

RioTinto

2010 Annual report

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Striving for  
global sector  
leadership

# Striving for global sector leadership

Rio Tinto is a leading global business delivering value at each stage of mineral and metal production. Our 77,000 people work in over 40 countries. Our commitment to the health, safety and prosperity of our people is at the heart of our operations. So is our determination to maintain the environmental integrity of what we do. We achieve all of this by managing our business globally with a well established strategy and a single set of standards and values. Our approach, coupled with our diverse portfolio of quality assets, positions us for growth on a global scale.

## More information

### Website [www.riotinto.com](http://www.riotinto.com)

The "Shareholders" section of [www.riotinto.com](http://www.riotinto.com) provides financial and corporate information about the Group as well as Rio Tinto share price charts and data, an events calendar, dividend information and the latest presentations by management for investors and financial analysts.

### Results presentations

Our results presentations are available live on webcast. A playback of the most recent presentation is downloadable at [www.riotinto.com](http://www.riotinto.com)

### Messaging service/Rio Tinto news alert

Receive news alerts about Rio Tinto via text or email by subscribing to our messaging service on [www.riotinto.com/newsalerts](http://www.riotinto.com/newsalerts)

The *Annual report* and *Auditors' report* comply with the Australian and UK reporting requirements.

Copies of Rio Tinto's shareholder documents are available on the website at [www.riotinto.com](http://www.riotinto.com). They can also be obtained free of charge from the Company. Some shareholders may prefer to receive the *Annual review* which contains the summary financial statements although shareholders should note that it does not allow as full an understanding of the Group.

#### 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 Securities Act of

1933, and Section 21E of the Securities Exchange Act of 1934. The words "intend", "aim", "project", "anticipate", "estimate", "plan", "believes", "expects", "may", "should", "will", 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, 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 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.

## Sustainable development

Sustainable development is integral to the way we work. Within this report we have provided our 2010 sustainable development performance highlights.

☞ The "Our approach" section of our website contains details of our programmes to deliver on our commitment to sector leading sustainable development and more comprehensive data on our progress.

## Inside this report

### Overview

A description of our business and markets, the Group's strategy and the outlook for 2011

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### Symbols used within this report

 More content online at [www.riotinto.com](http://www.riotinto.com)

 Key performance indicators within this report

 More content within this report

# Performance highlights

## Record financial and operational performance

### Strong financial performance

- Record underlying earnings of US\$14.0 billion, 122 per cent above 2009
- Record cash flows from operations of US\$23.5 billion, up 70 per cent
- Record underlying EBITDA of US\$26.0 billion, up 82 per cent on 2009
- Net debt decreased from US\$18.9 billion to US\$4.3 billion at the end of 2010

### Exceptional operational delivery

- 18 per cent decrease in all injury frequency rate from 2009
- Production at, or above, capacity at many operations
- Record annual production of iron ore
- Annual hard coking coal production up 20 per cent on 2009
- Bauxite production up nine per cent

### Growth potential across the business

- US\$11 billion of major capital approvals in 2010, with US\$13 billion of capital expenditure expected in 2011
- US\$5.6 billion committed in 2010 on Pilbara expansion (100 per cent basis) to grow production by more than 50 per cent
- The Oyu Tolgoi copper-gold project came under Rio Tinto's management, with a pathway to increase ownership of Ivanhoe Mines Ltd to 49 per cent
- US\$1 billion approved to modernise hydropower based aluminium portfolio in Canada

### Continuing progress on sustainable development

- Reduced greenhouse gas (GHG) emissions intensity by 3.7 per cent from 2008
- 43 per cent decrease in the rate of new cases of occupational illness from 2009
- Community contributions of US\$166 million, up 40 per cent on 2009

### Dividend

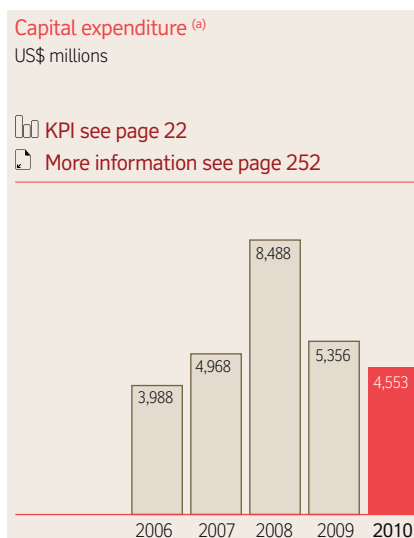
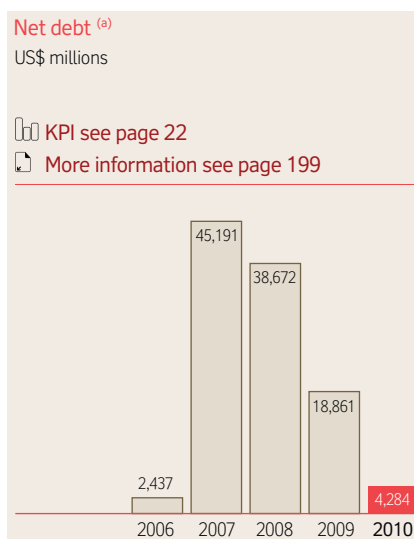
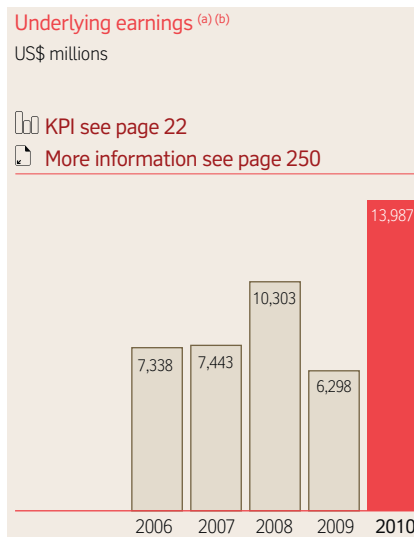
Dividend declared	2010	2009	2008	2007	2006
US cents	108.00	45.00	111.22	111.23	85.07
UK pence	67.35	28.84	67.49	56.20	44.22
Australian cents	111.21	51.56	146.22	125.72	110.69

#### Notes

\* All references in this report to net earnings and underlying earnings relate to profit attributable to equity shareholders of Rio Tinto. Underlying earnings is defined below and is reconciled to net earnings on page 182. EBITDA is earnings before interest, taxes, depreciation and amortisation. Underlying EBITDA excludes the same items that are excluded from underlying earnings. EBITDA and underlying EBITDA are reconciled to the income statement in the "Financial information by business unit" section of the financial statements.

#### Notes to pages 2 and 3

- (a) The accounting information in these charts is based on EU IFRS accounting information.
- (b) Underlying earnings is the key financial performance indicator which management uses internally to assess performance. It is presented here as an additional 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 2010 financial statements. Both net earnings and underlying earnings deal with amounts attributable to owners of Rio Tinto. However, EU IFRS requires that the profit for the year reported in the income statement should also include earnings attributable to non-controlling interests in subsidiaries.

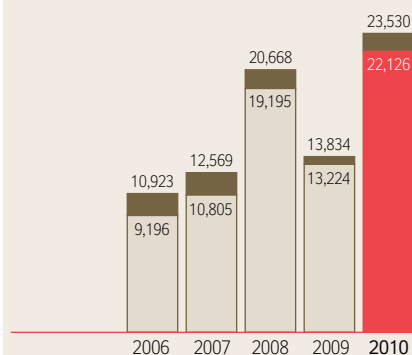


**Operating cash flows <sup>(a)</sup>**

US\$ millions

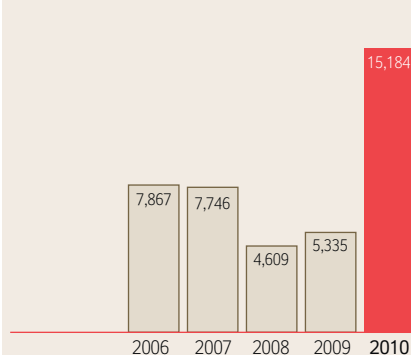
■ Dividends from equity accounted units  
□ Cash flow from consolidated operations

📄 KPI see page 22

**Profit for the year <sup>(a)</sup>**

US\$ millions

📄 More information see page 157

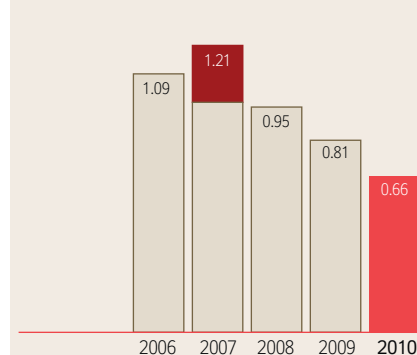
**All injury frequency rate**

Per 200,000 hours worked

■ Including former Alcan

📄 KPI see page 22

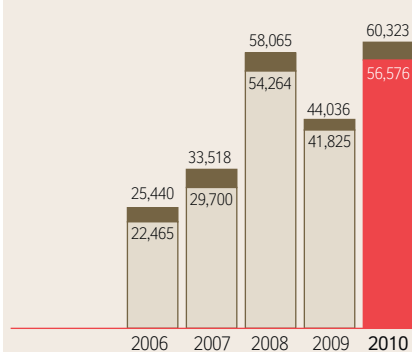
📄 More information see page 31

**Gross sales revenue <sup>(a)</sup>**

US\$ millions

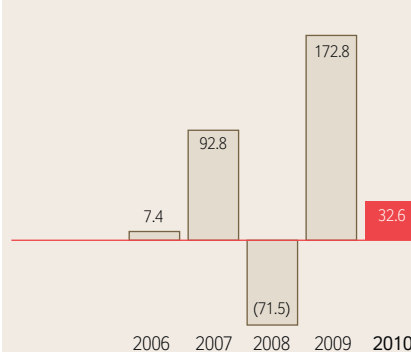
■ Share of equity accounted units sales revenue  
□ Consolidated sales revenue

📄 More information see page 250

**Total shareholder return**

%

📄 KPI see page 22

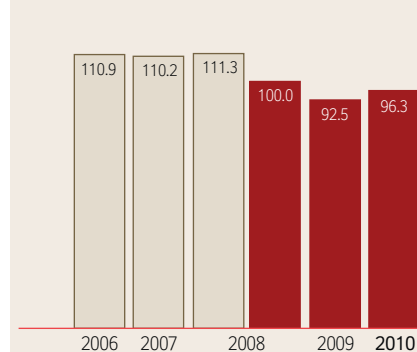
**GHG emissions intensity**

Indexed relative to 2008

■ Including former Alcan

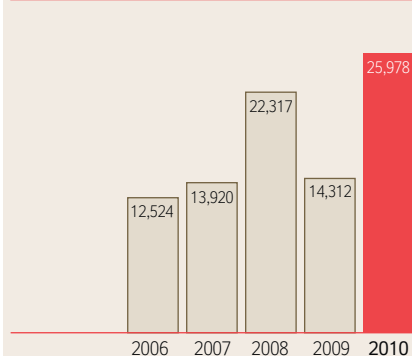
📄 KPI see page 22

📄 More information see page 34

**Underlying EBITDA <sup>(a)</sup>**

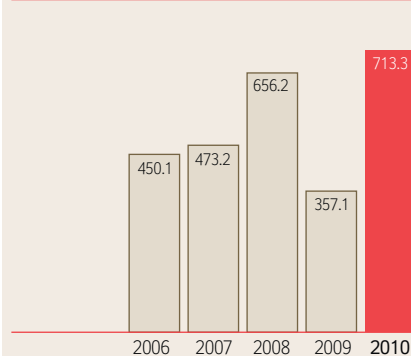
US\$ millions

📄 More information see page 250

**Underlying earnings per share <sup>(a)(b)</sup>**

US cents

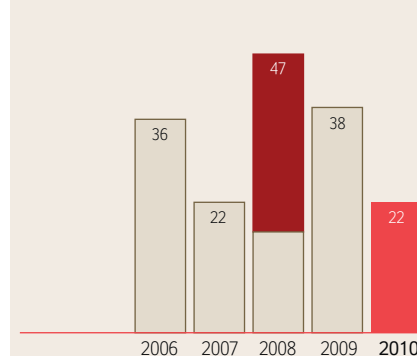
📄 More information see page 188

**New cases of occupational illness**

Per 10,000 employees

■ Including former Alcan

📄 More information see page 32



# Group overview

## Opportunities for long term growth

### Major global operations

Our assets are ideally positioned to serve our customers worldwide. The majority of our operations are in Australia and North America, but we also have businesses in South America, Europe, southern Africa and Asia. While our operating heartland is in OECD (Organisation for Economic Co-operation and Development) countries, much of our sales are to emerging economies – which are driving the anticipated growth in metals and minerals demand. To meet rising demand, we will continue to pursue value-adding organic growth, plus targeted small to medium sized acquisitions.

Our five product groups (below) are supported by our Exploration and Technology & Innovation groups.

### Aluminium

We are a global leader in the aluminium industry. Our closely integrated facilities include high quality bauxite mines and alumina refineries, as well as some of the world's lowest cost primary aluminium smelters.

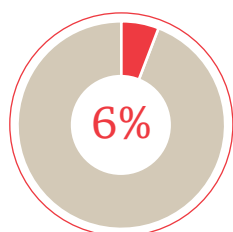
#### Products

- Bauxite, alumina, aluminium

#### Key strengths

- Effective portfolio management, improving our already strong position and moving assets further down the cost curve.
- Largest bauxite producer in the industry.
- Self generated hydroelectricity at many facilities.
- Global scale gives the group the ability to seize opportunities and support customers worldwide as markets continue their recovery.
- One of the best growth project pipelines in the aluminium industry, supported by our management expertise and proprietary AP Technology™.

Contribution to Group underlying earnings <sup>(a)(b)</sup>



 Full operating review on page 42

### Copper

With diverse assets and leading technology, our Copper group is uniquely positioned to supply growing global demand. In 2010, we produced 678 thousand tonnes of copper, making us the world's fifth largest supplier. We also produced 772 thousand ounces of gold and 13 thousand tonnes of molybdenum as by-products of our copper operations.

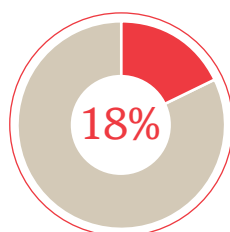
#### Products

- Copper, gold, molybdenum, silver, nickel

#### Key strengths

- Participation in and ownership of several world class operating assets. Management of the Oyu Tolgoi project, scheduled to be a top ten copper producer and a significant gold producer.
- Investment in a substantial growth profile.
- Industry leading technology and innovation.

Contribution to Group underlying earnings <sup>(a)(b)</sup>



 Full operating review on page 46

### Diamonds & Minerals

The Diamonds & Minerals group comprises mining, refining and marketing operations across three sectors. Rio Tinto Diamonds is one of the world's leading diamond producers, active in mining and sales and marketing. Rio Tinto Minerals is a world leader in borates and talc, with mines, processing plants, commercial and research facilities. Rio Tinto Iron & Titanium is an industry leader in high grade titanium dioxide.

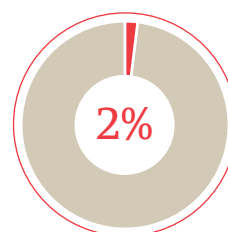
#### Products

- Diamonds, borates, titanium dioxide feedstocks, talc, high purity iron, metal powders, zircon, rutile

#### Key strengths

- Poised to benefit from late-cycle demand growth.
- Substantial brownfield and greenfield development pipeline.

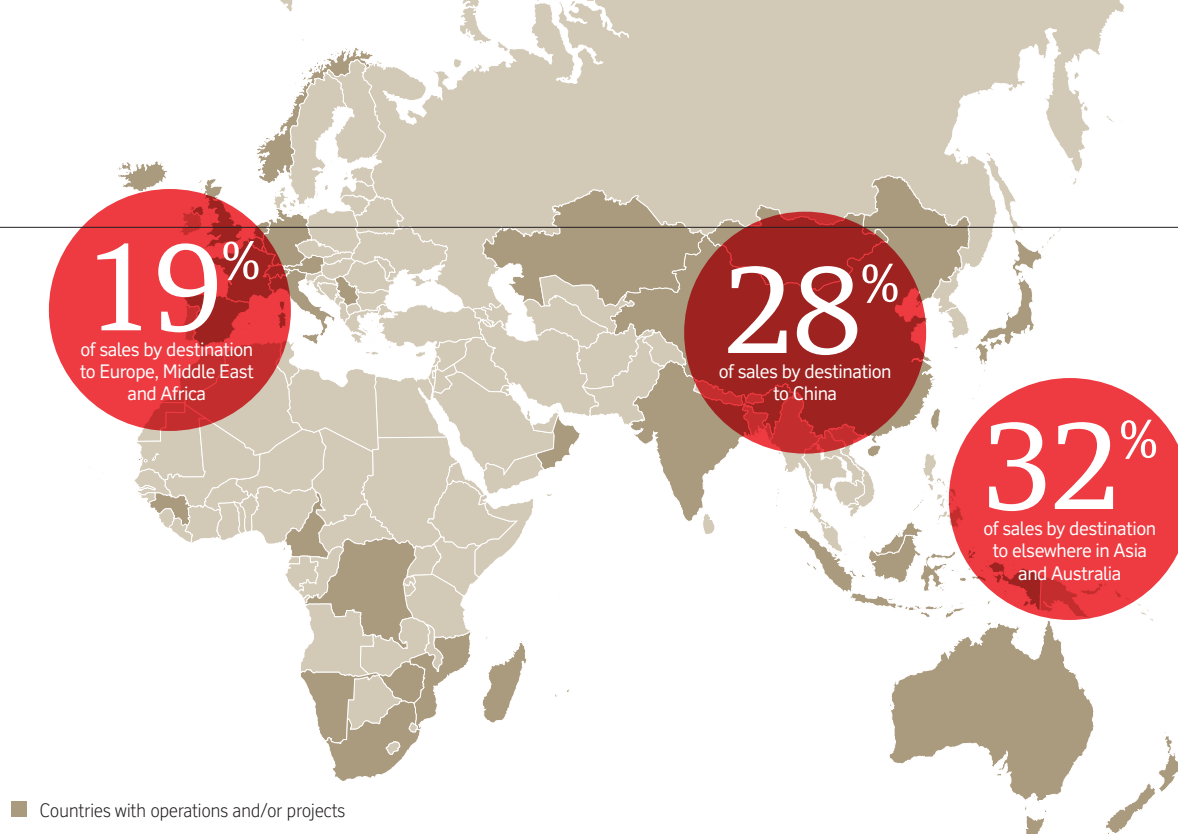
Contribution to Group underlying earnings <sup>(a)(b)</sup>



 Full operating review on page 50

(a) Items excluded from net earnings to arrive at underlying earnings are explained in note 2 to the 2010 financial statements.

(b) Aggregate product group underlying earnings contribution of 107 per cent is reduced to 100 per cent by negative amounts for Other items and Net interest.



## Energy

We are a leading supplier of thermal and coking coal to the Asian seaborne market and are one of the world's largest uranium producers, serving electric power utilities worldwide. Our Energy portfolio includes: Rio Tinto Coal Australia; a coal mine at Colowyo in Colorado, US; Energy Resources of Australia, which produces uranium oxide from its Ranger operation; and Rössing, a Namibian uranium oxide producer.

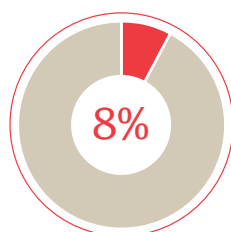
### Products

- Thermal coal, coking coal, uranium

### Key strengths

- Strong customer relationships and high quality assets located in close proximity to growing Asian markets.
- Emphasis on operational excellence, thereby reducing waste and greenhouse gas emissions and engaging our people.

Contribution to Group underlying earnings <sup>(a) (b)</sup>



Full operating review on page 54

## Iron Ore

We are the second largest producer supplying the global seaborne iron ore trade. After a decade of dramatic expansion in Australia, and more recent growth in both Australia and Canada, we believe we are well positioned to benefit from the continuing demand surge in China and other Asian markets. We are driving performance through effective project management and enhanced operational efficiency.

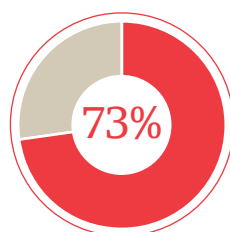
### Products

- Iron ore, salt

### Key strengths

- Proximity of the expanded Pilbara operations to the world's largest and fastest growing markets.
- Success in increasing operational efficiency and controlling costs.
- Vast potential of brownfield developments near existing infrastructure.

Contribution to Group underlying earnings <sup>(a) (b)</sup>



Full operating review on page 58

## Exploration

Exploration is one of the Group's core activities – largely paying for itself through the sale of non core discoveries.

Potential Tier 1 discoveries (see page 62) are retained for development and operation. These have included two of the largest copper opportunities in the world at Resolution in Arizona, US and La Granja in Peru. Exploration has also delivered one of the world's largest known undeveloped high grade iron ore deposits, at Simandou in Guinea, as well as the Calingina channel iron deposits in the Pilbara, Australia.

Full operating review on page 62

## Technology & Innovation

Our centralised team of specialists focuses on improving current technologies and operations, with emphasis on project development, execution and evaluation. The Group's Innovation Centre concentrates on step changes that will give us competitive advantages in developing the orebodies of the future. A special Energy & Climate Strategy Centre is dedicated to improving the Group's use of energy, reducing greenhouse gas emissions and understanding the effects of climate change on our operations and prospects.

Full operating review on page 64



# Product overview

## Touching your life every day

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### Major global commodities

Few people around the world can spend a day without using a metal or mineral in some way. In the production and supply of metals and minerals, Rio Tinto is one of the world's most diversified companies. Major products are aluminium, copper, diamonds, coal, iron ore, uranium, molybdenum, gold, borates, titanium dioxide, salt and talc.

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#### Aluminium

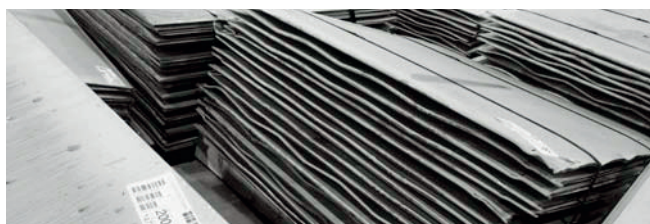


##### **Bauxite, alumina, aluminium**

Rio Tinto is a leading global supplier of bauxite, alumina and primary aluminium. In a closely integrated value chain, the mineral bauxite is refined into alumina which is smelted into aluminium metal. Aluminium is one of the most widely used metals and its largest markets are transportation, building and construction.

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#### Copper



##### **Copper**

About two thirds of copper production is used in electrical applications due to its high conductivity. It helps power our lives, in homes and factories, cars, computers, phones and equipment. Further major uses are in air conditioning and refrigeration, plumbing and roofing.

##### **Molybdenum**

Molybdenum is a metallic element frequently used in alloys with stainless steel and other metals. It enhances the metal's toughness, high temperature strength and corrosion resistance. We produce molybdenum as a by-product from the Kennecott Utah Copper operations.

##### **Gold**

Gold has enjoyed a mystique and value unrivalled by other metals. Most gold that is not stored as bullion for investment purposes goes into jewellery. Gold's conductivity and non corrosive properties make it a vital fabrication material in technology, electronics, space exploration and dentistry. We produce gold as a by-product from our copper mines.

##### **Silver**

Silver is a good conductor of electricity and does not corrode. It is used in many electrical and electronic applications, such as photovoltaic cells, and is the principal ingredient of x-ray film. Silver is also a metal of beauty, used to make lasting products for the home and person. Rio Tinto produces silver as a by-product of its copper production.

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#### Diamonds & Minerals



##### **Diamonds**

Diamonds share the role with gold as an important component in jewellery that ranges from top end jewellery through to more affordable pieces. Rio Tinto is able to service all diamond jewellery markets as it produces the full range of diamonds in terms of size, quality and colour distribution including whites, champagnes, cognacs, greys, blues and greens and the rarest of all, pink diamonds.

##### **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.

Segmental analyses of sales revenue by product and by destination have been included in note 32 to the 2010 financial statements.



### Titanium dioxide

The minerals ilmenite and rutile, together with titanium 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.

### Talc

Talc is hydrated magnesium silicate and is the softest rock in the world. It is an important ingredient in the manufacture of paper, paints, moulded plastics for cars and other familiar products. Rio Tinto produces various grades of talc for niche markets.

## Energy



### Coal

Coal is plentiful, relatively inexpensive, and safe and easy to transport. We are a large producer in the export thermal coal market. Thermal coal is used for electricity generation in power stations. We also produce higher value coking, or metallurgical, coal which, when treated into coke, is used in furnaces with iron ore to produce steel.

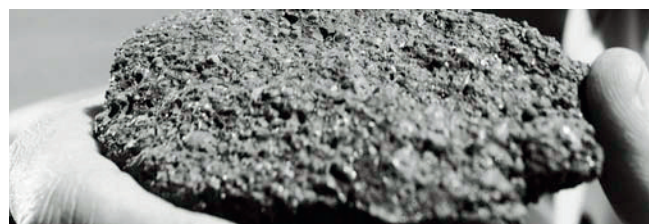
### Uranium

Uranium is one of the most powerful natural energy sources known, used in the production of clean, stable, base load electricity. After uranium ore is mined, it is milled into uranium oxide, the mine product that is sent away for further processing into fuel rods for nuclear power stations.

### Marketing channels

All sales and marketing activity is conducted by Rio Tinto's product groups who utilise a range of sales and marketing channels to interact with customers. These channels include direct sales, sales via distributors and sales via agents. No customer facing sales and marketing activity is handled outside of the product groups.

## Iron Ore



### Iron ore

Iron 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 mines are located in Australia and Canada.

### 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.

# Chairman's statement

## A year of record results

Our commitment to operational excellence has seen us capitalise on improved conditions in the external environment.

*Jan du Plessis*



Rio Tinto had an outstanding 2010. After responding to the challenges of the global financial crisis, and taking steps to stabilise and strengthen our organisation, we are now concentrating on, and delivering, operational excellence. This focus has allowed us to benefit from opportunities that have arisen in the more favourable external environment, and to deliver record results in 2010.

The exemplary performance of Rio Tinto's people was fundamental to our success in 2010. Their efforts enabled us in many cases to work our assets throughout the year at, or above, nameplate capacity, while also improving our safety performance. In 2010, we set a new Group record in the annual production of iron ore.

We achieved record underlying EBITDA of US\$26.0 billion, and record underlying earnings of US\$14.0 billion, up 82 per cent and 122 per cent on 2009, respectively. Net earnings were US\$14.3 billion compared with US\$4.9 billion in 2009.

We remain committed to efficient capital management. It is our belief that the long term creation of shareholder value requires a balanced approach to investing in growth and returning excess capital to shareholders, while maintaining a strong balance sheet. Our confidence both in our own portfolio and in future demand

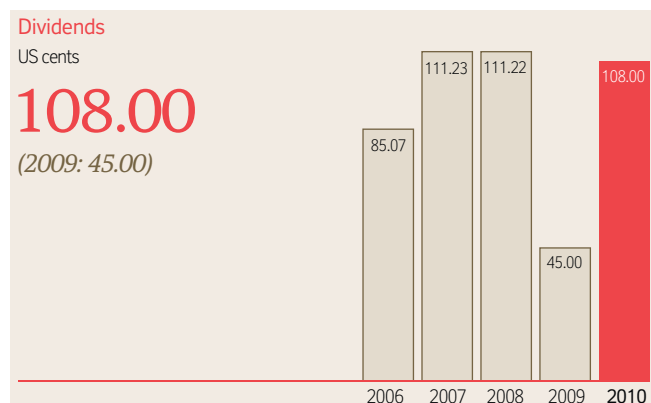
for our products has allowed us to increase our annual dividend by 20 per cent compared with our previous commitment. We are also proceeding with a US\$5 billion share buy-back, which we intend to complete by the end of 2012, subject to market conditions.

### Improved global economy

The world's major developed economies gradually stabilised during 2010, in response to government fiscal and monetary stimulus packages. Most were experiencing renewed GDP growth by the third quarter of 2009. China saw a sharp rebound in GDP growth, up from an annualised rate of nearly six per cent in 2009 to over ten per cent in 2010.

This economic stimulus has helped trade to recover from the low point of the global crisis, and thanks to our stronger balance sheet, we have been well positioned to benefit from this recovery. We have sharpened our focus on our programme of organic growth and, for 2011, we envisage continuing this focus, with capital expenditure set to increase to US\$13 billion.

We believe we are well prepared for the key challenges facing the mining industry as we grow to meet rising demand. We will need to overcome skills shortages as we compete for new talent not only with other mining companies, but also with other expanding sectors, such as oil and gas. This trend will become more apparent as we move into new, riskier geographies. There will be new technical challenges as we develop more remote and complex orebodies, and increased competition from new players in our sector. Although we anticipate continued volatility in our markets, we will need to look beyond the peaks and troughs of a cycle and be prepared to expand through volatile times.



## Sustainable development

As the world becomes more reliant on the metals and minerals we produce, we are increasingly challenged to grow and to find new, more efficient ways of providing our markets with the raw materials they demand. And as we grow, we are able to share more of the sustainable benefits of our activities with those around us.

Rio Tinto's commitment to sustainable development permeates our entire business. It is integral to our daily operations, to our legacy, and to our future. By maintaining our reputation as a responsible employer, neighbour, partner and citizen, we are constantly renewing our licence to operate. This approach gives us continuing access to the people, capital and resources we need.

We are recognised as a leader in sustainable development, as evidenced by our continued listing on the FTSE4Good, the Dow Jones Sustainability Indexes and the Carbon Disclosure Leadership Index. Our reputation helps us forge robust alliances with other organisations that lead the way in sustainable development, such as the three year partnership we formed with the International Union for Conservation of Nature in 2010. By sharing knowledge and best practice with our partners, we seek to continue to deliver sustainable benefits to the people and places where we work.

## Governance and risk

To achieve our vision of global sector leadership, we must continue to maintain the highest standards of corporate governance. These standards are underpinned by ethical guidance in the form of our global code of conduct, *The way we work*; the application of best practice; and continually striving for excellence to create value for our shareholders. Based upon our agreed strategic framework, Rio Tinto's board supports and oversees the Group's management in its delivery of sustained operational excellence as well as growth opportunities, whether organic or through prudent corporate activity.

The board recognises that risk is an integral and unavoidable part of doing business and that while risk carries threats, it also offers opportunities. Our processes for handling risk effectively are embedded throughout our organisation and are essential for maintaining our competitive advantage. There is a more detailed discussion of risk management on page 24.

Board succession planning is an essential component of effective corporate governance and the continued success of our business. In 2010, we strengthened our board through the appointment of two new non executive directors, Ann Godbehere and Robert Brown.

We also saw two retirements from the board. Sir David Clementi, who was chairman of the Audit committee, stepped down in May 2010, as did David Mayhew. In accordance with a provision of the new UK Corporate Governance Code, all of the Directors will stand for re-election by shareholders annually with effect from the 2011 annual general meetings. As previously indicated, Yves Fortier, formerly chairman of the board of Alcan Inc and also Sir Rod Eddington, will not be standing for re-election by shareholders in 2011. Yves and Rod have each made significant contributions to the board during their tenure with Rio Tinto and I would like to express my personal appreciation of the tremendous support they have given to me over the years. Meanwhile, Andrew Gould, Senior Independent Director and chairman of the Remuneration committee, has announced that he will be leaving the Board at the conclusion of the 2012 annual general meetings.

On behalf of the board, I continue to lead the succession and routine refreshment of directors to ensure the most appropriate balance of skills and experience, and to drive effective decision making.

## Outlook

Urbanisation and industrialisation in populous parts of the world will continue to provide a strong platform for increasing demand for metals and minerals. Although long term fundamentals for growth are strong, there are downside risks in the short term, and potential for medium term volatility due to persistent economic imbalances. Financial systems remain fragile, particularly in OECD countries. The increase in sovereign debts, and government measures to address fiscal imbalances, are likely to temper short term growth.

We constantly seek to assess the potential impact of these factors on the Group's plans, and to enhance our capabilities to predict demand and understand our markets.

## Our people's commitment

It is inspiring to see the way our global team of people works together and strives for ways to improve our collective performance. Throughout the year, their commitment, talent and integrity have led to the delivery of remarkable results.

On behalf of the board, I would like to thank all of our people for their hard work during the past year. Our thanks also go to our shareholders, whose continued support of Rio Tinto has helped us achieve record levels of performance in 2010.



Jan du Plessis, *chairman*

# Chief executive's statement

## Strong momentum and value adding growth

From a position of increased strength and with growth firmly on our agenda, we are making significant progress towards our vision of global sector leadership.

Tom Albanese



2010 saw Rio Tinto move steadily towards its vision of global sector leadership, recording exceptional performance and creating a clear pathway for sustainable growth.

We are now financially stronger and have greater optionality, thanks to significant progress with our divestment programme, efficiencies derived from our business transformation initiatives and record annual production in our iron ore business.

Improved pricing and market conditions also enhanced our flexibility and enabled us to approve US\$11 billion in major capital projects during 2010. Growth is firmly on our agenda.

These achievements are a credit to the 77,000 employees who work for Rio Tinto across the world and I would like to thank them for their ongoing commitment.

In 2010, we increased our focus on operational efficiency and risk management, with a particular emphasis on compliance and continuous improvement. Running operations which are safe, reliable and injury and illness free is our number one priority. We are proud to have improved our safety record, with an 18 per cent decrease in the all injury frequency rate. However, I must record with sorrow the deaths of three people in our managed facilities.

We have increased our focus on process and contractor safety, remaining absolutely committed to safety in the workplace. We are determined to achieve zero harm in all of our operations.

### Strategy

Our strategy has remained absolutely consistent – to invest in and operate large, long term, cost competitive mines and assets, driven not by the choice of commodity but rather by the quality of each opportunity.

To achieve this, we focus on a portfolio of Tier 1 assets diversified by commodity, market and geography. This approach has underpinned our ability to overcome the challenges of previous years. I am greatly encouraged by the Group's performance, which is a testament to our focus on creating shareholder value in the long term.

### 2010 objectives

As a result of the investments announced during the year, we have significantly enhanced our global presence in key operational areas.

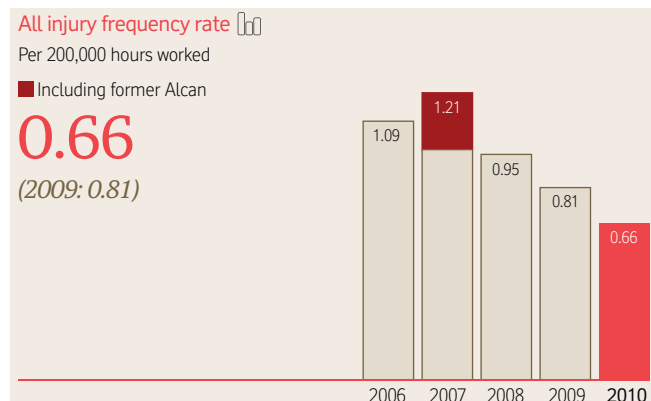
In 2010, to support the execution of our strategy, we focused the business on five short term priorities: operational delivery; prudent balance sheet management; pursuing our growth path; completing the proposed Western Australian iron ore production joint venture; and strengthening our relationship with China.

I am pleased to say we made significant progress in almost all of these areas.

Our focus on operational delivery helped us break production records. We took steps to optimise our financial position and, as a result, our balance sheet is stronger. We grew organically, reflecting confidence in our business and the outlook for our markets.

The cessation of our plans to form a Western Australian iron ore production joint venture with BHP Billiton was a disappointment, but we respect the regulators' views. We remain focused on a more than 50 per cent expansion of our iron ore business in the Pilbara, leveraging our world class assets and organisational capability.

We began 2010 with a difficult period in China, but went on to make significant progress in developing stronger ties there. In March 2010, four employees based in Shanghai were convicted of receiving bribes and obtaining commercial secrets. This disappointing and unacceptable behaviour violated the Group's strong ethical culture as well as Chinese law, hence their employment was terminated. The independent forensic investigation found that any illegal activities were conducted entirely outside the Group's systems.





We also looked towards the future. In July, we signed a joint venture agreement with Chalco for the development and operation of the Simandou iron ore project in Guinea and we continue to have discussions with the Government of Guinea. At the end of the year, we signed a memorandum of understanding with Chinalco to establish a landmark exploration joint venture in China, and also agreed to extend our Channar Mining joint venture in the Pilbara with our partner, Sinosteel Corporation.

In a year of considerable progress across the Group, several projects stand out: our iron ore expansion plans in the Pilbara; our increased interest in the Oyu Tolgoi copper-gold project in Mongolia and the signing of an agreement to become the development and operating manager of Oyu Tolgoi; and progress towards modernising and expanding our Canadian aluminium portfolio. At the end of the year we announced a recommended offer for Riversdale Mining Limited, which, if successful, would provide us with a substantial Tier 1 coking coal development pipeline in Mozambique. This is an example of the small to medium sized acquisitions that we are currently focused on.

### A strong framework for sustainable development

Wherever we operate, whatever we do, sustainable development underpins our vision. Our sustainable development approach gives governments confidence that we will develop resources in a way that will benefit their economies and communities and will protect their environments.

