.5	4,088	47.5	1,537	46.3	5,687	5,771	47.1	46.5	23.0
Weipa (Australia)	O/P	95	49.4	1,320	51.4	490	52.0	1,905	1,965	51.5	51.3	100.0
		millions of tonnes		millions of tonnes		millions of tonnes		millions of tonnes	millions of tonnes			
Rio Tinto Minerals – Boron (US) (c)	O/P							–	0.1			100.0
Jadar (Serbia)	U/G					18		18	18			100.0
		Coal type ^(d)		Coal resources at end 2014				Total resources 2014 compared with 2013				
				Measured	Indicated	Inferred		2014	2013			
				millions of tonnes	millions of tonnes	millions of tonnes		millions of tonnes	millions of tonnes			
COAL (e)												
Rio Tinto Coal Australia												
Bengalla (f) (g)	O/C + U/G	SC + MC		57	49	80		187	246			32.0
Blair Athol (h)	O/C	SC		10	0.2			10	10			71.2
Clermont (i)	O/C	SC						–	15			–
Hail Creek	O/C	SC + MC		60	79	33		172	172			82.0
Hunter Valley Operations (j) (g)	O/C + U/G	SC + MC		269	379	725		1,373	904			80.0
Kestrel Coal	U/G	MC				3		3	3			80.0
Kestrel West	U/G	SC			106	33		139	139			80.0
Lake Elphinstone	O/C	SC + MC			120	42		162	162			82.0
Mount Pleasant	O/C + U/G	SC + MC		97	217	257		571	612			80.0
Mount Thorley Operations	O/C + U/G	SC + MC			19	94		113	113			64.0
Oaklands	O/C	SC		596	584	90		1,270	1,270			80.0
Valeria	O/C	SC			698	64		762	762			71.2
Warkworth	O/C + U/G	SC + MC	6		125	343		475	475			44.5
Winchester South	O/C	MC			17	175		192	192			75.0
Rio Tinto Coal Mozambique												
Benga (k)	O/C	SC + MC						–	360			–
Zambeze (l)	O/C	SC + MC						–	1,988			–

See notes on page 208.

	Likely mining method ^(a)	Measured resources at end 2014		Indicated resources at end 2014		Inferred resources at end 2014		Total resources 2014 compared with 2013				Rio Tinto Interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
		2014	2013	2014	2013	2014	2013	2014	2013			
COPPER												
		millions of tonnes	% Cu	millions of tonnes	% Cu	millions of tonnes	% Cu	millions of tonnes	millions of tonnes	% Cu	% Cu	
Bingham Canyon (US)												
– Open Pit (m)	O/P	40	0.30	26	0.26	14	0.20	80	1.7	0.27	0.27	100.0
– North Rim Skarn	U/G	1.0	3.50	9.0	3.60	10	3.70	20	20	3.65	3.65	100.0
Escondida (Chile)												
– Chimborazo – sulphide	O/P			139	0.50	84	0.60	223	223	0.54	0.54	30.0
– Escondida – sulphide (n)	O/P	39	0.61	412	0.41	10,232	0.51	10,683	6,909	0.51	0.51	30.0
– Escondida – mixed (n)	O/P			2.0	0.50	75	0.44	77	89	0.44	0.45	30.0
– Escondida – oxide (n)	O/P	20	0.53	9.0	0.57	36	0.58	65	41	0.56	0.54	30.0
– Pampa Escondida – sulphide	O/P	294	0.53	1,150	0.55	6,000	0.43	7,444	7,444	0.45	0.45	30.0
– Pinta Verde – sulphide	O/P			23	0.50	37	0.45	60	60	0.47	0.47	30.0
– Pinta Verde – oxide	O/P	109	0.60	64	0.53	15	0.54	188	188	0.57	0.57	30.0
Grasberg (Indonesia) (o)	O/P + U/G	472	0.75	2,017	0.65	77	0.39	2,567	2,749	0.66	0.60	(p)
La Granja (Peru)	O/P			130	0.85	4,190	0.50	4,320	4,390	0.51	0.52	100.0
Oyu Tolgoi (Mongolia) (q)												
– Heruga ETG (r)	U/G					1,700	0.39	1,700	910	0.39	0.48	30.0
– Heruga OT (s)	U/G					117	0.41	117	60	0.41	0.48	33.5
– Hugo Dummett North (t)	U/G	41	1.56	365	1.15	807	0.77	1,213	1,006	0.91	1.07	33.5
– Hugo Dummett North Extension (u)	U/G			89	1.57	173	0.99	263	180	1.19	1.43	30.0
– Hugo Dummett South (v)	U/G					839	0.77	839	490	0.77	1.05	33.5
– Oyut Open Pit (w)	O/P	12	0.39	90	0.34	389	0.29	491	624	0.30	0.34	33.5
– Oyut Underground (w)	U/G	14	0.40	94	0.35	158	0.39	265	–	0.38	–	33.5
Resolution (US)	U/G					1,766	1.51	1,766	1,737	1.51	1.52	55.0
DIAMONDS												
		millions of tonnes	carats per tonne	millions of tonnes	carats per tonne	millions of tonnes	carats per tonne	millions of tonnes	millions of tonnes	carats per tonne	carats per tonne	
Argyle (Australia)												
– AK1 pipe (x)	U/G	11	3.5	22	3.7	6.1	3.6	40	42	3.6	3.6	100.0
Bunder (India) (y)	O/P					47	0.7	47	42	0.7	0.7	100.0
Diavik (Canada) (z)	O/P + U/G			0.4	2.6	3.1	2.6	3.5	7.3	2.6	2.7	60.0
Murowa (Zimbabwe) (aa)	O/P					4.6	0.3	4.6	4.3	0.3	0.3	77.8
GOLD												
		millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	millions of tonnes	grammes per tonne	grammes per tonne	
Bingham Canyon (US)												
– Open Pit (m)	O/P	40	0.18	26	0.15	14	0.11	80	1.7	0.16	0.13	100.0
– North Rim Skarn	U/G	1.0	2.10	9.0	1.70	10	1.50	20	20	1.62	1.62	100.0
Escondida (Chile)												
– Pampa Escondida – sulphide (bb)	O/P	294	0.07	1,150	0.10	6,000	0.04	7,444	–	0.05	–	30.0
Grasberg (Indonesia) (o)	O/P + U/G	472	0.66	2,017	0.58	77	0.31	2,567	2,749	0.59	0.54	(p)
Oyu Tolgoi (Mongolia) (q)												
– Heruga ETG (r)	U/G					1,700	0.37	1,700	910	0.37	0.49	30.0
– Heruga OT (s)	U/G					117	0.29	117	60	0.29	0.37	33.5
– Hugo Dummett North (t)	U/G	41	0.41	365	0.30	807	0.27	1,213	1,006	0.28	0.31	33.5
– Hugo Dummett North Extension (u)	U/G			89	0.53	173	0.35	263	180	0.41	0.43	30.0
– Hugo Dummett South (v)	U/G					839	0.07	839	490	0.07	0.09	33.5
– Oyut Open Pit (w)	O/P	12	0.36	90	0.23	389	0.16	491	624	0.18	0.31	33.5
– Oyut Underground (w)	U/G	14	0.77	94	0.59	158	0.32	265	–	0.44	–	33.5
Wabu (Indonesia) (cc)	O/P							–	44	–	2.47	(p)

See notes on page 208.

Mineral resources continued

	Likely mining method ^(a)	Measured resources at end 2014		Indicated resources at end 2014		Inferred resources at end 2014		Total resources 2014 compared with 2013				Rio Tinto Interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
		2014	2013	2014	2013	2014	2013	2014	2013			
		millions of tonnes	% Fe	millions of tonnes	% Fe	millions of tonnes	% Fe	millions of tonnes	millions of tonnes	% Fe	% Fe	
IRON ORE (dd)												
Hamersley Iron (Australia)												
– Brockman (ee)	O/P	426	62.8	520	62.6	2,051	61.7	2,998	2,317	62.0	62.0	100.0
– Brockman Process Ore (ee)	O/P	329	57.6	180	57.3	628	57.3	1,137	813	57.4	57.4	100.0
– Marra Mamba	O/P	216	62.4	439	61.8	813	61.6	1,468	1,401	61.8	61.7	100.0
– Detrital (ee)	O/P	3	63.4	142	61.2	497	61.2	642	560	61.2	61.2	100.0
– Channel Iron Deposit	O/P	830	57.4	216	57.7	2,312	57.0	3,358	3,334	57.2	57.2	100.0
Channar JV (Australia)												
– Brockman (ff)	O/P	36	61.9	23	61.7	1	61.5	60	34	61.8	61.7	60.0
– Brockman Process Ore	O/P	21	58.0	7	58.0			28	29	58.0	57.9	60.0
Eastern Range JV (Australia)												
– Brockman (gg)	O/P	15	62.2	8	61.6	8	61.7	31	28	61.9	61.7	54.0
– Brockman Process Ore (gg)	O/P	20	57.3	7	57.2	3	57.9	30	41	57.3	57.2	54.0
Hope Downs JV (Australia)												
– Brockman	O/P	12	61.7	104	62.2	424	62.3	540	522	62.3	62.2	50.0
– Brockman Process Ore	O/P	58	56.8	89	56.8	194	56.6	341	319	56.7	56.7	50.0
– Marra Mamba	O/P	5	61.1	128	62.1	262	61.7	395	414	61.9	61.8	50.0
– Detrital (hh)	O/P			3	59.9	50	59.3	53	47	59.4	59.1	50.0
Rhodes Ridge JV (Australia)												
– Brockman	O/P			565	63.9	1,476	62.5	2,041	2,043	62.9	62.9	50.0
– Brockman Process Ore	O/P			176	57.6	460	56.5	636	636	56.8	56.8	50.0
– Marra Mamba	O/P			404	62.4	1,912	62.0	2,316	2,339	62.1	62.1	50.0
– Detrital	O/P			65	60.5	226	60.1	291	292	60.2	60.2	50.0
Robe JV (Australia)												
– Brockman (ii)	O/P					46	61.9	46	15	61.9	61.3	53.0
– Brockman Process Ore (ii)	O/P					32	57.0	32	15	57.0	57.1	53.0
– Marra Mamba	O/P	101	62.0	190	61.5	288	61.5	579	581	61.6	61.6	53.0
– Detrital (ii)	O/P			3	59.7	95	60.6	98	68	60.6	60.8	53.0
– Channel Iron Deposit (jj)	O/P	213	56.7	1,740	58.4	2,320	55.7	4,273	3,757	56.8	57.4	53.0
Iron Ore Company of Canada (Canada) (kk)												
	O/P	375	38.6	1,626	37.8	705	37.3	2,706	3,193	37.8	37.6	58.7
Simandou (Guinea) (ll)	O/P	5	67.1	107	64.3	723	65.1	835	796	65.0	65.1	46.6
LITHIUM		millions of tonnes	% Li ₂ O	millions of tonnes	% Li ₂ O	millions of tonnes	% Li ₂ O	millions of tonnes	millions of tonnes	% Li ₂ O	% Li ₂ O	
Jadar (Serbia)	U/G					117	1.8	117	118	1.8	1.8	100.0

See notes on page 208.