The mining and natural resource sector occupies an increasingly strategic and exposed position in the thinking of governments and other stakeholders. While these factors can lead to tensions, with effective management, new opportunities will emerge. Through proactive leadership, and by building relationships with all our stakeholders, we can turn this area of challenge and complexity into a source of competitive advantage.

We will continue to show leadership in areas such as employee health and safety; community engagement; and in global issues vital to the future of the world's environment such as carbon, water use and biodiversity.

### Well placed to meet rising demand

Prices for many of our products recovered during the year driven principally by demand growth in China and the OECD countries. Iron ore and copper prices were particularly strong. While government stimulus measures generally supported a gradual return to normalised global trade, the improvement in developed economies faded slightly during the latter part of 2010.

We believe the recovery momentum of the major economies will remain uncertain and volatile as the impact of the fiscal and monetary stimuli fades. Therefore, we remain cautious about the short term view of the economy. Globally, we expect GDP growth in 2011 to continue at broadly healthy levels of around 4.5 per cent. However, the pace of economic recovery will vary between the different markets we supply.

In the longer term, we believe the fundamentals are strong, but we will not be complacent. Much of the anticipated growth in demand for minerals will be driven by China and other emerging economies. Implementation of our established strategy will enable us to take advantage of increasing demand from these fast growing regions.

### Financial recovery

We will meet that demand from a strong financial position. In the past year we have transformed the Group's balance sheet. Our robust operating performance, including record annual production in iron ore, led to record cash flows and underlying earnings in 2010. We completed a number of disposals, making asset sales totalling US\$4.2 billion in 2010. This takes the total divestments completed since 2008 to more than US\$11 billion and largely completes the disposal programme launched in 2007.

### Achieving our vision

With a focus on organic growth, we will also consider strategic merger and acquisition opportunities of moderate size that fit our overall direction and help us achieve our vision.

As we move into 2011 we have established a longer term vision for global sector leadership, reflecting the long term nature of our business. Our strategy and business model are explained in detail on p18.

### The people who make it all happen

We are fortunate in the Group that our geographic spread gives us access to the skills and talents of a highly diverse workforce. But there is much more we have to do and we have set ambitious plans to foster greater diversity.

It is our policy to offer our employees career opportunities that are rewarding and stimulating with real opportunities for personal and professional development. For example, training and recruitment programmes are under way in a number of countries in which we have embarked on major development opportunities. These include Madagascar, Mongolia and Guinea.

We recognise that given our ambitious growth plans, our recruitment challenge will be substantial, particularly in some of our more competitive labour markets. We will not fulfil this requirement without a concerted effort to make Rio Tinto the employer of choice, something we are committed to achieving.

I want to take this opportunity to thank our shareholders, my leadership team and all of our employees across the world. It has been a year of exceptional performance and momentum, which was truly a team effort. I am looking forward to building on this success in 2011.

In a world of increasing commodity demand and growing sustainable development challenges I believe Rio Tinto will set itself apart through its leadership in operational delivery, exploration, technology and innovation and sustainable development to become the preferred industry partner and developer.



Tom Albanese, *chief executive*

# Chief financial officer's statement

## Sustainable growth in shareholder value

Rio Tinto is once again able to invest in its high quality value adding growth programme, maintain a strong balance sheet and deliver capital returns to shareholders.

*Guy Elliott*



### Record breaking financial performance

Record underlying earnings of US\$14.0 billion were 122 per cent higher than 2009 driven by the continuing recovery in commodity prices and strong operational performance. Record cash flows from operations of US\$23.5 billion demonstrated the exceptional cash generation capabilities of our Tier 1 assets.

Strong operational performance during 2010 allowed us to benefit fully from the strong price environment. The broader global recovery meant that we began to face pressures on our costs that are likely to continue in the coming year. In particular, labour and contractor costs in some geographies such as Western Australia are expected to rise. However, we are focusing on productivity improvements, effective procurement and operating efficiency to help to offset these input cost pressures.

The markets for our products are increasingly complex, with the introduction of new pricing mechanisms in the bulk commodity markets, the continued emergence of base metals as a financial asset class and the volatile macroeconomic environment in which we continue to operate. To navigate these challenges effectively Rio Tinto has formed a Marketing Leadership team. This team will support our marketing vision of optimising the value of our resources, enabling our sales and marketing teams to become increasingly nimble and customer focused.

### Restoration of balance sheet strength

We transformed our balance sheet in 2009 and we further improved on that position during 2010. Through strong cash flows from operations and the completion of US\$4.2 billion in divestments, we reduced our net debt from US\$18.9 billion to US\$4.3 billion.

In addition to reducing net debt, we have also improved our medium term debt maturity profile and reduced our weighted average interest cost. In October 2010 we successfully issued US\$2 billion in bonds with five, ten and 30 year maturities at record low interest rates for the metals and mining industry. The proceeds were used in a successful tender for US\$1.9 billion of bonds due in 2013.

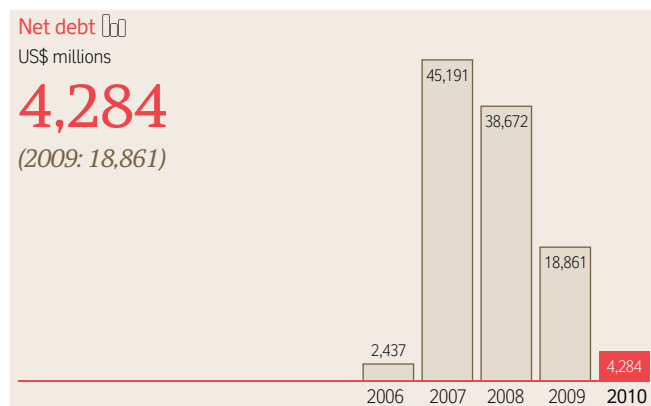
These actions are part of a prudent approach to managing the balance sheet. This approach has been rewarded by the restoration of a single A credit rating by Moody's.

A strong balance sheet will allow Rio Tinto to invest at all points of the commodities cycle in our first class growth projects. It may help us to withstand sudden large shocks to the global economy that could arise from the significant imbalances that currently exist, enabling us to take advantage of value creating opportunities as they arise.

### The investment environment

Over the long term we expect industrialisation and urbanisation in developing economies, including China and India, to continue to drive underlying growth in demand for the commodities that we produce. In Europe and North America high levels of government debt will mean difficult decisions for governments as they rebalance their economies. These worldwide discontinuities introduce the risk of unexpected shocks in the global economy. Our outlook is therefore for strong underlying growth for our products but with a potentially high degree of volatility.

It is important that we have a stable environment within which we can invest. A key to successful mineral development is a culture of trust, transparency and mutual benefit to all parties. Australia's proposed Resource Super Profits Tax and its subsequent replacement with the Mineral Resource Rent Tax proposal highlighted that resources and resource nationalism are now major items on the political agenda



in many countries. Rio Tinto is committed to working constructively with all host governments to ensure that tax policy development does not create a hostile environment for investment.

Within this context our strategy remains to invest in Tier 1 resources – those with the potential for a long life, that are cost competitive and that have options to expand. We do not prioritise investment in any particular commodity and do not limit ourselves to those commodities in which we currently operate. Similarly, we do not target or avoid specific geographies. By focusing on identifying and investing in Tier 1 assets which will add value to our shareholders, regardless of the commodity concerned, we will remain a diversified natural resources group.

### Investing in organic growth

We have a very strong pipeline of high quality organic projects and a resource and mineralisation position which allows sustainable long term growth. Because the quality of our projects is high, we will maintain our position as a large, cost competitive producer.

We have continued to invest in the business with capital expenditures in 2010 of US\$4.6 billion. During the year we approved US\$11 billion for new major projects including expansion of our iron ore infrastructure and mines in Western Australia and Canada, the first phase of an aluminium smelting plant in Quebec using our new AP60 technology, and the modernisation of the Kitimat aluminium smelter in British Columbia.

The approval of these and other projects in 2010 together with ongoing projects such as the expansion of Yarwun alumina refinery and the Kestrel coking coal mine will drive the allocation of capital in 2011, when we expect capital expenditure of approximately US\$13 billion.

In 2010 we began to reinvigorate our exploration and evaluation programmes. The Group has a long history of finding high quality assets through exploration. We are funding feasibility and pre-feasibility studies on projects such as the further expansion of our Pilbara operations, Simandou, La Granja, Resolution, and the Kennecott Utah Copper extension. This work will develop the next generation of Tier 1 assets.

Rio Tinto has a very substantial inventory of projects and resources which have not yet reached the stage of development approval. These projects provide us with valuable growth potential over the longer term.

### Business development

Since the beginning of 2008 we have realised over US\$11 billion of gross cash proceeds from the sale of non core assets. The majority of the divestments identified during the strategic review in 2007 are now complete, including nearly all of the Alcan downstream businesses. However, we will continue to review the portfolio of assets to identify those that are no longer consistent with our strategy, with a particular focus on higher cost aluminium assets.

We are also constantly reviewing the market for potential opportunities to add to our portfolio through small to medium sized acquisitions and other business combinations.

In December we announced a recommended cash offer for Riversdale Mining. This is a good fit with Rio Tinto's strategy of focusing on small to medium sized acquisitions that provide access to large, long term, cost competitive assets.

In December we signed an agreement with Ivanhoe Mines, the owner of 66 per cent of the world class Oyu Tolgoi copper-gold project in Mongolia, whereby Rio Tinto will become the development and operating manager of that project. We have now increased our ownership interest in Ivanhoe Mines to 42.1 per cent and secured the right to increase this further to 49 per cent.

We will continue to look for further innovative opportunities to enter into new joint ventures with various parties. In the past we have gained access to new resources, new geographies and special expertise through such vehicles and will look to continue to do so in the future.

We continue to employ a disciplined approach to investing in growth opportunities. Investments in projects and business combination opportunities must continue to meet our strict criteria of investing in high quality large, long term, cost competitive and expandable assets at good value.

### The return of capital to shareholders

Our first priority for allocation of capital has always been, and remains, to make value adding investments in our business in order to optimise shareholder value. We are committed to achieving and maintaining a single A credit rating.

A further priority is our dividend. We were pleased to announce a final dividend of 63 US cents per share. The total dividend in respect of 2010 was 108 US cents per share, 20 per cent higher than the dividend commitment we had made to shareholders at the time of the rights issues in June 2009. This will form the basis of a progressive dividend policy, so that we expect the US dollar value of ordinary dividends will increase over time. The interim dividend is set at one half of the total dividend for the previous year and is therefore expected to be 54 US cents per share in 2011. Under the progressive dividend policy the final dividend for each year is expected to be at least equal to the previous interim dividend.

We recognise that during times of high cash generation a progressive dividend policy alone will not return excess cash to shareholders. Therefore, we are undertaking a US\$5 billion share buy-back programme over 2011 and 2012, subject to market conditions. This commitment will still leave us with the flexibility to make significant investments in our business while remaining committed to achieving a single A credit rating.

Rio Tinto is once again able to invest in its high quality value adding growth programme, maintain a strong balance sheet and deliver capital returns to shareholders. Our established strategy, financial discipline and leadership in project execution all mean that we are well positioned to continue creating sustainable growth in shareholder value over the coming decades.



Guy Elliott, chief financial officer

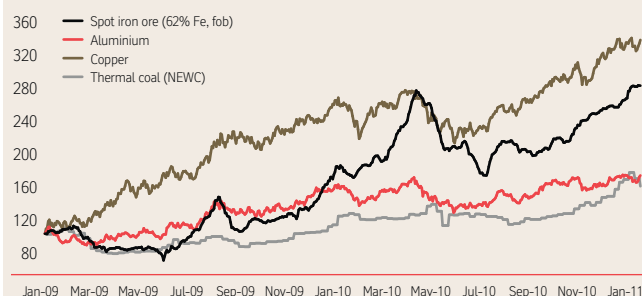


# Strategic context

## A global perspective for metals and minerals

### Commodity price indices

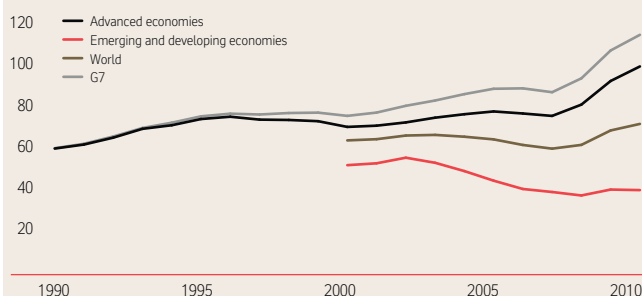
Daily spot price index (1 January 2009 = 100)



Sources: LME, Reuters Ecowin, globalCOAL, Platt's

### Economic imbalances may lead to volatility

Countries debt to GDP ratio (%)



Source: IMF

### Competitive environment

Rio Tinto is a major producer in most of the metals and minerals markets in which it operates. It is generally among the top five global producers by volume in each such market. Rio Tinto's activities are spread across the globe. Most of Rio Tinto's competitors are private sector companies which are publicly quoted. Several are, like Rio Tinto, diversified in terms of commodity exposure, but others are focused on particular commodities.

High quality, long life mineral resources, on the basis of attractive financial returns, are relatively scarce. Nevertheless, Rio Tinto holds interests in some of the world's largest deposits. Rio Tinto expects world production volumes to grow in line with global economic growth. In addition, higher demand from China and potentially India, as a result of high rates of economic growth and urbanisation trends in those countries, could contribute further to increases in world production volumes in the long term.

### Global economy

The introduction of large fiscal and monetary stimuli by governments around the world started to take effect towards the middle of 2009. Global trade started to recover during the second half of the year, led by activity in Asia. Major developed economies gradually stabilised with most experiencing renewed GDP growth by the third quarter of 2009.

The recovery continued into 2010, although with marked differences in the pace and sustainability of growth between OECD and emerging Asian countries. The emergence of a two-speed economy reflects the fact that financial excesses leading to the global crisis had developed primarily in advanced economies, which now face a significant adjustment process. However, it is also a reminder that many of the global imbalances that had accumulated over the past decade remain, and in some cases, have become more acute.

The recovery in the OECD has so far been dependent on government stimulus and an initial phase of inventory rebuilding, with the growth momentum built since the middle of 2009 fading slightly in the latter part of 2010. Sovereign debts in advanced economies have increased significantly as a result of the financial crisis and governments in several countries are now faced with tough decisions to address fiscal imbalances by reducing spending and raising taxes, with likely negative consequences for short term growth. Financial systems remain fragile implying scope for volatile outcomes ahead.

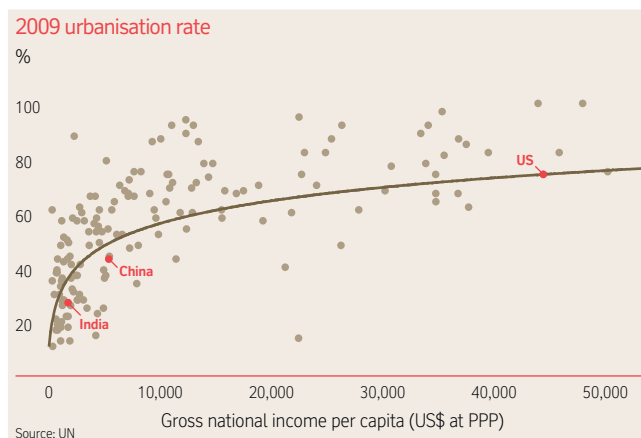
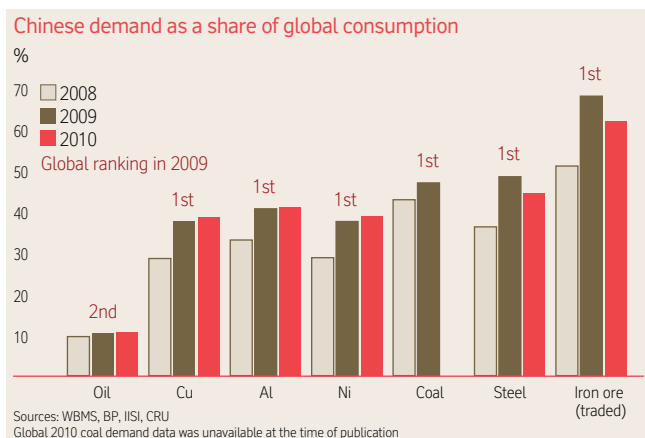
Although the short term prospects for emerging economies are much brighter, Asian countries continue to rely strongly on demand from advanced economies. The reform process required to boost domestic consumption is likely to be lengthy. In the meantime, growth in China has become even more dependent on investment than before the global financial crisis, with fixed capital formation now accounting for over 40 per cent of China's GDP. Such imbalances are likely to remain key challenges for the global economy in coming years. However the key underlying trends of urbanisation and industrialisation in populous parts of the world will continue to provide a strong platform for growth.

### China

The sharp rebound in China's economic growth since the first quarter of 2009 resulted from the Chinese Government's rapid response to the collapse of global trade as well as a reversal of tightening policy introduced during 2008 to combat an overheating property market. The RMB4 trillion stimulus package introduced in late 2008 and the accompanying surge in bank lending spurred the development of infrastructure projects and a quick turnaround in housing construction activity. Having fallen to an annualised pace of nearly six per cent in early 2009, China's GDP growth exceeded ten per cent in 2010.

With the growth momentum firmly back on track, the Chinese Government renewed its attempts to quell rising house prices through a series of policy interventions. The key challenge is for the Government to successfully contain inflation and asset bubbles in an environment of excess liquidity. The Government is also pushing for more incremental structural reforms to boost household consumption.

As the Chinese economy transitions towards its 12th five year plan, it is likely to focus increasingly on development strategies and institutional reforms aimed at reducing some of the growing domestic imbalances. This should translate into a stronger focus on technology and services as well as policies targeting the development of inland and rural areas. Although such reforms could ultimately lead into a phase of economic growth that is less commodity intensive than over the past ten years, investment and the development of infrastructure projects should remain an important aspect of the Chinese economy in the medium term. China consumed 400kg of steel per capita in 2009, about half the levels seen in Japan at its peak, with significant scope for further increases in coming years.



## Commodity markets

The start of a stabilisation in the global economy from the second quarter of 2009, and more importantly the rapid turnaround of the Chinese economy, triggered a sharp rebound in commodity prices. Chinese imports of metals and minerals soared to new highs during 2009 as a result of recovering underlying demand, restocking, scrap shortages, closure of high cost domestic capacity and some speculative activity facilitated by rising liquidity. As a result China's share of global demand in 2009 increased to between 35 and 50 per cent for several commodities and up to two thirds for traded iron ore.

China's strong appetite for commodities continued into 2010 in combination with resurgent demand from OECD economies. Although minerals and metals consumption in advanced economies remained below pre-crisis levels, the demand trends contributed to a further tightening in some markets and a return to prices seen in mid 2008 for commodities such as copper and iron ore. In a significant shift in energy markets in 2009, China became a net importer of thermal coal. This continued into 2010, absorbing supply from traded Asian seaborne coal and keeping upward pressure on prices. Meanwhile, the aluminium market has moved closer to balance during 2010 benefiting from strong demand from the recovering automotive sector. However, overall stock positions remain high compared to historical levels.

For bulk commodities, a key development during 2010 has been a further step away from previous benchmark price settlement mechanisms and towards more market oriented and shorter term pricing arrangements. These movements reflect changing market dynamics, with China being the main catalyst through rapid demand growth and greater fragmentation of the demand and supply sides. Pricing periods for coking coal and iron ore have moved towards quarterly cycles and, in the case of iron ore, references to published price indices started to appear in term contracts. Although still relatively underdeveloped, these new pricing arrangements are attracting the attention of financial institutions with the establishment of financial tools such as futures contracts for iron ore.

The growing influence of financial investors is also being felt in the already well developed base metals markets, with discussions during 2010 focused on plans to introduce physically backed Exchange Traded Funds for aluminium and copper. Low interest rates are already facilitating the financing of stock positions in

the aluminium market where a large proportion of on and off LME inventories are currently understood to be tied into financing deals. Such activities are likely to continue in a context of further quantitative easing, the major effects of which are to reduce real interest rates, weaken the US dollar, raise inflation expectations and increase asset prices, especially for assets leveraged to growth in developing countries such as commodities.

Despite the greater participation of an increasing web of financial players in the commodity markets, physical fundamentals remain key in driving price dynamics. In a context of renewed strong demand, cost inflation is starting to creep up again across the mining industry with potential supply side challenges as a consequence.

## Outlook for 2011

Forecasters have become more cautious about the strength in OECD economies in 2011 but the IMF is still predicting global growth above four per cent and Chinese GDP is expected to grow above nine per cent. Historically global growth at these levels has provided a strong basis for commodity demand allowing Rio Tinto to run its operations at full capacity.

Some risks to the near term outlook include an inevitable reduction in the level of fiscal and monetary stimulus, much of which is commodity intensive. Another key risk is linked to sovereign debt crises, especially in Europe, and the potential impact that these could have on the stability of global financial markets as well as implications for investor and consumer confidence.

Looking to the longer term, increasing prosperity in developing countries including China and India, with associated industrialisation and urbanisation, will continue to drive underlying growth in demand for commodities. At the same time, it is apparent that global imbalances might take many years to resolve. This points to a high average growth setting for our markets but also one characterised by potential strong volatility. Rio Tinto, and the mining industry in general, are responding to the rapid demand recovery and stronger prices with reinvigorated capital expenditure expansion plans. This is in turn putting renewed pressure on skills, equipment and key raw material availability with implications for cost escalation and project schedules.

# The way we work

## Our global code of conduct



*The way we work* defines how we conduct ourselves as a business. It is underpinned by our values, our approach to sustainable development, and by effective corporate governance.

### Chairman's introduction

Four values define Rio Tinto: accountability, respect, teamwork and integrity.

They guide everything we do and are expressed through the principles and standards of conduct as set out in a global code of conduct called *The way we work* (available on our website at [www.riotinto.com/library](http://www.riotinto.com/library)).

*The way we work* defines the way we manage the economic, social, political, environmental and governance challenges of our operations. It also frames a unified approach to complying with the regulatory obligations of our stock exchange listings in the UK, Australia and the US. Everyone in the Group is required to take training on *The way we work*.

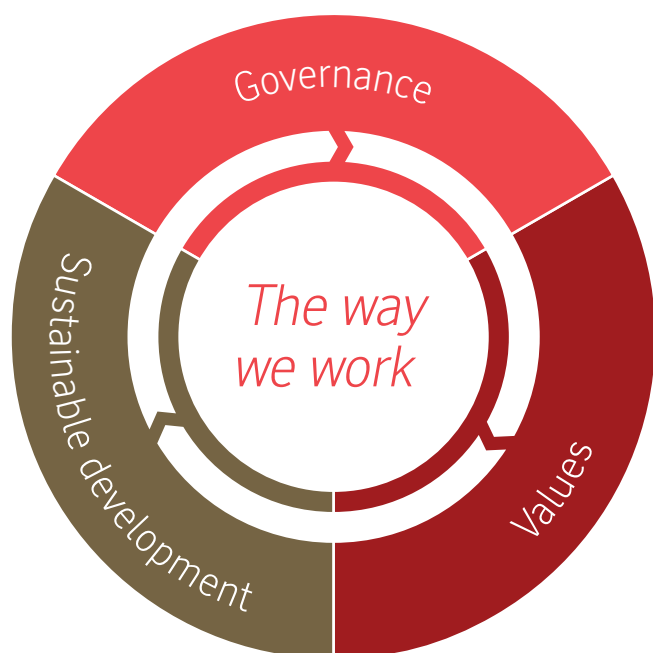
But most important of all, our values help the Group to fulfil our commitment to shareholders to maximise total returns whilst also fulfilling our commitment to contribute to sustainable development. This is because, as a company

with a reputation for acting responsibly, we will be welcome as investors, partners and members of the local community wherever in the world we operate.

This will hold true even as expectations and regulations surrounding corporate governance change following the global financial crisis and our business evolves.

We regularly review our practices to make sure they are aligned with changing regulations and that they continue to support the principles and values contained in *The way we work*.

Jan du Plessis, *chairman*



Related information online at [www.riotinto.com](http://www.riotinto.com)

[www.riotinto.com/library](http://www.riotinto.com/library)

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Related sections within this report

Report on corporate governance	p114
Risk management	p24
Sustainable development review	p29

## Governance

### The role of the board

Rio Tinto plc and Rio Tinto Limited have a common board of directors who are responsible for the Group's success and accountable to shareholders for our performance.

Consistent with accepted good practice, the board consists of a mix of executives and independent non executives, the majority being independent non executives. This combination balances innovative thinking with business knowledge and experience.

The board has established committees responsible for audit, executive remuneration, executive and non executive succession, social and environmental matters and assisting the board to deliver its responsibilities. Each plays a vital role in underpinning how we work.

To ensure their relevance and continuing adherence to best practice, the committees annually review their terms of reference. More detailed descriptions of the board and its committees are on pages 118 and 122.

### Managing risk

Rio Tinto recognises that risk is an integral component of its business, and that it is characterised by both threat and opportunity. The Group fosters a risk aware corporate culture in all decision making. Through skilled application of high quality, integrated risk analysis and management, we enhance opportunities and reduce threats, and so achieve and maintain competitive advantage.

The Group's Risk standard guides the process by providing an overall methodology and structure for the handling of risk within the organisation. The Group seeks to provide the board and senior management with a consistent, Group wide perspective of the key risks. Reports are submitted to the board twice per year and include assessment of the likelihood and impact if risks materialise, along with risk management initiatives.

## Sustainable development

As a company, we naturally meet the needs of customers, but we seek to do this without compromising the ability of future generations to meet their needs. That is what we mean by sustainable development. It is good business as well as good sense.

Our continuing financial success depends on the Group's ability to gain access to the land, people and capital we need. To do that, we put our economic, social, environmental and technical expertise to work to harness these resources. This process creates prosperity that is shared among shareholders, employees, communities, governments and business partners.

But there is more to it than that. Sustainable development also demands rigorous environmental stewardship. If we cannot always prevent harm, we can minimise and remediate any negative environmental effects of the Group's operations. To ensure this, we have developed high standards that we maintain by implementing a wide range of practical programmes. These apply to issues that include air quality, ecosystems, biodiversity, climate change, the use of energy, land and water, waste disposal and facility closures.

This focus on environmental stewardship also delivers financial benefits. For example by improving energy efficiency we not only reduce our environmental impact, we also reduce our operating costs.

Social wellbeing is another fundamental aspect of our approach to sustainable development. This involves providing a safe and healthy workplace in which people, treated with fairness and decency at all times, can develop their full potential.

And going beyond the workplace, our idea of social wellbeing extends to our neighbours. With them, we seek long term partnerships characterised by the mutual respect that leads to trust.

However, good intentions are never enough. So for us strong governance systems are a vital part of putting sustainable development into practice. These systems ensure that we continue to manage our business with openness and accountability.

## Values

Our reputation stems from our four core values, which define the essence of who we are and who we will be: accountability, respect, teamwork and integrity.

The first of these values – accountability – is about taking ownership of our performance and decisions, and the impact that they have on the business. We also support the accountability that others have in their own areas of work.

We demonstrate respect through our approach to sustainable development, and by recognising our people's contributions to the business. We care for each other's health, safety and wellbeing.

By working as a team, we can focus our collective efforts on where they deliver the best outcome for the Group. We believe good team members trust in the commitment and capability of others.

And finally, we work with integrity, treating all our stakeholders with fairness, honesty and openness.

# Group strategy

## Striving for global sector leadership

### Our strategy

How Rio Tinto is achieving its vision, creating and preserving value, and exercising its strategic advantage.

#### Vision

To become the sector leading global mining and metals company.

#### Strategy

To invest in and operate large, long term, cost competitive mines and businesses, driven not by choice of commodity but rather by the quality of each opportunity.

*The way we work: Governance, Sustainable development, Values*

#### Our vision and how we will achieve it

Our vision is to become the sector leading global mining and metals company.

As we work to achieve this vision, we will maximise shareholder return by sustainably finding, developing, mining and processing natural resources.

We will do this through a strategy of investing in and operating large, long term, cost competitive mines and businesses, driven not by choice of commodity but by the quality of each opportunity.

Rio Tinto's diverse portfolio includes some of the world's best assets. The high calibre of our people, our expertise in exploration, technology, innovation and marketing, and our commitment to sustainable development have given us a proven track record in successful project execution and operational excellence. We believe these qualities and achievements position us well for becoming the global leader in our sector.

As a highly capable organisation with global reach, we believe we are well placed to respond to rising demand for metals and minerals which is being driven strongly by emerging economies. The breadth and scale of our business means that we can supply key metals and minerals needed by worldwide markets at various stages of their economic development, from the raw materials needed for basic infrastructure to the products needed to manufacture hi-tech consumer goods.

Effective procurement and supply integration across our Group helps ensure we run an efficient supply chain, maximising production across our products to meet customer needs with reliability of supply.

*The way we work* is equally important to achieving our vision, as we integrate sustainable development practices into everything we do, wherever we operate: building on improvements to health and safety performance and extending leadership in areas such as community and government engagement, biodiversity and management of land, carbon, energy and water.

Success in these areas helps strengthen our licence to operate. We are recognised as a socially responsible developer, and one that builds strong relationships that bring lasting benefits to our

neighbours and to the places where we work. Our approach gives us improved access to land, people and capital – all of which are essential to our future success.

Collectively, our strengths provide us with our strategic advantage. And this advantage is allowing us to meet responsibly the needs of a wide variety of customers while generating superior returns for our shareholders.

#### Strategic drivers

Five strategic drivers help us achieve the Group's strategy.

##### Financial and operational excellence

We have a Group wide focus on financial and operational excellence, which involves constantly improving safety, productivity, operational efficiency and cost control at every stage of our business.

Many of our assets already operate in the first or second quartile of their industry cost curves. And we continue to seek operating and cost efficiencies by identifying and implementing leading practices across the Group.

A few of our assets are higher cost. We aim to transform these businesses into more competitive performers, for instance by introducing new technologies, by gaining efficiencies through incremental volume enhancements, or through more effective procurement practices. We continually review our portfolio to ensure that all assets are a good strategic fit with our business.

Our focus on financial performance also includes the prudent management of our balance sheet to achieve and maintain a single A credit rating. A strong balance sheet provides greater resilience against volatility in the global economy and the effect this might have on short term commodity prices.

By operating our own mines, we are able to take advantage of performance improvement initiatives generated by our own employees – people who genuinely understand the facilities where they work.

In all of our operations we have a relentless focus on safety leadership. Our aim is to create an environment in which all employees and contractors have the knowledge, skills and desire to work safely, so that everyone goes home safe and healthy at the end of each day.



### Strategic drivers

Five strategic drivers are helping us deliver our strategy and achieve our vision.

- Financial and operational excellence
- Licence to operate
- Growth
- Globalising the business
- Technology and innovation

### Key performance indicators

Achievement of our strategy and goals is measured by a mixture of financial and non financial performance indicators, some of which are linked to executive remuneration.

 [More information on p.22](#)

### Licence to operate

Rio Tinto aspires to be the industry partner of choice in working with governments, joint venture participants, communities, customers and other stakeholders.

Our Group wide values of accountability, respect, teamwork and integrity guide our approach. We are recognised for building mutually beneficial relationships with our stakeholders based on active partnership and long term commitment. We are also regarded as a company that brings long term benefits to our local communities and host countries. Our strong reputation in these areas is a source of significant strategic advantage.

More widely, we are continuing to improve relations with local, regional and national governments. Key to successful mineral development is a culture of trust, transparency and mutual benefit to all parties. This is established through honest engagement with all stakeholders, including governments and local communities.

Equally important is our determination to minimise the Group's environmental footprint, particularly when it comes to carbon, water and biodiversity.

We are refreshing our approach to sustainable development to ensure it remains focused on the social, environmental, economic and governance risks most relevant to delivering our business strategy. By building relationships with our stakeholders, and by applying risk analysis and management effectively throughout our business, we can create opportunities out of external challenges, and extend our licence to operate.

### Growth

We believe the first and best use of our strong balance sheet and cash flows is to invest in our strong pipeline of organic growth opportunities. Our strategy prioritises growth that adds value to our business, either through increased production capacity, or through extended mine life. The adherence to our strategy over the years has resulted in a succession of value-creating investment decisions, which in turn have led to superior long term performance.

We have a very strong pipeline of organic growth projects and a resource and mineralisation position that allows sustainable long term growth. Our projects include brownfield expansions and new

greenfield projects. In many cases, our opportunities to expand are the consequence of wise investment decisions made years ago.

Many of our greenfield opportunities are in regions where we do not have a long established presence, but our proven ability to develop operations in new countries in a responsible and sustainable manner allows us to gain stakeholder buy-in.

We also review opportunities to add shareholder value through small to medium sized acquisitions or other business combinations. We have a strict, value-focused approach to mergers and acquisitions, and seek opportunities that will give us entry to Tier 1 assets.

All growth opportunities are assessed using our rigorous investment approval process based on detailed modelling of discounted cash flows, and are subject to comprehensive internal but independent reviews. Only the best projects that are expected to deliver value over the long term are approved.

### Globalising the business

The global spread of our operations is one of the Group's greatest advantages and also gives us access to a wide range of markets.

As the Group expands in terms of both size and geography, we are working to build a more diverse, engaged, agile and flexible workforce – one that reflects our growth potential and one that is capable of reacting quickly to changing market opportunities and challenges.

Helping to develop the talent of our employees in emerging markets and providing them with continued growth opportunities will help ensure that we have future leaders that reflect the increasingly diverse regions and cultures in which we operate. Through our scholarship and bursary programmes, and by offering internships and summer placements, we reach out to, and encourage, our future leaders during their academic lives.

### Technology and innovation

Innovative technologies will lead to dramatic improvements in our operating business and the way we develop new mines. These technologies can also put us ahead of the competition.

An example of this is Rio Tinto's Mine of the Future™ programme, which we believe will deliver heightened efficiencies in terms of both production and costs, as well as a safer working environment with reduced impact on the environment.

Mine of the Future™ involves collaborative partnerships with leading universities and equipment producers to expand the potential of automation and remote operations.

Such advances have enabled the opening of the Perth Operations Centre from which Rio Tinto people can control iron ore mining and infrastructure at our Pilbara operations, more than 1,000km away.

Another key focus of Group innovation is underground tunnelling and shaft sinking. At our Northparkes copper and gold mine in Australia we will test a system designed to allow us to excavate at more than double the rate of conventional methods. Success there will enable us to apply the technology for the next generation of block cave mines. This will increasingly be a strategic differentiator, as future ore deposits, especially copper, are often located at deeper depths.


### Delivering our strategy – adding value across the cycle

We create and preserve value through investing in and operating large scale, long term, cost competitive mines and businesses. The nature of our business means that the lifecycle of an orebody may last for many decades. Throughout the life of a business, from initial exploration to final closure and restoration, we commit to the highest standards of sustainable development.

### Investing

#### Explore and evaluate

Rio Tinto has an experienced in-house exploration team with a proven track record for the discovery of Tier 1 orebodies. In addition to exploration, we create value through expansions and extensions of existing assets. Rio Tinto's orebody knowledge process allows us to evaluate value enhancing approaches to developing, operating and growing our resources.

 [More information on page 62](#)



#### Bunder, India

Analysing drill core samples at the diamond project in Madhya Pradesh.

#### Develop

Rio Tinto develops orebodies with long term value delivery in mind. Following the discovery of a resource, it must be thoroughly studied to identify the optimal configuration for development of the orebody and delivery of the product to the market. As studies are undertaken, economic modelling confirms value. Once we have obtained internal and external approvals, the project moves to implementation and construction.



#### Oyu Tolgoi, Mongolia

Mine shaft construction at the copper-gold mine.



The Group takes the threat of climate change seriously. Technological advances are enabling us to improve the efficiency of our aluminium smelting facilities while lowering their carbon output. We are also looking into the potential benefits of widespread carbon capture and sequestration.

In the long term our commitment to technology and innovation should have a positive impact in attracting new employees to the Group and should help us supply a wider range of customers and markets more sustainably than ever.

### Key performance indicators

Rio Tinto uses a number of key performance indicators (KPIs) to monitor our financial and non financial performance.

These KPIs are a measure of how well we are achieving our strategy, and they link clearly to our strategic drivers.

Our KPIs give senior management a means to evaluate the Group's overall performance in operations, growth and sustainable development. They provide managers and their teams with clarity and focus on areas critical to our success.

The KPIs also give guidance to the Remuneration committee in framing our remuneration policy. Some of the KPIs are directly linked to executive remuneration.

See p.22 for more information on our KPIs.

## Operating

### Operate

Rio Tinto creates value through operating its large, long term, cost competitive assets safely and efficiently. As a capable, global organisation, we employ standard operating and maintenance practices across the Group, and invest in our world class assets throughout their lifecycles. An efficient process reduces the use of consumables, increases equipment operating time and optimises the extraction of ore – all of which results in higher production levels, reduced costs and optimisation of value.

More information on page 42



**World class assets**  
Iron ore loading facility,  
Western Australia.



**Leading technologies**  
Operations centre in Perth,  
Western Australia.



**Global presence**  
Serving customers worldwide.



**Infrastructure network**  
Transporting products from  
mine to market.

### Mine

Rio Tinto moves millions of tonnes of material every day. We have world class technologies and processes to plan, operate and maintain our mining equipment and activities.

### Process

Our leading proprietary technologies, such as that for aluminium smelting, ensure that recoveries are maximised and our processes are as efficient as possible. We produce material that is of the right quality for our customers.

### Market

We sell our products directly to our customers, the end users. We seek out long term partnerships to maximise product value and constantly create new products that add further value.

### Deliver

In many cases, Rio Tinto is responsible for delivering finished product to our customers. We do this in a variety of ways, efficiently, reliably and cost effectively.

### Close down and restore

When a resource reaches the end of its life, we are committed to high standards of close down and restoration. Integrating closure planning in the early stages of project development and through an asset's lifecycle helps us to leave a positive legacy of sustainable development, minimise financial impacts and ensure stakeholder expectations are met. Our closure standard covers the design, development, operation and closure of all our operations.

More information on page 40

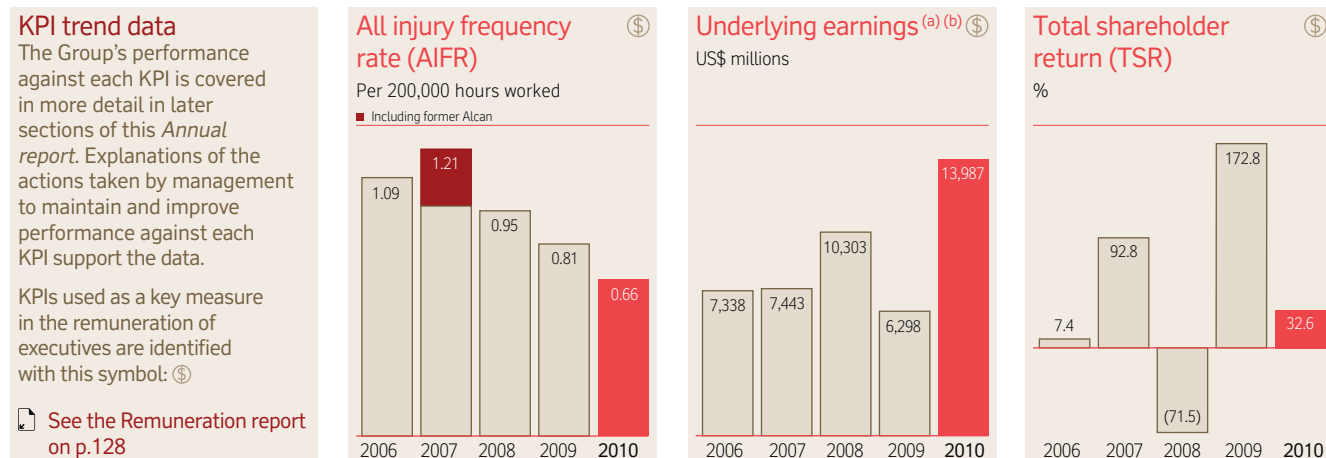


**Barneys Canyon, US**  
Rehabilitating waste rock dumps into a wildlife habitat.

# Key performance indicators

## Measuring our performance

Our key performance indicators (KPIs) give us a means to measure our financial and sustainable development performance. Their relevance to our strategic drivers, and our performance against these measures in 2010, is explained on these pages.



### Relevance to strategic drivers

Our commitment to zero harm means that the AIFR is one of the Group's most important non financial KPIs. Safety is a leading indicator of management performance. It is central to our focus on operational excellence and our licence to operate. A reputation for being a safe employer and neighbour helps us to gain access to the people and resources we need.

Underlying earnings is a measure that provides insight into the underlying business performance of the Group's operations and is the key financial performance indicator used across the Group. This KPI provides insight to cost management, performance efficiency and production growth. It is therefore an indicator of financial and operational excellence and growth.

TSR measures the Group's performance in terms of shareholder wealth generation through dividends and changes in the share price. As a measure of how we maximise shareholder return, this KPI measures our performance against our strategy as a whole. Relative TSR is also monitored, which gives insight into our performance against our peers.

### Definition

AIFR is calculated based on the number of injuries per 200,000 hours worked. This includes medical treatment cases, 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 of the 2010 financial statements.

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

### Performance

Our AIFR has improved 39 per cent over the last five years, with an 18 per cent improvement from 2009.

Underlying earnings in 2010 of US\$13,987 million were US\$7,689 million above the comparable measure for 2009. This was largely due to the strong recovery in prices during the year.

The Group's average total shareholder return for the year ended 31 December 2010 was 32.6 per cent reflecting a combination of strong commodity markets and excellent operational performance. These translated into higher operating cashflows which, together with divestment proceeds, enabled the Group to pay down US\$14.6 billion of debt during the year and pay dividends totalling US\$1.8 billion.

📄 More information on p.31

📄 More information on p.250

📄 More information on p.137

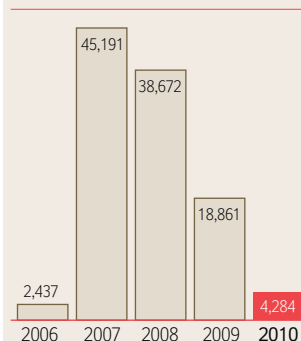
#### Notes

- (a) The accounting information in these charts is drawn up in accordance with EU IFRS.
- (b) Underlying earnings is the key financial performance indicator which management uses internally to assess performance. It is presented here 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 2010 financial statements. Both net earnings and underlying earnings deal with amounts attributable to the owners of Rio Tinto. However, EU IFRS requires that the profit for the year reported in the income statement should also include earnings attributable to non-controlling interests in subsidiaries.

**Net debt <sup>(a)</sup>**

US\$ millions



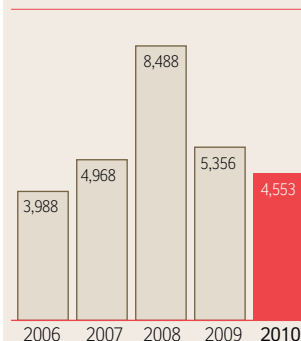
A strong balance sheet gives us resilience in a volatile global economy. Net debt is a measure of how we are managing our balance sheet and capital structure, and is closely linked to our financial and operational excellence strategic driver.

Net debt is calculated as: the net total of borrowings, cash and cash equivalents, other liquid resources and derivatives related to net debt.

During 2010, net debt decreased from US\$18.9 billion to US\$4.3 billion due to strong operating cash flows and proceeds from the divestment programme. Net debt to total capital was significantly reduced to 6.2 per cent at 31 December 2010, compared with 29.1 per cent at 31 December 2009.

**Capital expenditure <sup>(a) (c)</sup>**

US\$ millions



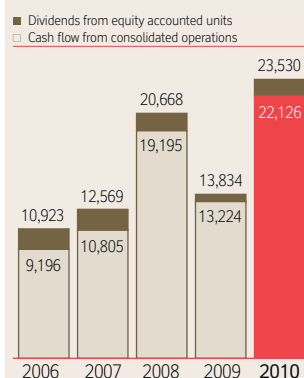
Our capital expenditure KPI connects to our growth strategic driver. It measures our level of investment in protecting and maintaining our existing assets, as well as our investment in the growth projects that will be our future Tier 1 operating assets. The geographic distribution of our capital expenditure is also a measure of how we are globalising the business.

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.

Capital expenditure was US\$4,553 million in 2010, a decrease of US\$803 million from 2009. Capital expenditure included the Brockman 4 iron ore mine development in Western Australia, the expansion of the Yarwun alumina refinery, the commissioning of the Clermont coal mine and the extension and expansion of the Kestrel coking coal mine.

**Operating cash flows <sup>(a)</sup>**

US\$ millions



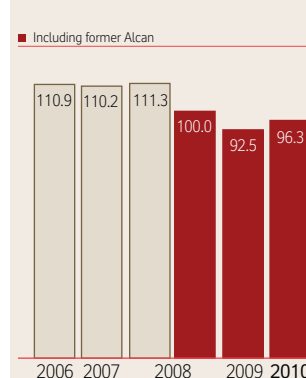
Operating cash flow is a complementary measure to underlying earnings. It is employed as a measure of business performance and links to two of our strategic drivers: growth, and financial and operational excellence.

Operating cash flow represents the cash generated by the Group's operations, before payment of interest, taxes, capital expenditure, and cash flows relating to financing activities. The measure is equivalent to "cash flows from operations" in the Group cash flow statement.

Operating cash flows, including dividends from equity accounted units, were US\$23,530 million, 70 per cent higher than 2009 primarily as a consequence of higher commodity prices.

**GHG emissions intensity**

Indexed relative to 2008



We use greenhouse gas (GHG) emissions intensity as a KPI because of the urgent need for climate action, and because it is one of the most widely recognised environmental issues. The KPI links to our licence to operate and our technology and innovation work, which are key drivers of our strategy.

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 minus electricity and steam exports and net carbon credits purchased from, or sold to, recognised sources.

Since 2008 our GHG emissions intensity has reduced by 3.7 per cent. This is largely a result of the Ningxia aluminium smelter divestment in 2009. The impact of closure or reduced production at older aluminium smelters that had low GHG emitting power sources offset some intensity reductions achieved during 2009.

[More information on p.199](#)

[More information on p.252](#)

[More information on p.159](#)

[More information on p.34](#)

**Notes**

(c) Amounts include 100 per cent of subsidiaries' capital expenditures and Rio Tinto's share of the capital expenditure of equity accounted units.

# Risk management

## Managing risk effectively

Rio Tinto recognises that risk is an integral component of its business, and that it is characterised by both threat and opportunity. The Group fosters a risk aware corporate culture in all decision making. Through skilled application of high quality, integrated risk analysis and management, we manage risk in order to enhance opportunities and reduce threats, and so sustain competitive advantage.

### Risk management overview

The Group is committed to the effective management of risk through proactive, competent risk management. Effective risk management requires quality risk analysis to inform the decisions taken throughout the organisation. The responsibility for identifying and managing risks lies with Rio Tinto's managers and business leaders. Risk analysis and management is applied to all facets of the business, by management at appropriate levels, following the principles set out in the Group's *Risk policy and standard*.

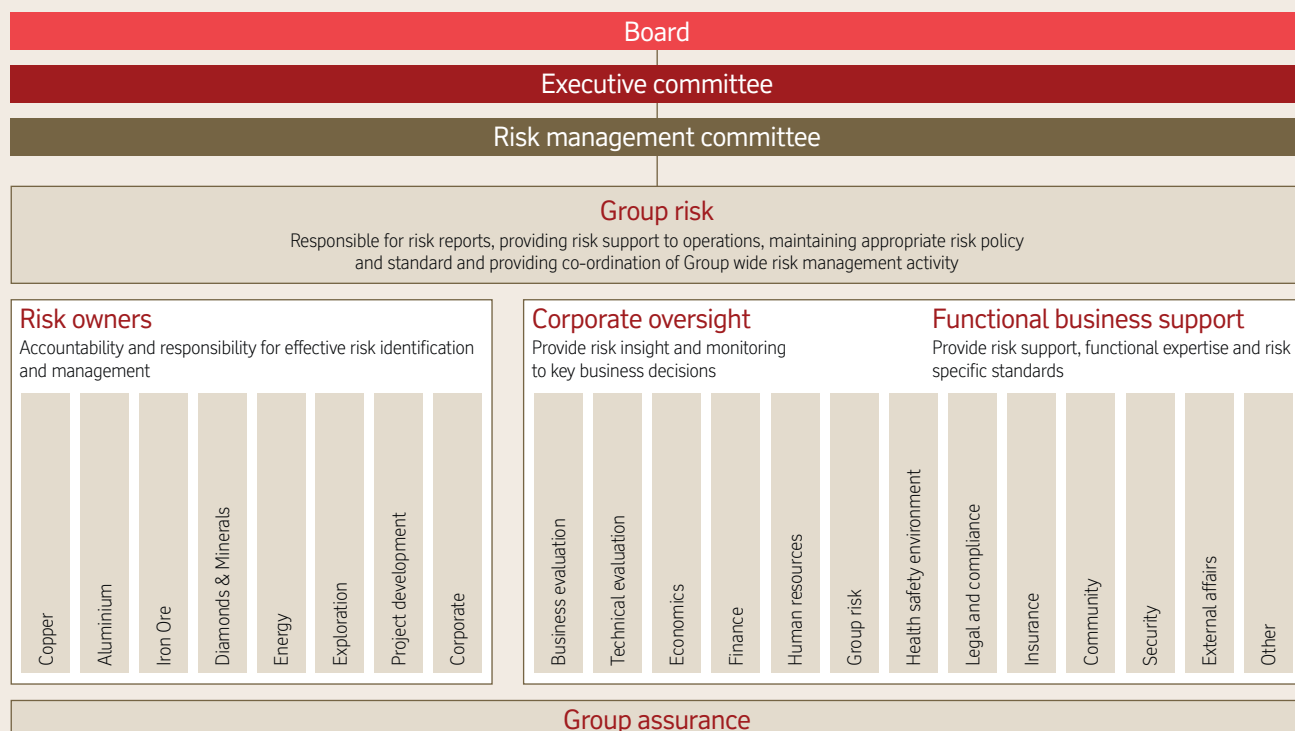
This standard sets out a uniform process that each area within the Group is required to follow in analysing and managing risk. The process reflects global leading practice and contains the minimum requirements to ensure consistency and quality across the Group. By providing an overall methodology and structure for

the handling of risk within the organisation, the Group seeks to provide the board and senior management with a consistent, Group wide perspective of the key risks. Reports are submitted to the board twice per year and include assessment of the likelihood, and impact should risks materialise along with risk management initiatives.

During the year, a review of the Group's approach to managing risk resulted in the introduction of a new risk management committee and the appointment of a new head of Group risk. The risk management committee is chaired by the chief executive and reports to the Executive committee.

The Group provides a central organisation to support the risk standard and wider process, see below.

#### Overview of Rio Tinto's risk management process



# Principal risks and uncertainties

## Risk factors

Rio Tinto's business units and functions assess the potential economic and non economic consequences of their respective risks using a predefined framework provided by the Group's *Risk policy and standard*. Principal risks and uncertainties are identified when the Risk management committee, business unit or function determines that the potential consequences are of sufficient materiality to be considered significant at a Group level or where the risk triggers a succession of events that in total become material at a Group level. Once identified, each principal risk and uncertainty is reviewed by the relevant internal experts and the Risk management committee.

The following describes all known principal risks and uncertainties that could materially affect Rio Tinto. There may be additional risks unknown to Rio Tinto and other risks, currently believed to be immaterial, which could turn out to be material. These risks, whether they materialise individually or simultaneously, could significantly affect the Group's business and financial results. The risks outlined below omit detail on how each is managed and mitigated, or how some risks could result in either a positive (upside) or negative (downside) impact. An explanation of the Group's process for managing these, and all other risks to which it is exposed, is given in the section entitled Risk management on page 24. 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

**Commodity prices and global demand for the Group's products are expected to remain uncertain, which could affect the Group's business.**

Commodity prices and demand for the Group's products are cyclical and strongly influenced by world economic conditions, particularly with respect to key customers, in the US and Asia (notably China). There is potential volatility in short to medium term commodity prices due to persistent economic imbalances. The Group's normal policy is to sell its products at prevailing market prices and not to enter into price hedging arrangements. The recent improvement in commodity prices and demand for the Group's products may not remain as strong, which would have an impact on Group revenues, earnings, cash flows, asset values and growth.

**Continued growth in demand for the Group's products in China could be affected by future developments in that country.**

The Group has signed agreements with almost 50 per cent of its iron ore customers in Asia for pricing on a quarterly basis. This is a shift away from the previous annual benchmark pricing. Sales are being made to other iron ore customers on the same basis.

If a major economic downturn were to occur in China impacting the demand and price for iron ore or the Group's other products, or if Chinese customers source such products from elsewhere, the Group's business, financial condition and prospects could be affected.

**Rio Tinto is exposed to fluctuations in exchange rates that could affect its overall business results.**

The US dollar is the currency in which the great majority of the Group's sales are determined. It is also the most appropriate currency for holding surplus cash, financing its operations, and presenting its external and internal results. Although many costs are incurred in US dollars, significant costs are influenced by the local currencies of the countries where the Group operates, principally the Australian dollar, Canadian dollar and Euro. The Group's normal policy is to avoid hedging arrangements relating to changes in foreign exchange rates. Appreciation in the value of these currencies against the US dollar or prolonged periods of exchange rate volatility may adversely affect the Group's business results.

**Political, legal and commercial changes in the places where the Group operates could affect the Group's reputation, future development opportunities, and/or the viability of its operations.**

The Group has operations in jurisdictions with varying degrees of political, legal and commercial stability. Commercial instability in some jurisdictions can be influenced by bribery and corruption in their various guises. Political and administrative change, policy reform, and changes in law or government regulation can result in expropriation, or nationalisation. Renegotiation or nullification of existing agreements, leases and permits; changes in fiscal policies (including increased taxes or royalty rates); changes in government ownership of operations; currency restrictions; increased regulation and significantly increased costs or impediments to operation are also possible consequences. Such consequences could have an adverse effect on the profitability, the ability to finance or, in extreme cases, the viability of an operation.

Political instability and uncertainty or government changes to the fiscal terms covering the Group's operations may discourage future investments in certain jurisdictions. This may have an adverse impact on the Group's ability to access new assets, potentially reducing future growth opportunities.

**Community disputes in the countries and territories in which the Group operates could affect the viability of its operations or its reputation.**

Some of the Group's current and potential operations are located in or near communities that may regard the operation as being detrimental to their environmental, economic or social circumstances. 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 impacted by external events beyond the Group's control, including events that may occur in related industries or similar operations outside of the Group and events relating to the local, regional or national affairs of the places where the Group operates. Furthermore our operations may be a focus for civil unrest or criminal activity. Community reaction could have an adverse impact on the cost, profitability, and ability to finance or even the viability of an operation. Such events could lead to disputes with national or local governments or with local communities and give rise to reputational damage. If the Group's operations are delayed or shut down as a result of political and community instability, its revenue growth may be constrained and the long term value of its business could be adversely impacted.



## Principal risks and uncertainties continued

**The Group's land and resource tenure could be disputed resulting in disruption to the operation or development of a resource.**

The Group operates in several countries where title to land and rights in respect of land and resources (including indigenous title) may be unclear and may lead to disputes over resource development. Such disputes can be protracted and costly to resolve, could disrupt or delay relevant mining projects, impede the Group's ability to develop new mining properties, and may have an adverse effect on the Group's results of operations or its prospects.

**Changes in the cost and/or interruptions in the supply of energy, water, fuel or other key inputs could adversely affect the economic viability of the Group's operations.**

The Group's operations are resource intensive and, as a result, its costs and net earnings may be adversely affected by the availability or cost of energy, water, fuel or other key inputs. If the prices of key inputs rise significantly more than expected, or if the Group experiences interruptions in, or constraints on, its supply of key inputs, the Group's costs could increase and its results could be adversely affected.

### Strategic

**The Group's business and growth prospects may be negatively affected by reductions in its capital expenditure programme.**

The Group requires substantial capital to invest in greenfield and brownfield projects, and to extend the life and capacity of its existing operations. If significant variations in commodity prices or demand for its products occurs, the Group may reduce its capital expenditure, which may negatively impact the timing of its growth and future prospects.

With the volatility of the commodity markets, the Group's ability to benefit from improvements may be constrained by earlier capital expenditure restrictions and the long term value of its business could be adversely impacted.

**The Group's exploration and development of new projects might be unsuccessful, expenditures may not be fully recovered and depleted ore reserves may not be replaced.**

The Group develops new mining properties and expands its existing operations as a means of generating shareholder value. The Group seeks to identify new orebodies and mining properties through its exploration programme and has also undertaken the development or expansion of other major operations. Exploration is not always successful, moreover there is a high degree of competition for opportunities to develop such orebodies. Certain competitors, have access to significant resources and may be motivated by political or other non economic factors. The Group may be unable to find willing and suitable joint venture partners to share the cost of developing large projects. There is no assurance, therefore, that the Group's investment in exploration and project development will be recouped, or that depleted ore reserves will be replaced.

**Failure of the Group to make or successfully integrate acquisitions, or to complete divestment agreements, could have an adverse effect on the business and results of operations.**

Business combinations entail a number of risks including the effective integration of acquisitions (including the realisation of synergies), significant one time write-offs or restructuring charges, and unanticipated costs and liabilities. The Group may also be liable for the past acts, omissions or liabilities of companies, businesses or properties that it has acquired, which may be unforeseen or greater than anticipated. In addition, the Group may retain liabilities for divested entities if the buyer fails to honour all commitments.

### Financial

**The Group's reported results could be adversely affected by the impairment of assets and goodwill.**

An asset impairment charge may result from the occurrence of unexpected adverse events that impact the Group's expected performances. In accordance with IFRS, the Group does not amortise goodwill but rather tests it annually for impairment: such impairments cannot be reversed. Other long lived assets are tested when impairment indicators exist.

The Group will continue to test goodwill and may, in the future, record additional impairment charges. This could result in the recognition of impairment provisions (which are non cash items) that could be significant and could have an adverse effect on the Group's reported results.

## Operational

**Estimates of ore reserves are based on many assumptions and changes in the assumptions could lead to reported ore reserves being restated.**

There are numerous uncertainties inherent in estimating ore reserves including subjective judgments and determinations based on available geological, technical, contract and economic information. Assumptions that are valid at the time of estimation may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may result in some reserves ceasing to be economically viable or others in becoming viable. Ultimately this may result in the reserves needing to be restated. Such changes in reserves could also affect depreciation and amortisation rates, asset carrying values, deferred stripping calculations and provisions for close down, restoration and environmental clean up costs.

**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 satisfactorily to renegotiate agreements when they expire and may face tougher negotiations or higher wage demands. In addition, existing labour agreements may not prevent a strike or work stoppage, which could have an adverse effect on the Group's earnings, financial condition, and reputation.

**Some of the Group's technologies are unproven and failures could adversely impact costs and/or productivity.**

The Group has invested in and implemented information systems and operational initiatives including new technologies. Some aspects of these technologies are unproven and the eventual operational outcome or viability cannot be assessed with certainty. The costs, productivity, value in securing business opportunities and other benefits from these initiatives, and the consequent effects on the Group's future earnings and financial results, may vary from expectations. Failure of the Group's technology systems to realise the anticipated benefits could result in increased costs, interruptions to supply continuity, failure to realise production or growth plans, or some other adverse effect on operational performance.

**The Group's operations are vulnerable to natural disasters, operating difficulties, health, safety or environmental incidents and infrastructure constraints, not all of which are covered by insurance, which could have an impact on its productivity and reputation.**

Mining, smelting and refining operations are vulnerable to natural events, including earthquakes, drought, floods, fire, storms and the possible effects of climate change. Operating difficulties could be experienced such as unexpected geological variations that could result in significant ground or containment failure. The Group's operations involve chemicals and other substances 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 or a breach of operating standards, and could result in a significant incident. Any of these events could affect the Group's reputation, and the costs and viability of its operations for indeterminate periods.

The Group has extensive health, safety, environment and community policies and standards in place. Despite these, it remains possible that a health, safety, environment or community incident could occur that may adversely impact the Group's reputation, earnings or cash flows.

The Group requires reliable roads, rail networks, ports, power sources and power transmission facilities, water supplies and information technology systems to access and conduct its operations. The availability and cost of infrastructure affects capital and operating costs, and the maintenance of planned levels of production and sales. In particular, the Group transports a large proportion of its products by sea. Limitations, or interruptions in, rail or shipping capacity at any port, including as a result of third parties gaining access to the Group's integrated infrastructure, could impede the Group's ability to deliver its products on time. This could have an adverse effect on the Group's business and results of operations.

The Group uses an extensive information technology system and infrastructure. A significant failure of major parts of the system or malicious actions could result in significant interruption that could affect the Group's reputation and operating results.

The Group's insurance does not cover every potential risk associated with its operations. Adequate coverage at reasonable rates is not always obtainable. In addition, the Group's insurance may not fully cover its liability or the consequences of any business interruptions such as weather events, equipment failure or labour dispute. The occurrence of a significant event not fully covered by insurance could have an adverse effect on the Group's business, results of operations, financial condition and prospects.

**The Group may be exposed to major failures in the supply chain for specialist equipment and materials.**

Rio Tinto operates within a complex supply chain depending on suppliers of raw materials, services, equipment and infrastructure to ensure its mines and process plants can operate, and on providers of logistics to ensure products are delivered. Failure of significant components of this supply chain due to factors such as business failure, or serious operational factors, could have an adverse effect on the Group's business and results of operations.



## Principal risks and uncertainties continued

**Joint ventures and other strategic partnerships may not be successful and non managed projects and operations may not comply with the Group's standards, which may adversely affect its reputation and the value of such projects and operations.**

The Group participates in several joint venture arrangements and it may enter into further joint ventures. Although the Group has sought to protect its interests, existing and future joint ventures necessarily involve risks. Whether or not the Group holds majority interests or maintains operational control in its joint ventures, its partners may:

- 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;
- take action contrary to the Group's policies or objectives with respect to its investments; 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.

In addition, failure of a joint venture partner may result in unanticipated losses to the Group. Where projects and operations are controlled and managed by the Group's partners, the Group may provide expertise and advice but it has limited control with respect to compliance with its standards and objectives. Improper management or ineffective policies, procedures or controls could adversely affect the value of related non managed projects and operations and, by association, damage the Group's reputation thereby harming the Group's other operations and access to new assets.

### Sustainable development

**Increased regulation of greenhouse gas emissions could adversely affect the Group's cost of operations.**

Rio Tinto's operations are energy intensive and depend heavily on fossil fuels. There is increasing regulation of greenhouse gas emissions, progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets, in numerous jurisdictions in which the Group operates. These are likely to raise energy and production costs to a material degree over the next few decades. Regulation of greenhouse gas emissions in the jurisdictions of the Group's major customers and suppliers as well as in relation to international shipping could also have an adverse effect on the demand for the Group's products.

**The Group depends on the continued services of key personnel.**

The Group's ability to maintain its competitive position and to implement its business strategy is dependent on the services of key engineering, managerial, financial, commercial, marketing and processing people. Loss or diminution in the services of key employees, particularly as a result of an inability to attract and retain staff, or the Group not maintaining a competitive remuneration structure, could have an adverse effect on the Group's business, financial condition, results of operations and prospects.

Competition for experienced people with international engineering, mining, metallurgy and geological expertise is high, due to a small pool of individuals against medium to high demand. This may affect the Group's ability to retain its existing senior management, marketing and technical personnel and to attract qualified personnel on appropriate terms. Similar competition may be felt by the Group's key contractors and equipment suppliers that, in turn, could affect the Group's expansion plans.

**The Group's costs of close down, restoration, and rehabilitation could be higher than expected due to unforeseen changes in legislation, standards and techniques, or underestimated costs.**

Close down and restoration costs include the dismantling and demolition of infrastructure and the remediation of land disturbed during the life of mining and operations. Estimated costs are provided for over the life of each operation and updated annually but the provisions might prove to be inadequate due to changes in legislation, standards and the emergence of new restoration techniques. Furthermore the expected timing of expenditure could change significantly due to changes in commodity prices that might curtail or extend the life of an operation. Total provisions at 31 December 2010 amounted to US\$8,602 million as set out in note 27 to the financial statements. These provisions could prove insufficient compared to the actual cost of restoration, or the cost of remediating or compensating for damage beyond the site boundary. Any underestimated or unidentified close down, restoration and environmental rehabilitation costs could have an adverse effect on the Group's reputation as well as its asset values, earnings and cash flows.


**Health, safety, environment and other regulations, standards and stakeholder expectations evolve over time and unforeseen changes could have an adverse effect on the Group's earnings, cash flows and reputation.**

Rio Tinto operates in an industry that is subject to numerous health, safety and environmental laws, regulations and standards as well as community and stakeholder expectations. The Group is subject to extensive governmental regulations in all jurisdictions in which it operates. Operations are subject to general and specific regulations governing mining and processing, land tenure and use, environmental requirements (including site specific environmental licences, permits and statutory authorisations), workplace health and safety, social impacts, trade and export, corporations, competition, access to infrastructure, foreign investment and taxation. Some operations are conducted under specific agreements with respective governments and associated acts of parliament but unilateral variations could diminish or even remove such rights. Furthermore, community and stakeholder expectations change over time. Evolving regulatory standards and stakeholder expectations can result in litigation and/or increased costs, or in extreme cases threaten the viability of an operation. This may impact on the reputation of the Group (including in circumstances where the underlying issue is not material to the Group). All of these matters may have an adverse effect on earnings and cash flows.

# Sustainable development review

## Central to the way we work

Our approach to sustainable development creates competitive advantage. It helps us deliver better return for our shareholders, manage risk effectively, reduce environmental impacts, cut operating costs, attract high calibre employees and provide more business opportunities.

 View more about our approach to sustainable development at [www.riotinto.com/ourapproach](http://www.riotinto.com/ourapproach)

### Sustainable development overview

#### Key achievements

- Our all injury frequency rate continued to improve, with an 18 per cent reduction achieved in 2010.
- Sixty seven per cent of the electricity we used in 2010 was from low carbon sources, mainly hydroelectricity.
- We remained the largest private sector employer of indigenous Australians.
- We entered into formal partnerships with the International Union for Conservation of Nature and the Danish Institute of Human Rights.
- We retained our listing on the FTSE4Good, Dow Jones Sustainability Indexes and Carbon Disclosure Leadership Index.

#### Materiality assessment

We continue to build on our materiality assessment methodology to ensure this report remains focused on our most significant sustainable development issues.

Our process was developed in line with the Global Reporting Initiative (GRI) guidance ([www.globalreporting.org](http://www.globalreporting.org)). It involves identification and prioritisation of issues affecting our business and its stakeholders over the next three years.

In 2010 we expanded our assessment to include outcomes of interviews with key shareholders, investment houses, academics and non governmental organisations along with the opinions of 1,265 global leaders who were surveyed as part of our stakeholder engagement work and 33,000 employees who completed our global employee engagement survey.

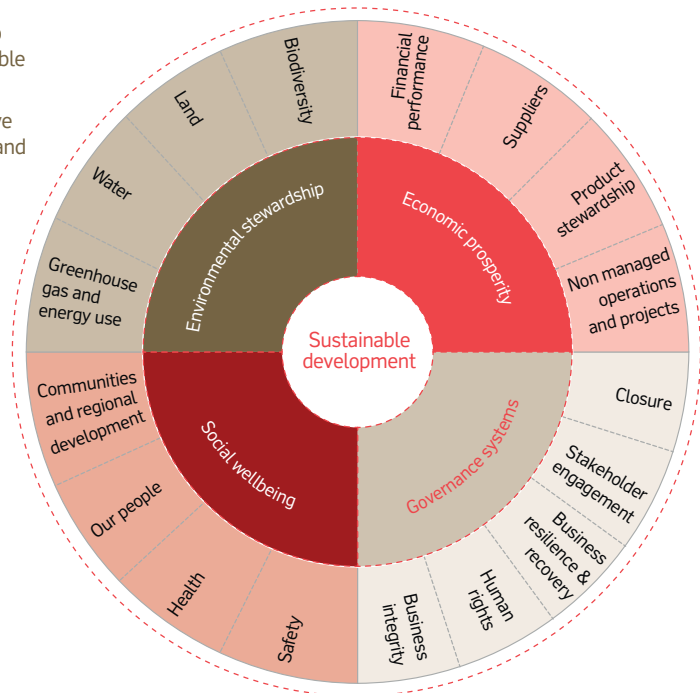
Whilst our materiality assessments have supported reporting on consistent topics in recent years, the 2010 assessment prompted additional coverage of our Business Resilience and Recovery Programme.




Performance data for a selection of our most material sustainable development issues are subject to external assurance. We also discuss financial performance, safety and greenhouse gas emissions in the product group sections of this report.

Omission from the issues covered in our report does not mean that the issue is not managed by the company. Please see our website for additional information.

#### Key priorities

- Refresh our approach to sustainable development to ensure it remains focused on the social, environmental, economic and governance risks most relevant to delivering our business strategy.
- Continue to reduce incident and injury rates toward our goal of zero.
- Identify and prioritise management of emerging health risks.
- Improve the diversity of our workforce.
- Maintain our energy use and GHG emission reduction programmes.
- Realise the potential for carbon, water and biodiversity offsets on our non operational landholdings.



Goals and targets	Trend	Progress to date
Our safety goal is zero injuries and zero fatalities. Progress is measured through our all injury frequency rate (AIFR) per 200,000 hours worked.	⬆️	18 per cent reduction in our all injury frequency rate compared with 2009.
30 per cent reduction in the rate of new cases of occupational illness per 10,000 employees between 2008 and 2013.	⬆️	56 per cent reduction in the rate of new cases of occupational illness compared with 2008.
Ten per cent reduction in the rate of employees per 10,000 employees exposed to an eight hour noise dose of more than 85 decibels between 2008 and 2013.	⬇️	0.3 per cent increase in the rate of employees potentially exposed to an eight hour noise dose of more than 85 decibels compared with 2008.
Six per cent reduction in total greenhouse gas emissions intensity between 2008 and 2013. We are also targeting a further four per cent reduction by 2015, to deliver an overall ten per cent reduction.	⬆️	3.7 per cent reduction in our total greenhouse gas emissions intensity compared with 2008.
Six per cent reduction in our freshwater use per tonne of product between 2008 and 2013.	⬇️	2.3 per cent increase in our freshwater use per tonne of product compared with 2008.
Our diversity goal is to employ people based on job requirements that represent the diversity of our surrounding communities. We are targeting:		
<ul style="list-style-type: none"> <li>• Women to represent 20 per cent of our senior management by 2015.</li> <li>• Women to represent 40 per cent of our 2015 graduate intake.</li> <li>• 15 per cent of our 2015 graduate intake to be nationals from regions where we are developing new businesses.</li> </ul>	⊖	<ul style="list-style-type: none"> <li>• Women represented 14 per cent of our senior management in 2010.</li> <li>• Women represented 27 per cent of our 2010 graduate intake.</li> <li>• Eight per cent of our 2010 graduate intake were nationals from regions where we are developing new businesses.</li> </ul>
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, by 2013.	⊖	<p>We collected data for the first time in 2010.</p> <p>20 per cent of our operations had locally appropriate, publicly reported social performance indicators in place in 2010.</p>
<div>  Improving performance            Declining performance            New target         </div>		

## Performance data

Our sustainable development performance data are reported for calendar years and, unless otherwise stated, represent 100 per cent of the parameter 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 report in line with the GRI G3 guidelines at Application level A+ and have implemented the International Council on Mining and Metals' (ICMM) sustainable development framework ([www.icmm.com](http://www.icmm.com))

Further information on our data definitions, our GRI checked report and our alignment with the ICMM sustainable development principles and supporting position statements can be found on our website.

## Our approach

 [Group strategy on p.18](#)

Sustainable development has been identified as an area crucial to the delivery of the Group's long term strategy.

The minerals and metals produced at our operations contribute to society's needs, delivering financial dividends for our shareholders, paying wages and salaries for our employees, and creating wealth to support community infrastructure, health care and education. Our activities also provide the means and opportunity to develop new approaches to the environmental and human development challenges confronting society, such as climate change and poverty.

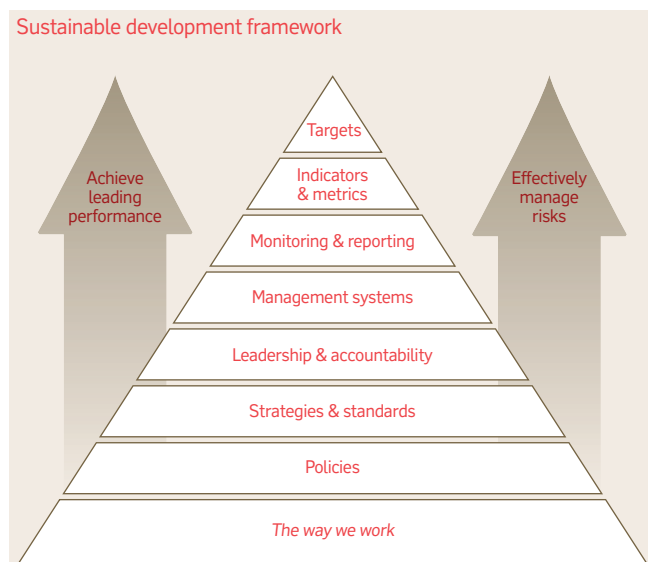
We recognise that some aspects of our activities can lead to unavoidable impacts, such as limiting options for the future use of land and water, impacts on local communities, and greenhouse gas emissions from our operations and the use of our products. We strive to minimise these impacts through good management of our operations.

The extended timeframes associated with our operations from exploration, through development and operation to closure provide us with opportunities to plan, implement and deliver sustainable contributions to social wellbeing, environmental stewardship and economic prosperity, within our strong governance systems.

Our continued licence to operate is subject to the ever increasing expectations of society. Consequently, we have developed and implemented a structured framework to ensure that we meet our goal of contributing to the global transition to sustainable development. This framework contains the "must have" building blocks, which must all work together to achieve leading performance and manage risk effectively.

We are communicating and raising our awareness of our approach to our internal and external stakeholders.

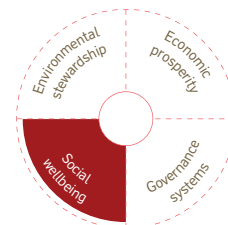
In 2010 we commenced a review of our approach to sustainable development to ensure it remains focused on the risks most relevant to delivering our business strategy.