	Likely mining method ^(a)	Measured resources at end 2014		Indicated resources at end 2014		Inferred resources at end 2014		Total resources 2014 compared with 2013				Rio Tinto Interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
		2014	2013	2014	2013	2014	2013	2014	2013			
MOLYBDENUM												
		millions of tonnes	% Mo	millions of tonnes	% Mo	millions of tonnes	% Mo	millions of tonnes	millions of tonnes	% Mo	% Mo	
Bingham Canyon (US)												
– Open Pit (mm) (m)	O/P	40	0.063	26	0.077	14	0.008	80	1.7	0.058	0.028	100.0
Oyu Tolgoi (Mongolia) (q)												
– Heruga ETG (r)	U/G					1,700	0.011	1,700	910	0.011	0.014	30.0
– Heruga OT (s)	U/G					117	0.011	117	60	0.011	0.013	33.5
Resolution (US)	U/G					1,766	0.035	1,766	1,737	0.035	0.035	55.0
NICKEL												
		millions of tonnes	% Ni	millions of tonnes	% Ni	millions of tonnes	% Ni	millions of tonnes	millions of tonnes	% Ni	% Ni	
Sulawesi (Indonesia) (nn)	O/P							–	162	–	1.62	–
SILVER												
		millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	grammes per tonne	millions of tonnes	millions of tonnes	grammes per tonne	grammes per tonne	
Bingham Canyon (US)												
– Open Pit (m)	O/P	40	1.60	26	1.50	14	1.42	80	1.7	1.54	1.53	100.0
– North Rim Skarn	U/G	1.0	20.00	9.0	21.00	10	21.00	20	20	20.95	20.95	100.0
Grasberg (Indonesia) (o)	O/P + U/G	472	3.80	2,017	3.56	77	1.75	2,567	2,749	3.55	3.39	(p)
Oyu Tolgoi (Mongolia) (q)												
– Heruga ETG (r)	U/G					1,700	1.39	1,700	–	1.39	–	30.0
– Heruga OT (s)	U/G					117	1.56	117	–	1.56	–	33.5
– Hugo Dummett North (t)	U/G	41	3.71	365	2.84	807	2.34	1,213	–	2.54	–	33.5
– Hugo Dummett North Extension (u)	U/G			89	4.07	173	2.72	263	–	3.18	–	30.0
– Hugo Dummett South (v)	U/G					839	1.78	839	–	1.78	–	33.5
– Oyut Open Pit (w)	O/P	12	1.21	90	1.06	389	0.87	491	–	0.91	–	33.5
– Oyut Underground (w)	U/G	14	1.16	94	1.19	158	0.86	265	–	0.99	–	33.5
Wabu (Indonesia) (cc)	O/P							–	44	–	2.33	(p)
TITANIUM DIOXIDE FEEDSTOCK (oo)												
		millions of tonnes	%Ti Minerals	millions of tonnes	%Ti Minerals	millions of tonnes	%Ti Minerals	millions of tonnes	millions of tonnes	%Ti Minerals	%Ti Minerals	
QMM (Madagascar)	D/O	56	3.6	1,109	4.2	186	3.2	1,351	1,323	4.0	4.0	80.0
RBM (South Africa) (pp)	D/O + O/P			17	15.3			17	36	15.3	19.3	74.0
RTFT (Canada)	O/P	11	84.9					11	11	84.9	84.9	100.0
URANIUM												
		millions of tonnes	% U ₃ O ₈	millions of tonnes	% U ₃ O ₈	millions of tonnes	% U ₃ O ₈	millions of tonnes	millions of tonnes	%U ₃ O ₈	% U ₃ O ₈	
Energy Resources of Australia (Australia)												
– Jabiluka	U/G	1.2	0.887	14	0.520	10	0.545	25	25	0.547	0.547	68.4
– Ranger #3 mine (qq)	U/G	2.8	0.321	6.3	0.276	3.5	0.245	13	10	0.277	0.328	68.4
– Ranger #3 stockpiles (rr)				38	0.047			38	50	0.047	0.046	68.4
Rössing (Namibia)												
– Rössing SJ	O/P	8.7	0.026	120	0.023	6.5	0.021	135	144	0.023	0.023	68.6
– Rössing Z20	O/P			87	0.028	115	0.026	202	202	0.027	0.027	68.6
ZIRCON (ss)												
		millions of tonnes	% Zircon	millions of tonnes	% Zircon	millions of tonnes	% Zircon	millions of tonnes	millions of tonnes	% Zircon	% Zircon	
QMM (Madagascar)	D/O	56	0.2	1,109	0.3	186	0.3	1,351	1,323	0.3	0.3	80.0
RBM (South Africa) (pp)	D/O + O/P			17	8.5			17	36	8.5	11.3	74.0

See notes on page 208.

Notes

- (a) Likely mining method: O/P = open pit; O/C = open cut; U/G = underground; D/O = dredging operation.
- (b) Borates Resources are reported as in situ B_2O_3 , rather than marketable product as in Reserves.
- (c) The Resources at Rio Tinto Minerals – Boron have been reclassified as Probable Reserves following completion of a drilling and assaying campaign.
- (d) Coal type: SC=steam/thermal coal, MC=metallurgical/coking coal.
- (e) Rio Tinto reports coal Resources on an in situ moisture basis.
- (f) The decrease in Bengalla Resources reflects conversion of Resources to Reserves.
- (g) Bengalla and Hunter Valley Operations have had material Resources changes since previous publication. A JORC table 1 in support of these changes was released to the market on 28 November 2014 and a copy can be found at riotinto.com/factsheets/JORC.
- (h) Blair Athol closed in the last quarter of 2012. Rio Tinto agreed to sell its 71.2 per cent interest in Blair Athol in October 2013 and completion of the sale is expected within the first half of 2015.
- (i) Rio Tinto sold its 50.1 per cent interest in the Clermont mine with an effective date of 29 May 2014.
- (j) Hunter Valley Operations Resources have increased following re-evaluation of mining options resulting in the transfer of former underground Resources into open cut Resources.
- (k) Rio Tinto completed the sale of Rio Tinto Coal Mozambique and its 65 per cent interest in the Benga mine with an effective date of 7 October 2014.
- (l) Rio Tinto completed the sale of Rio Tinto Coal Mozambique and its 100 per cent interest in Zambeze with an effective date of 7 October 2014.
- (m) Bingham Canyon – Open Pit Resources increased significantly with the transfer of Reserves now excluded from the mine design following a geotechnical review.
- (n) The increase in Resources and improved Resources confidence at Escondida resulted from a revised estimate that included 303,000m of additional drill hole data. This increase was published on 16 April 2014 in the BHP Billiton Operational Review for the Nine Months Ended 31 March 2014, along with a JORC table 1, and is available to view at bhpbilliton.com.
- (o) The Grasberg Resources grade increase resulted from the implementation of a new model depletion methodology for the block cave operations which returns higher average grades.
- (p) Under the terms of a joint venture agreement between Rio Tinto and FCX, Rio Tinto is entitled to a direct 40 per cent share in Resources discovered after 31 December 1994.
- (q) The Oyu Tolgoi project Resources were formally updated and released to the market by Turquoise Hill Resources in October 2014 within a Canadian Instrument 43-101 technical report which can be viewed at www.turquoisehill.com. Silver is reported here for the first time to align with the reporting policies of the Oyu Tolgoi mine operators.
- (r) Changes in Heruga ETG Resources tonnes and grade reflect a lowering of the cut-off grade following an economic re-evaluation.
- (s) Heruga OT was previously reported as Heruga IVN. Changes in Heruga OT Resources tonnes and grade reflect a lowering of the grade following an economic re-evaluation.
- (t) Changes in Hugo Dummett North Resources tonnes and grade reflect a lowering of the cut-off grade following an economic re-evaluation. Measured Resources are reported for the first time based on infill drilling, a new block model and classification method.
- (u) Changes in Hugo Dummett North Extension Resources tonnes and grade reflect a lowering of the cut-off grade following an economic re-evaluation.
- (v) Changes in Hugo Dummett South Resources tonnes and grade reflect a lowering of the cut-off grade following an economic re-evaluation.
- (w) Oyu Open Pit was previously reported as South Oyu. The open pit Resources tonnes and grade decreased following a transfer of material to underground Resources which are now reported for the first time at a higher cut-off grade.
- (x) AK1 pipe Resources are based on a nominal 0.5 millimetre lower cut-off size and a final re-crushing size of 6 millimetres.
- (y) Bunder Resources are based on a nominal 1 millimetre lower cut-off size and a final re-crushing size of 6 millimetres. Following a review of potential mine designs an increase in Resources tonnes is reported.
- (z) Supported by technical and economic studies and additional drilling, Diavik Resources decreased following transfer of the A21 Pipe Resources to open pit Reserves. Diavik Resources are based on a nominal 1 millimetre lower cut-off size and a final re-crushing size of 5 millimetres.
- (aa) Murowa Resources are based on a nominal 1 millimetre lower cut-off size and a final re-crushing size of 19 millimetres.
- (bb) Pampa Escondida is a classed as a copper deposit, however gold is declared for the first time as a potential by-product.
- (cc) The Wabu Resource is no longer reported by Rio Tinto following advice from PT Freeport Indonesia that it has no intention to mine Wabu in the future.
- (dd) Australian and Guinean iron ore Resources tonnes are reported on a dry weight basis.
- (ee) Hamersley Iron – Brockman, Brockman Process Ore and Detrital Resources tonnes have increased as a result of additional drilling and updated geological models. These figures also include the first declaration of Yandi Braid deposit. A JORC table 1 in support of these will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/factsheets/JORC.
- (ff) Channar JV – Brockman Resources tonnes have increased as a result of additional drilling, updated geological models and pit design modifications.
- (gg) Eastern Range JV – Brockman Resources tonnes increased and Brockman Process Ore tonnes decreased as a result of additional drilling, updated geological models and modifications to pit designs.
- (hh) Hope Downs JV – Detrital Resources tonnes have increased as a result of additional drilling and updated geological models.
- (ii) Robe JV – Brockman, Brockman Process Ore and Detrital Resources tonnes have increased as a result of additional drilling, updated geological models and pit design changes.
- (jj) Robe JV – Channel Iron Deposit Resources tonnes have increased as a result of additional drilling, updated geological models and technical studies at Jimmawurrada and other deposits. A JORC table 1 in support of these changes will be released to the market contemporaneously with the release of this Annual report and can be viewed at riotinto.com/factsheets/JORC.
- (kk) Iron Ore Company of Canada Resources tonnes reduced following geological model updates, changes to Resource classification methodology and partial conversion of Wabush 3 Resources to Reserves. Resources are quoted on an in situ dry tonnes and grades basis and would produce a marketable product (60 per cent pellets and 40 per cent concentrate for sale at two per cent moisture content) of 148 million tonnes at 65 per cent iron (Measured), 638 million tonnes at 65 per cent iron (Indicated) and 276 million tonnes at 65 per cent iron (Inferred).
- (ll) With the signing of the Investment Framework in May 2014, the Republic of Guinea acquired a 7.5 per cent share in Simandou with all other joint venture partners' shares decreasing proportionally. Subsequently Rio Tinto's interest in Simandou decreased from 50.4 per cent to 46.6 per cent.
- (mm) Bingham Canyon Resources molybdenum grade has increased following the transfer of higher grade Reserves to Resources after revision of the mine design. Molybdenum grades interpolated from exploration drilling assays have been factored based on a long reconciliation history to blast hole and mill samples.
- (nn) The sale of Rio Tinto's 38 per cent interest in Sulawesi was completed in July 2014.
- (oo) This year titanium dioxide feedstock Resources are expressed as in situ tonnes. To improve reporting clarity and consistency, Rio Tinto now reports Ti minerals aggregated grade across these operations. The equivalent 2013 figures have been included for comparison.
- (pp) RBM Resources tonnes and grade decreased following conversion of Resources to Reserves and depletion due to mine production.
- (qq) Ranger #3 mine underground Resources tonnes decreased and grade increased following additional drilling and a new orebody model. A JORC table 1 in support of these changes was released to the market by Energy Resources of Australia Limited on 6 February 2015 and can be viewed at www.energyres.com.au.
- (rr) Ranger #3 stockpiles Resources decreased following reclassification of low grade material for proposed open pit mine backfill.
- (ss) To improve reporting clarity and consistency, Rio Tinto now reports zircon across these operations. The equivalent 2013 figures have been included for comparison.