## Social wellbeing

 [Read more in the "Our approach" section of \[www.riotinto.com\]\(http://www.riotinto.com\)](#)

We are committed to providing a safe and healthy workplace for our employees where their rights and dignity are respected. We set out to build enduring relationships with our neighbours that demonstrate mutual respect, active partnership, and long term commitment.



## Safety

We are progressing on our journey toward a zero harm culture where everyone knows that they make a difference and where all employees and contractors have the knowledge, competence and desire to work safely. We believe that all injuries are preventable and our goal is to achieve zero injuries and zero fatalities.

Regrettably three people were fatally injured whilst working at Rio Tinto managed operations in 2010. These events occurred at the Iron Ore Company of Canada, as a result of a fall from height, at the Alcan Packaging plant in Indonesia, as a result of an electric shock, and at the Alcan Engineered Products Neuf Brisach operation in France, as a result of being struck by a falling object. We provided support and counselling to the families and workmates affected by these events and we have shared the lessons from these and other serious incidents across the Group.

We measure progress toward our goal of zero injuries through the all injury frequency rate (AIFR), which includes data for employees and contractors. At the end of 2010 our AIFR was 0.66, an improvement of 18 per cent over the last year. Our lost time injury frequency rate has also improved and was 0.36 per 200,000 hours worked in 2010.

Lower injury rates do not mean that serious incidents will not occur. We use significant potential incident reporting and remedial action closure measures to promote identification, investigation, management and sharing of lessons learnt from minor and near miss events with potentially fatal consequences. These metrics are linked to remuneration.

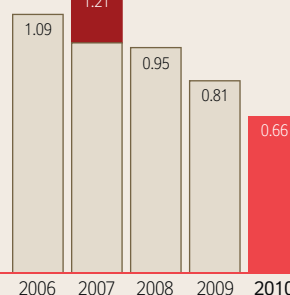
Higher consequence, lower frequency safety events are managed through targeted process safety reviews and use of our Semi Quantitative Risk Assessment (SQRA) process. The risk reduction resulting from the SQRA process is used as a Group wide leading indicator for safety performance.

### All injury frequency rate

Per 200,000 hours worked

■ Including former Alcan

**0.66**  
(2009: 0.81)



To drive improved performance at our sites where the most injuries are occurring, or where we face persistent challenges of repeated or major injuries or fatalities, we have developed a site safety acceleration process. The process is built on the principles of diagnosing root causes of poor safety performance and, through the engagement of leaders and employees, developing site-specific practical interventions that lead to sustainable safety improvements.

We have also established a framework that defines our expectations and the processes to assure implementation of our systems and standards during the development of major projects.

## Health

Our goal is no new cases of occupational illness. We are targeting a 30 per cent reduction in the rate of new cases of occupational illness per 10,000 employees between 2008 and 2013.

The main types of occupational illnesses recorded in our 2008 baseline are related to musculo-skeletal disorders, noise induced hearing loss and stress. The baseline excludes operations that were divested or flagged for divestment during 2009.

In 2010 we achieved a 56 per cent improvement in performance compared with 2008 with significant decreases in the number of reported cases of noise induced hearing loss (54 per cent), musculo-skeletal disorders (66 per cent) and stress (40 per cent).

Ongoing reductions in new cases of occupational illnesses will require further improvements in the management of risks posed by manual handling and noise exposure, as well as supporting healthy lifestyles through workplace wellbeing programmes.

We are also targeting a ten per cent reduction in the number of employees exposed to an eight hour noise dose of more than 85 decibels between 2008 and 2013. In 2010, the number of employees potentially exposed increased by 0.3 per cent per 10,000 employees compared with 2008. Progress against this target has been slow; based upon business feedback we are expecting most of the improvements for this target to occur in 2012 and 2013.

Rio Tinto operates two uranium mines, Ranger in Australia and Rössing in Namibia. When not appropriately managed, exposure to ionising radiation from uranium mines can pose potential health risks for workers or surrounding communities and we understand there may be some concern that those working or living near our uranium mines could be at risk.

In line with our occupational health standards, we continue to work on reducing radiation exposure to as low as reasonably practicable.

Our monitoring has not recorded any employee exposure above our 20 milliSievert (mSv) annual limit for over a decade. Rio Tinto's exposure limit is well below the five year 100mSv and annual 50mSv limits typically found in international protocols.

We believe that our health and wellbeing strategy will support our employees to lead healthier lives and reduce fatigue, stress and obesity related risks to deliver health, safety and productivity improvements across the Group. We have continued to roll out our Australian "Achieve Health" programme and more than 7,000 of our people globally signed up for our "Be Active" challenge in 2010.

Rio Tinto operates in countries where the prevalence of human immunodeficiency virus (HIV), tuberculosis and malaria are high. We work closely with the international health community on these problems not only in Africa, but globally. Where our operations are located in regions with a generalised HIV epidemic (as defined by UNAIDS) we actively encourage all employees to know their HIV status through voluntary testing. We also ensure that all employees in these regions and their nominated partner have affordable access to treatment, care and support, including antiretroviral drugs.

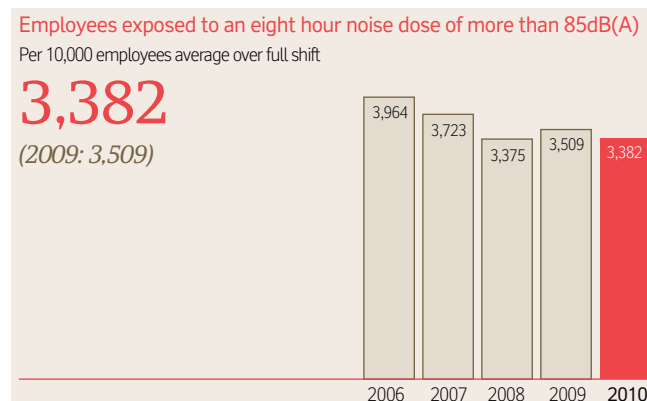
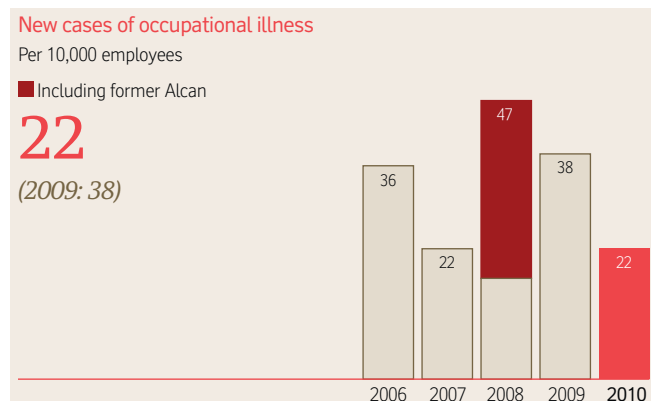
As part of our new Business Resilience and Recovery Programme, we focused on the identification and classification of potential and emerging health risks and evaluation of our emergency medical response preparedness in 2010.

## Our people

In 2010, we employed 77,000 people, including the Group's proportionate share of consolidated companies and equity accounted units. Of these approximately 25,000 were located in Australasia, 22,000 in North America, 17,000 in Europe, and 8,000 in Africa. Our workforce decreased in 2010 as a result of our divestment programme. See page 252 for a breakdown of employees by business units.

We employ on the basis of job requirement and do not discriminate on grounds of age, ethnic or social origin, gender, sexual orientation, politics, religion or disability. 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 every effort to offer suitable alternative employment and retraining to employees who become disabled and can no longer perform their regular duties.

Our employees' diversity of backgrounds, skills, perspectives and experiences is critical to our business success. We encourage





diversity in teams and the sharing of people, skills and knowledge across the Group. We provide employees with opportunities for flexible work arrangements to accommodate individual needs at different life and career stages.

Our goal is to employ people who meet job requirements and reflect the diversity of our surrounding communities. Currently, we are focused on improving the representation of women and people from nationalities which are under-represented in our workforce. In 2010, women represented 27 per cent of our graduate intake, 14 per cent of our senior management, 20 per cent of the chief executive's executive committee and 13 per cent of the Rio Tinto board. Our new Group wide diversity targets for 2015 are:

- Women to represent 20 per cent of our senior management.
- Women to represent 40 per cent of our graduate intake.
- Fifteen per cent of our graduate intake to be nationals from regions where we are developing new businesses.

We actively favour local employment where local candidates meet job requirements and laws allow. Our local employment commitments are often managed through directly negotiated community benefit agreements. Throughout 2010, we remained the largest private sector employer of indigenous Australians, who represent eight per cent of our Australian workforce.

Rio Tinto's new statement on commitment to diversity and inclusion can be found on page 116. We are also establishing a new cross-functional diversity council, chaired by a member of our executive committee, to set directions for, sponsor and monitor progress of initiatives to improve diversity and inclusion.

Our reward strategy is designed to attract, retain and motivate our workforce. Base pay is reviewed regularly to account for the individual's role and local market trends. We offer allowances, broad-based employee share plans, retirement plans and healthcare benefits consistent with local market competition.

We provide a short term incentive plan to allow individuals to participate in the financial success of the business and focus on individual performance objectives. Long term incentive plans are used to align individual objectives with shareholder interests and to recognise performance and potential for strategic contributions.

We directly engage with our employees on their individual career aspirations and implement individual development plans, coaching and feedback processes to position them and the Group for success. We also conduct regular talent reviews to assess the capabilities and potential of our workforce.

Our second global employee engagement survey was completed in 2010. Engagement levels are positive and good progress has been made on improving understanding and support of the Group's vision and values. Action plans are being implemented in each business. Globally we are focusing on increasing the capability of our leaders to engage with and maximise the contribution of our people, especially among our frontline employees. We will measure progress as part of our next engagement survey in 2011.

In 2010 our frontline, operational, business, and strategic leadership development programmes were relaunched along with new programmes for the accelerated development of high-potential employees and leadership skill-building for people in operational roles. Approximately half a million attendances were recorded for training in technical and operational skills, and health, safety, and environment courses during 2010.

### Communities and regional economic development

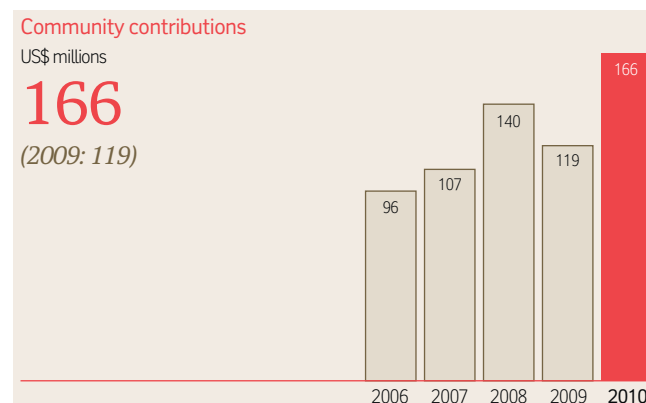
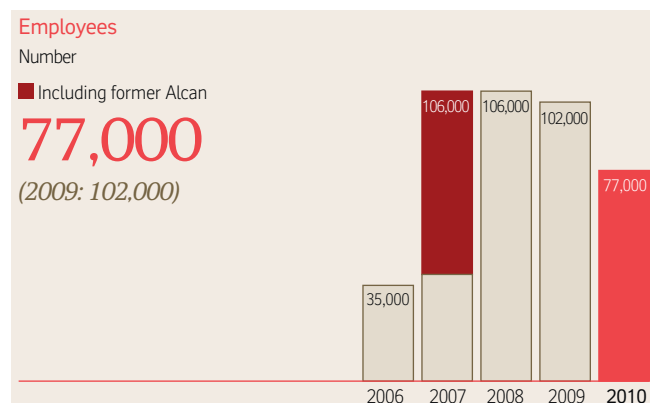
By understanding our socio-economic interactions in the places where we operate, we can optimise benefits and reduce negative impacts for communities and our operations alike.

These interactions include relationships with local suppliers, training and local employment, support for small to medium enterprises, optimal distribution of taxes and royalties, support for multilateral socio-economic programmes and development of infrastructure that can also benefit local communities, businesses and governments.

In addition to direct economic contributions through salaries, wages, taxes, royalties and local service and supply, our businesses supported 2,900 socio-economic programmes covering a wide range of activities such as health, education, business development, housing, environmental protection and agricultural development during 2010.

To enable us to target the delivery of socio-economic programmes reflecting the priorities of local communities, and to identify potential positive and negative impacts of our operations, we conduct community baseline, social impact and social risk assessments. We use this information along with community input to develop multi-year communities plans.

In 2010 we spent US\$166 million on community assistance programmes and payments into trusts set up in directly negotiated community impact benefit agreements. The US\$47 million increase in spending compared to 2009 reflects a rebounding of Group activity and the establishment of new community agreements which involve direct payments to community controlled regional development trusts.



We verify the quality of our communities work at each operation on a three year cycle. In 2010, we conducted assurance assessments at 25 operations.

The introduction of a mining, smelting or refining operation can be disruptive and concerning to local communities, particularly where resettlement, land rights or areas of spiritual value are concerned. We apply leading industry practice in dealing with such matters and try to minimise and mitigate negative impacts and gain broad-based community support for our activities.

However, people can validly have differing opinions about a development. For example, some sections of the community around the US based Eagle project in Michigan have requested broader access to Eagle Rock, notwithstanding the understandings we have reached with other sections of the community to address safety and other considerations.

Community action may also affect our ability to conduct our operations, such as our 2008 decision to temporarily suspend pilot project construction work at the La Granja copper development in Peru. Development of this project was subsequently scaled back as a result of the global financial crisis.

Even when the broader community is supportive, individuals or NGOs may continue to have concerns about or oppose our activities and they may commence legal action to challenge it. We seek to respond to such actions, whilst respecting the views of those people who disagree with us. We accept that we cannot meet everybody's concerns and expectations, but wherever we operate we seek to do so with broad-based community support.

Our operations are part of the social context in which they sit, and we may sometimes be subject to collateral effects or issues arising out of differences within a community or between a community and third parties. This can result in high crime rates or civil unrest and/or our employees and assets being the target of anti-social and unlawful activities. In such circumstances we do what we reasonably can to maintain the security of our assets and personnel in a manner that is proportionate and safe for our people and the local community. We follow the Voluntary Principles on Security and Human Rights, provide training to security personnel, and follow security rules of engagement which seek to limit the risk of fatal incidents arising from unrest, theft or trespass.

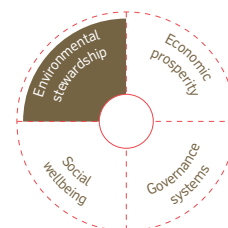
Our communities target requires all operations to have locally appropriate, publicly reported social performance indicators that demonstrate a positive contribution to the economic development of the communities and regions where we work, consistent with the Millennium Development Goals, by 2013. By 2010, 20 per cent of operations had these indicators in place. Our report on the Millennium Development Goals and the library of our local sustainable development reports can be found on our website.

We seek to make our voluntary contributions part of a bigger picture. This year Rio Tinto and the Australian Football League (AFL) launched a four year partnership focused on leadership development for 18 to 24 year old indigenous men. The *Footy Means Business* programme will provide participants exposure to elite AFL programmes and training, along with networking opportunities in corporate environments to build leadership and teamwork skills.

### Environmental stewardship

 Read more in the "Our approach" section of [www.riotinto.com](http://www.riotinto.com)

We continue to proactively manage issues related to climate change, water, land stewardship, biodiversity, mineral and non mineral waste, air quality and closure.



Our programmes include input from our local communities and subject matter experts, and are supported by our partnerships with BirdLife International, Conservation International, the Eden Project, Earthwatch, Fauna & Flora International and the Royal Botanic Gardens, Kew.

During 2010, the International Union for Conservation of Nature (IUCN) and Rio Tinto entered into a three year formal collaboration agreement to work together on sustainable development efforts, environmental management and delivery of conservation outcomes.

### Greenhouse gas emissions

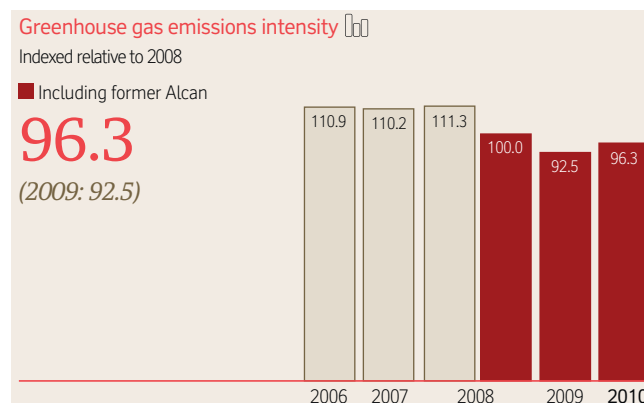
We accept the need for climate change action and recognise the issue as being one of our greatest challenges and opportunities. We support efficient, effective and equitable measures to tackle climate change, which promise a comprehensive, long term response to a globally complex problem. We accept the need for a price on carbon.

We believe that our businesses have a positive future in a world that is working to global carbon constraints and we aim to improve the energy intensity of our operations and new projects.

We are targeting to reduce our total GHG emissions intensity by six per cent between 2008 and 2013. A further four per cent reduction is targeted to give an overall ten per cent reduction by 2015.

Our GHG emissions intensity has reduced by 3.7 per cent between 2008 and 2010, largely as a result of the 2009 divestment of the Ningxia aluminium smelter in China. During 2010, the impact of closure or reduced production at older aluminium smelters that had low emitting power sources offset some of the intensity reductions achieved during 2009. These closures and production decreases are one step towards our longer term strategy of modernisation.

Our total GHG emissions were 43.4 million tonnes of carbon dioxide equivalent (CO<sub>2</sub>-e) in 2010, 2.3 million tonnes higher than



in 2009. This is the result of increased production of a number of commodities and production shifts to operations with higher greenhouse gas emission intensity. Rio Tinto's direct emissions were 27.6 million tonnes of CO<sub>2</sub>-e in 2010. A breakdown of our greenhouse gas emissions by product group and country is available on our website.

We operate in an energy intensive sector and we seek to lower the greenhouse gas emissions over the full lifecycle of our products. For example, Rio Tinto Alcan is a leader in the development of energy efficient aluminium smelting technology and a significant proportion of our aluminium smelters are powered with low carbon, hydro or nuclear power sources. The high strength to weight ratio of aluminium can reduce the weight of cars and decrease the amount of fuel used during their operation; it can also be efficiently recycled.

We continue to track greenhouse gas emissions associated with our products along the value chain. In 2010, the three most significant sources of indirect emissions associated with our products were:

- Approximately 4.7 million tonnes of CO<sub>2</sub>-e associated with third party transport of our products and raw materials.
- An estimated 122 million tonnes of CO<sub>2</sub>-e associated with customers using our coal in electricity generation and steel production.
- Approximately 360 million tonnes of CO<sub>2</sub>-e associated with customers using our iron ore to produce steel. The emissions associated with the use of our coal and iron ore cannot be added, as some customers use both our iron ore and our coal to produce steel.

Due to global demand, coal will remain a significant source of energy for the foreseeable future. We are therefore investing in developing and commercialising carbon capture and storage (CCS) technology. We are a founding member of the Global CCS Institute and we support other collaborative efforts to deploy CCS technology, such as the CO<sub>2</sub>CRC's Otway Basin geosequestration project in Australia.

During 2010, climate change legislation and regulation were debated in a number of jurisdictions where we operate. This has the potential to increase our operating costs significantly:

- In Australia new climate change policy has been discussed but not yet enacted. Currently we have both direct and indirect cost exposure as a result of a requirement to purchase certificates as part of the Government's renewable energy target. All legislated reporting requirements were met in 2010.
- In the US, the Environmental Protection Agency (EPA) is drafting regulations that may subject GHG emissions to permitting requirements.
- In the EU some of our operations are subject to the second phase of the EU emissions trading scheme. This exposure will increase when the third phase starts in 2013.

We recognise the need to adapt to the physical impacts of climate change. In 2010 Rio Tinto Alcan entered into partnership with Ouranos to develop tools and strategies to further adapt to climate change ([www.ouranos.ca](http://www.ouranos.ca)).

### Energy use

Rio Tinto both uses energy in its operations and produces it. Our smelting and mineral processing operations are energy intensive and depend on hydroelectricity, nuclear power, coal, oil, diesel and gas to keep them running.

This year our energy use increased by 3.2 per cent to 512 petajoules following production increases for several commodities, including titanium dioxide feedstock and iron ore.

Through our coal and uranium sales, we supplied 4,735 petajoules of world energy demand in 2010. Our energy supply was more than eight times our energy use.

To drive improvements in energy efficiency our businesses have set a range of local energy targets that cover nearly three quarters of the Group's energy use.

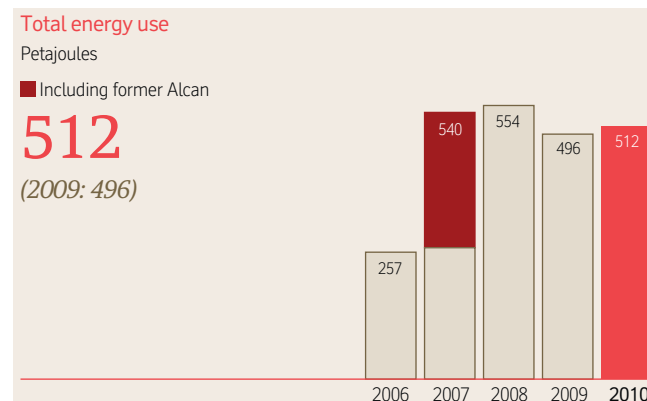
We are also working to reduce the energy intensity of our new projects through energy efficient design, the use of alternative energy sources and development of step change technologies. This includes development of the AP60 cell and other components of AP Technology™ which have the potential to significantly reduce the energy required to produce aluminium.

Our use of low greenhouse gas emitting hydro, nuclear and other renewable power sources represented 67 per cent of our electricity use in 2010. We have significant hydropower generation facilities in Canada, Scotland and Norway and are currently developing a hydropower strategy to better manage the social and environmental threats and opportunities associated with our hydropower dams.

### Water

We use water at every stage of our business – for exploration, mining, processing, smelting, refining, rehabilitation, generation of hydroelectric power and drinking.

Each of our operations has its own set of water challenges: some are located in water scarce environments where they compete with other users, whilst others need to manage a surplus from storms or groundwater. The quality of water can impact production, operating costs, nearby communities and the environment. Increasingly, we are working in locations where access to clean drinking water and adequate sanitation is an issue for neighbouring communities, particularly in developing countries.



Our water strategy provides a framework for responsible stewardship by addressing water related business risk and improving performance across social, environmental, and economic aspects. We focus on ways to minimise the amount of water we remove from the environment, reuse it whenever we can, and return it to the environment meeting regulatory limits.

Our strategy includes:

- Setting targets to reduce our use and manage our impact on surrounding ecology.
- Understanding the flow regime and quality required to maintain ecosystem integrity.
- Including water availability issues in new project design.
- Relocating and upgrading infrastructure to provide greater flood protection.
- Accessing alternate sources to protect against water shortages.
- Working with stakeholders on sustainable water management issues, especially with communities near our operations.

We used the World Business Council for Sustainable Development (WBCSD) global water tool to identify our operations and projects located in water scarce environments ([www.wbcd.org](http://www.wbcd.org)). In 2010, approximately ten per cent of our freshwater withdrawal was from about 20 operations in water scarce environments, with our greatest exposure in Australia. A map of our operations and projects in areas of water scarcity is available on our website.

In 2010, our freshwater withdrawal increased by over six per cent to 516 billion litres, due to increased production, and high rainfall in eastern Australia. A breakdown of our freshwater withdrawal by product group and country is available on our website.

We are targeting to reduce our freshwater use per tonne of product by six per cent between 2008 and 2013. Freshwater use excludes water that is extracted for ground control and discharged without use in our processes. Between 2008 and 2010, our freshwater use per tonne of product has increased by 2.3 per cent.

During 2010, our freshwater use per tonne of product increased due to significant rainfall events in eastern Australia, which led to increased freshwater storage, and lower production or higher process water requirements at several businesses. These increases were largely offset by improved efficiency at our western Australia iron ore operations as production shifted to newer operations.

The potential impact of climate change will bring higher levels of risk to our water supplies. We need to understand how our operations and nearby communities will be impacted. Water regulation will also evolve to reflect changes in water availability which could impact our operations through higher water prices and changes to water allocations.

For our water strategy to succeed, we need good working relationships with those directly or indirectly affected by our business. We engage with governments and other organisations, for example the Minerals Council of Australia and the ICMM, to support developing water policy and with organisations committed to sustainable water management such as the Johnson Foundation at Wingspread Environmental Forum in the US, the World Economic Forum water project, and the WBCSD water leadership group.

In 2010, we participated in the first Water Disclosure Project, which aims to inform the global marketplace on water related investment risk.

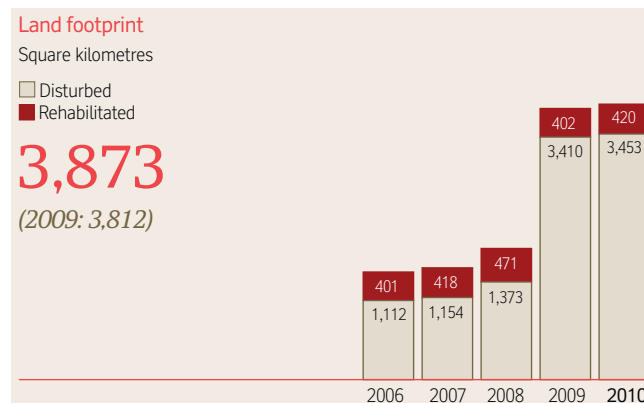
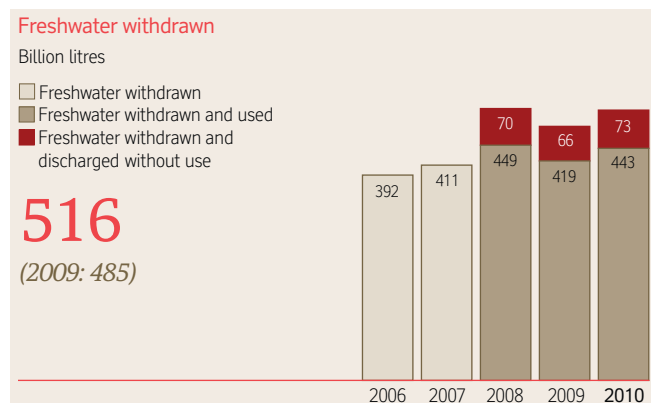
## Land

We manage just under 41,400 square kilometres of land, excluding our exploration leases. At the end of 2010 our activities had impacted 9.4 per cent of this area.

In line with leading practice, we aim to rehabilitate land as it comes out of use rather than waiting until all operations have ceased. By the end of 2010, 24 per cent of our disturbed land (excluding land disturbed for hydroelectricity dams) had been rehabilitated. We have established an internal rehabilitation target and are working with the Royal Botanic Gardens, Kew to drive performance improvements in this area.

We are continuing our programme of exploring the threats and opportunities for the Group arising from emerging green markets in biodiversity, carbon, water and other ecosystem services. Ecosystem services are the benefits we obtain from ecosystems. The UN Millennium Ecosystem Assessment grouped these into four categories: provisioning (production of food and water), regulating (control of climate and disease), supporting (nutrient cycles and crop pollination), and cultural (spiritual and recreational benefits).

Our Natural Capital Project has commenced exploring the ecosystem service values of our extensive non operational landholdings. Through our collaboration with the IUCN economics group we have undertaken a preliminary assessment



of the biodiversity value of forest conservation projects in Madagascar. This groundbreaking work is being developed as a pilot project as part of the WBCSD Ecosystem Valuation Initiative.

Rio Tinto is a member of the Prince's Rainforest Project steering group ([www.rainforestsos.org](http://www.rainforestsos.org)). The Project aims to find practical solutions to slow tropical deforestation and combat climate change by identifying ways to value, and then pay for, the crucial ecosystems services that rainforests provide.

### Biodiversity

The potential for impact on biodiversity makes our projects sensitive for external stakeholders and employees. Rio Tinto's future success depends on our ability to manage these issues, and our biodiversity strategy provides the management framework with an industry leading goal to have a "net positive impact" (NPI) on biodiversity.

Tools and methodologies have been developed to assess the biodiversity values of Rio Tinto's landholding. We continue to work with our conservation partners to improve implementation of the strategy and have commenced pilot programmes in Africa, Australia and North America.

Twenty eight per cent of our operations assessed using the Rio Tinto Global Biodiversity Values Assessment protocol are ranked as having very high biodiversity values and 21 per cent ranked with high values. Biodiversity action plans have been completed or are under development at 86 per cent of these operations. We have internal targets in place to support our goal of achieving NPI at these sites.

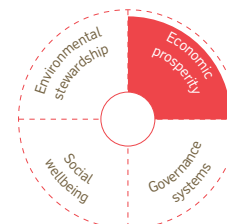
An underlining principal of our biodiversity work is to ensure that biodiversity conservation activities are community based. For example in Madagascar, we have negotiated legal agreements with local communities to manage avoidance zones for conservation. Whilst it may never be possible to obtain unanimous support for these programmes, and some sections of the community continue to have objections, we believe that it has the support of the majority of those affected in the local community.

Through our biodiversity partners, we have also funded direct compensation programmes where community members received agreed compensation (funds for water supplies, schools, etc) in return for conserving key features of the environment and other initiatives such as a reduction in logging and hunting.

### Economic prosperity

Read more in the "Our approach" section of [www.riotinto.com](http://www.riotinto.com)

We adopt a lifecycle view of our operations and products to seek to maximise the value to society whilst minimising negative impacts of products, and encouraging those along the supply chain to adopt similar practices.



We use our expertise to harness resources and create prosperity for our shareholders, employees, communities, governments and business partners.

Our direct economic contribution was US\$61,298 million in 2010. This includes:

- US\$6,951 million spent on wages and salaries.
- US\$33,812 million in value add, made up of labour, tax and royalty payments and returns to capital.

These figures include the Group's share of joint ventures and associates. A breakdown of our local, regional and national economic contributions is available on our website.

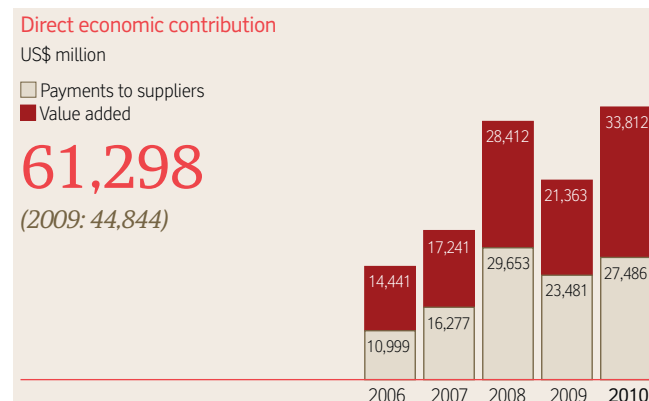
### Suppliers

Our statement of procurement principles is available on our website.

Payments to suppliers are a major benefit to the economy, generating employment and creating wealth. In 2010, we spent US\$27,486 million on goods and services with over 57,000 suppliers.

By collaborating with our partners to obtain sustainable development objectives for each of our business units, we seek to create business relationships that have positive and enduring effects in the developing economies where we operate, build our partner communities' confidence in our reputation, and extend our licence to operate.

As an example, Boyne Smelters Limited (BSL) and Yawun alumina refinery have implemented a decontamination and recycling project in Gladstone, Australia to support Rio Tinto Alcan's goal of zero general waste being sent to landfill by 2014. Working closely with a local partner, these operations have been able to reduce the amount of material sent to landfill by decontaminating and reusing protective gloves, while recycling filter bags and other oil soaked materials.





We also work with non governmental organisations and other partners to build country capacity through programmes such as small and medium enterprise development, access to capital and tailoring procurement processes to improve local supplier access.

### Product stewardship

By understanding the health and environmental impacts and benefits of our products over their complete lifecycle, we gain knowledge on how to improve our processes, expand our information to the marketplace, and differentiate our products from our competitors. Thus we have developed and regularly update lifecycle assessments for all our major products.

This knowledge is also used to ensure compliance with chemicals regulations, such as the European Union Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) legislation and the UN Globally Harmonized System of Classification and Labelling of Chemicals. In 2010 we met the REACH registration deadline for our products affected by the regulations.

We engage in industry wide stewardship initiatives to support responsible production and help develop leading practices and recognised standards. We chair the Stewardship Committee of the Minerals Council of Australia, are active members of the Responsible Jewellery Council and participate in uranium, copper, steel and aluminium stewardship initiatives. We are also supported in our material stewardship initiatives by our partnership with the Eden Project.

We are a board member of the World Ocean Council, which aims to help create a responsible and cross-sectoral ocean business community. A review of environmental risks related to our shipping activities has been completed as part of our marine stewardship programme and is being used to identify areas for future focus.

### Non managed operations and projects

Rio Tinto holds interests in companies and ventures it does not manage. However, we engage as members of the boards of directors, operating committees and/or technical committees. Because we believe that the principles in *The way we work* are universal, in our dealings with joint venture partners and non-controlled companies we make every effort to ensure that those standards of conduct are respected at all times.

Examples of our non managed operations include the Escondida copper mine in Chile and the Grasberg copper-gold mine in Indonesia.

Rio Tinto has a 30 per cent interest in Escondida, which is managed by BHP Billiton. Our seats on the Owners' Council allow us regular input on strategic and policy matters. We played a part in establishing the Escondida Foundation, which is funded by one per cent of the mine's pre-tax profits and is a vehicle through which Escondida fulfils some of its social responsibilities.

There was one fatality at the Escondida mine in 2010 as a result of injuries sustained whilst operating a cathode stripping machine. We worked closely with BHP Billiton to support its investigation into the incident and to make improvements to safety procedures.

A subsidiary of the mining company Freeport-McMoRan Copper & Gold, Inc (Freeport-McMoRan), PT Freeport Indonesia owns and operates the Grasberg mine. We have a joint venture interest in the 1995 expansion of the mine, which entitles us to a 40 per cent share of production above specified levels until 2021 and

40 per cent of all production after 2021. We do not own shares in Freeport-McMoRan and we do not control the management of the joint venture. However, we have the ability to engage with and influence local management through our representation on the joint venture's operating committee.

The operator of the Grasberg mine manages complex social, community and environmental issues and has faced opposition from time to time. There have also been instances of violence in areas near the mine, including a series of shooting incidents along the road leading to the mining and milling operations that have resulted in three fatalities in 2009.

Both Rio Tinto and Freeport-McMoRan support the Voluntary Principles on Security and Human Rights and work together to ensure practice is consistent with these principles. At least one per cent of the mine's net sales is committed to support village based programmes, amounting to cumulative funding of US\$467 million since 1996.

The Grasberg mine has used a controlled riverine tailings management programme throughout its long history. This programme was approved by the government of Indonesia following numerous technical studies to identify the appropriate tailings management plan for the site.

The practice of riverine tailings disposal has been subject to scrutiny for many years by a range of stakeholders, including certain Indonesian governmental authorities and some NGOs. We recognise that riverine tailings disposal has been criticised and that the World Bank does not consider it as good industry practice, in accordance with the International Finance Corporation's (IFC) 2007 Environmental, Health, and Safety Guidelines for mining.

However, we continue to believe that the use of riverine tailings disposal at the Grasberg operation is appropriate given the extremely rugged topography, high rainfall and high seismic risk that makes construction of more conventional tailings management facilities technically challenging. We remain actively engaged in supporting the mine's operator, PT Freeport Indonesia, in reducing the impact of waste rock management and tailings disposal.

PT Freeport Indonesia has implemented a number of significant improvements in tailings management at the Grasberg mine. These include the construction of lateral levees to limit the surface area disturbed by tailings deposition in the lowlands and to protect adjacent river systems, the diversion of the Ajkwa river system to preserve its water quality and to enhance tailings retention within the deposition area, the successful progressive rehabilitation of the now inactive tailings within the Ajkwa diversion area and the new islands forming at the mouth of the diversion area and the completion of an ecological risk assessment.

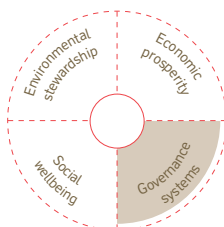
The focus of our work with the operator continues to be on minimising the geochemical risks posed by waste rock management and tailings, providing for effective acid rock drainage management, and promoting progressive rehabilitation.

We seek to ensure that investors understand the actions we are taking in relation to sustainable development issues and we are aware that the decision to buy or sell our shares may be influenced by their understanding of these issues. For example, the 2008 sale of a 0.6 per cent interest in Rio Tinto by the Norwegian Government Pension Fund was stated to be a result of concerns in relation to the environmental practices at the Grasberg mine.

## Governance systems

Read more in the “Our approach” section of [www.riotinto.com](http://www.riotinto.com)

*The way we work*, supported by our global policies, standards and guidance notes, in conjunction with the requirements of local law and our voluntary commitments, forms the basis of our governance systems.



### Business integrity

Rio Tinto considers conducting our business with the highest standards of integrity to be a core value.

We were a founding supporter of the United Nations Global Compact ([www.unglobalcompact.org](http://www.unglobalcompact.org)), a voluntary initiative to align businesses with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. We report our progress against these principles on our website.

Through ICMM we endorse the Extractive Industries Transparency Initiative (EITI) ([www.eitransparency.org](http://www.eitransparency.org)) and we promote the EITI in the candidate countries where we operate. The taxes and royalties we paid in these countries are reported on our website.

Our long standing partnership with the Dundee University Centre for Energy, Petroleum and Mineral Law and Policy sponsors postgraduate studies contributing to the creation of a stable international legal and investment environment ([www.dundee.ac.uk](http://www.dundee.ac.uk)).

*The way we work* and other Rio Tinto standards clearly state that bribery and corruption are prohibited in all forms whether direct or indirect and whether it is to or from a public official, a political candidate, party or party official, or a private sector employee. We only make payments for legitimate business services and purposes, at a rate that reflects market value. Payments must be accurately recorded in our accounting records.

During 2010, four of our Shanghai based employees were found guilty on charges of receiving bribes and obtaining commercial secrets. When the four employees were originally detained in mid 2009, we appointed independent forensic accountants and lawyers to carry out an investigation into the claims. This investigation did not uncover any evidence to substantiate allegations of wrongdoing within our systems.

Nevertheless, we were informed that the prosecutor presented evidence in court that showed the four employees had accepted bribes. By accepting bribes, they engaged in behaviour that contravened *The way we work* and our anti-bribery standards. Accordingly, their employment was terminated.

Independent of this incident, we had commenced a major review of our compliance programme to ensure that our systems remain in line with leading practice.

This led to the release of a revised version of *The way we work*, introduction of new or revised standards for anti-bribery due diligence, antitrust, data privacy, fraud and compliance as well as release of a new standard for conducting investigations into allegations of serious wrongdoing. We have also refined our guidelines for information gathering in China and relaunched

*Speak-OUT*, our independently administered confidential whistleblowing programme. Internal communication and training campaigns have accompanied each of these changes.

There were 434 *Speak-OUT* calls made in 2010. Of the new issues raised, 47 per cent resulted in action being taken in relation to the reported issue. See chart below.

### Human rights

We support and respect human rights consistent with the United Nations Universal Declaration of Human Rights and we actively seek to ensure that we are not complicit in abuses committed by others. We endorse the Voluntary Principles on Security and Human Rights and the OECD Guidelines on Multinational Corporations.

Training on our human rights policy is required every two years for our employees at the general manager level or above. During 2009 and 2010, 4,114 people completed this training. We are also developing a guide to assist with the integration of human rights into our communities work.

In 2010 we established a formal partnership with the Danish Institute of Human Rights ([www.humanrights.dk](http://www.humanrights.dk)) and we will be working together on a number of human rights projects throughout 2011.

Rio Tinto operates in a manner consistent with the UN Declaration on the Rights of Indigenous Peoples and sovereign obligations. However, the UN Declaration contains broad statements of principle that are open to a range of potentially conflicting interpretations. We acknowledge that some sections of the communities where we operate hold alternative views as to how the UN Declaration should be applied in practice, as has been the case at the Eagle nickel project in Michigan, US.

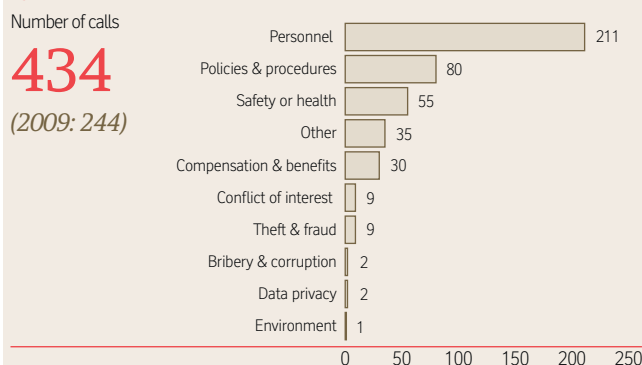
We respect the land connection of indigenous communities and work with them on their land in a spirit of reciprocity, transparency and recognition of their culture. We recognise that every indigenous community is unique and reach specific agreements with affected communities on how they want to engage with us in the development and performance of our operations.

### Business resilience and recovery

Our operations could face a range of threats to our business including natural or environmental disasters, fires or explosions, aircraft incidents, loss of communications or information, terrorist acts, widespread illnesses or pandemics, asset or property damage, or market disruptions.

In 2009 we undertook a review of our approach to ensure that

#### Speak-OUT call activity



we are managing these types of incidents consistently, using a common language, sharing best practices and eliminating overlaps and unclear accountabilities across the Group.

As a result, our previously separate emergency response, business continuity, and information technology disaster recovery plans have now been brought together in one streamlined Business Resilience and Recovery Programme.

This programme is embedded within our Health, Safety, Environment and Quality Management System. It requires our operations to allocate appropriate resources, including trained personnel, facilities and equipment, to effectively mitigate, control and recover from a major incident. We have developed training and a library of simulation exercises for our operations to use in rolling out the programme. Our operations will be internally audited against these requirements from January 2011.

For example, during 2010 we conducted a simulation of flooding impacting our operations in Brisbane, Australia. In January 2011, when Queensland experienced its worst flooding in the last century, we were able to activate our business resilience and recovery plan and assist our people managing the day to day physical and emotional impacts of the flood, its aftermath and the impact on our business in a co-ordinated and timely manner.

### Stakeholder engagement

Genuine engagement with internal and external stakeholders who are affected by, or have an interest in, what we do is a critical element of our successful business practice.

We maintain continuous dialogue with governments and public authorities at national, provincial and municipal levels, with industry associations and representative bodies, including the WBCSD and with non governmental organisations to achieve our shared goals more effectively and develop appropriate standards and guidelines for our industry.

During 2010 we surveyed 1,265 members of government, non governmental organisations, societal influencers and industry members globally to understand stakeholders' views of the mining industry and Rio Tinto. This research will be used to inform strategy development, communications priorities and stakeholder engagement planning. We also conducted our second global employee engagement survey during 2010, see page 33.

The Rio Tinto Prize for Sustainability reflection period, aimed at better understanding the benefits of the US\$1 million prize and options for its future direction, concluded at the end of 2010. As part of this process, Rio Tinto and the International Business Leaders Forum ([www.iblff.org](http://www.iblff.org)) brought together past winners and finalists to network, share experiences and see firsthand examples of past winners' work on the ground. We are currently considering the options recommended for the future direction of the Prize.

### Closure

Integrating closure planning into all aspects of our business, from the earliest stages of project development to the decommissioning of facilities, is essential to leave a positive legacy of sustainable development, minimise unforeseen financial impacts and ensure stakeholder expectations are met. Demonstrating positive closure outcomes also assists us to gain access to future projects.

We have a multidisciplinary approach to closure planning, involving communities, human resources, environmental, engineering and financial specialists. Our closure management plans are updated every five to seven years to ensure they address

key risks, incorporate sustainable development opportunities and include accurate financial provisions.

Ninety three per cent of our businesses currently have closure management plans in place. Rio Tinto Alcan operations are progressively developing or updating closure management plans. At the end of 2010 our close down and restoration provisions were US\$8,602 million; this includes the Group's share of proportionally consolidated operations, and excludes the Group's share of equity accounted units.

Our closure standard and communities standard require our operations to regularly engage with stakeholders, including employees, traditional land owners, local communities and governments. Together, we identify preferred options for closure and seek stakeholders' endorsement. For example:

- At the Beauharnois smelter in Canada, options for ongoing industrial activities were assessed to minimise employment impacts and sustain socio-economic input to the region. As a result a cashhouse was retained at the site and future industrial development projects were identified.
- At the Anglesey smelter in Wales, alternate uses for the site infrastructure and waterfront property were investigated to create jobs and support the local economy. A remelt business employing 90 people has continued and berthing tourist cruise ships at the jetty, with flow-on economic benefits for the region, has been successfully trialled.

We have a team of specialists managing our legacy sites, most of which were introduced to us through acquisition, to ensure our closure standard and sustainable development principles are applied in these areas. For example:

- At one of our Jamaican legacy sites we have provided support for local agricultural scholarships. The 30 operational and security personnel employed for the remedial works we are undertaking were recruited locally.

We continue to participate in industry initiatives to enhance closure planning guidance through recognised bodies such as ICMM, the Post Mining Alliance ([www.postmining.org](http://www.postmining.org)), the Eden Project ([www.edenproject.com](http://www.edenproject.com)) and regional mining and minerals councils or associations in the places that we work.

### Assurance

Our Corporate Assurance function has accountability and responsibility for providing assurance to the board that:

- Rio Tinto's policies, standards and controls are adequately designed and effective for their intended purpose; and that
- These policies, standards and controls are consistently implemented by all Rio Tinto sites on a timely basis and as designed.

In addition, we engaged an independent external assurance organisation, PricewaterhouseCoopers (PwC), to provide the board of directors of Rio Tinto plc and Rio Tinto Limited assurance on selected sustainable development subject matter, as explained on the next page.

PwC's assurance statement satisfies the requirements of subject matters one through four of the ICMM assurance procedure whilst our online GRI report has been checked by GRI, satisfying subject matter five of the ICMM procedure.



## 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 2010 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 review section of the Rio Tinto 2010 Annual report for the year ended 31 December 2010.

### 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) 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:
  - All injury frequency rate
  - Lost time injury frequency rate
  - Number of fatalities
  - Total greenhouse gas (GHG) emissions
  - Greenhouse gas emissions intensity
  - Total energy use
  - Freshwater withdrawn
  - Freshwater use per tonne of product

### Reporting criteria

The subject matter above have been assessed against the definitions and approaches presented under the Reporting at a Group level heading on the Our performance page of Rio Tinto's website ([www.riotinto.com/ourapproach](http://www.riotinto.com/ourapproach)) as at 4 March 2011.

### 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 (Revised) *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*. This Standard requires 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 of the key processes and controls for managing 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
- 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 2011

PricewaterhouseCoopers  
Melbourne

Liability limited by a scheme approved under Professional Standards Legislation

### 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 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 Annual 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

## Transformation, modernisation and expansion

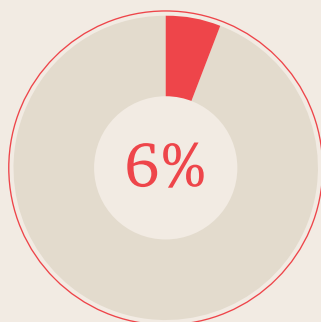


Our high quality bauxite mines and alumina refineries, state of the art technologies, clean and renewable energy assets and low cost aluminium smelters make us a global leader in the aluminium industry.

Jacynthe Côté, *chief executive, Rio Tinto Alcan*

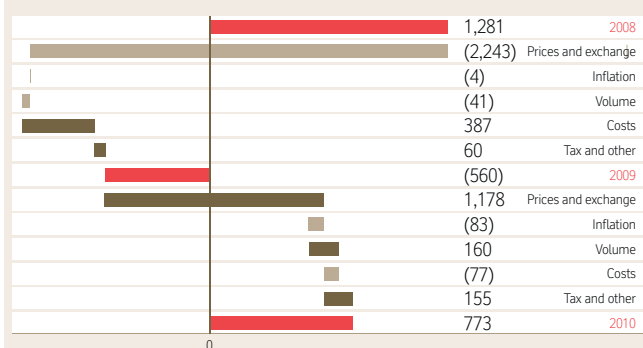
### Aluminium overview

Contribution to Group operating cash flow



Underlying earnings contribution 2008 – 2010 <sup>(a)</sup>

US\$ million



### Operating highlights

	2010 US\$ million	2009 US\$ million
Revenue	15,206	12,038
Operating cash flow	1,334	549
Underlying earnings <sup>(a)</sup>	773	(560)
Capital expenditure	1,328	1,690
Net operating assets	38,326	36,340

### Strategy

- The second phase of transformation will target incremental EBITDA improvement of US\$1 billion by 2014.
- Leverage the group's robust growth pipeline with a priority on modernising and expanding existing Tier 1 assets; lower costs of existing facilities; and progress the development of greenfield options at a pace aligned with market demand.
- Be long in bauxite and alumina, providing strong growth potential, particularly in the Asian region.

### Key achievements

- Increase of US\$1,333 million in underlying earnings from 2009.
- Value added aluminium product sales volumes increased to 65 per cent of total sales.
- Bauxite production up by nine per cent over 2009 mainly in response to increased production at Weipa in Australia to meet the demands of the growing Chinese market.
- Alumina production up by three per cent on 2009 due to improved production at Yarwun in Australia, ramp up at Alumar in Brazil, and restarting idled capacity at Vaudreuil in Canada.

- Construction at the Yarwun expansion project has been accelerated and the completed co-generation plant and ship unloader handed over to operations.
- ISAL aluminium smelter won Rio Tinto's top safety award with 4.7 million work hours without a lost time injury as at December 2010.

### Key priorities

- Proceed with cost efficiencies, capacity creep and step change improvement through strategic capital investment; includes phase one of the AP60 plant in Canada and the ISAL expansion in Iceland.
- Continue steps towards optimising the group's asset portfolio; progress with Kitimat aluminium smelter modernisation in Canada and Yarwun refinery expansion.
- Capitalise on our value added product capabilities and optimise our casting portfolio to serve customers in all key regions.
- Prioritise power sources with the lowest carbon footprint and improving energy efficiency.
- Create value from AP Technology™ via increased technology sales, faster operational improvements and lower full economic costs on new projects.

### Outlook

- Favourable position to leverage strong demand from emerging economies and seize opportunities across the aluminium value chain as the industry continues its recovery.
- Alumina pricing mechanisms are developing and as liquidity builds, the group's strategy of remaining long in bauxite and alumina will allow it to use various pricing alternatives.
- As aluminium markets continue to recover, the group is expected to benefit from stable energy sources, less linked to LME pricing than those of other large producers.

(a) See note 2 and the "Financial information by business unit" section of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.



## Strategy

Rio Tinto Alcan's financial performance will continue to be founded on transformational change and portfolio discipline as a means of reducing its costs and achieving stronger margins. With the integration of former Alcan operations completed and achieved synergies in excess of the stated US\$1.1 billion target, the second phase of transformation is targeting incremental EBITDA improvement of US\$1 billion by 2014 through cost efficiencies and capacity creep, as well as step change improvement through capital investment.

The group's portfolio began improving in 2009 with the sale of the Ningxia smelter in China as well as closures at two older facilities, the Beauharnois smelter in Canada and the Anglesey smelter in the UK when its power contract expired. In 2010, the group divested some of its smaller non core businesses, including the Awaso bauxite mine in Ghana and the Brockville specialty alumina plant in Canada.

Executing Tier 1 growth options with a priority on modernising and expanding existing assets will allow Rio Tinto Alcan to continue driving costs down and reduce its carbon footprint. Primary aluminium projects such as the AP60 plant and Kitimat modernisation in Canada and ISAL expansion in Iceland, as well as alumina projects such as the Yarwun expansion in Australia, are expected to further reduce average costs and progressively drive the group's portfolio down the industry cost curve.

The group uses clean power sources for 72 per cent of the electricity used to produce primary aluminium, including a strong base of renewable, self generated hydropower. This gives its aluminium products a relatively low carbon footprint not only from a production standpoint, but also due to their potential for application towards fuel efficiency improvements and downstream GHG reductions (eg in cars, trucks, trains and aircraft). In addition, aluminium's combination of excellent thermal, electrical and forming properties can offer more efficient electrical, heating and cooling solutions.

Rio Tinto Alcan's business strategy is also to be long in bauxite and alumina. The group produces enough bauxite and alumina to supply its own facilities as well as generate value through third party sales. This supports growth and reduces price risk. The group's alumina position should also allow it to benefit from opportunities, particularly in the Asian region, as pricing structures evolve.

Rio Tinto Alcan is the largest bauxite producer in the industry. It has an interest in three of the four largest bauxite mines in the world and is currently the world's largest bauxite producer. Rio Tinto Alcan also has projects under way to achieve a leading position in alumina refining, including expansion at the Yarwun facility and ramping up tonnage at both Gove in Australia and Alumar in Brazil.

## Performance

Gross sales revenue for Rio Tinto Alcan increased by 26 per cent compared to 2009. This reflects the combination of a robust recovery in end use demand in developed economies and the continued roll-over of inventory financing positions amidst a prolonged period of low interest rates.

In 2010, Rio Tinto Alcan's contribution to the Group's underlying earnings was US\$773 million, an increase of US\$1,333 million from 2009. This was as a result of higher exchange traded aluminium prices with the overall impact of price increasing earnings by US\$1,569 million compared to 2009. This was partly

offset by adverse currency movements of US\$391 million, mainly from the strengthening of the Canadian and Australian dollars against the US dollar.

The improvement in earnings was also attributable to higher sales of value added aluminium products, smelting capacity brought back on line following curtailments in 2009, cost savings from lower input prices for caustic, coke and pitch, and further operating efficiencies in group smelters and refineries worldwide. This was partly offset by inflation and higher energy costs.

The average aluminium market price in 2010 was US\$2,173 per tonne compared to US\$1,665 per tonne in 2009. The group's average realised price for ingot products in 2010 was US\$2,388 per tonne compared to US\$1,833 in 2009. Rio Tinto Alcan has entered into metal sales hedging transactions to protect the downside risk at some of its high cost smelters. This mandate covers a maximum of 317,000 tonnes (about eight per cent of global production) in 2011 and is expected to cover approximately half this tonnage in 2012.

In 2010, Rio Tinto Alcan's annual bauxite production was 33.4 million tonnes, up from 30.7 million tonnes in 2009 mainly in response to rising third party demand. The group has a leading position in bauxite mining; strong performance in alumina refining; and whole ownership or participation in 21 smelters with a total annual capacity of four million tonnes of primary aluminium (Rio Tinto's share). Approximately 80 per cent of this aluminium production is located in the first half of the industry cost curve based on data from CRU, an industry analyst.

Aluminium production stayed relatively flat year over year as production at the Kitimat smelter was reduced due to the closures of potlines 7 and 8 in preparation for the modernisation project, and production at Laterrière in Canada was reduced due to a power outage in July. These were offset by NZAS in New Zealand's production increasing following a transformer failure in 2008, which impacted 2009, and a gradual return to full capacity at operational UK smelters. Aluminium production records were set at the smelters in Arvida and Grande-Baie in Canada, Sohar in Oman, ISAL in Iceland, Dunkerque in France and Boyne in Australia.

## Key achievements

Bauxite production in 2010 was up by nine per cent compared to 2009 due to increased production at Weipa in Australia to meet demands of the growing Chinese market. Alumina production also increased, up by three per cent compared to 2009 due to improved production at Yarwun, restarting idled capacity at Vaudreuil in Canada, efficiencies in work management and process improvements. Production records were set at Yarwun and at Alumar.

Rio Tinto Alcan is accelerating the construction schedule for the Yarwun alumina refinery expansion. This will increase the plant's capacity to 3.4 million tonnes per year and help move the group's alumina production further down the industry cost curve. The completed ship unloader and co-generation plant were handed over to operations in 2010, and the latter is already providing tangible environmental benefits. The project has an expected project completion date of August 2012, with first bauxite expected to be processed during the first half of 2012.

In 2010, the group finalised long term energy contracts for a number of its smelters including ISAL in Iceland, Bell Bay and Tomago in Australia, and Alucam in Cameroon. As aluminium

prices continue to recover, Rio Tinto Alcan is expected to benefit from stable energy sources that are less linked to pricing on the LME than those of other large producers. Ninety six per cent of the group's power is secured by self generating facilities or long term contracts, thus ensuring low and predictable costs.

The group is also expanding its hydroelectric capacity in the Saguenay-Lac-Saint-Jean region of Quebec through the Shipshaw turbine project. This initiative remains on budget and on schedule for completion in Q4 2012, and will improve this major component of total installed capacity by adding 225 megawatts to Rio Tinto Alcan's 2,919 megawatt network.

The ISAL operations won the Rio Tinto Chief Executive's Safety Award in 2010, which was the first year in which it was eligible to do so. Except for one incident in 2009, ISAL has had zero injuries since 2007, and has completed 4.7 million work hours without a lost time injury.

Rio Tinto Alcan also continued its global commitment to strong community partnerships throughout 2010. In Australia, the Gove mine and refinery received the prestigious Origin Gold Banksia award for their partnership with Dhimurru Aboriginal Corporation to eradicate the Yellow Crazy Ant, a significant threat to the regional biodiversity of North East Arnhem Land. In Canada, the group established *Ensemble pour la persévérance scolaire*, a five year investment programme to support definitive action to keep young people in school. In Cameroon, Rio Tinto Alcan has played an active role in community projects focused on health care (prevention of HIV, malaria, and oncocercosis) and access to potable water.

### Safety

Rio Tinto Alcan employees have integrated the Group safety strategy throughout the business and work diligently towards creating a workplace free of health, safety and environmental (HSE) incidents. Rio Tinto Alcan reduced its all injury frequency rate by over 30 per cent to 0.73, representing a near 50 per cent reduction from 2006 levels. The group experienced no fatalities at its managed sites, however, there were three fatalities at non managed operations.

A key priority has been the reduction of major risks through the implementation of Rio Tinto HSE performance standards and risk management practices. This includes initiatives relating to manual handling, process safety, and improving safety leadership with the rollout of Leading for Improvement Training. By year

end, a Caustic safety standard was developed and implemented within the Bauxite & Alumina business unit. At critical sites, process safety management has progressed significantly, with reporting, investigation and analysis of significant potential incidents and completion of corrective actions as a main focus.

### Greenhouse gas emissions

Rio Tinto Alcan contributed 62 per cent of Rio Tinto's total GHG emissions in 2010. Realised and planned reductions also contribute significantly to the Rio Tinto Group's overall intensity improvements. Rio Tinto Alcan has a strong commitment to climate change, which includes both short term operational objectives and long term adaptation strategies.

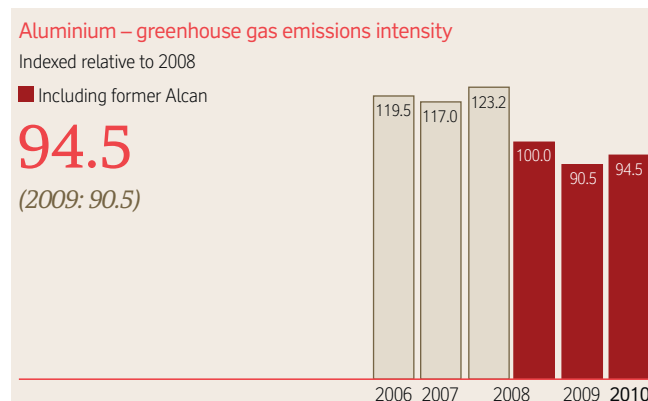
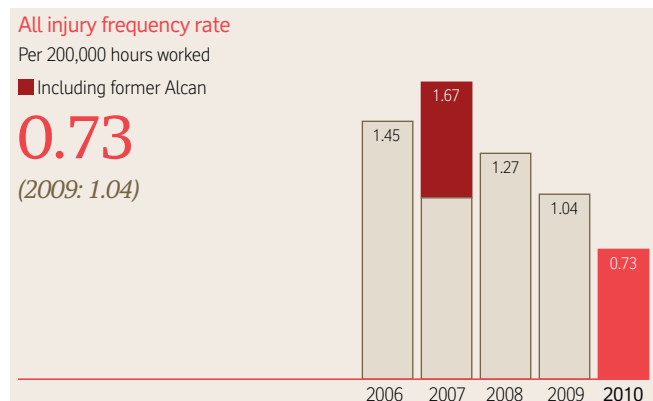
In 2010, as recovery from the global financial crisis took place, curtailed production was gradually restarted. This affected the group's GHG performance level, as did the restart of one potline at the Laterrière smelter in Canada. Energy efficiency improved throughout the operations.

Total greenhouse gas emission intensity at Rio Tinto Alcan improved by 6.3 per cent in 2010 from 2008 baseline performance. This represents 1.8 million tonnes of carbon dioxide equivalent and is attributable to the divestment of a high emissions intensity joint venture smelter in China, the closure of some older operations and increased operational efficiency. Furthermore, expansion and modernisation projects throughout the portfolio, such as those at the Arvida (AP60) and Kitimat sites, will considerably reduce the Group's carbon footprint and help deliver on greenhouse gas commitments.

### Review of operations

During 2010, most value added product (VAP) segment shipments improved considerably compared to 2009, largely due to recovery in the economies of Rio Tinto Alcan's principal markets. In North America, for example, most VAP segment shipments have been affected by the modest but steady improvement in the US economy. Overall, the group's sales volumes of VAP products almost reached the same levels as seen in 2008, accounting for 65 per cent of total sales in 2010 as compared with 51 per cent in 2009.

The return in demand gives Rio Tinto Alcan an opportunity to optimise and invest in its VAP casting portfolio. While Kitimat will increase its slab production, it is transferring billet production to other group units in Australia and New Zealand, where the Boyne smelter recorded its highest ever volume VAP. The group is also investing in leading edge billet casting facilities at ISAL to support the European billet market.



Rio Tinto Alcan also made progress with its growth strategy, focusing on high return production capacity increases and Canadian modernisation projects that leverage low cost, self generated hydropower. The group completed value improvement initiatives at both the Kitimat and AP60 project sites to reduce costs.

The prefeasibility study for the modernisation of the Kitimat smelter is now complete with an improved business case, and the anode pallet storage facility has been built. In March, the group also reached a landmark agreement with the Haisla Nation of British Columbia to secure support and further the Kitimat project's commitment to strong communities. In December, the Group approved an additional US\$300 million investment to further construction and site preparations for the modernised smelter.

At the ISAL facility, a total investment of US\$487 million was approved for a modernisation project to boost production capacity by 20 per cent and install a leading edge casting facility to reinforce Rio Tinto Alcan's VAP position. The group also finalised a long term energy supply agreement with the state utility to allow for an amperage increase at the smelter. The smelter is expected to begin a gradual production increase in Q2 2012. Billet production is expected to begin in 2012 and the group will consolidate expertise and production for slab products from ISAL with existing operations in France and the UK.

Primary aluminium production was negatively impacted from July to September when two electrical transformers failed at Laterrière. The gradual restart of 216 affected pots was completed safely and ahead of schedule. Production losses are estimated at about 24,000 tonnes and the cost of this disruption has been mitigated by insurance coverage.

The group also experienced a temporary hydropower reduction in Quebec due to exceptionally low precipitation levels in the Saguenay-Lac-Saint-Jean region. This led to the signing of a one year power supply agreement with the provincial utility. The full year impact on EBITDA was approximately US\$117 million.

Rio Tinto Alcan's technological capabilities continue to create value from sales, faster operational improvements (eg production capacity creep), and lower full economic costs on new projects. Phase one of the AP60 smelter project received final approval to proceed in December 2010 with an additional investment commitment of US\$758 million. Construction of the electrical substation is complete and site preparations for potrooms and busbar corridors have begun. The facility will be equipped with 38 AP60 reduction cells with metal output per pot at the plant reaching levels 40 per cent higher than at existing smelters. Phase one of the plant will produce 60,000 tonnes of aluminium per year. First hot metal is expected in 2013 and the plant will be the platform for commercial development of AP60 technology.

Rio Tinto Alcan is also recognised as a world leader in bauxite residue management and is often called upon to share its expertise. Its goal is to store bauxite waste in its most solid form possible and, in many cases, recover the liquids used so that it can recycle them in our refining operations. The group works closely with regulatory authorities in host communities to ensure that it complies with the highest HSE standards, and invests regularly to maintain the integrity and security of these sites.

## Outlook

Rio Tinto Alcan is better positioned than ever to tackle the challenges of the future and the long term fundamentals of its industry remain intact, providing for a confident outlook. The per capita rate of aluminium consumption is above 20 kilograms per year in developed countries, and the rate gap between developed countries and emerging economies such as India (one kilogram), Brazil and Indonesia (five kilograms) as well as China (12 kilograms) is expected to close over the long term.

The group's financial performance will continue to be founded on transformational change, reducing its cost structure, and achieving stronger margins. Its next phase of transformation is targeting significant EBITDA margin improvements with the objective of achieving margins around 40 per cent.

Rio Tinto Alcan's comprehensive, proprietary AP Technology™ suite makes it a partner of choice for project development. The group possesses one of the strongest growth pipelines in the industry, with smelter projects in various stages of development. These include brownfield expansions at Kitimat and ISAL as well as the potential for expansions at Sohar in Oman, Alucam in Cameroon, Alma in Canada and two subsequent expansion phases of the AP60 plant. Greenfield opportunities include an additional smelter in Cameroon, a joint venture smelter in Malaysia, and an aluminium smelter in Paraguay. In Guinea, the group has a basic agreement which sets forth a framework for a joint venture greenfield alumina refinery.

As a highly integrated producer, the group also aims to be long in bauxite and alumina. This provides Rio Tinto Alcan with a robust internal supply chain and additional value options. Alumina pricing mechanisms are expected to continue evolving. Rio Tinto Alcan believes that there is insufficient liquidity to support a spot index at present and a material proportion of alumina supply is locked up under medium to long term contracts.

As markets continue their recovery, the aluminium industry cost curve is expected to steepen further with cost pressures on the top end. This is expected to be driven by upward pressure on energy prices, appreciation of the Chinese currency, China's reliance on imported bauxite, potential gradual increased alumina price, and the eventual impact of carbon pricing mechanisms. Rio Tinto Alcan remains well positioned to face these expected pressures on input costs, as key drivers such as access to energy, raw materials and currency drive up costs for producers in China.

# Copper

## Resource, optimise, grow

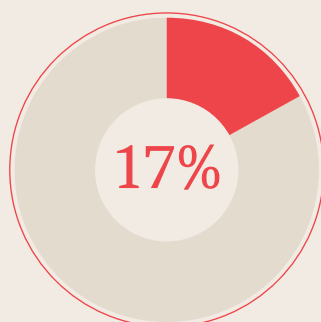


We believe Rio Tinto's Copper group is uniquely positioned to supply growing global demand for copper, with a diverse, balanced asset base and industry leading technology and innovation that allows the Copper group to optimise its resources and grow.

Andrew Harding, *chief executive, Copper*

## Copper overview

Contribution to Group operating cash flow



### Operating highlights

	2010 US\$ million	2009 US\$ million
Revenue	7,782	6,206
Operating cash flow	4,048	2,223
Underlying earnings <sup>(a)</sup>	2,534	1,878
Capital expenditure	958	553
Net operating assets	6,663	5,187

### Strategy

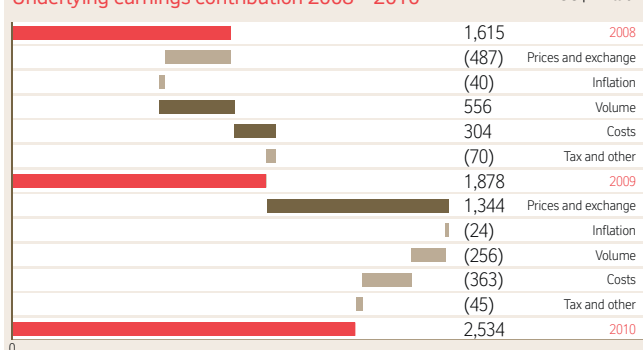
- Deliver shareholder value with a material increase in production in the medium term.
- Optimise our operating assets by delivering meaningful improvements in safety and productivity, championing various technologies and remaining a leader in sustainable development.
- Partner with local governments and communities to contribute to sustainable development.
- Develop strong leadership and diverse, high quality talent needed to deliver growth.

### Key achievements

- Completed Northparkes E48 block cave project.
- Began process of updating environmental permits at Kennecott Utah Copper's Bingham Canyon copper mine and extending its life to 2028 while maintaining additional long term options.
- Launched construction of US\$340 million Molybdenum Autoclave Process at Kennecott Utah Copper.
- Progressed a number of underground projects at Grasberg, namely the Grasberg Block Cave and DMLZ (Deep Mill Level Zone) projects.
- Continued to develop Oyu Tolgoi, one of the most promising

Underlying earnings contribution 2008 – 2010 <sup>(a)</sup>

US\$ million



undeveloped copper-gold deposits in the world.

- Became the development and operating manager of Oyu Tolgoi and established a clear pathway to 49 per cent ownership in Ivanhoe Mines Limited.
- Began construction of the Eagle nickel-copper project, which is expected to begin production in late 2013.
- Obtained tenure over Sulawesi nickel resources.
- Secured land contracts to advance drilling at the La Granja project.

### Key priorities

- Continue to improve safety performance with an emphasis on process safety and underground safety.
- Leverage industry leading technology and innovation to drive value-generating growth in every operation and shorten development for greenfield projects.
- Proactively advance application of key technologies that will drive value in Rio Tinto's copper assets.
- Manage and provide support to the Oyu Tolgoi copper-gold project, with a focus on safety, resourcing and sustainable development.
- Keep the growth pipeline full of potential projects and opportunities.
- Ensure high quality resources are in place to deliver growth.

### Outlook

- Solid fundamentals in the near to medium term.
- Growth in emerging economies, led by China and India, will drive increasing demand.
- Potential for supply side challenges linked to increased sovereign risk, higher operating costs, increasing depths, decreasing grades and project disruption.
- The Copper group's asset base is resilient to volatile prices and has opportunities for development, while its growth pipeline is world class.

(a) See note 2 and the "Financial information by business unit" section of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.



## Strategy

The Copper group's strategy is to deliver shareholder value with a material increase in production in the medium term. The company believes the copper price will remain above historical averages, with some volatility, driven by continued strong demand in China and potential supply side challenges.

Using technological innovation, Rio Tinto's Copper group is optimising its large, long life, cost competitive assets to safely and efficiently gain access to deposits at lower depths.

The growth pipeline is full of promising potential projects, which the group will develop by leveraging Rio Tinto's project skills and in accordance with Rio Tinto's leading standards of collaboration with local governments and communities. The group is focused on developing the people resources needed to deliver its ambitious growth agenda.

Rio Tinto is a leader in block cave mining, and many of our growth projects located at depth depend on this mining method. While block cave mining is capital intensive and requires lengthy development times, technologies being pioneered by the company have the potential to deliver meaningful competitive advantage.

## Performance

Sales revenue of the Copper group was US\$7,782 million in 2010, US\$1,576 higher than in 2009 reflecting higher prices as a result of increasing global demand.

Underlying earnings were US\$656 million higher than 2009, attributable to higher metal prices. Refined copper production was down five per cent. Refined gold production was up 24 per cent, and refined silver up 17 per cent reflecting the processing of high grade precious metals contained in concentrates produced in late 2009.

The improvement in prices was partially offset by lower sales volumes and higher unit cash costs in line with reduced production from lower grades.

The average price of copper in 2010 was US\$3.40 per pound compared to US\$2.32 per pound in 2009.

## Key achievements

During 2010, the Copper group made significant and important progress on a number of fronts.

The Kennecott Utah Copper operation is pursuing the Cornerstone project, which is expected to extend the life of its Bingham Canyon mine to 2028 while maintaining additional long term options. Kennecott Utah Copper is also moving forward with construction of a new Molybdenum Autoclave Process facility that can improve efficiency, metal recovery and greenhouse gas emissions.

Northparkes received approval to proceed with the "Step Change" pre-feasibility project, which has the potential to increase production three fold and further reduce costs.

A feasibility study for the Deep Mill Level Zone at Grasberg was completed.

The Oyu Tolgoi project, one of the most promising undeveloped copper-gold deposits in the world, continued to move forward.

Construction began at the Eagle project, which will produce an average of 17,300 tonnes of nickel and 13,200 tonnes of copper metal per year, beginning in 2013. In addition, tenure was granted over the southern resource at our Sulawesi nickel project in Indonesia.

In 2010, Rio Tinto secured land access by signing 27 necessary land contracts essential to advancing the La Granja project in Peru.

## Safety

The Copper group had no fatalities at its managed operations in 2010. However, a fatality occurred at Escondida, a non managed site, in the process area.

The Copper group is committed to creating an injury free workplace. In 2010, the all injury frequency rate was 0.57, versus 0.67 in 2009.

During 2010, the Kennecott Utah Copper workforce worked more than 2.7 million hours without a lost time incident. The operation has moved forward with successful initiatives to implement on-site Emergency Response teams and help employees manage their personal health. During 2010, Kennecott received a total of 13 awards from the Utah Safety Council for its safety performance.

Northparkes is working to improve safety by understanding and addressing fatigue in the workplace, with stage two of a trial currently under way. In addition, Northparkes is also working to manage low probability, high consequence risks. Into 2011 Northparkes will be focusing safety efforts on further developing and setting underground safety standards and implementing the site process safety plan.

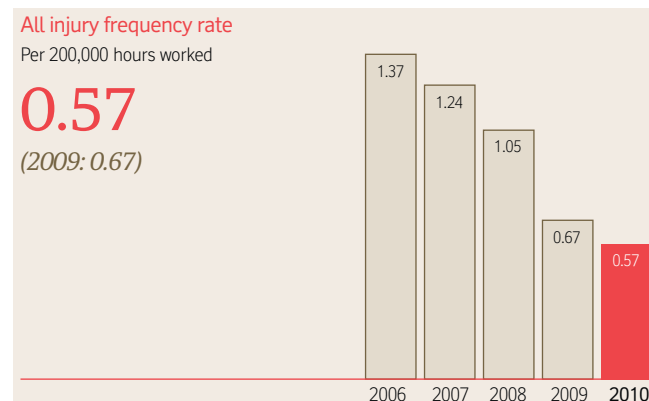
Rio Tinto Copper Projects has had zero fatalities for the past two consecutive years and worked without a lost time incident in 2010. The La Granja project worked without a medical treatment case for 18 consecutive months. For the second year in a row, Resolution Copper received the Sentinels of Safety Award from the US Department of Labor's Mine Safety and Health Administration and the National Mining Association, for excellence in safety. This award is the most recognised and longest standing award given for occupational safety.