Mineral resources and ore reserves corporate governance

Rio Tinto has established a governance process supporting the generation and publication of Mineral Resources and Ore Reserves, which includes a series of structures and processes independent of the operational reporting through business units and product groups.

The Audit Committee has in its remit the governance of resources and reserves. This includes an annual review of Mineral Resources and Ore Reserves at a Group level, as well as review of findings and progress from the Group Resources and Reserves internal audit programme within the regular meeting schedule.

Rio Tinto also has an Ore Reserve Steering Committee (ORSC), which meets at least quarterly, chaired by the Group executive, Technology & Innovation, and comprises senior representatives from technical, financial and business groups within the company. The ORSC role includes oversight of the appointment of Competent Persons nominated by the business units, review of Exploration results, Mineral Resources or Ore Reserve data prior to public reporting and development of Group Resource and Reserves standards and guidance.

The Resource and Reserve internal audit programme is conducted by independent external consulting personnel in a programme managed by Group Audit & Assurance with the assistance of the ORSC. In 2014, six internal audits were completed. Material findings are reported outside of the product group reporting line to the Audit Committee, and all reports and action plans are reviewed by the ORSC for alignment to internal and external reporting standards.

Mineral Resources and Ore Reserves from externally managed operations, where Rio Tinto holds a minority share, are reported as received from the managing entity. Figures from Rio Tinto managed operations are the responsibility of the managing directors of the business units and estimates are carried out by Competent Persons as defined by JORC.

Rio Tinto has continued the development of internal systems and controls in order to meet JORC (2012) compliance in all external reporting including the preparation of all reported data by Competent Persons as members of The Australasian Institute of Mining and Metallurgy (The AusIMM), Australian Institute of Geoscientists (AIG) or recognised professional organisations (RPOs). JORC table 1 reports for new or materially upgraded significant deposits are released to market by Rio Tinto and are also available on the Group's website. JORC table 1 and NI 43-101 technical reports generated by non-managed units or joint venture partners are referenced within the reporting footnotes with the location and initial reporting date identified.

As well as the establishment of an enhanced governance process, there have been a number of process improvements and training initiatives introduced by the ORSC over recent years, including a web-based group reporting and sign-off database, annual internal Competent Person reports and Competent Person development and training.

Competent Persons

Primary commodity	Name	Association ^(a)	Employer	Accountability	Deposits
Bauxite	JPC de Melo Franco	AusIMM	Mineração Rio do Norte	Reserves	Porto Trombetas
	RS Aglinskas	AusIMM		Resources	
	D Butty	EuroGeol	AluminPro (Associate)	Resources, Reserves	Sangaredi
	L McAndrew	AusIMM	Rio Tinto	Reserves	Gove, Weipa
	J Bower	AusIMM		Resources	
Borates	R Torres	AusIMM	Rio Tinto	Resources	Rio Tinto Minerals – Boron
	B Griffiths	SME		Reserves	
Coal	G Doyle	AusIMM	Rio Tinto	Reserves	Rio Tinto Coal Australia – Hunter Valley Operations
	G Doyle	AusIMM		Resources	Rio Tinto Coal Australia – Blair Athol
	A Prentice	AusIMM		Reserves	Rio Tinto Coal Australia – Bengalla, Mount Pleasant
	A Waltho	AusIMM		Resources	Rio Tinto Coal Australia – Lake Elphinstone, Oaklands
	R Ruddock	AusIMM		Resources	Rio Tinto Coal Australia – Bengalla, Hail Creek, Hunter Valley Operations, Kestrel , Kestrel West, Mount Pleasant, Mount Thorley Operations, Valeria, Warkworth, Winchester South
	M Hillard	AusIMM		Reserves	Rio Tinto Coal Australia – Hail Creek
	A Swierczuk	AusIMM		Reserves	Rio Tinto Coal Australia – Kestrel
	H Bell	AusIMM		Reserves	Rio Tinto Coal Australia – Mount Thorley Operations, Warkworth
Copper	J Vickery	AusIMM	Rio Tinto	Resources, Reserves	Kennecott Utah Copper (b) (c) (d)
	G Austin	AusIMM		Resources	
	R Hayes	AusIMM		Resources	
	M Howson	IMMM	Mineral Resources Professional Limited	Resources	La Granja
	P Salazar	AusIMM	Rio Tinto	Resources	
	A Zuzunaga	AusIMM	Minera Escondida Ltda.	Reserves	Escondida
	L Soto	AusIMM		Resources	Escondida, Pampa Escondida (b), Pinta Verde
	M Cortes	AusIMM		Resources	
	L Vaccia	AusIMM	Rio Tinto	Resources	Chimborazo
	G Crook	AusIMM		Resources	Oyu Tolgoi (b) (c) (d)
	J Dudley	AusIMM		Reserves	
	B Sirait	AusIMM		Reserves	
	O Togtokhbayar	AusIMM		Resources	
	A Issel	APGO	Freeport-McMoRan Inc	Resources, Reserves	PT Freeport – Grasberg (b) (d)
	G MacDonald	SME		Resources, Reserves	
	C Hehnke	AusIMM	Rio Tinto	Resources	Resolution (c)

Primary Commodity	Name	Association ^(a)	Employer	Accountability	Deposits
Diamonds	S Brennan	AusIMM	Rio Tinto	Resources, Reserves	Argyle
	D Ford	AIG		Resources, Reserves	
	M Rayner	AusIMM		Resources, Reserves	
	M Rayner	AusIMM	Rio Tinto	Resources	Bunder
	C Yip	AusIMM	Rio Tinto	Resources, Reserves	Diavik
	K Thompson	NAPEG		Resources, Reserves	
	M Rayner	AusIMM	Rio Tinto	Resources	Murowa
	E Harvey	SAIMM	Euan Harvey Consulting	Reserves	
Iron ore	M Blake	PEGNL	Rio Tinto	Resources	Iron Ore Company of Canada
	R Williams	PEGNL		Reserves	
	T Leriche	PEGNL		Resources, Reserves	
	B Sommerville	AusIMM	Rio Tinto	Resources	Rio Tinto Iron Ore – Hamersley, Channar, Eastern Range, Hope Downs, Robe, Rhodes Ridge
	P Savory	AusIMM		Resources	
	L Fouche	AusIMM		Reserves	Rio Tinto Iron Ore – Hamersley, Channar, Eastern Range, Hope Downs, Robe
	C Tabb	AusIMM		Reserves	
	R Taylor	AusIMM	Rio Tinto	Resources, Reserves	Simandou – Oueleba, Pic de Fon
	M Franks	AusIMM	Amec Foster Wheeler	Resources	
Lithium	J Garcia	EuroGeol	Rio Tinto	Resources	Rio Tinto Minerals – Jadar (e)
Titanium dioxide feedstock	C Ware	SACNASP	Rio Tinto	Reserves	Richards Bay Minerals (f)
	J Nel	SACNASP		Resources	
	J Dumouchel	APEGGA	Rio Tinto	Resources, Reserves	QMM Madagascar Minerals (f), Rio Tinto Fer et Titane – Havre-Saint-Pierre
	Y Bourque	OIQ	Rio Tinto	Resources, Reserves	Rio Tinto Fer et Titane – Havre-Saint-Pierre
Uranium	G Rogers	AusIMM	Rio Tinto	Resources	Energy Resources of Australia – Jabiluka
	S Pevely	AusIMM		Resources	Energy Resources of Australia – Ranger 3, Jabiluka
	J Murphy	AusIMM		Reserves	Energy Resources of Australia – Ranger 3
	TG Murasiki	SAIMM	Rio Tinto	Resources	Rössing – SJ, Z20
	W-D Wieland	SAIMM		Reserves	Rössing – SJ

(a) AusIMM: Australasian Institute of Mining and Metallurgy, AIG: Australasian Institute of Geoscientists, EuroGeol: European Geologist member of the European Federation of Geologists, IMMM: Institute of Materials, Minerals and Mining, SAIMM: South African Institute of Mining and Metallurgy, SME: Society of Mining, Metallurgy and Exploration, AIPG: American Institute of Professional Geologists, NAPEG: Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories, PEGNL: Professional Engineers and Geoscientists Newfoundland and Labrador, CIMM: Canadian Institute of Mining and Metallurgy, APEGGA: Association of Professional Engineers, Geologists and Geophysicists of Alberta, OIQ: Ordre des Ingénieurs du Québec, SACNASP: South African Council for Natural Scientific Professions.

(b) Includes gold

(c) Includes molybdenum

(d) Includes silver

(e) Includes borates

(f) Includes zircon

Mines and production facilities

Group mines as at 31 December 2014

(Rio Tinto's interest 100 per cent unless otherwise shown)