In 2011, the Copper group will focus on process safety and underground safety, with the goal of reducing injuries to zero.

## Greenhouse gas emissions

The Copper group is committed to ongoing improvements in energy management and efficiency. In 2010 the Copper group's total greenhouse gas emissions were 3.1 million tonnes of carbon dioxide equivalent, about seven per cent of the Rio Tinto total. Since 2008 the Copper group has reduced the GHG emissions intensity of its copper cathode production by 6.3 per cent.

Kennecott Utah Copper accounts for the majority (61 per cent) of the Copper group's greenhouse gas emissions. Key programmes to improve performance at Kennecott Utah Copper have included energy management and fuel programmes to improve efficiency and the commissioning of a six megawatt combined heat and power





facility. The Copper group anticipates continued progress in 2011 as a result of planned implementation of additional efficiency and technology improvements.

### Review of operations

#### Kennecott Utah Copper (Rio Tinto: 100 per cent)

Kennecott Utah Copper, based in Salt Lake City, supplies more than ten per cent of the US's refined copper. It also produces gold, silver, molybdenum and sulphuric acid as by-products. The planned maintenance shutdown at the smelter was completed safely, on time and on budget. In 2010 Kennecott Utah Copper produced 269 thousand tonnes of refined copper and 596 thousand ounces of refined gold. Kennecott Utah Copper is also commencing studies associated with the potential development of an underground copper skarn deposit to operate in parallel with the open pit.

#### Escondida (Rio Tinto: 30 per cent)

Operated by BHP Billiton, Escondida is the world's largest copper producer. Located in Chile's Atacama Desert, it represents eight per cent of global production. Escondida produced 1,011 thousand tonnes of mined copper in 2010. Approval of three capital projects for execution will extend the sulphide leach operation, provide access to higher grade material and add grinding capacity to increase mill throughput.

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

Grasberg is owned and operated by PT Freeport Indonesia, a subsidiary of US based Freeport-McMoRan Copper & Gold Inc. It is one of the world's largest copper mines and in the lowest cost quartile of copper producers. In 2010, Rio Tinto's share of production from Grasberg was 51 thousand tonnes of mined copper and 183 thousand ounces of mined gold.

#### Palabora (Rio Tinto: 57.7 per cent)

Palabora Mining Company is a listed South African company (JSE) based in Limpopo Province. Palabora produced 58 thousand tonnes of refined copper in 2010, supplying most of South Africa's copper needs and exporting the balance.

#### Northparkes (Rio Tinto: 80 per cent)

Based in New South Wales, Australia, Northparkes is a joint venture with the Sumitomo Group (20 per cent). Northparkes produced 39 thousand tonnes of mined copper and 65 thousand ounces of mined gold in 2010.

Rio Tinto's large, long life orebodies produce significant amounts of copper, at among the lowest costs in the industry, with meaningful opportunities for development. The group is optimising its operations by focusing on safety and by using technological innovation to improve recoveries, extend the life of its mines, protect the environment, gain efficiencies and deliver valuable growth.

Kennecott Utah Copper has submitted permits to move forward with the Cornerstone project, which is expected to create access to approximately 650 million tonnes of mineralised material and extend the life of its Bingham Canyon mine to 2028 while maintaining additional long term options. Kennecott Utah Copper is also developing the Molybdenum Autoclave Process (MAP), an alternative that will replace third party roasting. Commissioning of the facility is planned to begin in late 2012.

Northparkes' E48 block cave project has increased resource tonnes and is expected to extend the mine's life to 2023. By the end of 2012, Northparkes will begin testing a continuous mechanical rock excavation system. This breakthrough technology improves the speed and development of underground operations and allows recovery of valuable resources from increasingly difficult deposits.

Palabora Mining Company is evaluating expansion alternatives to extend the copper mine beyond the current profile. These options include growth of Lift I through an area known as the western extension and a second lift below current mining activities.

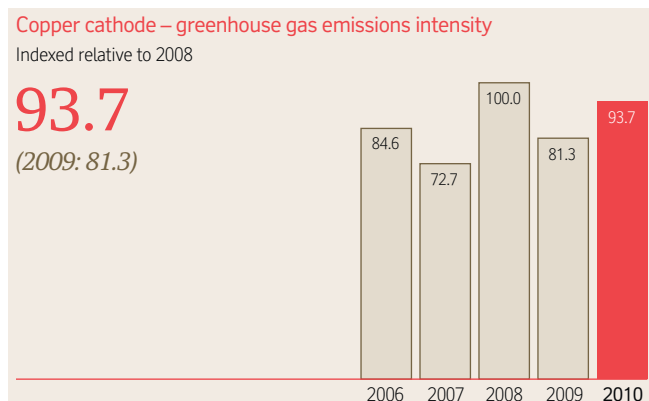
In addition, the company continues to monitor security at Grasberg following several shooting incidents from mid 2009 to January 2010. The last reported incident was on 24 January 2010, which resulted in a number of injuries. There were no fatalities in 2010. The Indonesian Government has responded with additional security forces and Grasberg has taken precautionary measures. Mining and milling activities have continued uninterrupted.

In September, a third party train derailment destroyed the rail line linking Palabora operations to key ports. Fortunately, there were no injuries. The event did not have a material impact on the production, transportation and sale of copper and copper rod to customers; however it did affect magnetite sales.

At each of its operations, the Copper group is committed to sustainable development and community partnerships.

In 2010, Kennecott received the Utah Division of Oil Gas and Mining (DOGM) Earth Day Award for the restoration of its historic Magna Concentrator. This award recognises industry leaders that voluntarily exceed regulatory requirements to protect and improve the environment.

In June 2010, Palabora Mining Company entered into a broad based agreement with its new partners. Under the agreement, the company will effectively sell 26 per cent of its operations and assets to a newly incorporated subsidiary owned by employees, the community and a consortium. The agreement is consistent with the country's Black Economic Empowerment Act, which requires mines in South Africa to be at least 15 per cent owned by historically disadvantaged South Africans. This requirement will increase to 26 per cent by 2014.



## Development projects

The Copper group is pursuing a strong pipeline of projects and has a first class growth profile. In developing new projects, the group works to proactively manage risk and create a solid, sustainable operating environment.

### Oyu Tolgoi (Rio Tinto: 42.1 per cent interest in Ivanhoe Mines Limited)

When Oyu Tolgoi, in Mongolia's South Gobi Desert, reaches full production in 2018, it is expected to be a top ten copper producer and one of the world's biggest gold producers, with first quartile production costs.

In late 2010 Rio Tinto secured the right to increase its ownership in Ivanhoe Mines to 49 per cent by 18 January 2012. Ivanhoe holds a 66 per cent interest in Oyu Tolgoi LLC. Rio Tinto has become the development and operating manager of Oyu Tolgoi and has agreed to provide a comprehensive financial package to Ivanhoe to help secure the development of the project.

The transition of management of Oyu Tolgoi to Rio Tinto has officially started, with a vision to safely deliver on schedule and on budget, to be firmly aligned with Rio Tinto's strategy, values and standards for excellence, and fully deliver on its commitment to employ approximately 90 per cent of the project's workforce from Mongolia – representing around 3,000 to 4,000 direct jobs, including contractors.

### Resolution Copper (Rio Tinto: 55 per cent)

Resolution Copper, in Arizona, US hosts what is the world's third largest undeveloped copper resource. The first production is expected in 2020. The site is in the midst of a pre-feasibility study and indications of this work are that the operation would likely be capable of producing 600,000 tonnes of copper per year. In 2010, Resolution Copper advanced development of a new exploration shaft, and provided more than one billion gallons of treated water from historic mine workings to farmers to irrigate their crops.

### La Granja (Rio Tinto: 100 per cent)

Based on exploration drilling, La Granja – in Peru's Cajamarca Region – is the world's ninth largest undeveloped copper resource. In 2010 evaluation work entered a divergent phase to assess the potential of new geological discoveries and to identify higher value, lower risk options for development. An optimal business case is still being developed. However, the project has a clear direction for development utilising conventional technologies which has yet to incorporate a recently discovered higher grade zone of mineralisation. Drilling will continue in 2011 to confirm the extent of the new mineralisation.

### Kennecott Eagle Minerals (Rio Tinto: 100 per cent)

Construction of the US\$469 million Eagle nickel and copper mine in Michigan, US began in 2010, with first production expected in late 2013. The mine is expected to produce on average 17,300 and 13,200 tonnes per year of nickel and copper metal, respectively, over six years. High quality sulphide nickel concentrates will increasingly be in short supply, and Eagle is one of the most attractive greenfield projects in the nickel industry pipeline. Eagle is located in a prospective region where Rio Tinto has significant land holdings and mineral rights.

### Sulawesi (Rio Tinto: 80 per cent)

Sulawesi in Indonesia is one of the world's largest undeveloped nickel opportunities. The deposit consists of an estimated 162 million tonnes of resources with an average grade of 1.62 per cent. Having received the first licence under Indonesia's new mineral legislation, tenure for the project has been secured and Rio Tinto is reviewing development options. On 30 November 2010 Rio Tinto entered into an earn-in agreement with Sherritt International Corporation. Sherritt must complete two phases of work including a feasibility study and spend US\$110 million on the project to earn a controlling 57.5 per cent equity interest in the holding company that owns the Sulawesi project. Rio Tinto will retain the remaining 42.5 per cent for a net economic interest of 34 per cent.

### Pebble (Rio Tinto: 19.8 per cent interest in Northern Dynasty Minerals)

The Pebble project in Alaska, US is one of the world's most significant undeveloped copper-gold-molybdenum deposits. Rio Tinto has a 19.8 per cent equity holding in Northern Dynasty Minerals, which owns a 50 per cent share in the Pebble joint venture. According to Northern Dynasty, Pebble contains 5.94 billion tonnes of measured and indicated resources containing 55 billion pounds of copper, 67 million ounces of gold and 3.3 billion pounds of molybdenum.

### Bougainville Copper Limited (Rio Tinto: 53.8 per cent)

Access to the site in Papua New Guinea remains restricted; however the company continues to progress plans for exploration and mining and is committed to working closely with the country's leaders and local landowners.

## Outlook

Global electrification and growth in China and India, along with a greater focus on renewable sources of energy, should drive continued demand for copper, while there may also be increased supply side challenges.

The grade profile of the Copper group decreased in 2010 compared to 2009. While mine plans are continually optimised, ore grades are impacted by the inherent constraints that face deeper, more mature mines. An anticipated decline in grade in 2011 is expected to see a rebound in 2012.

Using industry leading technology and innovation, the Copper group is expanding and extending the life of its properties with brownfield development, and pursuing a strong pipeline of greenfield projects to create a growth profile.

Rio Tinto's focus on sustainable development allows it to create stable operating platforms that take into consideration the long term needs of the surrounding environment and the community. As a result, the company can manage risk effectively, reduce environmental impacts, operate efficiently, and attract and retain high calibre employees.

These factors, combined with strong technological capabilities, help differentiate Rio Tinto's Copper group from its competitors and contribute to the goal of being the undisputed sector leader in creating value for its shareholders.

# Diamonds & Minerals

## Differentiation in the marketplace

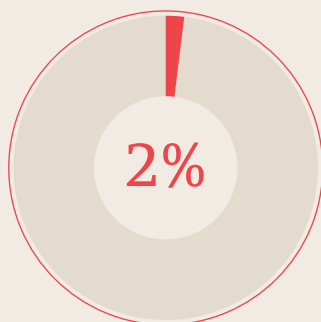


The Diamonds & Minerals group is well positioned to benefit from late cycle demand growth in mature and emerging markets. Our businesses occupy strong positions in their respective sectors, combining high quality assets with technical expertise and a robust understanding of our markets and customers.

Harry Kenyon-Slaney, *chief executive, Diamonds & Minerals*

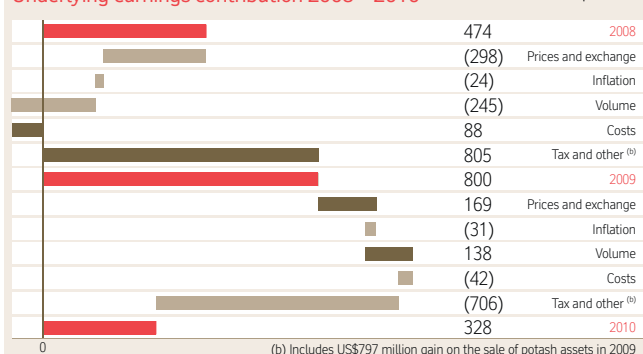
## Diamonds & Minerals overview

Contribution to Group operating cash flow



Underlying earnings contribution 2008 – 2010 <sup>(a)</sup>

US\$ million



### Operating highlights

	2010 US\$ million	2009 US\$ million
Revenue	3,035	2,618
Operating cash flow	510	528
Underlying earnings <sup>(a)</sup>	328	800
Capital expenditure	300	519
Net operating assets	4,580	4,612

### Strategy

- To maximise shareholder value by contributing material earnings to Rio Tinto and delivering better than comparable industry returns.
- To benefit from increasing demand for Diamonds & Minerals' products by improving the efficiency of the group's existing assets, building the growth projects in its pipeline and growing through value accretive acquisitions in existing and new sectors.
- To share best practices in safety and community engagement in order to maintain employer and developer of choice status across the six continents that constitute our operations base.

### Key achievements

- Lowest all injury frequency rate among Rio Tinto product groups.
- Commenced underground ore production at the Diavik diamond mine.
- Gained approval and funding to complete the Argyle diamond mine underground project in Australia.
- Launched a pre-feasibility study for the Bunder diamond project, India.
- Delivered flexibility and efficiency improvements through a new labour agreement at Rio Tinto Minerals' (RTM) Boron Operations in California.
- Received a binding offer in early 2011 from Imerys to acquire Rio Tinto's talc business for an enterprise value of US\$340 million.

- Expanded deposit boundaries and identified additional sodium borate mineralisation at Jadar, a lithium and borates development project in Serbia.
- Rio Tinto Iron & Titanium (RTIT) increased titanium dioxide production by 21 per cent compared to 2009 in response to improved market conditions.
- Achieved the first full year of production of ilmenite ore at QIT Madagascar Minerals (QMM).
- Progressed construction of the tailings treatment plant at Richards Bay Minerals (RBM) ahead of start up in early 2011.

### Key priorities

- Continue to strive for zero harm to people across all operations.
- Deliver material earnings and cash flow to Rio Tinto, and generate better than comparable industry returns.
- Differentiate Rio Tinto from other suppliers in Diamonds & Minerals' markets by providing a reliable supply of high quality products, technical expertise and marketing support programmes.
- Ramp up to full production at QMM.
- Progress development projects to plan.
- Achieve incremental expansions at Rio Tinto Fer et Titane (RTFT) and Boron through efficiency and technology improvements.
- Identify and execute opportunities for inorganic growth.

### Outlook

- Following recovery in 2010, the outlook for the product group's markets is favourable, driven primarily by increased demand from emerging markets.
- The medium to long term fundamentals for the diamond industry are positive.
- Demand growth offers opportunities across titanium dioxide and borates.

(a) See note 2 and the "Financial information by business unit" section of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.

## Strategy

The Diamonds & Minerals group's core purpose is to maximise shareholder value by safely and efficiently mining, processing and marketing diamonds and minerals. The group seeks to differentiate Rio Tinto from other suppliers in its markets by providing a reliable supply of high quality products, technical expertise and marketing support programmes. Many of its businesses operate in remote and environmentally sensitive locations, where we have focused on developing leading community relations and sustainable development practices to become a development partner of choice.

Rio Tinto believes that similar industry dynamics to those that drove the growth in iron ore, copper and coal demand are forming in a number of mineral sectors. The group's strategy aims to position its businesses to make the most of these changing market fundamentals and will be delivered along three principal pathways:

- Progressing underlying business performance through operational and commercial improvement.
- Maintaining and expanding capacity through investment in the group's existing businesses, for example the Argyle Underground project and incremental capacity expansions at Boron and RTFT.
- Further growing the business through value accretive acquisitions in existing and new sectors.

Rio Tinto Diamonds' strategy is to be the preferred global supplier of natural rough diamonds and to continue to operate, manage and develop world class diamond resources safely, efficiently and to the highest possible environmental standards.

RTM's strategy is to be the undisputed leader in value creation within the borate sector. RTM seeks to leverage superior product quality, reliability of supply and technical support to capture profitable growth in promising sectors and regions. At its operations, RTM will focus on increasing capacity while achieving world class safety performance and improving its position on the industry cost curve.

RTIT's strategy is focused on capturing profitable growth in titanium dioxide feedstock markets and maximising the value from its industry leading portfolio of resources, processing facilities and co-product capabilities. RTIT aims to grow titanium dioxide feedstock production to meet increasing demand, while maximising co-product contribution. RTIT will also dynamically drive cost efficiency to sustain or improve its position on the industry cost curve.

## Performance

In 2010 the Diamonds & Minerals group's markets substantially recovered from the financial turmoil of late 2008 and 2009. Sustained demand from emerging markets largely offset the slower recovery from the established markets of the US and Europe. This has been reflected in higher prices and increased sales volumes, leading to a 16 per cent increase in revenues.

The product group continued to focus on improved operational performance. Rio Tinto's share of diamond production reached 13.8 million carats, with underground production commencing at Diavik during the year. Strong demand growth in Asia for borates offset delayed recovery in mature markets, driving borate production increases of 18 per cent compared to 2009. Titanium dioxide feedstock production increased by 21 per cent in response to improved market conditions, while progress continues to be made at the QMM ilmenite mine in Madagascar.

Sales revenue of the Diamonds & Minerals group was US\$3,035 million in 2010, US\$417 million higher than in 2009, reflecting higher prices and sales volumes in response to improved economic conditions. Adjusting for the one-off US\$797 million gain on the sale of potash assets in 2009, 2010 underlying earnings of US\$328 million were US\$325 million higher than 2009, reflecting revenue growth and tax benefits largely associated with a one-off charitable donation of land.

Improved rough diamond prices and sales volumes were reflected in a 52 per cent improvement in Rio Tinto Diamonds' sales revenue in 2010 compared with 2009.

RTM's borates and talc businesses secured additional price increases as markets recovered and met an aggressive target to increase EBITDA by 12 per cent from a 2009 baseline.

In December 2009, a Broad Based Black Economic Empowerment (BBBEE) restructuring was completed at RBM which reduced Rio Tinto's equity share in the business from 50 per cent to 37 per cent. Despite this, RTIT's revenue increased by four per cent, reflecting stronger demand for titanium dioxide feedstock and increased prices for its metallic products.

An impairment charge of US\$115 million after tax was recognised on the diamonds portfolio assets to reduce their carrying value to an estimated recoverable amount. This is not included in underlying earnings.

## Key achievements

### Diamonds

The first ore was produced from the Diavik underground mine in Canada in March 2010. Underground operations will steadily increase and the remaining open pits are expected to be depleted by 2012.

In September 2010, Rio Tinto approved the investment of US\$803 million to complete the Argyle underground project in Australia. Following a transition from the current open pit operation, the mine is expected to be fully operational in 2013. The project is expected to extend the life of the mine until at least 2019.

A pre-feasibility study of the Bunder project in Madhya Pradesh, India commenced in July 2010 and in October 2010, the Government of Madhya Pradesh signed a State Support Agreement with Rio Tinto for the project. These are critical milestones in the ongoing development of the mine, which will be the first hard rock diamond mine in India.

### Minerals

Demand recovery for borates across all market sectors – particularly in Asia – led to an 18 per cent increase in borate production compared with 2009. Talc demand recovery was driven primarily by the polymers sector and production levels increased by 13 per cent.

Boron forged a new labour agreement that lays the groundwork for improved work practices and productivity, enhancing the business's competitive position through the life of the operation.

RTM upgraded its distribution and packaging facility in Malaysia, commissioned a new talc beneficiation plant in Australia and announced plans to open an Asian Technology Center in 2011 to create competitive advantage in the business's most promising growth region.

In February 2011, Rio Tinto received a binding offer from Imerys to acquire its talc business for an enterprise value of US\$340 million. A period of exclusivity with Imerys has been agreed, and Rio Tinto will respond to this binding offer following consultation with the relevant European works councils.



Production of titanium dioxide feedstock increased by 21 per cent compared with 2009 in response to improved market conditions. RTIT reacted quickly to stronger demand by returning to full output following capacity reductions made in response to the global financial crisis.

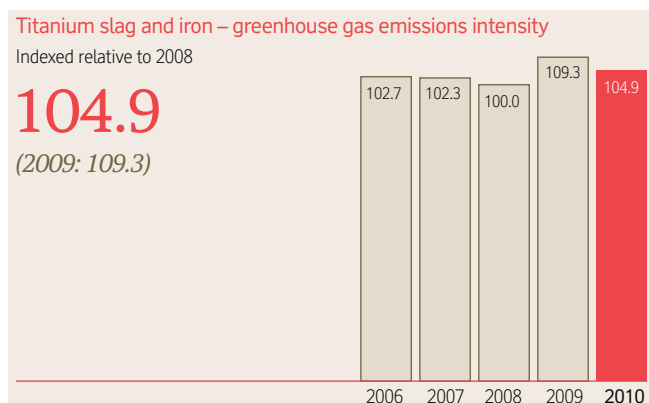
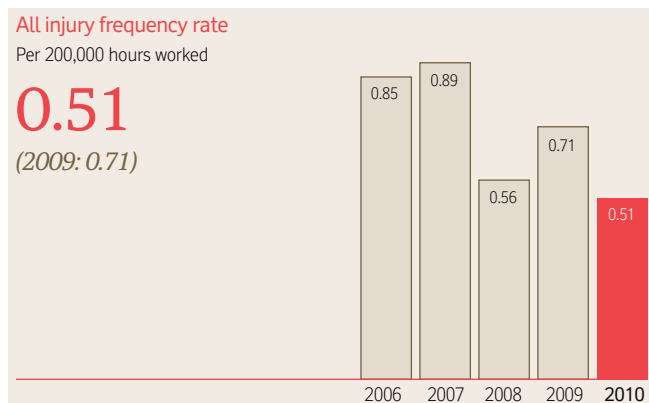
QMM completed its first full year in operation following the first shipment of ilmenite ore in mid 2009, and the final product is being well received by the market. QMM has experienced difficult mining conditions since commissioning, but production is increasing as technical issues are addressed. The implementation of dry mining in 2011 is expected to double throughput by year end. Further options to increase throughput are being evaluated.

Construction of the tailings treatment plant at RBM progressed in 2010, under budget and on schedule. The project will extract zircon, rutile and ilmenite from tailings, from early 2011.

### Safety

Safety improvement and awareness continued to be a major focus of all operations. Initiatives included the piloting of the Site Safety Acceleration Programme at RBM and the creation of the Diamonds & Minerals collaborative forum to drive benchmarking and share best practice. In 2010 the product group's all injury frequency rate (AIFR) was 0.51 compared to 0.71 in 2009.

All diamond sites achieved exceptional safety performances in 2010 with their AIFR improving to 0.36 from 0.65 in 2009. In 2010 the Diavik mine won the Canadian industry's most prestigious safety award – the national John T Ryan safety trophy for its safety performance.



RTM reduced AIFR by 24 per cent to 0.65 in 2010. RTM's Houston Operations were recognised for safety leadership through Rio Tinto's Chief Executive Safety Award, and Rio Tinto's US operations were recognised by the Mine Safety and Health Administration as among the safest in the country.

All RTIT operations improved their safety performance in 2010, with the total AIFR improving to 0.52. QMM achieved one of the group's lowest AIFRs, at 0.20, with a largely new workforce.

### Greenhouse gas emissions

All diamond sites maintained or reduced their greenhouse gas emissions in 2010 compared to 2009 and are working on a number of initiatives to ensure continuous improvements are in place. A key focus is reducing fuel consumption and investigating alternative power options.

Across RTIT's operations, total greenhouse gas emission intensity decreased by nine per cent, reflecting increased operating efficiencies achieved as production levels increased. Engineering work on the electricity co-generation project at RBM is continuing and will contribute to future reductions in emissions by generating electricity from waste gas.

RTM's global operations continued efforts to reduce greenhouse gas emissions, and set new targets to lower them by two per cent per tonne of product from 2008 levels by 2013. Key initiatives include improving energy efficiency in processing plants, harvesting reclamation ponds and in-pit dumping of overburden.

### Review of operations

#### Rio Tinto Diamonds

Argyle (Rio Tinto: 100 per cent)

The Diamonds group owns and operates the Argyle diamond mine in the east Kimberley region of Western Australia. Argyle continued to operate its surface mine while undertaking minimal construction of an underground block cave mine below the existing open pit in the first half of 2010.

Diamond production in 2010 was 9.8 million carats, seven per cent lower than 2009, reflecting the fact that the open pit mine is in the final stages of production with lower ore grades, prior to an underground mine accessing higher grade ore.

Diavik (Rio Tinto: 60 per cent)

The Diamonds group operates the Diavik diamond mine, located approximately 300km north east of Yellowknife in the Northwest Territories, Canada. It is an unincorporated joint venture between Rio Tinto and Harry Winston Diamond Corporation.

The Diavik mine currently comprises three diamond bearing kimberlite pipes that are being mined using open pit and underground mining methods. The first underground mine production occurred in March 2010 and will steadily increase. The remaining open pits are expected to be depleted by 2012. The underground operation will extend the life of the Diavik mine until 2022. A fourth pipe, the A21 pipe, is being reviewed to determine its viability.

Diamond production in 2010 was 3.9 million carats (Rio Tinto share) compared with 2009 production of 3.3 million carats, reflecting a significant increase in ore processed.

Murowa (Rio Tinto: 77.8 per cent)

The Murowa mine has been operating as a small open pit since 2004 and is owned by Rio Tinto (77.8 per cent) and Riozim



Limited (22.2 per cent), an independent Zimbabwean listed entity. Rio Tinto's share of production in 2010 of 139,000 carats was above the 97,000 carats in 2009 as a result of a modest capacity expansion in the process plant. Murowa is considering expanding the existing open pit to increase production and the previous feasibility study for this expansion is currently being reviewed.

In 2010 Murowa Diamonds received the Zimbabwe National Chamber of Commerce award for the Best Corporate Social Responsibility Programs.

#### **Rio Tinto Minerals (Rio Tinto: 100 per cent)**

The business comprises borates and talc mines, refineries, and shipping and packing facilities on five continents that operate under the Rio Tinto Minerals banner. Approximately 815,000 product tonnes of refined borates are produced at Boron Operations, the principal borate mining and refining operation in California's Mojave Desert. RTM also operates talc mines – including the world's largest, in southern France – and processing facilities in Austria, Australia, Belgium, Canada, France, Italy, Japan, Mexico, Spain and the US.

In 2010 total borates production rose by 18 per cent to 500,000 tonnes of boric oxide, on the back of strong recovery in Asian demand. Total talc production increased by 13 per cent to one million tonnes in 2010, with stronger sales in the polymer sector and recovery in paint and paper markets.

#### **Rio Tinto Iron & Titanium**

Rio Tinto Iron & Titanium (RTIT) comprises:

- the wholly owned Rio Tinto Fer et Titane (RTFT, formerly QIT) in Quebec, Canada;
- an 80 per cent share in the QIT Madagascar Minerals (QMM) ilmenite project in Madagascar; and
- a 37 per cent interest in and management of Richards Bay Minerals in KwaZulu-Natal, South Africa.

Both RTFT and RBM produce titanium dioxide feedstock used by customers to manufacture pigments for paints and surface coatings, plastics and paper and the production of titanium metal. They also produce iron, steel and zircon co-products. QMM produces ilmenite from beach sands which is shipped to Canada for processing into titanium dioxide slag.

In 2010, titanium dioxide production increased by 21 per cent compared with 2009. The market for titanium dioxide feedstock has recovered quickly from the global financial crisis, which led to a sharp decline in demand in 2009. In response, RTIT's operations have returned to full capacity, producing 1,392,000 tonnes of titanium dioxide feedstock (Rio Tinto share). This increase has been achieved despite the reduction in the Rio Tinto share of RBM production from 50 per cent to 37 per cent following the BBEE restructuring in late 2009 and reflects increased output of ilmenite from QMM in Madagascar.

#### **Development projects**

The Bunder project (Rio Tinto: 100 per cent) in Madhya Pradesh is Rio Tinto's most advanced diamond project and the most important diamond discovery in India for many decades. Located 500km south east of Delhi, the Bunder project's Order of Magnitude study identified an inferred resource of 27.4 million carats. Rio Tinto applied for a mining lease in 2008, has constructed an on site sample processing plant to evaluate drilling and surface samples, and is working on detailed studies for the mine's development.

In October 2010, the Government of Madhya Pradesh signed a State Support Agreement with Rio Tinto as further endorsement of the Bunder project.

In September 2010 the Rio Tinto board approved a further US\$803 million to complete the construction of the Argyle underground mine. Argyle will continue the transition to underground mining until 2013 by which time it is expected to be a wholly underground mine with a life through to at least 2019.

Exploration drilling in Serbia resulted in expanded deposit boundaries and the identification of a new sodium borate mineralisation at Jadar, a lithium and borate development project with considerable economic potential. The deposit is one of the largest undeveloped lithium deposits in the world. If developed, it is expected to be in production within five to six years.

#### **Outlook**

The diverse markets being served by the group's operations are linked by a strong connection to end consumer markets, consumer sentiment and spending habits. Following recovery in 2010, the outlook for the group's markets is generally favourable, driven by increased demand from Asian countries.

#### **Diamonds**

Following 2009 inventory depletions, the diamond supply chain was gradually replenished in 2010. Diamond demand from emerging markets accelerated, while production levels remained relatively low in comparison with 2008. As a result, rough diamond prices demonstrated a robust recovery throughout 2010. In the short run, the sustainability of this recovery will be in part dependent on US consumer confidence. The medium to long term fundamentals for the diamond industry are positive.

#### **Minerals**

Socioeconomic trends driving energy efficiency in housing and transportation, urbanisation in emerging economies and more sustainable farming practices will drive increased intensity of demand for borates. Segmentation and pricing strategies are in place to support shifts between regions and end uses through different consumer and economic cycles. Supply chain flexibility will be enhanced by establishing bulk delivery stock points in promising growth regions. The borate business is positioned for strong growth and industry leading returns in the near and long term.

Demand for titanium dioxide feedstock is driven mainly by the pigment industry. The market recovered sharply in 2010, with high capacity utilisation rates, driven in part by a steady rise in demand in China and other developing countries. Rising demand is likely to drive prices to structurally higher levels in the coming years.

RTIT is well placed to benefit from improved market conditions as production increases following capital investment in QMM and its established operations in recent years.

# Energy

## Portfolio positioned to meet growing demand



Rio Tinto's Energy group will meet strong future demand for energy and steel, and maximise shareholder return, through operating and growing its global coal and uranium portfolio.

Doug Ritchie, *chief executive, Energy*

### Energy overview

Contribution to Group operating cash flow



### Operating highlights

	2010 US\$ million	2009 US\$ million
Revenue	5,652	4,869
Operating cash flow	2,463	2,069
Underlying earnings <sup>(a)</sup>	1,187	1,167
Capital expenditure	685	510
Net operating assets	3,694	2,809

### Strategy

- The Energy group is focused on safely supplying the world's growing energy needs through the responsible and sustainable development and operation of large scale, long life, cost competitive assets.
- The group aims to be a sector leader in the development and operation of the world's coal and uranium resources.
- The group seeks to build strong customer relationships and provide superior customer outcomes while earning significant premiums to the market.
- The group is pursuing opportunities for growth to meet expanding global energy demand, while continuing to focus on operational excellence, community engagement and environmental performance to ensure it is the developer of first choice.

### Key achievements

- Commissioning of the new Clermont mine in Queensland, an open cut thermal coal mine due to reach annual peak production of 12.2 million tonnes in 2013.
- Feasibility study started into the open cut thermal coal Mount Pleasant project.
- Australian hard coking coal production increased by 20 per cent in 2010 and set a new record of 2.4 million tonnes in the third quarter.

(a) See note 2 and the "Financial information by business unit" section of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.

Underlying earnings contribution 2008 – 2010 <sup>(a)</sup>

US\$ million

	2,432	2008
	(729)	Prices and exchange
	(31)	Inflation
	(20)	Volume
	43	Costs
	(528)	Tax and other
	1,167	2009
	(74)	Prices and exchange
	(28)	Inflation
	58	Volume
	(177)	Costs
	241	Tax and other
	1,187	2010

- A successful heap leach processing trial at Rössing, and finalising work on a proposed exploration decline at Energy Resources of Australia's Ranger mine.
- Completion of a detailed study of global energy demand to support strategic decision making and growth planning.
- Announced a recommended cash offer for Riversdale Mining Limited. If successful, this acquisition would provide Rio Tinto with a coking coal development pipeline in the emerging Moatize Basin in Mozambique, in line with our established strategy.
- Divestment of Rio Tinto's remaining 48 per cent equity holding in Cloud Peak Energy Inc. (gross proceeds of US\$573 million).

### Key priorities

- Continued focus on operational excellence; in particular safety performance to achieve the group's goal of zero harm.
- Expanding and developing existing assets to meet the strong demand.
- Focusing on exploration and strategic acquisition and/or joint venture arrangements.

### Outlook

- The world's demand for energy and steel production is expected to grow strongly in coming decades, driven by increasing populations and industrialisation in large developing countries.
- The forecast growth in demand for coal over coming decades for both energy and steel production presents a significant opportunity to target expanding export markets, particularly in the Asia Pacific region.
- Global demand for uranium is expected to remain strong due to a desire for base load electricity generation with reduced greenhouse gases, as well as the need for energy security, diversity of supply and strong growth plans in China.

## Strategy

Rio Tinto expects strong growth in energy demand in all markets, including coal and uranium, from energy per capita growth and population growth dominated by China and India.

Electricity demand outpaces overall energy demand and this should translate into good opportunities for thermal coal and uranium.

While nuclear and renewable energy will grow strongly in coming years, coal is set to remain a significant part of the world's future energy mix as it is abundant, relatively cheap and there is significant recently installed capacity.

The Energy group's coal assets are well positioned to service the future demand growth in Asia, and include long life, cost competitive assets that are viable throughout the economic cycle. Existing operations have expansion opportunities, and steps are under way to progress these.

While Rio Tinto benefits from this growth in energy demand, it is concerned by the threat of climate change and has accepted the need for global reductions in greenhouse gas emissions. Rio Tinto invests heavily to reduce emissions from its own operations. Rio Tinto also contributes to global efforts to reduce emissions, by participating in the development of low emission technologies, running strong product stewardship programmes, and assisting governments with the development of sound policies.

Rio Tinto has continued to sell non-core coal assets in the Energy group, with the divestment in 2010 of Cloud Peak Energy Inc. and the completed sales of the coal projects Maules Creek and Vickery in the Gunnedah Basin in New South Wales. A process also began in 2010 to divest the Colowyo mine in the US.

Given uranium's low greenhouse gas emissions and strong demand, the Energy group is pursuing growth opportunities and in 2010 progressed work to further define available resources at both Rössing and ERA. Rössing began a statutory approval process ahead of a proposed expansion, while ERA completed detailed planning of its Ranger 3 Deeps resource.

The Energy group's long term strategy is centred firmly on expanding existing capacity and securing opportunities for growth while maintaining superior margins as a reliable long term supplier with consistently high standards of operation.

## Performance

The Energy group's 2010 sales revenue was US\$5,652 million and its underlying earnings were US\$1,187 million, compared with sales revenue of US\$4,869 million and underlying earnings of US\$1,167 million in 2009.

Rio Tinto Coal Australia's (RTCA) 2010 contribution to underlying earnings was US\$940 million, US\$77 million lower than in 2009 due mainly to a stronger Australian dollar, especially in the second half of the year, outweighing the impact of stronger coal prices throughout 2010. RTCA's total coal production was 47.6 million tonnes (Rio Tinto share 30.5 million tonnes), slightly higher than 2009 production.

RTCA's hard coking coal production increase was assisted by equipment investment and operational improvements. RTCA's thermal and semi-soft coking coal production was seven per cent lower, mainly due to wet weather impacts in the Hunter Valley, and the scheduled ramp down of Blair Athol mine (which was partly offset by the ramp up of Clermont mine which became operational in April). Monsoonal rain and flood impacts on

mining operations, road and rail access at RTCA's four Queensland mines in December 2010 led to a force majeure declaration on sales contracts at those mines.

Energy Resources of Australia (ERA) contributed US\$22 million in 2010 to underlying earnings, compared with US\$138 million in 2009. Total production for 2010 was 8.6 million pounds uranium oxide on a 100 per cent basis (2009: 11.5 million pounds). The reduced production was primarily due to lower than expected milled ore grade of 0.19 per cent, compared with 0.26 per cent in 2009. Earnings were impacted by the strengthening of the Australian dollar and higher cash costs. Sales of uranium oxide decreased in 2010 to 11.1 million pounds, compared with 12.1 million pounds in 2009. Unseasonal late rains in April 2010 and an early start to the 2010/2011 wet season also restricted pit access and delayed mine schedules. In January 2011, ERA announced a 12 week suspension of processing operations as a precautionary measure due to a higher than average wet season.

Rössing Uranium recorded a loss of US\$3 million, US\$27 million below 2009, predominantly attributable to an adverse exchange rate impacting production costs. Earnings recovered in the second half of the year when some sales occurred from volumes deferred from the first half. Rio Tinto's share of uranium oxide production in 2010 was 5.5 million pounds, a 13 per cent decrease on 2009 levels due to lower average feed grade.

## Key achievements

Australian hard coking coal production increased by 20 per cent in 2010.

Clermont mine became operational in April and produced 3.8 million tonnes of coal in 2010.

ERA completed detailed planning for a proposed underground exploration decline to conduct close spaced exploration drilling to further define the extent of the Ranger 3 Deeps mineral resource identified in late 2008.

## Safety

All operations across the Energy group continued the focus on reducing injuries through leadership, simple and effective systems, and personal commitment to safety. This includes increasing the focus on significant potential incidents, which are defined as incidents that may not have caused actual harm, but had the potential to cause significant harm.

The Energy group's AIFR increased slightly to 0.71 during 2010, mainly due to an increase in incidents at Rössing and the divestment of Cloud Peak Energy.

RTCA's AIFR of 0.58 was an improvement from 0.60 in 2009, and its injury severity rate decreased significantly.

In 2010 ERA recorded a four per cent increase on its AIFR compared with 2009. However, ERA achieved 1.35 million hours and equalled a record number of consecutive days without a lost time injury.

Rössing's safety performance of 0.95 AIFR in 2010 increased compared with 2009, however a safety acceleration programme implemented at mid year is expected to help deliver improved safety performance in 2011.

Colowyo reduced its rate of injuries by more than a third, achieving an AIFR of 0.65 in 2010 compared with 1.02 in 2009.

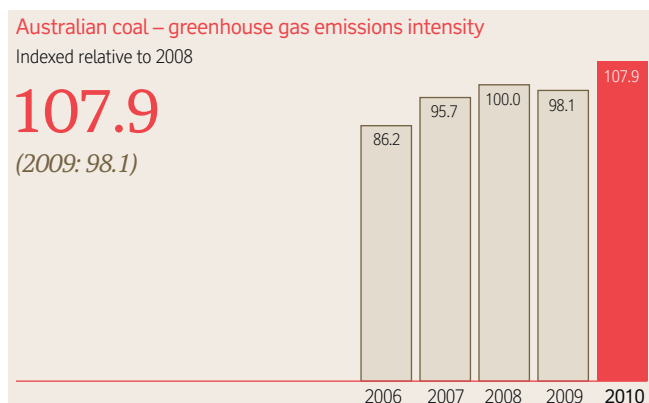
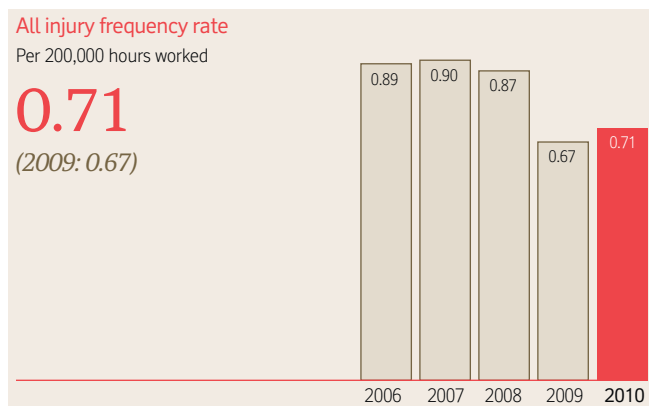
### Greenhouse gas emissions

The Energy group is committed to a future where energy is about sustainable practices that will lead to a low carbon future. Initiatives at each operation are helping to reduce greenhouse gases, while the group is continuing to dedicate resources to the development of low emissions coal technology.

Greenhouse gas emissions intensity increased across the Australian coal business in 2010, however a coal seam methane pilot project was completed by Coal & Allied at the Mount Thorley Warkworth operation. The purpose of the three year project was to test the feasibility of pre-mining drainage and use of methane from shallow coal seams that will be mined using open cut methods. Other trials will be considered after further drilling to measure the gas content in coal that is yet to be mined. The drilling and gas measurement programme, which is being rolled out across all Rio Tinto Coal sites in New South Wales including Mount Pleasant, is expected to be completed in 2011.

In 2010, total production of uranium oxide from Rio Tinto's uranium mines in Australia and Namibia was 16.6 million pounds, and total production of thermal coal from Rio Tinto's Australian coal mines was 31.8 million tonnes. The electricity that will be generated from these energy products is estimated to be 390TWh (terawatt hours). This is equivalent to the combined amount of electricity that was consumed in Australia, Indonesia, and Iceland in 2008. (Source: IEA, World Energy Statistics 2010.)

ERA improved energy efficiency and reduced carbon dioxide equivalent emissions through the rebuild of power station generators.



Rössing did not meet the set energy efficiency and emissions target due to mining and processing constraints, as expected, because of less ore mined, lower grade ore and a high calcium carbonate index. The operation is also aggressively stripping waste and widening the open pit to expose higher grades of ore.

Colowyo's continuing haul road optimisation work aims to maintain greenhouse gas reductions achieved in prior years.

### Review of operations

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

RTCA manages the group's Australian coal interests. These include the Blair Athol (Rio Tinto: 71.2 per cent), Kestrel (Rio Tinto: 80 per cent), Hail Creek (Rio Tinto: 82 per cent) and Clermont (Rio Tinto: 50.1 per cent) coal mines in Queensland.

RTCA also provides management services to Coal & Allied Industries (Coal & Allied) for operation of its four mines located in the Hunter Valley in New South Wales. Coal & Allied (Rio Tinto: 75.7 per cent) is publicly listed on the Australian Securities Exchange and had a market capitalisation of A\$10.4 billion (US\$10.6 billion) at 31 December 2010. Coal & Allied wholly owns Hunter Valley Operations, has an 80 per cent interest in Mount Thorley Operations, a 55.6 per cent interest in the contiguous Warkworth mine, and a 40 per cent interest in the Bengalla mine adjacent to its wholly owned Mount Pleasant project. Coal & Allied also has a 36.5 per cent interest in Port Waratah Coal Services (PWCS) which operates the Kooragang and Carrington coal port terminals in Newcastle.

2010 saw continuing strength in the seaborne market for Australian coal, with growth in demand for thermal coal continuing from South Korea, India, Taiwan and China. Global steel demand improved in all markets in 2010 and led to strong demand for semi-soft coking coal. The market for premium quality hard coking coal remained solid in 2010.

#### Energy Resources of Australia (Rio Tinto: 68.39 per cent)

ERA is a publicly listed company and had a market capitalisation of A\$2.1 billion (US\$2.2 billion) at 31 December 2010. Since 1980 ERA has mined ore and produced uranium oxide at its Ranger open pit mine, 250km east of Darwin in Australia's Northern Territory. ERA also holds title to the adjacent Jabiluka mineral lease. Ranger and Jabiluka are surrounded by, but remain separate from, the World Heritage listed Kakadu National Park. ERA's operations are subject to stringent environmental requirements, and governmental oversight.

In 2010, ERA maintained its 30 year history of protection of the surrounding environment, with the Australian Government's Supervising Scientist Division reporting in its 2009/2010 annual report that extensive monitoring and research programmes confirm that the Kakadu environment "has remained protected".

ERA has invested A\$11.2 million towards water management improvements across its entire operation, and additional real time water quality sensor points in local waterways have improved ERA's ability to monitor releases and protect the environment.

A programme of infill drilling within Ranger pit commenced in October 2010 to confirm confidence in the resource. As a result of this work and pit redesign due to a localised area of instability on the south wall, the Ranger in situ reserves were reduced by approximately 2,400 tonnes.



### Rössing Uranium (Rio Tinto: 68.58 per cent)

Rössing Uranium produces and exports uranium oxide from Namibia to power utilities globally. Its core purpose is to maximise the value delivered to shareholders by being a safe, significant and growing long term supplier of uranium.

Rössing plays a major role in the Namibian economy, both in terms of GDP contribution of around 3.8 per cent as well as employment, education and training opportunities. The Rössing Foundation, set up 30 years ago, continued to provide various education and training programmes and is recognised as a major contributor to sustainable development in Namibia.

A Social and Environmental Impact Assessment was commissioned in 2010 ahead of the mine's proposed expansion activities, and following drilling work in existing and new areas surrounding the current open pit to investigate the extent of the uranium ore available within the Rössing mining licence area.

The latest Life of Mine plan sees the operation continuing to 2023; however it requires a large increase in stripping for the next three years to open up new areas of the pit. A combination of additional equipment and operational performance improvements were implemented in 2010 to deal with the extra mining requirements as efficiently as possible. A similar focus in the plant increased plant throughput and improved recovery rates by three per cent.

Heap leach is a key initiative to increase production and reduce operating costs, and trials were successfully undertaken in 2010. Rössing also continued to progress other potential value enhancing projects including a new tailings facility and an on-site acid plant.

### Colowyo Coal Company (Rio Tinto: 100 per cent)

Colowyo Coal Company produces thermal coal in northwest Colorado. The company intends to fulfil a long term contract with its sole remaining customer, a power generator located in northwest Colorado. This contract expires at the end of 2017. In the absence of divestment or the development of additional customers, the expiration of the contract will be followed by closure and completion of reclamation of the mine site.

### Development projects

The Energy group's main coal development project in Australia is the extension of the Kestrel mine with first production expected in early 2013.

A feasibility study commenced in November 2010 for the Mount Pleasant project, an already consented, open cut thermal coal mine proposal in the Upper Hunter Valley. Consent modifications are being sought to provide options that may reduce capital costs and allow more efficient operations.

In New South Wales, the start of a long term commercial framework relating to port capacity to facilitate industry growth is showing results. To date the framework has seen coal producer nominations and the allocation process trigger the requirement for PWCS to take its terminal capacity to 145 million tonnes a year (mtpa), expected by 2013. The process has also triggered the requirement for PWCS to develop a fourth terminal. Meanwhile, the externally owned and operated Newcastle Coal Infrastructure Group commissioned its stage one 30mtpa terminal in April 2010 and has announced financial close on an expansion to take its port capacity to 53mtpa. Negotiations on below-rail arrangements in the Hunter Valley region are continuing.

RTCA has secured additional port capacity in the first stage of the Abbot Point expansion to meet its production requirements for growth in Queensland.

ERA completed detailed planning for a proposed underground exploration decline, to conduct close spaced exploration drilling to further define the extent of the Ranger 3 Deeps mineral resource identified in late 2008. This proposal is in the final stages of ERA's approval process with a final decision expected in the second quarter of 2011.

ERA is progressing work on a feasibility study into a proposed heap leach facility at Ranger, targeting the recovery of 33 million to 44 million pounds of uranium oxide from low grade ores.

### Outlook

The Energy group's increased capital expenditure in 2010 will continue in 2011, to expand operations to meet forecast demand growth in coming years.

Rio Tinto's Energy group expects 2010's strong thermal coal demand will continue through 2011, with continued pressure on prices due to wet weather constraints to coal production in Australia, Indonesia and Colombia in late 2010/early 2011.

The group expects that coking coal prices will remain high relative to historical levels, given the lack of substitutes, growing demand and lingering supply constraints due to the impact of recent weather.

Uranium spot markets strengthened in the second half of 2010, mainly driven by strong demand from China, and long term prices saw some small increases in late 2010. Market demand is expected to remain strong in the coming years as new nuclear power capacity comes online.



# Iron Ore

## Record performance, operational efficiency and robust outlook

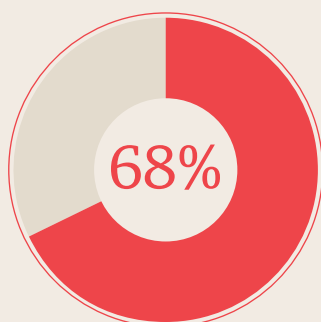


Following a decade of dramatic expansion, we are well positioned to supply rising global iron ore demand through further capacity increases. We will continue to drive performance through leadership in project delivery and operational excellence.

Sam Walsh, *chief executive, Iron Ore and Australia*

### Iron Ore overview

Contribution to Group operating cash flow



### Operating highlights

	2010 US\$ million	2009 US\$ million
Revenue	24,024	12,598
Operating cash flow	15,915	7,389
Underlying earnings <sup>(a)</sup>	10,189	4,126
Capital expenditure	1,716	2,148
Net operating assets	11,628	11,263

### Strategy

- Continue to build the Pilbara operations as the leading iron ore supplier close to the world's largest, fastest growing markets.
- Focus on implementing a major expansion programme while maintaining maximum production.
- Continue to develop and benefit from technology innovation to deliver supply chain efficiencies, maximising margins per tonne.

### Key achievements

- Record global iron ore production of 239 million tonnes (Rio Tinto share 184.6 million tonnes), a ten per cent increase on 2009 global production.
- Full ramp up of the Operations Centre in Perth, including transition of ports and new mines.
- Opening of Brockman 4, Mesa A and Western Turner Syncline mines. Subsequent decision to expand Brockman 4 to 40 Mt/a capacity and Western Turner Syncline to 15 Mt/a.
- Approval to develop the US\$1.6 billion Hope Downs 4 mine and linking rail spur (Rio Tinto share US\$1.2 billion).
- Improving on an already sector leading safety record, in the context of high production levels and the complexities of expansion.

Underlying earnings contribution 2008 – 2010 <sup>(a)</sup>

US\$ million

	6,017	2008
	(2,920)	Prices and exchange
	(22)	Inflation
	694	Volume
	352	Costs
	5	Tax and other
	4,126	2009
	5,611	Prices and exchange
	(79)	Inflation
	658	Volume
	(262)	Costs
	135	Tax and other
	10,189	2010

- The employment of more than 900 Aboriginal people in Western Australia through targeted recruitment and retention strategies.
- Resuming expansion programme at Iron Ore Company of Canada (IOC).
- Opening the US\$503 million Yurralyi Maya power station (Rio Tinto share US\$397 million), providing more environmentally efficient power to support Pilbara operations and communities.

### Key priorities

- Maintaining production and sales at nameplate capacity.
- Advancing technological integration into the group's operations through Mine of the Future™ initiatives.
- Further improving the product group's safety record towards zero harm.
- Emphasis on operational efficiency, removal of bottlenecks and cost control measures.
- Progress studies of total system capacity to 333 million tonnes per year in 2015.
- Continued emphasis on brownfield developments, to leverage an unrivalled network of assets close to existing infrastructure.
- Advance new project development options outside of the Pilbara.

### Outlook

- Market to remain tight for the short to medium term, with delays to new supply and strong demand driving prices.
- The Iron Ore group's strategy and performance will continue to be driven by the rapid urbanisation and industrialisation in China, and the steady recovery in other major Asian markets.
- India is expected to continue emerging as a major market as it follows China's lead in urbanisation. The group also remains confident in the longer term potential for other markets of South East Asia, Central Asia, the Middle East and Africa.

(a) See note 2 and the "Financial information by business unit" section of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.

## Strategy

The Iron Ore group seeks to maximise shareholder return from its global assets, through establishing a global supply chain able to deliver high grade iron ore to established and emerging markets worldwide.

We will continue our focus on operational and financial efficiency, but our growth phase adds a new perspective. Of critical importance will be executing our capacity expansions in the Pilbara and Canada, and progressing major development opportunities at Simandou, Guinea and Orissa, India.

Following the joint decision to end plans for an iron ore production joint venture with BHP Billiton, Rio Tinto is well positioned to maximise its leading role in the Pilbara, with superior expansion options and a strong record of project execution. Strategy will focus on increasing Pilbara capacity by over 50 per cent in five years without compromising current operational efficiency.

A number of studies are well advanced to support the major increases in port and rail infrastructure. A continued emphasis on brownfield developments where possible, exploiting the group's unrivalled network of assets close to existing infrastructure, will improve time-to-market delivery and manage risk.

Although a number of projects are under study in other regions, a high priority has been attached to the early development of the Simandou project in Guinea. Key aspects of the legal status of the project are still to be clarified, and management worked closely with the Government of Guinea throughout the year to progress this aim. A historic binding agreement was signed with Chalco in July, paving the way for joint development of the Simandou deposit. Following the Guinean elections in late 2010, chief executive Tom Albanese visited Conakry for further talks with the new administration. To date more than US\$700 million has been spent in Guinea on exploration, environmental, community development and evaluation work.

Rio Tinto, as the second largest provider of seaborne iron ore, seeks to deliver its products across world markets. As a reliable source of large volumes to agreed specification, Rio Tinto can capitalise on superior supply chain logistics to deliver a consistent product such as the Pilbara Blend drawn from 11 of our 14 mines in the Pilbara.

Rio Tinto is not committed to a specific pricing structure, instead seeking to obtain the best price across its suite of products, one recognising high value in use while respecting longstanding customer relationships.

## Performance

Rio Tinto's global iron ore business achieved record performance in 2010, demonstrating not only the recovery of all major markets from the impact of the global financial crisis, but also the capacity of the group to benefit from its position as a leading supplier in the seaborne iron ore market. Production was maintained at above nameplate capacity levels through most of the year, leading to record production volumes.

As in 2009, the group implemented and refined measures to reduce expenditure as markets slowly recovered.

Sales revenue of the Iron Ore group was US\$24,024 million in 2010, US\$11,426 million higher than in 2009 mainly due to improved prices and higher volumes of ore sales.

Underlying earnings were US\$6,063 higher than 2009 as the result of strong revenue growth and a continued focus on cost control. Cash flow optimisation, increased equipment productivity, reduction in process variability through standardisation and improvement in people intensity have all contributed to effective cost control strategies.

Sales volumes from the Pilbara region of Western Australia set a new record in 2010 at 223 million tonnes (100 per cent basis), an increase of nine per cent compared to 2009. Shipments to all major markets, other than China, increased as financial conditions improved earlier than expected.

2010 was also notable for the end of the traditional annually priced iron ore supply contracts in favour of shorter term pricing. Rio Tinto maintained its position of providing a range of options to customers, being able to supply ore under whichever pricing regime best fits within appropriate market dynamics.

At IOC (Rio Tinto 58.7 per cent), all pellet lines resumed full production and returned to normal concentrate and pellet proportions as markets improved. Total sales were 15.6 million tonnes, up 9.6 per cent on 2009, and achieved despite significant weather related challenges.

In December the HIs melt® joint venture partners agreed to permanently close the Kwinana site and terminate the joint venture, following two years of care and maintenance. The closure work is expected to be substantially completed by 2014. The technology business (Rio Tinto share 100 per cent) continues and a number of licensing opportunities are progressing.

## Key achievements

The ramp up of production levels was the standout achievement of the year, with nameplate capacity met and in many cases exceeded from month to month. This was particularly commendable given the widespread surge in industrial and economic activity throughout Western Australia's resources sector, which might have otherwise imposed delays and cost pressures.

As a result, operating margins remained robust. Value was preserved through close focus on elimination of unnecessary cost and tight control over manageable overheads.

Another achievement was the maintenance of business discipline throughout a year in which the proposed production joint venture with BHP Billiton remained a high priority. This discipline positioned the group well once the proposed joint venture was abandoned.

As in previous years, technology and innovation was further embedded in enhanced operations. A number of key initiatives were implemented during the year, many under the pioneering Mine of the Future™ vision.

2010 saw the full ramp up of the Operations Centre in Perth. More than 400 employees are now remotely managing most key Pilbara operations, or planning future initiatives, up to 1,500km away. A number of other innovation projects continued, such as the commencement of tele-remote shiploading in Dampier and the continued successful trialling and deployment of driverless trucks and automated drilling and blasting at West Angelas mine.

Coinciding with the ramp up has been the greater deployment of Aboriginal workers in the group. The number of Aboriginal workers and class-A contractors exceeded 900, and a number of apprenticeship and training programmes have been targeted directly at attracting and retaining these employees.

Embedding Aboriginal businesses within the organisation's

operations and projects is a priority. More than A\$200 million in contracts were awarded to Aboriginal businesses during 2010.

### Safety

There has again been a significant improvement in safety performance for the Iron Ore group in 2010, with the all injury frequency rate (AIFR) dropping to 0.71, an 11 per cent improvement on 2009.

Two operations were recognised in the Chief Executive Safety Awards: Marandoo mine (a Most Improved Site award) and the Coastal Operation Division (a commendation for its strong safety culture). The Safety Leadership Development Programme continued to be implemented across iron ore sites in Western Australia.

Highlighting a greater focus on general health within the safety strategy, a Fatigue Management Programme, a pilot Wellness Programme, and programmes focusing on mental health and medical surveillance began.

Further improving the safety record, while undertaking Australia's largest ever mining project, will be a key challenge. With this in mind, the Contractor Forum initiative continued throughout 2010 and a Contractor Safety Leadership Development Programme was initiated in Western Australia.

IOC's performance was marred by a tragic accident in March. Two maintenance workers at the Labrador City site fell from height, resulting in fatal injuries to one of the men, while the other eventually recovered fully and was able to return to work. Comprehensive studies resulted in a change action plan, which has been fully implemented.

### Greenhouse gas emissions

The Iron Ore group's total greenhouse gas (GHG) emissions intensity has improved 4.7 per cent from 2008.

Progress continued on the replacement of ageing power infrastructure in the Pilbara, with a new generation plant, Yurralyi Maya, near Dampier progressively commissioned in the second half of 2010. The implementation of the cleaner technology is expected to produce 25 per cent less GHG emissions at the same production level compared with the existing steam power generation. The option of retrofitting combined cycle equipment has been kept open to further reduce GHG emissions and improve efficiency.

Another technological improvement occurred with the integration of 51 Evolution™ Series diesel electric locomotives into the Pilbara railway fleet, replacing less efficient locomotives.

A number of localised innovative projects to reduce GHG emissions

continued across the group. Rio Tinto was a key participant in a landmark commercial biodiesel venture by the Ashburton Aboriginal Corporation, under which up to 7,000 litres of waste cooking oil is provided for biofuel, to be used for blasting at the Tom Price mine. Energy efficient devices continue to be introduced to housing and buildings on sites and in towns. Research into electricity generation, hybrid engines and alternative fuels continue through the Mine of the Future™ programme. In addition to the reduction in air travel implied, the Operations Centre incorporates a range of innovative energy saving designs purpose built to reduce its environmental footprint.

At IOC's Labrador City plant, projects to reduce fuel and steam production costs resulted in a number of efficiencies which are estimated to produce GHG savings of 2,200 to 3,600 tonnes annually. The second stage of a project to reduce fuel oil required to fire pellets was completed on three machines, producing estimated GHG savings of approximately 5,000 tonnes annually.

### Review of operations

Production performance throughout 2010 was the group's key achievement, emphasising the quality of Rio Tinto's suite of assets and its array of efficient logistics systems.

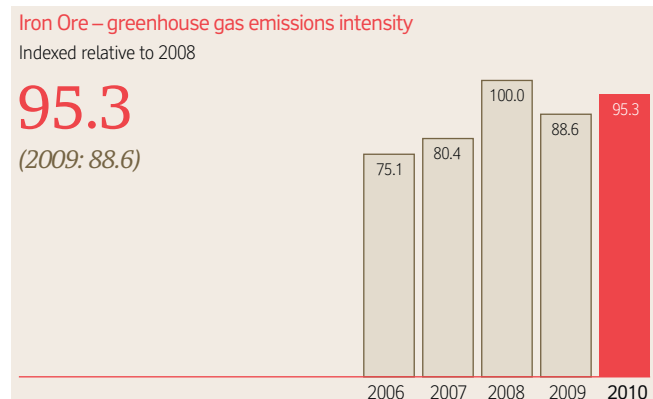
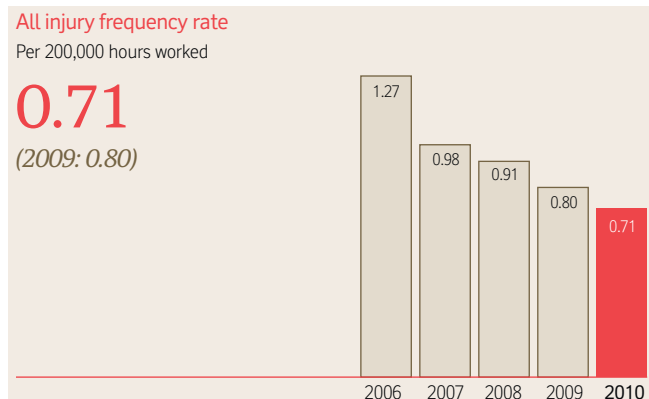
Ian Bauert, previously managing director, Sales and Marketing, was appointed Rio Tinto's managing director, China, as part of the rebuilding of close relations with that country. The improvement of ties was highlighted by the hosting of a number of high profile events at the Shanghai World Expo, where the Australian pavillion was sponsored by Rio Tinto.

A number of new mines were completed in 2010. In February the US\$1 billion Mesa A mine (Rio Tinto share 53 per cent) was opened, ramping up through the year to reach its 25 million tonne annual capacity in late 2010. The Western Turner Syncline mine was constructed through 2010. In September, the US\$1.5 billion Brockman 4 mine (Rio Tinto share 100 per cent) was opened, supplying 22 million tonnes a year into the Pilbara's production and slated to expand to at least 40 million tonnes a year.

In August Rio Tinto approved a US\$1.6 billion investment (Rio Tinto share US\$1.2 billion) in Hope Downs 4 mine. The mine is expected to have a 15 million tonnes a year capacity, to sustain current Pilbara capacity, with first ore expected in 2013.

Two incremental expansions increasing capacity at our two Dampier Port terminals by five million tonnes each were approved, for a total investment of US\$321 million (Rio Tinto 100 per cent). Both are now well into implementation, with completion scheduled for early 2011 and early 2012.

In April Rio Tinto confirmed it was discussing pricing of annual



supply contracts on a quarterly basis, following a significant shift in market expectations towards shorter term pricing. Rio Tinto has pursued a flexible portfolio approach providing a range of options to customers. Rio Tinto recognises that the market dynamics will remain fluid given underlying cyclical, structural and domestic industry regulatory policy changes.

The taxation debate in Australia prompted a delay in the roll out of Rio Tinto's ambitious expansion programme, as greater clarity and assurances were sought and ultimately received from the Commonwealth Government as to the regime under which major expansions would occur.

In June the Australian Competition Tribunal decided not to "declare" Rio Tinto's principal railway line in the Pilbara (the Hamersley line) mandated open for third party access. The Tribunal also decided that the Robe River line should be "declared" open for access, but only until 2018, rather than for 20 years as the applicants wished. Both decisions are subject to appeal.

A landmark agreement was reached with the Western Australian Government during the year to revise state agreements and royalty arrangements. The agreement will allow greater flexibility in the use of infrastructure and assets. Rio Tinto agreed to pay royalties of 5.625 per cent on fine product from all mines (formerly 3.75 per cent on several mines) and to continue paying 7.5 per cent on lump product. Rio Tinto also agreed to fund 50 per cent of a one-off, combined payment of A\$350 million, to the State Government's Consolidated Revenue Fund.

Agreements with five Pilbara native title groups were signed in November. This is a major achievement in securing current and future access, as well as active Traditional Owners' support.

## Minerals

Good weather for salt growth in a number of countries and a sluggish recovery in relevant global markets in 2010 led to a weakening of salt prices and reduced underlying earnings of US\$29 million, down from US\$88 million in 2009. Salt production continued at less than capacity and similar to 2009 at 7.6 million tonnes (Rio Tinto share 5.2 million tonnes). Shipping increased by 0.6 million tonnes to 8.3 million tonnes, as stock built up during the global financial crisis was sold. As part of diversifying risk, customers and new contracts were established outside of the traditional Asian markets, in Europe, Africa and North America.

Continuation of the Sustainable Health and Safety programme within the business contributed to the Group's improved focus on general health and safety performance. Work commenced on replacement of the main seawall and seawater intake structure at Dampier, as part of the continuing structural integrity programme.

## Marine

Rio Tinto Marine provides Rio Tinto with comprehensive capabilities in all aspects of marine transportation, global freight markets and the international regulatory environment. The Marine group consists of approximately 75 shipping professionals, located principally in Melbourne, Singapore, London and Montreal. Identifying and executing seaborne freight solutions allows Rio Tinto to participate in all aspects of the supply chain, while exerting greater influence on vessel selection, operational safety, scheduling, port efficiency and cost management.

Rio Tinto Marine sets and maintains the group's HSE and vessel assurance standards for freight, with continuous improvement efforts undertaken to instil a high standard of health, safety and environmental performance aboard vessels under management and throughout the organisation. As one of three equal shareholders in RightShip, a ship vetting specialist, Rio Tinto helps to promote maritime industry safety and efficiency.

During 2010 Rio Tinto Marine managed 155 million tonnes of seaborne cargo. Freight participation is largely within the dry bulk market, managing seaborne transportation of iron ore, coal, salt, bauxite, alumina and other minor bulk products. Rio Tinto Marine owns a fleet of five post-panamax vessels, used principally for the transportation of bauxite sourced from Rio Tinto Alcan's mine at Weipa, Queensland. These purpose built ships deliver volume and efficiency advantages on niche trade routes, guaranteeing supply and eliminating freight cost variability.

Rio Tinto Marine secures the majority of its freight coverage through period charter commitments. It leverages the Group's substantial cargo base to obtain a low cost mix of short, medium and long term freight cover. It seeks to create value by improving the competitive position of the Group's products through freight optimisation.

## Development projects

Rio Tinto has outlined the largest expansion programme in Australia's mining history, to achieve production and shipping annual capacity of 333 million tonnes in 2015. The expansion will more than double capacity at the Cape Lambert port facility (Rio Tinto share 53 per cent) to 183 million tonnes.

There were a series of major announcements in 2010 related to the expansion of the Pilbara rail and port infrastructure to 283 million tonnes a year. Feasibility studies into further expansion to 333 million tonnes per year are well under way. The scale of the expansion programme in the Pilbara is vast, with a total capital expenditure estimate of US\$14.8 billion (Rio Tinto share US\$12 billion) to increase annual capacity to 333 million tonnes.

In July and August Rio Tinto announced a US\$990 million investment (Rio Tinto share US\$649 million), for the letting of dredging contracts and the procurement of long lead items associated with the group's growth programme. Dredging was approved and began in December. A further investment of US\$3.1 billion (Rio Tinto share US\$2.1 billion) was approved to increase infrastructure annual capacity to 283 million tonnes in 2013. Approval was also given for a final feasibility study for the second 50 million tonne tranche taking Pilbara capacity to 333 million tonnes a year, scheduled for completion in late 2015.

Demonstrating the fundamental change in global markets, Rio Tinto announced the resumption of IOC's expansion to 22 million tonnes a year capacity, the first stage of a programme to boost capacity to 26 million tonnes a year.

## Outlook

We believe market conditions will remain tight as delays to new supply and strong demand continue to drive prices.

Urbanisation and industrialisation have supported a phenomenal growth in China's steel demand over the past decade. We believe this will continue. The fundamentals underlying China's growing demand will remain robust, driving this demand into the next decade. India is expected to follow China's lead, and increased controls on its export capacity and early signs of increased steel intensity suggest its emergence as a major market will continue. The group remains confident in the longer term potential for other markets of South East Asia, Central Asia, the Middle East and Africa where urbanisation is relatively low but increasing.

Just as the earliest indications of demand were met with Rio Tinto's counter-cyclical investment in capacity a decade ago, the group will accordingly seek to expand its production capacity by almost 50 per cent in the next five years.



# Exploration

## Investing for the future

The Group has had a sustained commitment to exploration since 1946 and considers exploration to be one of its core competencies. Mature Group operations, such as Weipa, the Pilbara and Rössing, were Tier 1 greenfield discoveries by Rio Tinto. The value of these discoveries is still being realised after more than 40 years by both mine production and successful brownfield exploration.

Continuing this legacy, the Exploration group has since 2000 identified two of the largest copper opportunities in the world at Resolution in Arizona, US and La Granja in Peru. Exploration has also delivered one of the world's largest known high grade iron ore deposits, at Simandou in Guinea, as well as the Caliwingina channel iron deposits in the Pilbara, Australia. Exploration identified the potash deposits at Potasio Rio Colorado, which Rio Tinto sold to Vale in 2009; the Sulawesi nickel laterite deposit in Indonesia; the Mutamba titanium deposit in Mozambique; and the lithium borate deposits at Jadar in Serbia.

A significant proportion of the Exploration group's expenditure is returned to Rio Tinto through the sale of Tier 2 discoveries. Over the period 2000 to 2010, divestment of Exploration group projects has returned US\$1,291 million for a net pre tax spend of approximately US\$128 million. Over the period this translates to an average Tier 1 discovery cost of less than US\$16 million per deposit.

The following table shows the Exploration group's Tier 1 discoveries since 2000:

Year	Discovery	Commodity	Location
2000	Potasio Rio Colorado	Potash	Argentina
2002	Resolution	Copper	US
2004	Simandou	Iron ore	Guinea
2005	La Granja	Copper	Peru
2005	Caliwingina	Iron ore	Australia
2008	Sulawesi	Nickel	Indonesia
2008	Mutamba	Titanium	Mozambique
2009	Jadar	Lithium/borates	Serbia

At the end of 2010, the Exploration group was actively exploring in 16 countries, and assessing opportunities in a further seven, for a broad range of commodities including bauxite, copper, coking coal, iron ore, diamonds, nickel, uranium and potash.

### Strategy

The purpose of Exploration is to add value to the Group by discovering or acquiring resources that can increase future cash flows.

A fundamental element of the Group's business strategy is a clear focus on finding and mining only the largest, most cost competitive resources that are profitable at all parts of the natural price cycle and that deliver sustainable competitive advantage. These are described as Tier 1 resources.

The Exploration group is accountable for greenfield exploration programmes and it provides technical assistance to the business units on brownfield exploration. Greenfield exploration, which aims to establish completely new operating business units, involves geographic or commodity diversification away from existing Group operations. Brownfield exploration is directed at sustaining or growing existing Group businesses. Exploration further supports the product groups in the assessment of merger and acquisition opportunities.

The Exploration group is organised geographically into regional multi-commodity teams, with head offices in London, Salt Lake City and Brisbane. This structure provides a balance between global reach and local presence.

Greenfield exploration programmes are prioritised on a global basis so that only the most attractive opportunities are pursued. Priorities are determined in consultation with the product groups, with investment decisions being driven not by location or choice of commodity but rather by the quality of each opportunity.

Exploration teams frequently present the first face of Rio Tinto in a community and lay the groundwork for what could become a multi-decade relationship. Exploration places a high priority on effective community engagement and considers its commitment to sustainable development as fundamental to securing its social licence to operate.

### Safety

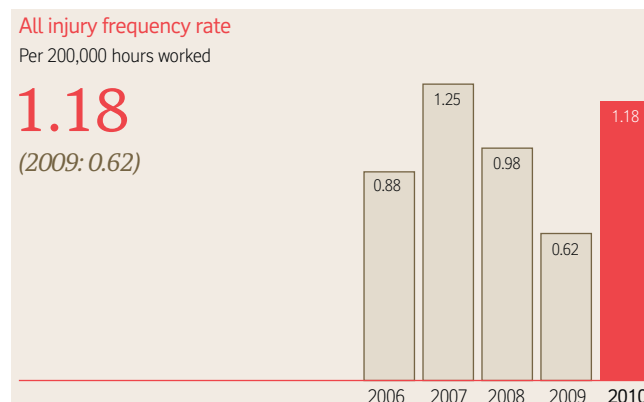
The Exploration group all injury frequency rate has increased from 0.62 at the end of 2009 to 1.18 at the end of 2010. The deterioration in performance is correlated with the expansion of field activities following the global financial crisis and increased engagement of contractors. The Exploration group continues to work closely with contractors to implement critical controls around high risk activities such as drilling.

### Performance

A bauxite Order of Magnitude project was initiated at Amargosa in Brazil and is on target for delivery of the resource to the product group at the end of 2011. Resource evaluation continued at the Tamarack nickel-copper prospect in the US and the project will be advanced to a decision point in early 2011. The Altai Nuurs coking coal deposit in Mongolia was identified as a non core asset and has been prepared for divestment.

Target testing at Sanxai in Laos, in joint venture with Mitsui, identified ore grade bauxite mineralisation.

Target generation activities were progressed across a range of commodities and jurisdictions. In Kazakhstan, a memorandum of understanding was signed with state mining company Tau-Ken Samruk to conduct joint venture exploration for copper and other minerals. A similar agreement was signed with Chinalco to jointly explore for copper and other minerals within mainland China.





In the brownfield environment, Exploration handed over a number of iron ore deposits in the Pilbara, Australia, to the Iron Ore product group. In Utah, US, exploration continues within a three kilometre orbit of the Bingham Canyon Mine. Recent drilling to the east of the mine identified a new but sub-economic copper-molybdenum-gold porphyry system. Drilling at other targets within the Bingham mine orbit is under review. On the Rössing mine lease in Namibia, ore grade uranium intersections were returned at the Z20 prospect.

A research and development milestone was reached with the first test flights of the VK1 airborne gravity gradiometer over a test range in Western Australia. System optimisation is under way in preparation for production flying towards the end of 2011 and commercialisation of the technology.