Mine	Location	Access	Title/lease
BAUXITE			
CBG Sangaredi (22.95%)	Sangaredi, Guinea	Road, air and port	Mining concession expires in 2040.
Gove	Gove, Northern Territory, Australia	Road, air and port	All leases were renewed in 2011 for a further period of 42 years. The residue disposal area is leased from the Arnhem Land Aboriginal Land Trust. The Northern Territory government is the lessor of the balance of the leases; however, on expiry of the 42-year renewed term, the land subject of the balances of the leases will all vest to the Arnhem Land Aboriginal Land Trust.
MRN Porto Trombetas (12%)	Porto Trombetas, Para, Brazil	Air or port	Mining concession granted under the Brazilian mining code with no expiration date.
Weipa/Ely	Weipa, Queensland, Australia	Road, air and port	The Queensland Government Comalco (ML7024) lease expires in 2041 with an option of a 21-year extension, then two years' notice of termination; the Ely Alcan Queensland Pty. Limited Agreement Act 1965 (ML7031) expires in 2048 with a 21-year right of renewal with a two-year notice period.
COPPER			
Escondida (30%)	Atacama Desert, Chile	Pipeline and road to deep sea port at Coloso; road and rail	Rights conferred by Government under Chilean Mining Code.
Grasberg joint venture (40% share of production above specified levels)	Papua, Indonesia	Pipeline, road and port	Indonesian Government Contracts of Work expire in 2021 with option of two ten-year extensions.
Kennecott Utah Copper Bingham Canyon	Near Salt Lake City, Utah, US	Pipeline, road and rail	Owned
Oyu Tolgoi (51% of Turquoise Hill Resources Ltd. which owns 66% of Oyu Tolgoi LLC)	Gobi Desert, Mongolia	Air and road	Three mining licences are held by Oyu Tolgoi LLC and two further licences are held in joint venture with Entrée Gold LLC. The licence term under the Minerals Law of Mongolia is 30 years with two 20-year extensions. First renewals are due in 2033 and 2039 for the Oyu Tolgoi and Entrée Gold licences respectively.
DIAMONDS & MINERALS			
Diamonds			
Argyle Diamonds	Kimberley Ranges, Western Australia	Road and air	Mining tenement held under Diamond (Argyle Diamond Mines Joint Venture) Agreement Act 1981; lease extended for 21 years from 2004 with option to renew.
Diavik (60%)	Northwest Territories (NWT), Canada	Air, ice road in winter	Mining leases from NWT Government expiring in 2017 and 2018 with options to renew.
Murowa (77.8%)	Zvishavane, Zimbabwe	Road and air	Mining leases under Zimbabwe Mines and Minerals Act; issued in 2001 and valid for 25 years.
Industrial minerals			
Dampier Salt (68.4%)	Dampier, Lake MacLeod and Port Hedland, Western Australia	Road and port	State agreements (mining leases) expiring in 2034 at Dampier, 2018 at Port Hedland and 2021 at Lake MacLeod with options to renew at the latter two sites.
Rio Tinto Minerals – Boron	California, US	Road and rail	Owned
Rio Tinto Fer et Titane Lac Tio	Havre-Saint-Pierre, Quebec, Canada	Rail and port (St Lawrence River)	Mining covered by two concessions granted by State in 1949 and 1951 which, subject to certain Mining Act restrictions, confer rights and obligations of an owner.

History	Type of mine	Power source
Bauxite mining commenced in 1973. Shareholders are 51% Halco and 49% Government of Guinea. Rio Tinto has held 45% of Halco since 2004. Current annual capacity is 14 million tonnes. Rio Tinto has a 45 per cent interest in the mine's production.	Open cut	On-site generation (fuel oil)
Bauxite mining commenced in 1970 feeding both the Gove refinery and export market capped at two million tonnes per annum. Bauxite export ceased in 2006 with feed intended for the expanded Gove refinery. Bauxite exports recommenced in 2008 and will increase in the coming years following the curtailment of the refinery production in 2014.	Open cut	On-site diesel fired power station
Mineral extraction commenced in April 1979. Initial production capacity 3.4 million tonnes annually. From October 2003, production capacity up to 16.3 million tonnes per year on a dry basis. Capital structure currently: Vale (40%), BHP Billiton (14.8%), Rio Tinto (12%), CBA (10%), Alcoa/Abalco (18.2%), and Norsk Hydro (5%).	Open cut	On-site generation (heavy oil, diesel)
Bauxite mining commenced in 1961 at Weipa. Major upgrade completed at Weipa in 1998. Rio Tinto interest increased from 72.4% to 100% in 2000. In 1997, Ely Bauxite Mining Project Agreement signed with local Aboriginal land owners. Bauxite Mining and Exchange Agreement signed in 1998 with Comalco to allow for extraction of ore at Ely. The Western Cape Communities Co-Existence Agreement, an Indigenous Land Use Agreement, was signed in 2001. In 2004 a mine expansion was completed at Weipa that lifted annual capacity to 21.5 million tonnes. Mining commenced on the adjacent Ely mining lease in 2006, in accordance with the 1998 agreement with Alcan (first ore extracted at Ely in 2007). A second shiploader that increases the shipping capability was commissioned in 2006 at Weipa. Annual production capacity has now reached 26 million tonnes.	Open cut	On-site generation; new power station commissioned in 2006
Production started in 1990 and expanded in phases to 2002 when the new concentrator was completed; production from Norte started in 2005 and the sulphide leach produced the first cathode during 2006.	Open pit	Supplied from SING grid under various contracts with local generating companies
Joint venture interest acquired 1995. Capacity expanded to over 200,000 tonnes of ore per day in 1998. Addition of underground production of more than 35,000 tonnes per day in 2003. Expansion to 50,000 tonnes per day in mid-2007 and to 80,000 tonnes in 2010.	Open pit and underground	Long-term contract with US-Indonesian consortium operated purpose-built coal-fired generating station
Interest acquired in 1989. In 2012, the pushback of the south wall commenced, extending the mine life from 2018 to 2030.	Open pit	On-site generation supplemented by long-term contracts with Rocky Mountain Power
Oyu Tolgoi was first discovered in 1996. Construction began in late 2009 after signing of an Investment Agreement with the Government of Mongolia, and first concentrate was produced in December 2012. First sales of concentrate were made to Chinese customers on 9 July 2013.	Open pit and underground	Grid power from China and supplementary diesel power generation site
Interest increased from 59.7% following purchase of Ashton Mining in 2000. Underground mine project approved in 2005 to extend mine life to 2020.	Underground (previously open pit)	Long-term contract with Ord Hydro Consortium and on-site generation
Deposits discovered 1994-1995. Construction approved 2000. Diamond production started 2003. Second dike closed off in 2005 for mining of additional orebody. The underground mine started production in 2010, ramping up to full production in 2013.	Underground (previously open pit)	On-site diesel generators; installed capacity 44MW and 9.2MW of wind capacity
Discovered in 1997. Small-scale production started in 2004.	Open pit	Supplied by ZESA with diesel generator back-up
Construction of the Dampier field started in 1969; first shipment in 1972. Lake MacLeod was acquired in 1978 as an operating field. Port Hedland was acquired in 2001 as an operating field.	Solar evaporation of seawater (Dampier and Port Hedland) and underground brine (Lake MacLeod); dredging of gypsum from surface of Lake MacLeod	Dampier supply from Hamersley Iron Pty Ltd; Lake MacLeod from Western Power and on-site generation units; Port Hedland from Western Power
Deposit discovered in 1925 and acquired by Rio Tinto in 1967.	Open pit	On-site co-generation units and local power grid
Production started 1950; interest acquired in 1989.	Open pit	Long-term contract with Hydro-Québec

Mines and production facilities continued

Group mines as at 31 December 2014 continued

(Rio Tinto's interest 100 per cent unless otherwise shown)

Mine	Location	Access	Title/lease
Industrial minerals continued			
QIT Madagascar Minerals (80%)	Fort-Dauphin, Madagascar	Road and port	Mining lease granted by central government.
Richards Bay Minerals (74%)	Richards Bay, KwaZulu-Natal, South Africa	Rail, road and port	Mineral rights for Reserve 4 and Reserve 10 issued by state and converted to new order mining rights from 9 May 2012. Mining rights run until 8 May 2041 for both lease areas.
ENERGY			
Energy Resources of Australia (68.4%) Ranger	Northern Territory, Australia	Road, rail and port	Mining tenure granted by Federal Government.
Rio Tinto Coal Australia Bengalla (32%) Hail Creek (82%) Hunter Valley Operations (80%) Kestrel (80%) Mount Thorley Operations (64%) Warkworth (44.46%)	New South Wales and Queensland, Australia	Road, rail, conveyor and port	Leases granted by respective state governments.
Rössing Uranium (68.6%)	Erongo Region, Namibia	Rail, road and port	Mining licence granted by National Government.
Zululand Anthracite Colliery (Pty) Ltd - (74%)	Mahlabatini district, KwaZulu-Natal, South Africa	Road, rail and port	Okhukho Reserve no. 14376 over mineral leases 1, 2 and 6 awarded to ZAC as a new order mining right no. 46/2007 on 10 April 2007, expiry date 9 April 2027. Protocol number 1461/2010, an extended mining right over the remainder of reserve no. 20, no. 15840 and portions 10, 11 and 12 of Reserve 12 no. 15832, awarded 11 November 2010 and valid through to 10 November 2030.
IRON ORE			
Hamersley Iron Brockman 2 Brockman 4 Marandoo Mount Tom Price Nammuldi Paraburdoo Western Turner Syncline Yandicoogina Channar (60%) Eastern Range (54%)	Hamersley Ranges, Western Australia	Railway and port (owned by Hamersley Iron and operated by Pilbara Iron)	Agreements for life of mine with Government of Western Australia.
Hope Downs 1 (50% mine, 100% infrastructure)	Pilbara region, Western Australia	Railway (owned by Hamersley Iron and operated by Pilbara Iron)	Agreements for life of mine with Government of Western Australia.
Hope Downs 4 (50% mine, 100% infrastructure)	Pilbara region, Western Australia	Railway (owned by Hamersley Iron and operated by Pilbara Iron)	Agreements for life of mine with Government of Western Australia.
Iron Ore Company of Canada (IOC) (58.7%)	Labrador City, Province of Labrador and Newfoundland	Railway and port facilities in Sept-Îles, Quebec (owned and operated by IOC)	Sublease with the Labrador Iron Ore Royalty Corporation which has lease agreements with the Government of Newfoundland and Labrador that are due to be renewed in 2020 and 2022.
Robe River Iron Associates (53%) Mesa J Mesa A West Angelas	Pilbara region, Western Australia	Railway and port (owned by Robe River and operated by Pilbara Iron)	Agreements for life of mine with Government of Western Australia.

History	Type of mine	Power source
Exploration project started in 1986; construction approved 2005. Ilmenite and zirsil production started at the end of 2008. QMM intends to extract ilmenite and zirsil from heavy mineral sands over an area of about 6,000 hectares along the coast over the next 40 years.	Mineral sand dredging	On-site heavy fuel oil generators
Production started 1977; initial interest acquired 1989. Fifth mining plant commissioned in 2000. One mining plant decommissioned in 2008. In September 2012, Rio Tinto doubled its holding in Richards Bay Minerals to 74 per cent following the acquisition of BHP Billiton's entire interests.	Dune sand dredging	Contract with ESKOM
Mining commenced 1981. Interest acquired through acquisition of North 2000. Open pit mining ended December 2012.	Stockpile	On-site diesel/steam power generation
Kestrel Mine in Queensland, Rio Tinto Coal Australia's sole underground mine, was acquired and recommissioned in 1999, and Hail Creek Mine in Queensland was officially opened in 2003. Blair Athol Mine ceased operations in 2012 and a conditional sale and purchase agreement for the mine was signed in October 2013. Rio Tinto completed the privatisation of Coal & Allied during 2011, which is now owned 80/20 with Mitsubishi Development, and which Rio Tinto continues to manage.	Open cut and underground	State-owned grid
Production began in 1976.	Open pit	Supplied by NamPower via grid network
Operations commenced at Zululand Anthracite Colliery (Pty) Ltd on 13 August 1984. Rio Tinto took ownership of the mine as from 8 April 2011. Zululand Anthracite Colliery became a Rio Tinto fully managed company as from 1 April 2014.	Underground anthracite mine, with five active shafts	Eskom grid, with diesel generator back-up
Mount Tom Price began operations in 1966, followed by Paraburdoo in 1974. In the 1990s, Channar, Brockman 2, Marandoo and Yandicoogina achieved first ore. Annual capacity increased to 68 million tonnes during the 1990s and has more than doubled in the past 25 years. Since 2000, Eastern Ranges, Nammuldi, Brockman 4 and Western Turner Syncline have joined the network of Hamersley Iron mines. The brownfield mine expansion at such sites as Paraburdoo, Brockman 2, Nammuldi and Yandicoogina will enable production to meet expanded port and rail capacity in the coming years.	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
Joint venture between Rio Tinto and Hancock Prospecting. Construction of Stage 1 to 22 million tonnes per annum commenced April 2006 and first production occurred November 2007. Stage 2 to 30 million tonnes per annum completed 2009.	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
Joint venture between Rio Tinto and Hancock Prospecting. Construction of wet plant processing to 15 million tonnes per annum commenced April 2011 and first production occurred April 2013.	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
Interest acquired in 2000 through North. Current operation began in 1962 and has processed over one billion tonnes of crude ore since. Annual capacity 23.3 million tonnes of concentrate of which 12.5 million tonnes can be pelletised.	Open pit	Supplied by Newfoundland Hydro
First shipment in 1972 from Robe Valley. Interest acquired in 2000 through North. First ore was shipped from West Angelas in 2002. In 2014, total production of the Robe River Iron Associates joint venture was 64 million tonnes.	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron

Mines and production facilities continued

Group smelters and refineries

(Rio Tinto's interest 100 per cent unless otherwise shown)

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2014 (based on 100% ownership)
ALUMINIUM				
Alma	Alma, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium rod, t-foundry, molten metal, high purity, remelt	455,000 tonnes per year aluminium
Alouette (40%)	Sept-Îles, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium high purity, remelt	595,000 tonnes per year aluminium
Arvida	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium billet, molten metal, remelt	176,000 tonnes per year aluminium
Arvida AP60	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium high purity, remelt	60,000 tonnes per year aluminium
Bécancour (25.1%)	Bécancour, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium slab, billet, t-foundry, remelt, molten metal	446,000 tonnes per year aluminium
Bell Bay	Bell Bay, Northern Tasmania, Australia	100% freehold	Aluminium smelter producing aluminium slab, molten metal, small form and t-foundry, remelt	192,000 tonnes per year aluminium
Boyne Smelters (59.4%)	Boyne Island, Queensland, Australia	100% freehold	Aluminium smelter producing aluminium billet, EC grade, small form and t-foundry, remelt	571,000 tonnes per year aluminium
Dunkerque	Dunkerque, France	100% freehold	Aluminium smelter producing aluminium slab, small form foundry, remelt	270,000 tonnes per year aluminium
Grande-Baie	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium slab, molten metal, high purity, remelt	225,000 tonnes per year aluminium
ISAL	Reykjavik, Iceland	100% freehold	Aluminium smelter producing aluminium slab, remelt, billet	205,000 tonnes per year aluminium
Jonquière (Vaudreuil)	Jonquière, Quebec, Canada	100% freehold	Refinery producing specialty alumina and smelter grade alumina	1,555,000 tonnes per year alumina
Kitimat (a)	Kitimat, British Columbia, Canada	100% freehold	Aluminium smelter producing aluminium, slab, remelt	127,000 tonnes per year aluminium
Laterrière	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium slab, remelt, molten metal	244,000 tonnes per year aluminium
Lochaber	Fort William, Scotland, UK	100% freehold	Aluminium smelter producing aluminium slab, remelt	47,000 tonnes per year aluminium
Queensland Alumina (80%)	Gladstone, Queensland, Australia	73.3% freehold; 26.7% leasehold (of which more than 80% expires in 2026 and after)	Refinery producing alumina	3,950,000 tonnes per year alumina
São Luis (Alumar) (10%)	São Luis, Maranhão, Brazil	100% freehold	Refinery producing alumina	3,639,000 tonnes per year alumina
Sohar (20%)	Sohar, Oman	100% leasehold (expiring 2039)	Aluminium smelter producing aluminium, high purity, remelt	372,000 tonnes per year aluminium
Tiwai Point (New Zealand Aluminium Smelters) (79.4%)	Invercargill, Southland, New Zealand	19.6% freehold; 80.4% leasehold (expiring in 2029 and use of certain Crown land)	Aluminium smelter producing aluminium billet, slab, small form foundry, high purity, remelt	365,000 tonnes per year aluminium
Tomago (51.6%)	Tomago, New South Wales, Australia	100% freehold	Aluminium smelter producing aluminium billet, slab, remelt	561,000 tonnes per year aluminium
Yarwun	Gladstone, Queensland, Australia	97% freehold. 3% leasehold (expiring 2101 and after)	Refinery producing alumina	3,400,000 tonnes per year alumina

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2014 (based on 100% ownership)
Other Aluminium				
Gove	Gove, Northern Territory, Australia	100% leasehold. All leases were renewed in 2011 for a further period of 42 years. The residue disposal area is leased from the Arnhem Land Aboriginal Land Trust. The Northern Territory government is the lessor of the balance of the leases; however, on expiry of the 42-year renewed term, the land subject of the balances of the leases will all vest to the Arnhem Land Aboriginal Land Trust.	Refinery producing alumina	2,650,000 tonnes per year alumina. The Group curtailed production at Gove as of May 2014
COPPER				
Kennecott Utah Copper	Magna, Salt Lake City, Utah, US	100% freehold	Flash smelting furnace/Flash convertor furnace copper refinery	335,000 tonnes per year refined copper
DIAMONDS & MINERALS				
Boron	California, US	100% freehold	Borates refinery	576,000 tonnes per year boric oxide
Rio Tinto Fer et Titane Sorel Plant	Sorel-Tracy, Quebec, Canada	100% freehold	Ilmenite smelter	1,300,000 tonnes per year titanium dioxide slag, 1,000,000 tonnes per year iron
Richards Bay Minerals (74%)	Richards Bay, South Africa	100% freehold	Ilmenite smelter	1,050,000 tonnes per year titanium dioxide slag, 565,000 tonnes per year iron
IRON ORE				
IOC Pellet Plant (58.7%)	Labrador City, Newfoundland and Labrador, Canada	100% leaseholds (expiring in 2020, 2022 and 2025 with rights of renewal for further terms of 30 years)	Pellet induration furnaces producing multiple iron ore pellet types	12.5 million tonnes per year pellet

Notes:

(a) Capacity as at 31 December 2014 reflects the closures of four potlines in preparation for the Kitimat modernisation project. The nameplate capacity of the Kitimat smelter remains at 282,000 tonnes per year.

Mines and production facilities continued

Information on Group power plants

(Rio Tinto's interest 100 per cent unless otherwise shown)

Power plant	Location	Title/lease	Plant type/product	Capacity as of 31 December 2014 (based on 100% ownership)
ALUMINIUM				
Gladstone power station (42%)	Gladstone, Queensland, Australia	100% freehold	Thermal power station	1,680MW
Gove power station	Nhulunbuy, Northern Territory, Australia	100% leasehold	Diesel-fired power station	24MW
Highlands power stations	Lochaber, Kinlochleven, UK	100% freehold	Hydroelectric power	105MW
Kemano power station	Kemano, British Columbia, Canada	100% freehold	Hydroelectric power	865MW
Quebec power stations	Saguenay, Quebec, Canada (Chute-à-Caron, Chute-à-la-Savane, Chute-des-Passes, Chute-du-Diable, Isle-Maligne, Shipshaw)	100% freehold (except Péribonka lease to 2058)	Hydroelectric power	3,147MW
Yarwun alumina refinery co-generation plant	Gladstone, Queensland, Australia	100% freehold	Gas turbine and heat recovery steam generator	160MW
Weipa power stations	Lorim Point, Andoom, Queensland, Australia	100% leasehold	On-site generation (diesel)	36MW
COPPER				
Kennecott Utah Copper Power Stations	Salt Lake City, Utah, US	100% freehold	Thermal power station	175MW
			Steam turbine running off waste heat boilers at the copper smelter	31.8MW
			Combined heat and power plant supplying steam to the copper refinery	6.2MW

Power plant	Location	Title/lease	Plant type/product	Capacity as of 31 December 2014 (based on 100% ownership)
DIAMONDS & MINERALS				
Boron co-generation plant	Boron, California, US	100% freehold	Co-generation uses natural gas to generate steam and electricity, used to run Boron's refining operations	48MW
ENERGY				
Energy Resources of Australia (Rio Tinto: 68.4%)	Ranger Mine, Jabiru, Northern Territory, Australia	Lease	Five diesel generator sets rated at 5.1MW; 1 diesel generator rated at 1.9MW	27.4MW
IRON ORE				
IOC power station	Sept Îles, Quebec, Canada	Statutory grant	Hydroelectric power	22MW
Paraburdoo power station	Paraburdoo, Western Australia, Australia	Lease	LM6000 PC gas fired turbines	153MW
Yurralyi Maya power station (Rio Tinto: 58%) *	Dampier, Western Australia, Australia	Miscellaneous licence	LM6000 PD gas fired turbines	220MW

* Rio Tinto has a 100% share in the additional purchase of a 40MW open cycle gas turbine.

Shareholder information

Organisational structure

The Rio Tinto Group consists of Rio Tinto plc, which is registered in England and Wales under company number 719885, and is listed on the London Stock Exchange, and Rio Tinto Limited, which is registered in Australia under ABN 96 004 458 404, and is listed on the Australian Securities Exchange. Rio Tinto is headquartered in London and has executive offices in Melbourne.

Rio Tinto plc has a sponsored ADR facility and the underlying shares are registered with the US Securities and Exchange Commission and are listed on the New York Stock Exchange.

Nomenclature and financial data

Rio Tinto plc and Rio Tinto Limited operate together and are referred to in this report as Rio Tinto, the Rio Tinto Group or, more simply, the Group. These collective expressions are used for convenience only, since both Companies, and the individual companies in which they directly or indirectly own investments, are separate and distinct legal entities. “Limited”, “plc”, “Pty”, “Inc.”, “Limitada”, “L.L.C.”, “A.S.” or “SA” have generally been omitted from Group company names, except to distinguish between Rio Tinto plc and Rio Tinto Limited. Financial data in US dollars (US\$) is derived from, and should be read in conjunction with, the 2014 financial statements. In general, financial data in pounds sterling (£) and Australian dollars (A\$) have been translated from the consolidated financial statements and have been provided solely for convenience; exceptions arise where data can be extracted directly from source records. Certain key information has been provided in all three currencies in the 2014 financial statements.

History

Rio Tinto plc was incorporated on 30 March 1962 (then called The Rio Tinto-Zinc Corporation Limited (RTZ)) and was formed by the merger of The Rio Tinto Company and The Consolidated Zinc Corporation. The Rio Tinto Company was incorporated in 1873 to reopen ancient copper workings in Spain. The Consolidated Zinc Corporation’s origins trace back to the Australian mining industry in the early twentieth century. Operating out of Broken Hill in New South Wales, it came to prominence with the mining of silver, lead and zinc deposits and later expanded into lead and zinc smelting.

Rio Tinto Limited was incorporated on 17 December 1959 (then called The Rio Tinto Mining Company of Australia Limited) and in 1962 the Australian interests of Consolidated Zinc Corporation and the Rio Tinto Company Limited of the United Kingdom were merged to form Conzinc Riotinto of Australia Limited as a limited liability company under the laws of the State of Victoria, Australia. In 1980, Conzinc Riotinto of Australia Limited changed its name to CRA Limited.

Between 1962 and 1995, both RTZ and CRA discovered important mineral deposits, developed major mining projects and also grew through acquisition.

RTZ and CRA began operating in 1995 through a dual listed companies structure. In 1997, the RTZ Corporation became Rio Tinto plc and CRA Limited became Rio Tinto Limited, together known as the Rio Tinto Group.

In 2007, Rio Tinto completed an agreed takeover of the Canadian aluminium producer Alcan Inc.

Dual listed companies structure

In 1995, Rio Tinto shareholders approved the terms of the dual listed companies merger (the DLC structure) which was designed to place the shareholders of both Companies in substantially the same position as if they held shares in a single entity owning all of the assets of both Companies.

Following the approval of the DLC structure, both Companies entered into a DLC Merger Sharing Agreement (the Sharing Agreement) through which each Company agreed to ensure that the businesses of Rio Tinto plc and Rio Tinto Limited are managed on a unified basis, to ensure that the boards of directors of each Company are the same, and to give effect to certain arrangements designed to provide shareholders of each Company with a common economic interest in the DLC structure.

In order to achieve this third objective, the Sharing Agreement provided for the ratio of dividend, voting and capital distribution rights attached to each Rio Tinto plc share and to each Rio Tinto Limited share to be fixed in an Equalisation Ratio which has remained unchanged at 1:1. The Sharing Agreement has provided for this ratio to be revised in special circumstances where, for example, certain modifications are made to the share capital of one Company, such as rights issues, bonus issues, share splits and share consolidations, but not to the share capital of the other. Outside these specified circumstances, the Equalisation Ratio can only be altered with the approval of shareholders under the Class Rights Action approval procedure described under Voting rights below. In addition, any adjustments are required to be confirmed by the Group’s external auditors.

Consistent with the creation of the DLC structure, directors of each Company seek to act in the best interests of Rio Tinto as a whole. The Class Rights Action approval procedure is intended to deal with instances where there may be a conflict of interest between the shareholders of each Company.

To ensure that the boards of both Companies are identical, resolutions to appoint or remove directors must be put to shareholders of both Companies as a joint electorate (as Joint Decisions as described under Voting rights). It is a requirement of the constitution of each Company that a person can only be a director of one Company if that person is also a director of the other Company. So, for example, if a person was removed as a director of Rio Tinto plc, he or she would also cease to be a director of Rio Tinto Limited.

One consequence of the DLC merger is that Rio Tinto is subject to a wide range of laws, rules and regulatory review across multiple jurisdictions. Where these rules differ, Rio Tinto, as a Group, aims to comply with the strictest applicable level.

Dividend rights

The Sharing Agreement provides for dividends paid on Rio Tinto plc and Rio Tinto Limited shares to be equalised on a net cash basis, that is without taking into account any associated tax credits. Dividends are determined in US dollars and are then, except for ADR holders, translated and paid in sterling and Australian dollars. The Companies are also required to announce and pay their dividends and other distributions as close in time to each other as possible.

In the unlikely event that one Company did not have sufficient distributable reserves to pay the equalised dividend or the equalised capital distribution, it would be entitled to receive a top-up payment from the other Company. The top-up payment could be made as a dividend on the DLC Dividend Share, or by way of a contractual payment.

If the payment of an equalised dividend would contravene the law applicable to one of the Companies, then they may depart from the Equalisation Ratio. However, should such a departure occur, then the relevant Company will put aside reserves to be held for payment on the relevant shares at a later date.

Rio Tinto shareholders have no direct rights to enforce the dividend equalisation provisions of the Sharing Agreement.

The DLC Dividend Shares can also be utilised to provide the Group with flexibility for internal funds management by allowing dividends to be paid between the two parts of the Group. Such dividend payments are of no economic significance to the shareholders of either Company, as they will have no effect on the Group’s overall resources.

Voting rights

In principle, the Sharing Agreement provides for the shareholders of Rio Tinto plc and Rio Tinto Limited to vote as a joint electorate on all matters which affect shareholders of both Companies in similar ways. These are referred to as Joint Decisions. Such Joint Decisions include the creation of new classes of share capital, the appointment or removal of directors and auditors and the receiving of the annual financial statements. All shareholder resolutions including Joint Decisions are voted on a poll.

The Sharing Agreement also provides for the protection of shareholders of each Company by requiring their separate approval for decisions that do not affect the shareholders of both Companies equally. Matters requiring this approval procedure are referred to as Class Rights Actions and are voted on a poll. For example, fundamental elements of the DLC merger cannot be changed unless approved separately by shareholders of both Companies under the Class Rights Action approval procedure.

Exceptions to these principles can arise in situations such as where legislation requires the separate approval of a decision by the appropriate majority of shareholders in one Company, and approval of the matter by shareholders of the other Company is not required.

Where a matter has been expressly categorised as either a Joint Decision or a Class Rights Action, the directors do not have the power to change that categorisation. If a matter falls within both categories, it is treated as a Class Rights Action. In addition, the directors can determine that matters not expressly listed in either category should be put to shareholders for their approval under either procedure.

To facilitate the joint voting arrangements, each Company has entered into shareholder voting agreements. Each Company has issued a Special Voting Share to a special purpose company held in trust by a common Trustee.

Rio Tinto plc has issued its Special Voting Share (RTP Special Voting Share) to RTL Shareholder SVC and Rio Tinto Limited has issued its Special Voting Share (RTL Special Voting Share) to RTP Shareholder SVC. The total number of votes cast on Joint Decisions by the shareholders of one Company are voted at the parallel meeting of the other Company. The role of these special purpose companies in achieving this is described below.

In exceptional circumstances, certain shareholders of the Companies can be excluded from voting at the respective Company's general meetings because they have acquired shares in one Company in excess of a given threshold without making an offer for all the shares in the other Company. If this should occur, the votes cast by these excluded shareholders will be disregarded.

Following the Companies' general meetings the overall results of the voting are announced to the stock exchanges, to the media in the UK and Australia, and published on the Rio Tinto website.

At a Rio Tinto plc shareholders' meeting at which a Joint Decision is considered, each Rio Tinto plc share carries one vote and the holder of its Special Voting Share has one vote for each vote cast by the public shareholders of Rio Tinto Limited. The holder of the Special Voting Share is required to vote strictly, and only, in accordance with the votes cast by public shareholders for and against the equivalent resolution at the parallel Rio Tinto Limited shareholders' meeting.

The holders of Rio Tinto Limited ordinary shares do not actually hold any voting shares in Rio Tinto plc by virtue of their holding in Rio Tinto Limited and cannot enforce the voting arrangements relating to the Special Voting Share.

At a Rio Tinto Limited shareholders' meeting at which a Joint Decision is considered, each Rio Tinto Limited share carries one vote and the holder of its Special Voting Share will have one vote for each vote cast by the public shareholders of Rio Tinto plc in their parallel meeting. The holder of the Special Voting Share is required to vote strictly, and only, in accordance with the votes cast for and against the equivalent resolution at the parallel Rio Tinto plc shareholders' meeting.

The holders of Rio Tinto plc ordinary shares do not actually hold any voting shares in Rio Tinto Limited by virtue of their holding in Rio Tinto plc and cannot enforce the voting arrangements relating to the Special Voting Share.

Capital distribution rights

If either of the Companies goes into liquidation, the Sharing Agreement provides for a valuation to be made of the surplus assets of both Companies. If the surplus assets available for distribution by one Company on each of the shares held by its shareholders exceed the surplus assets available for distribution by the other Company on each of the shares held by its shareholders, then an equalising payment between the two Companies shall be made, to the extent permitted by applicable law, such that the amount available for distribution on each share held by shareholders of each Company conforms to the Equalisation Ratio. The objective is to ensure that the shareholders of both Companies have equivalent rights to the assets of the combined Group on a per share basis, taking account of the Equalisation Ratio.

The Sharing Agreement does not grant any enforceable rights to the shareholders of either Company upon liquidation of a Company.

Limitations on ownership of shares and merger obligations

The laws and regulations of the UK and Australia impose restrictions and obligations on persons who control interests in publicly listed companies in excess of defined thresholds that, under certain circumstances, include obligations to make a public offer for all of the outstanding issued shares of the relevant company. The threshold applicable to Rio Tinto plc under UK law and regulations is 30 per cent and to Rio Tinto Limited under Australian law and regulations is 20 per cent (on a standalone basis or, taking into account only Rio Tinto plc interests, on a Joint Decision basis).

As part of the DLC merger, the Articles of Association of Rio Tinto plc and the Constitution of Rio Tinto Limited were amended with the intention of extending these laws and regulations to the combined enterprise and, in particular, to ensure that a person cannot exercise control over one Company without having made offers to the public shareholders of both Companies. It is consistent with the creation of the single economic enterprise, and the equal treatment of the two sets of shareholders, that these laws and regulations should operate in this way. The Articles of Association of Rio Tinto plc and the Constitution of Rio Tinto Limited impose restrictions on any person who controls, directly or indirectly, 20 per cent or more of the votes on a Joint Decision. If, however, such a person only has an interest in either Rio Tinto Limited or Rio Tinto plc, then the restrictions will only apply if they control, directly or indirectly, 30 per cent or more of the votes at that Company's general meetings.

If one of the thresholds specified above is breached then, subject to certain limited exceptions and notification by the relevant Company, such persons may not attend or vote at general meetings of the relevant Company, may not receive dividends or other distributions from the relevant Company, and may be divested of their interest by the directors of the relevant Company. These restrictions continue to apply until such persons have either made a public offer for all of the publicly held shares of the other Company, or have reduced their controlling interest below the thresholds specified, or have acquired through a permitted means at least 50 per cent of the publicly held shares of each Company.

These provisions are designed to ensure that offers for the publicly held shares of both Companies would be required in order to avoid the restrictions set out above, even if the interests which breach the thresholds are only held in one of the Companies. The directors do not have the discretion to exempt a person from the operation of these rules.

Under the Sharing Agreement, the Companies agree to co-operate to enforce the above restrictions contained in their Articles of Association and Constitution.

Guarantees

In 1995, each Company entered into a Deed Poll Guarantee in favour of creditors of the other Company. Pursuant to the Deed Poll Guarantees, each Company guaranteed the contractual obligations of the other Company and the obligations of other persons which are guaranteed by the other Company, subject to certain limited exceptions. Beneficiaries under the Deed Poll Guarantees may make demands upon the guarantor thereunder without first having recourse to the Company or persons whose obligations are being guaranteed. The obligations of the guarantor under each Deed Poll Guarantee expire upon termination of the Sharing Agreement and under other limited circumstances, but only in respect of obligations arising after such termination and, in the case of other limited circumstances, the publication and expiry of due notice. The shareholders of the Companies cannot enforce the provisions of the Deed Poll Guarantees.

Markets

Rio Tinto plc

The principal market for Rio Tinto plc shares is the London Stock Exchange with the shares trading through the Stock Exchange Electronic Trading Service (SETS) system.

Rio Tinto plc American depositary receipts are listed on the New York Stock Exchange. Further details relating to Rio Tinto plc American depositary receipts are available in Rio Tinto's Annual report on Form 20-F.

Rio Tinto Limited

Rio Tinto Limited shares are listed on the Australian Securities Exchange (ASX). The ASX is the principal trading market for Rio Tinto Limited shares. The ASX is a national stock exchange with an automated trading system.

Share ownership

Substantial shareholders

Under the UK Disclosure and Transparency Rules and the Australian Corporations Act, any shareholder of Rio Tinto plc with voting rights of three per cent or more, or any person with voting power of five per cent or more in Rio Tinto Limited, is required to provide the relevant companies with notice.

The shareholders who have provided such, or an equivalent, notice as of 16 February 2015 are:

Rio Tinto plc	Date of notice	Number of shares	Percentage of issued share capital
AXA S.A.	29 Jan 2008	48,493,873	4.86
BlackRock Inc.	4 Dec 2009	127,744,871	8.38
Shining Prospect Pte. Ltd	13 Mar 2012	182,550,329	12.7
The Capital Group Companies, Inc.	21 Jan 2014	57,950,440	4.10
The Capital Group Companies, Inc.	3 April 2014	55,307,243	3.91
<hr/>			
Rio Tinto Limited			
Shining Prospect Pte. Ltd (a)	10 June 2009	–	–

- (a) In its substantial holding notice filed on 10 June 2009 Shining Prospect Pte. Ltd, a Singapore-based entity owned by Chinalco (Aluminium Corporation of China) disclosed a holding in Rio Tinto plc shares which, at that time, through the operation of the Australian Corporations Act as modified, gave these entities and their associates voting power of 9.3 per cent in the Rio Tinto Group on a Joint Decision matter, making them substantial shareholders of Rio Tinto Limited, as well as of Rio Tinto plc. Shining Prospect Pte. Ltd currently holds 182,550,329 Rio Tinto plc shares, which gives these entities and their associates voting power of 9.9 per cent in the Rio Tinto Group on a Joint Decision Matter.

As far as is known, Rio Tinto plc and Rio Tinto Limited are not directly or indirectly owned or controlled by another corporation or by any government or natural person. Rio Tinto is not aware of any arrangement which may result in a change in control. No shareholder possesses voting rights that differ from those attaching to Rio Tinto plc's and Rio Tinto Limited's securities.

As of 16 February 2015, the total amount of the Group's voting securities owned by the directors in Rio Tinto plc was 101,487 ordinary shares of 10p each or ADRs and in Rio Tinto Limited was 196,163 ordinary shares, in aggregate representing less than one per cent of the Group's total number of shares in issue.

Analysis of ordinary shareholders

	Rio Tinto plc				Rio Tinto Limited			
As at 16 February 2014	No. of accounts	%	Shares	%	No. of accounts	%	Shares	%
1 to 1,000 shares	33,798	76.33	10,868,329	0.76	167,764	83.87	49,999,117	11.47
1,001 to 5,000 shares	8,176	18.47	16,231,425	1.14	28,905	14.45	57,684,606	13.24
5,001 to 10,000 shares	751	1.70	5,194,677	0.36	2,262	1.13	15,682,973	3.60
10,001 to 25,000 shares	415	0.94	6,415,051	0.45	845	0.42	12,473,215	2.86
25,001 to 125,000 shares	534	1.21	31,031,572	2.18	192	0.10	8,631,735	1.98
125,001 to 250,000 shares	188	0.42	33,567,144	2.36	18	0.01	3,131,953	0.72
250,001 to 1,250,000 shares	273	0.62	160,494,512	11.26	32	0.02	17,456,643	4.01
1,250,001 to 2,500,000 shares	66	0.15	115,502,545	8.10	3	0.00	5,979,698	1.37
2,500,001 shares and over (a)	73	0.16	1,046,072,386 ^(b)	73.39	11	0.01	264,718,780	60.75
			1,425,377,641 ^(c)	100.00			435,758,720 ^(d)	100.00
Number of holdings less than marketable parcel of A\$500					3,740			

(a) Excludes shares held in Treasury

(b) This includes 117,166,113 shares held in the name of a nominee on the share register. The shares are listed on the NYSE in the form of American Depositary Receipts (ADRs).

(c) The total issued share capital is made up of 1,414,463,210 publicly held shares; 10,914,431 shares held in Treasury.

(d) Publicly held shares in Rio Tinto Limited.

Twenty largest registered shareholders

In accordance with the ASX Listing Rules, below are the names of the 20 largest registered holders of Rio Tinto Limited shares and the number of shares and the percentage of issued capital each holds as at 16 February 2015:

	Number of shares	Percentage of issued share capital
Rio Tinto Limited		
HSBC Custody Nominees (Australia) Limited	86,885,437	19.94
J.P. Morgan Nominees Australia Limited	73,026,709	16.76
National Nominees Limited	48,223,245	11.07
Citicorp Nominees Pty Limited	25,280,388	5.80
BNP Paribas Noms Pty Ltd (DRP)	11,123,931	2.55
Citicorp Nominees Pty Limited (Colonial First State Inv A/C)	5,377,081	1.23
Australian Foundation Investment Company Limited	3,651,753	0.84
HSBC Custody Nominees (Australia) Limited (NT – Comnwlth Super Corp A/C)	3,259,363	0.75
AMP Life Limited	2,704,072	0.62
UBS Wealth Management Australia Nominees Pty Ltd	2,676,062	0.61
Argo Investments Limited	2,510,739	0.58
UBS Nominees Pty Ltd	2,052,514	0.47
BNP Paribas Nominees Pty Ltd (Agency Lending DRP A/C)	1,993,697	0.46
RBC Investor Services Australia Nominees Pty Limited (PI Pooled A/C)	1,933,487	0.44
National Nominees Limited (DB A/C)	1,132,958	0.26
Computershare Trustee Jey Limited (RE 3000091 A/C)	1,074,855	0.25
Warbont Nominees Pty Limited (Accumulation Entrepot A/C)	1,059,570	0.24
Australian United Investment Company Limited	950,000	0.22
Computershare Trustee Jey Limited (RE 3000086 A/C)	910,949	0.21
Navigators Australia Ltd (MLC Investment Sett A/C)	908,710	0.21

Large registered shareholders are nominees who hold securities on behalf of beneficial shareholders.

Dividends

Both Companies have paid dividends on their ordinary shares every year since incorporation in 1962. The rights of Rio Tinto shareholders to receive dividends are explained under the description of the Dual listed companies structure on page 220.

Dividend policy

The aim of our progressive dividend policy is to maintain or increase the US dollar value of ordinary dividends per share. The rate of the total dividend, in US dollars per share, is determined taking into account the results for the past year and the outlook. The interim dividend is set at one half of the total dividend for the previous year.

Dividend determination

The majority of our sales are transacted in US dollars, making this the most appropriate measure for our global business performance. It is our main reporting currency and consequently the natural currency for dividend determination. Dividends determined in US dollars are translated at exchange rates prevailing two days prior to the declaration and payable in sterling by Rio Tinto plc and in Australian dollars by Rio Tinto Limited.

On request, shareholders of Rio Tinto plc can elect to receive dividends in Australian dollars and Rio Tinto Limited shareholders can elect to receive dividends in sterling. If such an election is made, the dividend amounts received will be calculated by converting the declared dividend using the exchange rates applicable to sterling and Australian dollars five days prior to the dividend payment date.

Shareholders who wish to receive their dividends in any other currencies should contact the Companies' share registrars, who also offer payment services in other currencies, subject to a fee.

2014 dividends

The 2014 interim and final dividends were determined at 96 US cents and at 119 US cents per share respectively and the applicable conversion rates for the interim and final dividend were US\$1.6871 and US\$1.52595 to the pound sterling and US\$0.93125 and US\$0.77790 to the Australian dollar respectively. For those Rio Tinto plc shareholders who elected to receive their interim dividend in Australian dollars the applicable conversion rate was A\$1.74955 and for Rio Tinto Limited shareholders who elected to receive their dividend in sterling the applicable conversion rate was £0.57158.

Final dividends of 77.98 pence or 152.98 Australian cents per share will be paid on 9 April 2015. For those Rio Tinto plc shareholders requesting the 2014 final dividend be paid in Australian dollars, those holders of Rio Tinto plc ADRs (each representing one share) and those Rio Tinto Limited shareholders requesting the 2014 final dividend be paid in pounds sterling, the applicable conversion rates will be announced on 31 March 2015.

Dividend reinvestment plan (DRP)

Rio Tinto offers a DRP to registered shareholders, which provides the opportunity to use cash dividends to purchase Rio Tinto shares in the market. Due to local legislation the DRP cannot be extended to shareholders in the US, Canada and certain other countries.

Material contracts

Articles of Association and Constitution, and DLC Merger Sharing Agreement

As explained on pages 220 to 222, under the terms of the DLC structure the shareholders of Rio Tinto plc and of Rio Tinto Limited entered into certain contractual arrangements which are designed to place the shareholders of both Companies in substantially the same position as if they held shares in a single entity which owned all of the assets of both Companies. Generally, and as far as is permitted by the UK Companies Act and the Australian Corporations Act and ASX Listing Rules, this principle is reflected in the Articles of Association of Rio Tinto plc and in the Constitution of Rio Tinto Limited. The summaries below include descriptions of material rights of the shareholders of both Rio Tinto plc and Rio Tinto Limited.

Objects

At the 2009 annual general meetings, shareholders of Rio Tinto plc and Rio Tinto Limited approved amendments to the constitutional documents whereby the object clauses were removed to allow the Companies to have the widest possible scope of activities.

Directors

Under Rio Tinto plc's Articles of Association, a director may not vote in respect of any proposal in which he, or any other person connected with him, has any material interest, other than by virtue of his interests in shares or debentures or other securities of, or otherwise in or through, the Company, except where resolutions:

- indemnify him or a third party in respect of obligations incurred by the director on behalf of, or for the benefit of, the Company, or in respect of obligations of the Company, for which the director has assumed responsibility under an indemnity, security or guarantee;
- relate to an offer of securities in which he may be interested as a holder of securities or as an underwriter;
- concern another body corporate in which the director is beneficially interested in less than one per cent of the issued shares of any class of shares of such a body corporate;
- relate to an employee benefit in which the director will share equally with other employees; and
- relate to liability insurance that the Company is empowered to purchase for the benefit of directors of the Company in respect of actions undertaken as directors (or officers) of the Company.

Under Rio Tinto Limited's Constitution, except where a director is constrained by Australian law, a director may be present at a meeting of the board while a matter in which the director has a material personal interest is being considered and may vote in respect of that matter.

The directors are empowered to exercise all the powers of the Companies to borrow money, to charge any property or business of the Companies or all, or any, of their uncalled capital and to issue debentures or give any other security for a debt, liability or obligation of the Companies or of any other person. The directors shall restrict the borrowings of Rio Tinto plc to the limitation that the aggregate amount of all moneys borrowed by the Company and its subsidiaries shall not exceed an amount equal to one and one half times the Companies' share capital plus aggregate reserves unless sanctioned by an ordinary resolution of the Company.

Directors are not required to hold any shares of either Company by way of qualification. The Remuneration Report on pages 64 and 100 provides information on shareholding policies relating to executive and non-executive directors. Please refer to the Corporate governance section on pages 53 to 63 for information on the appointment of directors.

Rights attaching to shares

Under English law, dividends on shares may only be paid out of profits available for distribution, as determined in accordance with generally accepted accounting principles and by the relevant law. Shareholders are entitled to receive such dividends as may be declared by the directors. The directors may also pay shareholders such interim dividends as appear to them to be justified by the financial position of the Group.

Any Rio Tinto plc dividend unclaimed after 12 years from the date the dividend was declared, or became due for payment, will be forfeited and returned to the Company. Any Rio Tinto Limited dividend unclaimed may be invested or otherwise used by the board for the benefit of the Company until claimed or otherwise disposed of according to Australian law.

Voting

Voting at any general meeting of shareholders on a resolution on which the holder of the Special Voting Share is entitled to vote shall be decided by a poll, and any other resolution shall be decided by a show of hands unless a poll has been duly demanded. On a show of hands, every shareholder who is present in person or by proxy or other duly authorised representative and is entitled to vote has one vote regardless of the number of shares held. The holder of the Special Voting Share is not entitled to vote on a show of hands. On a poll, every

shareholder who is present in person or by proxy or other duly authorised representative and is entitled to vote has one vote for every ordinary share for which he or she is the holder and, in the case of Joint Decisions, the holder of the Special Voting Share has one vote for each vote cast by the shareholders at the parallel meeting of the other Company's shareholders.

A poll may be demanded by any of the following:

- the chairman of the meeting;
- at least five shareholders entitled to vote on the resolution;
- any shareholder or shareholders representing in the aggregate not less than one tenth (Rio Tinto plc) or one 20th (Rio Tinto Limited) of the total voting rights of all shareholders entitled to vote on the resolution;
- any shareholder or shareholders holding shares conferring a right to vote at the meeting on which there have been paid-up sums in the aggregate equal to not less than one tenth of the total sum paid up on all the shares conferring that right (Rio Tinto plc); or
- the holder of the Special Voting Share.

A proxy form will be treated as giving the proxy the authority to demand a poll, or to join others in demanding one.

The necessary quorum for a Rio Tinto plc general meeting is three members present (in person or by proxy or other duly authorised representative) and entitled to vote, and for a Rio Tinto Limited general meeting is two members present (in person or by proxy or other duly authorised representative).

Matters are transacted at general meetings by the proposing and passing of resolutions as:

- ordinary resolutions, which require the affirmative vote of a majority of the votes of those persons voting at a meeting at which there is a quorum, for example the election of directors; and
- special resolutions, which require the affirmative vote of not less than three-fourths of the persons voting at a meeting at which there is a quorum, for example amending the Articles of Association of Rio Tinto plc or the Constitution of Rio Tinto Limited.

The Sharing Agreement further classifies resolutions as “Joint Decisions” and “Class Rights Actions” as explained under Voting rights on pages 220 and 221.

Annual general meetings must be convened with 21 days' written notice for Rio Tinto plc and with 28 days' notice for Rio Tinto Limited. Other meetings of Rio Tinto plc must be convened with 21 days' written notice for the passing of a special resolution and with 14 days' notice for any other resolution, depending on the nature of the business to be transacted. All meetings of Rio Tinto Limited require 28 days' notice. In calculating the period of notice the days of delivery or receipt of the notice and the date of the meeting are not included. Among other things, the notice must specify the nature of the business to be transacted.

Variation of rights

If, at any time, the share capital is divided into different classes of shares, the rights attached to any class may be varied, subject to the provisions of the relevant legislation, with the consent in writing of holders of three-fourths in value of the shares of that class or upon the adoption of an extraordinary resolution passed at a separate meeting of the holders of the shares of that class. At every such separate meeting, all of the provisions of the Articles of Association and Constitution relating to proceedings at a general meeting apply, except that the quorum for Rio Tinto plc should be two or more persons who hold or represent by proxy not less than one-third in nominal value of the issued shares of the class.

Rights upon a winding-up

Except as the shareholders have agreed or may otherwise agree, upon a winding-up, the balance of assets available for distribution:

- after the payment of all creditors including certain preferential creditors, whether statutorily preferred creditors or normal creditors; and
- subject to any special rights attaching to any class of shares

is to be distributed among the holders of ordinary shares according to the amounts paid-up on the shares held by them. This distribution is generally to be made in cash. A liquidator may, however, upon the adoption of a special resolution of the shareholders, divide among the shareholders the whole or any part of the assets in kind.

The DLC Merger Sharing Agreement further sets out the rights of ordinary shareholders in a liquidation as explained on page 221.

Facility agreement

Details of the Group's US\$7.5 billion multi-currency committed revolving credit facilities are set out in note 30 to the 2014 financial statements.

Exchange controls and foreign investment

Rio Tinto plc

There are no UK foreign exchange controls or other UK restrictions on the import or export of capital or on the payment of dividends to non-resident holders of Rio Tinto plc shares or that materially affect the conduct of Rio Tinto plc's operations. It should be noted, however, that various sanctions, laws, regulations or conventions may restrict the import or export of capital by, or the payment of dividends to, non-resident holders of Rio Tinto plc shares. There are no restrictions under Rio Tinto plc's Articles of Association or under UK law that limit the right of non-resident owners to hold or vote Rio Tinto plc shares.

Rio Tinto Limited

Under current Australian legislation, permission is not required for the movement of funds into or out of Australia. However, there is a prohibition on, or in some cases the specific prior approval of the Department of Foreign Affairs and Trade or Minister for Foreign Affairs must be obtained for, certain payments or other dealings connected with countries or parties identified with terrorism, or to whom United Nations or autonomous Australian sanctions apply.

Rio Tinto Limited may be required to deduct withholding tax from foreign remittances of dividends, to the extent that they are unfranked, and from payments of interest.

Acquisitions of interests in shares, voting power or certain other equity instruments in Australian companies by foreign interests are subject to review and approval by the Treasurer of the Commonwealth of Australia under the Foreign Acquisitions and Takeovers Act 1975 (the Takeovers Act). The Takeovers Act applies to acquisitions by a single foreign person (and any associate) of 15 per cent or more, or by several foreign persons (and any associates) of 40 per cent or more of the issued shares, issued shares if all rights were converted, voting power or potential voting power in an Australian company, and to other transactions that result in such persons controlling such interests. The Takeovers Act also applies to direct investments by foreign government investors, including acquisitions of interests of ten per cent or more. Persons who are proposing such acquisitions or transactions are required to notify the Treasurer of their intention. The Treasurer has the power to order divestment in cases where such acquisitions or transactions have already occurred. The Takeovers Act does not affect the rights of owners whose interests are held in compliance with the legislation.

Limitations on voting and shareholding

Except for the provisions of the Takeovers Act, there are no limitations imposed by law, Rio Tinto plc's Articles of Association or Rio Tinto Limited's Constitution, on the rights of non-residents or foreign persons to hold or vote the Group's ordinary shares or ADSs that would not apply generally to all shareholders.

UK Listing Rules cross reference table

The following table contains cross references identifying the location of information required to be disclosed in the Annual report by the UK Listing Authority's Listing Rule 9.8.4 R.

Listing rule	Description of Listing Rule	Reference in Report
9.8.4 (1)	A statement of any interest capitalised by the Group during the year	Note 8 Finance income and finance costs and Note 17 Deferred taxation
9.8.4 (2)	Any information required by Listing Rule 9.2.18 R	N/A
9.8.4 (4)	Details of any long-term incentive scheme as described in LR 9.4.2R (2)	N/A
9.8.4 (5)	Details of any arrangement under which a director has waived any emoluments	N/A
9.8.4 (6)	Details of any arrangement under which a director has agreed to waive future emoluments	N/A
9.8.4 (7)	Details of any allotments of shares by the company for cash not previously authorised by shareholders	N/A
9.8.4 (8)	Details of any allotments of shares for cash by a major subsidiary of the company	N/A
9.8.4 (9)	Details of the participation by the company in any placing made by its parent company	N/A
9.8.4 (10)	Details of any contract of significance with the company in which a director has a material interest; or a contract between the company and a controlling shareholder	N/A
9.8.4 (11)	Details of any contract for the provision of services to the company by a controlling shareholder	N/A
9.8.4 (12)	Details of any arrangement under which a shareholder has waived or agreed to waive any dividends	Note 11 Dividends
9.8.4 (13)	Details of where a shareholder has agreed to waive future dividends	N/A
9.8.4 (14)	Information required by LR 9.2.2AR (2)(a)	N/A

Financial calendar

2015

20	January	Fourth quarter 2014 operations review
12	February	Announcement of results for 2014
4	March	Rio Tinto Limited shares and Rio Tinto plc ADRs quoted "ex-dividend" for 2014 final dividend
5	March	Rio Tinto plc shares quoted "ex-dividend" for 2014 final dividend
6	March	Record date for 2014 final dividend for Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs
6	March	Publication of 2014 Annual report, 20-F and Notices of annual general meetings
17	March	Plan notice date for election under the dividend reinvestment plan and date for electing dividends paid in alternate currency for the 2014 final dividend
31	March	Dividend currency conversion date (Rio Tinto plc holders electing to receive Australian dollars and Rio Tinto Limited holders electing to receive pounds sterling)
9	April	Payment date for 2014 final dividend to holders of ordinary shares and ADRs
16	April	Annual general meeting for Rio Tinto plc, London
21	April	First quarter 2015 operations review
7	May	Annual general meeting for Rio Tinto Limited, Melbourne
16	July	Second quarter 2015 operations review
6	August	Announcement of half year results for 2015
12	August	Rio Tinto Limited shares and Rio Tinto plc ADRs quoted "ex-dividend" for 2015 interim dividend
13	August	Rio Tinto plc shares quoted "ex-dividend" for 2015 interim dividend
14	August	Record date for 2015 interim dividend for Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs
19	August	Plan notice date for election under the dividend reinvestment plan and date for electing dividends paid in alternate currency for the 2015 interim dividend for Rio Tinto plc
20	August	Plan notice date for election under the dividend reinvestment plan and date for electing dividends paid in alternate currency for the 2015 interim dividend for Rio Tinto Limited
3	September	Dividend currency conversion date (Rio Tinto plc holders electing to receive Australian dollars and Rio Tinto Limited holders electing to receive pounds sterling)
10	September	Payment date for 2015 interim dividend to holders of ordinary shares and ADRs
16	October	Third quarter 2015 operations review

2016

January	Fourth quarter 2015 operations review
February	Announcement of results for 2015
April	Annual general meeting for Rio Tinto plc, London
April	First quarter 2016 operations review
May	Annual general meeting for Rio Tinto Limited, Brisbane
July	Second quarter 2016 operations review
August	Announcement of half year results for 2016
October	Third quarter 2016 operations review

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Rio Tinto's agent in the US is Cheree Finan,
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Shareholders

Please refer to the Investor Centre of the respective registrar if you have any queries about your shareholding.

Rio Tinto plc

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Holders of Rio Tinto American Depositary Receipts (ADRs)

Please contact the ADR administrator if you have any queries about your ADRs.

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Investor Centre

Investor Centre is Computershare's free, secure, self service website, where shareholders can manage their holdings online. The website enables shareholders to:

- View share balances
- Change address details
- View payment and tax information
- Update payment instructions

In addition, shareholders who register their email address on Investor Centre can be notified electronically of events such as annual general meetings, and can receive shareholder communications such as the Annual report or Notice of meeting electronically online.

Rio Tinto plc shareholders

investorcentre.co.uk/riotinto

Rio Tinto Limited shareholders

investorcentre.com/rio



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RioTinto

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