Gross cash expenditure on exploration and evaluation in 2010 was US\$594 million. The increase of US\$80 million over 2009 gross expenditure reflects the ramp up of activities in response to the improved market outlook, while remaining below 2008 expenditure of US\$1,134 million. Gross expenditures are offset by US\$522 million (pre-tax) proceeds from the divestment of exploration properties.

## Outlook

The Exploration group expects to explore for a range of commodities across at least 17 countries in 2011 and plans to deliver the Amargosa bauxite Order of Magnitude project to the Rio Tinto Alcan product group at the end of the year. Reinvigorating early stage target generation will continue to be a priority to drive sustained exploration success.

Divestment of Tier 2 assets will continue where real value can be realised, with a target of 50 per cent of the annual greenfield exploration budget being returned to the Group.

The next crop of potential discoveries:

Project	Commodity	Country	Stage
Amargosa	Bauxite	Brazil	Order of Magnitude
Sanxai	Bauxite	Laos	Project of Merit

## Progress of a project

The evolution of a project from target generation to investment approval, implementation and commissioning involves a series of study stages that can take ten to 20 years. Sustainable development criteria are applied throughout the project development cycle.

Early stages of work are broadly termed exploration and are the responsibility of the Exploration group. These stages deliver a progressive increase in confidence in the technical and economic parameters used to determine whether a project satisfies Rio Tinto's investment criteria.

Target generation and testing involves the progression from concept to demonstration of mineralisation at a prospect. A Project of Merit is defined where mineralisation has been identified

through drilling to be of a grade and quantity sufficient to be of economic interest by analogy with peer deposits currently in production.

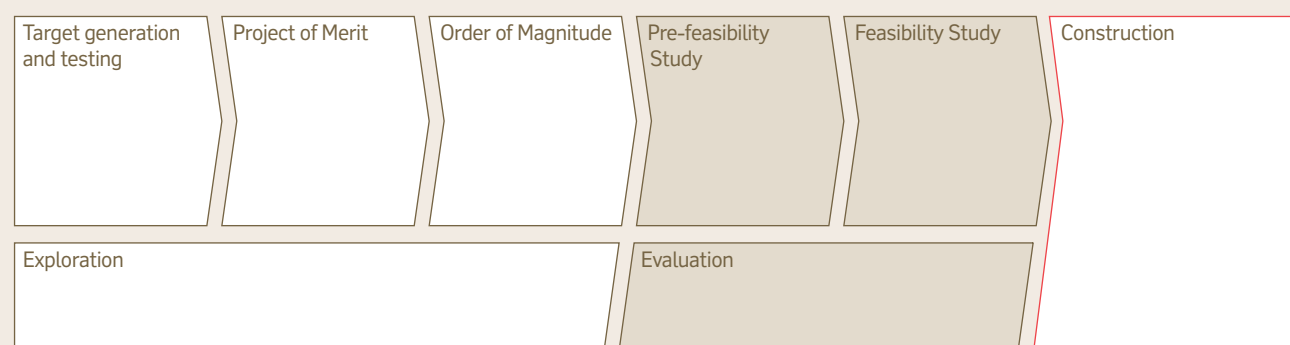
Projects which attract the support of the relevant Rio Tinto product group are progressed to Order of Magnitude Study. This involves an assessment of a range of options to establish economic viability of the project, and determine whether its potential value is sufficient to justify committing significant resources to a detailed study programme. Any potential "showstoppers" are identified during this stage.

A successful Order of Magnitude Study results in the declaration of a discovery and the transfer of project management from the Exploration group to the relevant Rio Tinto product group. Further

work on these projects is broadly defined as evaluation.

The two main evaluation study phases are Pre-feasibility and Feasibility Studies. Pre-feasibility involves an evaluation of project options, yielding a far clearer understanding of the preferred project concept and key value drivers. The Feasibility Study sees the focus switch to optimisation and engineering of a single scenario identified through the Pre-feasibility Study. This finally freezes the scope of the project to be constructed.

## Opportunities are tested and screened by several different stages of work



# Technology & Innovation

## A strategic commitment driving competitive advantage

Technology & Innovation (T&I) consists of a central team of technology professionals and a number of technology centres that develop leading practice and promote improvements in mining, processing, asset management, strategic production planning, energy use, and project development, execution and evaluation. Emphasis is given to shared and visible measures of operational effectiveness, the improvement of analytical tools and development of staff capabilities.

Most work is focused on improving current technologies and operations. In addition, the Innovation Centre focuses on technology step changes that will confer competitive advantage in development of orebodies likely to be available to the Group in the future. The Energy & Climate Strategy Centre focuses on improving the Group's use of energy, reducing greenhouse gas emissions and understanding the effects of climate change on the Group's operations and prospects.

The total number of employees in T&I increased from 267 at 31 December 2009 to 538 at 31 December 2010 primarily due to an increase of demand for the design and build of major projects on behalf of the Group business units.

### Strategy

T&I's strategy is to:

- Maintain and promote a safe working environment.
- Continue to embed operational excellence in business units.
- Maximise the contribution of technology to the Group's vision of industry leadership.
- Deploy technology solutions that increase earnings.
- Design and build valuable new investment projects.
- Position the Group to unlock orebodies that require innovative mining solutions.
- Lead the Group's response to climate change.

### Safety

T&I is committed to the safe operation of its facilities and to the safe deployment of its personnel. Starting in 2009, the safety results reflect the inclusion of development projects managed by T&I. The all injury frequency rate for T&I and projects in 2010 is 0.72 compared to 0.87 in 2009.

### Performance

#### Key achievements

The Improving Performance Together (IPT) engagements continue to work with operating sites on operating improvements. In 2010 this collaborative effort delivered in excess of US\$1 billion pre-tax cash flow. This was achieved by, for example, assisting in the debottlenecking of the iron ore operations in the Pilbara, through improved equipment availability and concentrator throughput at Kennecott and maintenance cost reduction at Rio Tinto Alcan operations.

The Innovation group achieved several milestones during 2010 including the following:

- Successful movement of 31 million tonnes of iron ore with the Autonomous Haul System fleet demonstrating higher than planned productivity.
- First flight of the VK1 airborne gravity instrument.
- Deployment of the remote command vehicle, which is capable of managing up to three blast hole drills with one operator in non line of sight mode.

- Accelerated progression of the first tunnel boring machine which will be commissioned at Northparkes mine in early 2012.
- Successful trial of an innovative flotation control system at Kennecott Utah Copper demonstrating improved recovery.

The T&I gross cost in 2010 was US\$214 million, compared with US\$134 million in 2009 and US\$158 million in 2008.

### Innovation

The Innovation group identifies, evaluates and implements value accretive step change mining technologies with Group wide application.

Some of the Innovation initiatives and programmes included:

- The strategic Mine of the Future™ programme, interlinking projects delivering improvements in productivity, cost, product quality and mining technology.
- The Rio Tinto Centre for Underground Mine Construction, which will focus on rapid mine construction, rock mass behaviour controls, and innovative ground support for future Rio Tinto underground mines.
- The development of step change technologies to support the safe rapid development of large underground block cave mines.
- The development and deployment of autonomous blast hole drilling technologies, currently operating in the Pilbara with potential for Group wide implementation.
- The surface Mine of the Future™ programme which focuses on operating the first significantly autonomous iron ore mine by combining autonomous drilling, semi-autonomous blast loading with autonomous trucks, and a wide range of advanced sensing and telecommunications technologies.

### Energy & Climate Strategy

The Energy & Climate Strategy team (E&CS) leads the Group's response to the challenges of climate change and the inter-related topic of energy management. The team engages with the operating businesses, governments and other stakeholders on the design of climate and energy policy, manages the Group's carbon capture and storage (CCS) and develops internal strategies to evaluate energy supply options, secure energy supply, and to reduce energy usage and greenhouse gas (GHG) emissions.

In addition, E&CS actively supports the development of legislation and regulation through direct engagement with governments and involvement in advocacy groups such as the US Climate Action Partnership.

### Mineral Technology Services

The Mineral Technology Services Centre comprises a team of technology professionals deployed from five regional offices in North America, Australia and the UK. The team works with operating sites to deliver substantial increases in value; with project teams to determine the optimum value adding project plan; and with the broader Group to understand and manage major technical risks. The team provides support in the areas of geology, geotechnics, mining, mineral processing, hydrometallurgy, process control, asset management, environment and business analysis.

The Centre is also responsible for implementing IPT processing, a structured methodology designed to increase the value delivered by Rio Tinto's processing operations. IPT processing includes focused data analysis to understand and address the constraints and variability which inhibit process performance. IPT processing

continues to generate value across the Group, delivering over US\$350 million in pre-tax cash flow benefits in 2010.

### Asset Management

The Asset Management Centre concentrates on the effective selection and use of equipment for the Group's mining and processing operations. Work included the implementation of asset management standards and guidelines, as well as standard business processes and fit for purpose technical operating systems, work practices and global metrics to monitor the performance of fixed plant and heavy mobile equipment.

The Asset Management IPT programme continued to deliver robust results in 2010, supporting business units to realise over US\$400 million in pre-tax cash flow benefits.

### Mining Technology

The focus of the Mining Technology Centre is to establish leading practice and develop, share and implement Group wide solutions in the core mining production processes of surface mining, underground mining, strategic resource development, resource and reserve estimation, orebody knowledge and mine planning. The Centre also oversees the Group's resource and reserves estimation and reporting process, reserves and resources audit process and core technical systems. IPT mining initiatives in 2010 included payload management, drill and blast and off road tyre demand reduction. The IPT programme for mining technology continued to deliver strong results in 2010 and assisted business units in realising over US\$180 million in pre-tax cash flow benefits.

The Mining Technology Centre also includes a Strategic Production Planning (SPP) team, which focuses on developing and establishing leading practice. SPP teams co-operate with business units to develop comprehensive plans and valuations of strategic resource development options. Results from SPP provide a logical resource development framework for more detailed studies and investment decision making. SPP engagements completed during the year increased the life of mine valuation of a number of existing mining businesses and supported expansion based investment proposals.

### Project Development & Implementation

The Project Development & Implementation Centre (PDI) provides guidance, support and training for all aspects of capital projects, performs a governance function by conducting project reviews, manages feasibility studies, and executes capital projects on behalf of the business units. During 2010 PDI commenced resourcing for, and implementation of, a global operating model in preparation for implementation of projects in nearly all continents and on behalf of all product groups. The model provides for a Project Management support function as well as Implementation Hubs focused on supporting the product groups. In 2010 it was responsible for the progression of the Argyle Diamonds underground project, Kestrel mine extension, Yarwun 2 project, the feasibility study for the Energy Resources of Australia heap leach project and the Eagle nickel project in Michigan. PDI also provided support and advice to most other major projects in a year when the Group recommenced or accelerated projects that were suspended during 2008 and 2009. Additionally, the operation of the Clermont coal mine project was successfully handed over to Rio Tinto Coal Australia. During 2010, the Centre continued to make improvements in overall safety performance at these projects.

### Technical Evaluation Group

The Technical Evaluation Group (TEG) ensures that Rio Tinto's investment decisions are based on independent, technical review and evaluation. TEG also provides advice on the adequacy of risk identification and management at key points in the project approvals process.

### Outlook

In 2011 T&I will continue to maintain a culture that places a high priority on safety and safety improvements. T&I will continue to work with Group businesses to deliver measurable increases in earnings and will continue to assist from a technology viewpoint in the selection of the most attractive investment opportunities. It will continue to focus on the safe and efficient implementation of projects and will build systems to support management of projects across the Group. The pursuit of the Mine of the Future™ programme and the development of innovative alliances and relationships that will create competitive advantage for the Group remain a significant focus. T&I will also focus on delivering improvements in the Group's energy efficiency, long term business decarbonisation options, compliance processes and performance, and carbon markets participation. T&I will look to significantly increase staff levels as the business environment continues to improve and the need for highly skilled technical employees increases.

# Financial review

## 2010 financial performance compared with 2009

In order to provide additional insight into the performance of its business, Rio Tinto presents underlying earnings.

2010 underlying earnings of US\$13,987 million and net earnings of US\$14,324 million were US\$7,689 million above and US\$9,452 million above the comparable measures for 2009. The principal factors explaining the movements are set out in the table below.

Changes from 2009 to 2010	Underlying earnings US\$m	Net earnings US\$m
<b>2009</b>	<b>6,298</b>	<b>4,872</b>
Prices	9,505	
Exchange rates	(1,171)	
Volumes	782	
General inflation	(253)	
Energy	(232)	
Other cash costs	(445)	
Exploration and evaluation costs (including disposals of undeveloped properties)	(690)	
Interest, tax, other	193	
	7,689	7,689
Gain on consolidation of Oyu Tolgoi LLC		531
Profits less losses on disposal of interests in business		(325)
Net impairment charges		716
Exchange differences and derivatives		401
Chinalco break fee		182
Restructuring costs from global headcount reduction		231
Other		27
<b>2010</b>	<b>13,987</b>	<b>14,324</b>

(a) See note 2 on page 182 of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.

### Prices

The effect of price movements on all major commodities in 2010 was to increase underlying earnings by US\$9,505 million compared with 2009. Average annual prices improved for nearly all of Rio Tinto's major commodities: copper prices were up 47 per cent, molybdenum prices were up 45 per cent, gold prices were up 26 per cent and aluminium prices were 31 per cent higher than 2009. Demand and prices for diamonds and minerals improved significantly as the worldwide economy emerged from the global financial recession.

Commodity prices and other drivers of sales revenue of individual product groups are discussed further in this section on pages 69 to 71.

### Exchange rates

There was significant movement in the US dollar in 2010 relative to the currencies in which Rio Tinto incurs the majority of its costs. Compared with 2009, on average, the US dollar weakened by 16

per cent against the Australian dollar and by ten per cent against the Canadian dollar. The effect of all currency movements was to decrease underlying earnings relative to 2009 by US\$1,171 million.

### Volumes

Higher sales volumes were primarily generated from the expanded iron ore operations in the Pilbara region of Western Australia running at above nameplate capacity and an increased proportion of higher margin pellet sales at IOC. The Aluminium group benefited from higher sales of value added aluminium products. Increased volumes of hard coking coal following new investment in heavy mobile equipment at the Queensland mines, higher refined gold and molybdenum at Kennecott Utah Copper and a significant recovery in diamonds and minerals market demand also contributed to the positive variance. These increases offset lower copper and gold volumes at Grasberg which were impacted by lower ore grades and lower mill throughput. The overall impact of volume movements was an increase in underlying earnings of US\$782 million relative to 2009.

### Energy, other cash costs and exploration

Higher energy costs across the Group, in particular for Aluminium, reduced underlying earnings by US\$232 million. This primarily reflected low snow and rain levels in the Saguenay region of Quebec during the first half of 2010 which led to reduced power generation, resulting in the need to purchase additional power under a specially negotiated power block from the provincial utility over a 12 month period.

Higher other cash costs during 2010 decreased underlying earnings by US\$445 million compared with 2009. Higher unit cash costs in the Copper group were the result of the planned smelter shutdown and lower copper production following lower grades at most of the operations. Adverse weather conditions and higher stripping rates impacted costs at the Energy group. These were partly offset by lower costs in the Aluminium group, which benefited from lower prices for caustic, pitch and coke.

In 2010, evaluation work accelerated at many of the Group's projects including the Resolution and La Granja copper projects and the Simandou iron ore project. Two undeveloped coal properties were divested in 2010 resulting in a US\$229 million gain on disposal, compared with a gain of US\$797 million in 2009 from the disposal of two undeveloped potash properties. The impact from higher exploration and evaluation expenditure combined with lower gains realised from divestments was to lower underlying earnings by US\$690 million compared with 2009.

### Interest, tax, other

The effective corporate income tax rate on underlying earnings, excluding equity accounted units, was 27.9 per cent compared with 24.8 per cent in 2009. A significant proportion of the increase related to the one-off non-taxable profit on disposal of the potash assets which was recognised in 2009. The Group interest charge was US\$110 million lower than in 2009, mainly reflecting lower debt in 2010 following completion of the rights issues and divestments.

## 2009 financial performance compared with 2008

2009 underlying earnings of US\$6,298 million and net earnings of US\$4,872 million were US\$4,005 million below and US\$1,196 million above the comparable measures for 2008. The principal factors explaining the movements are set out in the table below.

Changes from 2008 to 2009	Underlying earnings US\$m	Net earnings US\$m
<b>2008</b>	<b>10,303</b>	<b>3,676</b>
Prices	(6,879)	
Exchange rates	484	
Volumes	652	
General inflation	(172)	
Energy	318	
Other cash costs	742	
Exploration and evaluation costs (including disposals of undeveloped properties)	890	
Interest, tax, other	(40)	
Total changes in underlying earnings	(4,005)	(4,005)
Profits on disposal of interests in businesses		(971)
Net impairment charges		6,854
Exchange differences and derivatives		(815)
Chinalco break fee		(182)
Restructuring/severance costs from global headcount reduction		(174)
Other		489
<b>2009</b>	<b>6,298</b>	<b>4,872</b>

(a) See note 2 on page 182 of the 2010 financial statements for a reconciliation of underlying earnings to net earnings.

### Prices

The effect of price movements on all major commodities in 2009 was to decrease earnings by US\$6,879 million compared with 2008. Prices declined for nearly all of Rio Tinto's major commodities: average copper and aluminium prices were 28 per cent and 35 per cent lower, respectively, while average molybdenum prices were 65 per cent lower than 2008. Gold prices in 2009 were 11 per cent higher than 2008. Diamond prices were severely impacted by the global economic downturn.

### Exchange rates

There was significant movement in the US dollar in 2009 relative to the currencies in which Rio Tinto incurs the majority of its costs. Compared with 2008, on average, the US dollar strengthened by eight per cent against the Australian dollar and by six per cent against the Canadian dollar. The effect of all currency movements was to increase underlying earnings relative to 2008 by US\$484 million.

### Volumes

Higher sales volumes from the expansion of iron ore capacity in the Pilbara region of Western Australia and higher copper and gold grades at Kennecott Utah Copper and Grasberg were partly offset by production cutbacks at Rio Tinto Alcan, Alcan Engineered Products, Rio Tinto Diamonds, Rio Tinto Iron &

Titanium and Rio Tinto Minerals in response to the economic downturn. The overall impact of volume movements was an increase in underlying earnings of US\$652 million relative to 2008.

### Energy, other cash costs and exploration

A reduction in cash costs during 2009 increased underlying earnings by US\$742 million compared with 2008. Controllable operating cost savings of US\$2.6 billion were achieved in 2009, exceeding the target set in December 2008 and delivered one year in advance. Lower unit costs in the Copper group, notably at Kennecott Utah Copper, were driven by higher production and a bottom up cost reduction programme. The Iron Ore group benefited from lower unit cash costs in line with higher sales volumes and a reduction in contractor and maintenance costs. Decreased costs at Rio Tinto Alcan were driven by the major cost cutting initiatives undertaken in response to the global financial crisis including reduction of all non critical, discretionary spend along with programmes to reduce operating costs across the production sites.

Lower energy costs across the Group boosted underlying earnings by a further US\$318 million, reflecting the impact of a lower oil price. Evaluation work at many of the Group's advanced projects was scaled back in 2009 and the central exploration budget was reduced by 60 per cent, which, together with the divestment of some exploration and evaluation properties, resulted in a favourable impact to underlying earnings of US\$890 million compared with 2008. In line with Rio Tinto's exploration policy, a US\$797 million gain on disposal of the undeveloped potash properties in Argentina and Canada was recognised within underlying earnings. This forms part of the exploration variance in the table above net of the US\$483 million gain on disposal of the undeveloped Kintyre uranium project in 2008.

### Interest, tax, other

The effective tax rate on underlying earnings, excluding equity accounted units, was 24.8 per cent compared with 31.6 per cent in 2008. The decrease largely related to the one-off non taxable profit on disposal of the potash assets which was recognised in 2009, and by an increase in foreign currency exchange losses arising from revaluation of tax bases for Canadian companies with US\$ functional currencies. The Group interest charge was US\$446 million lower than in 2008, mainly reflecting a decline in interest rates, and lower debt in 2009 following completion of the rights issues.



### Exclusions from underlying earnings 2008–2010

Earnings contributions from Group businesses and business segments are based on underlying earnings. Amounts excluded from net earnings in arriving at underlying earnings are summarised in the discussion of year on year results below.

	2010 US\$m	2009 US\$m	2008 US\$m
Gain on consolidation of Oyu Tolgoi LLC	531	–	–
Profit less losses on disposal of interest in business	174	499	1,470
Net impairment charges <sup>(a)</sup>	(836)	(1,552)	(8,406)
Exchange differences and gains/(losses) on derivatives	429	28	843
Chinalco break fee <sup>(b)</sup>	–	(182)	–
Restructuring/severance costs from global headcount reduction	–	(231)	(57)
Other exclusions	39	12	(477)
<b>Total excluded in arriving at underlying earnings</b>	<b>337</b>	<b>(1,426)</b>	<b>(6,627)</b>

(a) Net impairment charges include impairment charges of US\$739 million (2009: US\$1,103 million; 2008: US\$7,579 million) and loss after tax of discontinued operations of US\$97 million (2009: US\$449 million; 2008: US\$827 million).

(b) The Chinalco break fee was US\$195 million pre-tax.

### 2010

Rio Tinto consolidated Oyu Tolgoi LLC on 15 December 2010 following the signing of a new agreement with Ivanhoe Mines. The US\$531 million gain arising on consolidation represents the excess of the provisional fair value ascribed to the Group's indirect share of the assets and liabilities of Oyu Tolgoi LLC over the historic cost of acquiring that share through its investment in Ivanhoe Mines.

Profits on the disposal of businesses in 2010 relate primarily to the sale of the Group's remaining 48 per cent interest in Cloud Peak Energy Inc.

The 2010 impairment charge of US\$739 million related mainly to the Alcan Engineered Products businesses. On 5 August 2010 the Group received a binding offer for the sale of 61 per cent of Alcan Engineered Products, excluding the Cable division, to certain investment funds affiliated with Apollo Global Management, LLC (Apollo) and the Fonds Stratégique d'Investissement. The divestment was completed on 4 January 2011. The terms of the transaction are confidential. Following completion, Rio Tinto holds a 39 per cent stake and will treat its interest as an equity accounted unit.

Loss after tax from discontinued operations of US\$97 million (inclusive of divestment costs) relates to the completion of the disposal of Alcan Packaging global Pharmaceuticals, global Tobacco, Food Europe and Food Asia divisions to Amcor on 1 February 2010, and the Alcan Packaging Food Americas division to Bemis Company Inc. on 1 March 2010.

### 2009

In 2009, the Group completed the divestments of its interests in the Ningxia aluminium smelter, the Corumba iron ore operation, the Jacobs Ranch coal mine, Alcan Composites and the sale of 52 per cent of the Group's interest in Cloud Peak Energy Resources LLC. Net gains on these transactions totalling US\$0.5 billion were excluded from underlying earnings as divestments of interests in businesses are considered to be outside the underlying activities of the Group.

Of the Group's total post-tax impairment charge of US\$1,103 million, US\$500 million related to Alcan Engineered Products, US\$212 million related to the Group's aluminium businesses and US\$348 million related to the Group's diamond businesses.

An impairment of US\$318 million relating to the Alcan Packaging businesses was recognised during the year, and was included within "loss after tax of discontinued operations".

All impairments were measured based upon an assessment of fair value less costs to sell. These impairments were caused by continued weakness in the economic environment.

In 2009, Rio Tinto paid a break fee of US\$195 million (US\$182 million post-tax) to Chinalco which was excluded from underlying earnings.

During 2009, the Group incurred restructuring and severance costs of US\$231 million associated with its global headcount reduction programme.

### 2008

Profit on disposal related to the disposal of the interests in the Cortez gold mine and the Greens Creek silver/zinc/lead mine. During 2008 the Group incurred advisory and other costs related to the rejection by the board of the pre-conditional takeover proposal from BHP Billiton which was withdrawn in November. These costs totalled US\$270 million (net of tax) in 2008 and were excluded from underlying earnings. Other charges excluded from underlying earnings comprised costs relating to non recurring acquisitions, disposals and similar corporate projects.

The Group's total post-tax impairment charge of US\$7,579 million related mainly to the Group's aluminium businesses: US\$6,127 million, and Engineered Products: US\$980 million. The acquisition price of Alcan anticipated significant growth in smelter and refinery capacity, but following the significant weakening in economic and market circumstances during 2008, many of these growth projects were deferred. These deferrals, together with the weak economic environment and increases in input costs, resulted in the impairment charge.

In measuring the amount of the impairment, the Group compared the carrying value of the upstream aluminium business with its value in use, assessed using discounted cash flow techniques. This followed the requirements of accounting standards as, in the Group's view, the upstream aluminium business' fair value less cost to sell was lower than its value in use. For the purposes of the annual goodwill impairment test, goodwill was allocated to a group of cash generating units that included both Alcan and the aluminium activities previously owned by Rio Tinto which were managed as a single business following the acquisition.

The impairment charge did not trigger the covenant under the Alcan acquisition facilities, which required that the ratio of net debt to underlying EBITDA be no greater than 4.5 times.

An impairment of discontinued operations of US\$827 million relating to Packaging was recognised outside of underlying earnings. As required by IFRS 5 – Non-current Assets Held-for-Sale and Discontinued Operations, the amount of this impairment was determined by reference to the Group's best estimate of expected proceeds to be realised on the sale of Packaging, less an estimate of remaining costs to sell. The Packaging business was valued based upon an assessment of its fair value, required because this business was presented as an Asset Held for Sale in the Group balance sheet. Engineered Products was also valued based upon an assessment of its fair value, as the Group's intention was to sell this group of businesses.

Exchange differences and gains/(losses) on derivatives of US\$843 million related to a gain of US\$1.9 billion on Australian dollar intragroup liabilities, held by Group entities with a US dollar functional currency offset by a loss of US\$1.7 billion on external US dollar debt held by an entity with an Australian dollar functional currency. The weakening of the Australian dollar against the US dollar, particularly towards the end of 2008, led to these significant movements. The tax on exchange gains and losses included a benefit of US\$254 million through recovery of tax relating to the prior years. It also included tax relief for losses on US dollar denominated debt. The pre-tax loss was offset by gains on intragroup balances which were largely not subject to tax.

### Net earnings and underlying earnings

Both net earnings and underlying earnings deal with amounts attributable to the owners of Rio Tinto. However, EU IFRS requires that the profit for the period reported in the income statement should also include earnings attributable to non-controlling interests in subsidiaries. The profit for the period is reconciled to net earnings and to underlying earnings as follows:

	2010 US\$m	2009 US\$m	2008 US\$m
Profit from continuing operations	15,281	5,784	5,436
Loss after tax from discontinued operations	(97)	(449)	(827)
Profit for the year	15,184	5,335	4,609
Less: attributable to non-controlling interests	(860)	(463)	(933)
Attributable to owners of Rio Tinto (net earnings)	14,324	4,872	3,676
Exclusions from underlying earnings	(337)	1,426	6,627
Underlying earnings attributable to owners of Rio Tinto	13,987	6,298	10,303

### Group financial results by product group 2008–2010

	2010 US\$m	2009 US\$m	2008 US\$m
Iron Ore	10,189	4,126	6,017
Aluminium	773	(560)	1,281
Copper	2,534	1,878	1,615
Energy	1,187	1,167	2,432
Diamonds & Minerals	328	800	474
Other operations	71	71	13
Inter-segment transactions	(15)	(28)	25
Other items	(554)	(577)	(391)
Exploration and evaluation	(52)	5	(133)
Net interest	(474)	(584)	(1,030)
Group underlying earnings	13,987	6,298	10,303
Exclusions from underlying earnings	337	(1,426)	(6,627)
Net earnings	14,324	4,872	3,676

### Sales revenue

#### Prices

Commodity	Source	Unit	2010 US\$	2009 US\$	2008 US\$
<i>Average prices</i>					
Aluminium	LME <sup>(a)</sup>	Tonne	2,173	1,665	2,572
Copper	LME	Pound	3.40	2.32	3.20
Gold	LBMA	Ounce	1,222	970	872
Iron ore	Australian fines	dmtu <sup>(b)</sup>	1.84	1.09	1.29
Molybdenum	Metals Week: quote for dealer oxide price	Pound	16	11	31
<i>Closing prices (quoted commodities only)</i>					
Aluminium		Tonne	2,459	2,207	1,454
Copper		Pound	4.44	3.33	1.32
Gold		Ounce	1,410	1,104	865
Molybdenum		Pound	16	11	10

(a) LME cash price

(b) Dry metric tonne unit

The above table shows published prices for Rio Tinto's commodities for the last three years where these are publicly available, and where there is a reasonable degree of correlation between the published prices and Rio Tinto's realised prices. The prices set out in the table are the averages for each of the calendar years, 2008, 2009 and 2010.

The Group's sales revenue will not necessarily move in line with these published prices for a number of reasons which are discussed below.

The discussion of revenues below relates to the Group's gross revenue from sales of commodities, including its share of the revenue of equity accounted units (after adjusting for sales to subsidiaries), as included in the financial information by business unit.

### Iron Ore

#### 2010 sales revenue compared with 2009

Gross sales revenue for the Iron Ore group increased by 91 per cent in 2010 compared to 2009 driven by strong prices and a nine per cent increase in production. During 2010, iron ore pricing moved to quarterly contracts, reflecting the structural shift away from annual benchmark pricing. First quarter iron ore prices (from 1 January 2011) are based on the average indexed price from 1 September to 30 November 2010. Sales volumes increased in response to growing demand in major markets stimulated by improving economic conditions and delays in capacity from other suppliers.

#### 2009 sales revenue compared with 2008

The sales revenues of the Iron Ore group decreased by 24 per cent in 2009 compared with 2008. During 2009, Rio Tinto settled iron ore supply contracts with customers in Japan, Korea and Taiwan, with prices for fines declining 33 per cent and prices for lump declining 44 per cent on the prior year. Approximately half of the iron ore that Rio Tinto produced in the first six months of 2009 was sold on a spot market basis. In the second half of the year, sales were primarily priced on a benchmark or its equivalent provisional basis.

### Aluminium

#### *2010 sales revenue compared with 2009*

The Aluminium group's sales revenues are from aluminium and related products such as alumina and bauxite. Gross sales revenue in 2010 for the Aluminium group increased by 26 per cent compared to 2009. The 2010 spot aluminium price averaged US\$2,173 per tonne, an increase of 31 per cent on 2009. This increase reflects the combination of a robust recovery in end use demand in developed economies and the continued roll over of inventory financing positions amidst a prolonged period of low interest rates.

#### *2009 sales revenue compared with 2008*

The 2009 sales revenues of the Aluminium group decreased by 34 per cent against 2008. The average aluminium market price in 2009 was US\$1,665 per tonne compared with US\$2,572 per tonne in 2008. The decline in LME prices that commenced in mid 2008 continued into 2009, with some improvement in the second half of 2009, resulting in a year-end price of US\$2,207 per tonne.

### Energy

#### *2010 sales revenue compared with 2009*

A significant proportion of Rio Tinto's coal production is sold under long term contracts. In Australia, the prices applying to sales under the long term contracts are generally renegotiated annually; but prices are fixed at different times of the year and on a variety of bases. For these reasons, average realised prices will not necessarily reflect the movements in any of the publicly quoted prices. Moreover, there are significant product specification differences between mines. Sales volumes will vary during the year and the timing of shipments will also result in differences between average realised prices and published prices.

Gross sales revenue for the Energy group increased by 16 per cent in 2010. Overall average coal prices were lower than in 2009 due to the absence of higher carry over prices from 2008. 2010 saw continuing strength in the seaborne market for Australian coal. Demand for thermal coal continued to be robust from South Korea, India, Taiwan and China. Global steel demand improved in all markets in the first half of the year and led to strong demand for semi-soft coking coal. The market for premium quality hard coking coal remained steady in 2010.

Uranium spot markets were relatively weak early in 2010 but strengthened in the second half of the year, mainly driven by strong demand from China. Long term prices have remained consistent with some small increases in the latter part of the year.

#### *2009 sales revenue compared with 2008*

Sales revenues for the Energy group decreased by 16 per cent in 2009 compared with 2008 due to lower realised Australian coal prices, partially offset by an increase in the US thermal coal price. China's demand for imported coal in 2009 was particularly strong and this supported improved prices by year end, however prices were lower than the records achieved in 2008. Global steel demand was also weak in the first half of 2009 for most markets other than China, but improved in the second half of the year and led to strong demand for coking and semi-soft coking coal. Hard

coking coal production from the Group's Australian operations was comparable with 2008. Thermal coal contracts for the 2009 fiscal year (12 months commencing 1 April 2009) were settled in the US\$70-72 per tonne range, a decrease of approximately 44 per cent on the record levels of the previous year. Coking coal contracts for the 2009 fiscal year were settled in the US\$115-130 per tonne range, a decline of approximately 60 per cent on the record levels of the 2008 fiscal year.

### Copper

#### *2010 sales revenue compared with 2009*

The Copper group also produces gold and molybdenum as significant by-products. Gross sales revenue for the Copper group increased by 25 per cent in 2010 compared to 2009. The Copper group benefited from higher average prices for its major products in 2010. Copper increased 47 per cent to 340 cents per pound, gold increased 26 per cent to US\$1,222 per ounce and molybdenum increased 45 per cent to US\$16 per pound. The benefit from higher prices in 2010 was partly offset by lower volumes, notably from Grasberg and higher unit cash costs in line with reduced production from lower grades.

At the end of 2010, the group had an estimated 270 million pounds of copper sales that were provisionally priced at US 428 cents per pound. The final price of these sales will be determined during the first half of 2011.

#### *2009 sales revenue compared with 2008*

The 2009 average copper price of 232 US cents per pound was 28 per cent below the 2008 average price. The 2009 gold price averaged US\$970 per ounce, an increase of 11 per cent on the prior year, whilst the average molybdenum price was US\$11 per pound, a decrease of 65 per cent compared with 2008.

Sales revenues for the Copper group in 2009 increased by eight per cent compared with 2008. The effect of provisional pricing of copper sales resulted in a benefit to underlying earnings of US\$213 million in 2009, compared to a charge of US\$207 million in 2008. At the end of 2009 the Group had 267 million pounds of copper sales that were provisionally priced at 335 US cents per pound. This compared with 183 million pounds of open shipments at 31 December 2008 provisionally priced at 133 US cents per pound.

### Diamonds & Minerals

#### *2010 sales revenue compared with 2009*

Diamond prices realised by Rio Tinto depend on the size and quality of diamonds in the product mix. Gross sales revenue increased by 16 per cent in 2010 compared to 2009. Sustained demand from emerging markets, which largely offset the slower recovery from the established markets of the US and Europe was reflected in higher prices and increased sales volumes for the Diamonds & Minerals group.

Rough diamond prices demonstrated a robust recovery throughout 2010 as demand from emerging markets, notably India and China, accelerated. Demand for titanium dioxide feedstocks, talc and borates in 2010 continued to demonstrate a healthy recovery in line with improving global economic conditions.

### 2009 sales revenue compared with 2008

Revenue from Diamond sales in 2009 decreased by 46 per cent compared with 2008, primarily due to the global economic slowdown, as demand for luxury items decreased. However, there was an improvement in prices for rough diamonds in the latter half of 2009.

Sales revenue for Minerals in 2009 decreased by 27 per cent compared with 2008, due to a decline in demand resulting from the global economic crisis. Prices applying to industrial minerals are generally negotiated with individual customers, based on a variety of factors such as product specification, volumes, etc. Therefore, average realised prices will not necessarily reflect the movements in any publicly quoted prices.

### Cash flow

#### 2010 compared with 2009

A full consolidated cash flow statement is contained in the 2010 financial statements. Cash flows from operations, including dividends from equity accounted units, were US\$23.5 billion, 70 per cent higher than 2009, primarily as a consequence of higher prices.

Tax paid for 2010 increased to US\$4,100 million, US\$1,024 million higher than 2009 largely due to the increase in taxable profits. Net interest paid of US\$696 million for 2010 was US\$440 million lower than 2009, largely due to lower amounts of debt, following a US\$8.5 billion repayment of Alcan acquisition facility D at the beginning of the year.

Purchase of property, plant and equipment and intangible assets was US\$4.6 billion in 2010, a decrease of US\$0.8 billion from 2009. This included the Brockman 4 iron ore mine development in Western Australia, the expansion of the Yarwun alumina refinery, the commissioning of the Clermont thermal coal mine and the extension and expansion of the Kestrel coking coal mine.

Net cash proceeds from disposals and acquisitions in 2010 were US\$2,893 million, and related to the disposal of Alcan Packaging businesses and the remainder of Cloud Peak Energy Inc.; partly offset by the payments to acquire an additional 20.62 per cent in Ivanhoe Mines.

Dividends paid in 2010 of US\$1.8 billion compared with US\$0.9 billion in 2009 reflected the suspension of the 2009 interim dividend.

#### 2009 compared with 2008

Cash flow from operations, including dividends from equity accounted units, was US\$13,834 million, 33 per cent lower than 2008, primarily as a consequence of lower prices.

Tax paid in 2009 decreased to US\$3,076 million, US\$823 million lower than for 2008 largely due to the decrease in taxable profits. Net interest paid of US\$1,136 million for 2009 was US\$402 million lower than 2008, largely due to lower amounts of debt, following the repayment of part of the US\$40 billion Alcan acquisition facility, using the US\$14.8 billion net proceeds from the rights issues in July 2009.

Capital expenditure on property, plant and equipment and intangible assets was US\$5,388 million in 2009, a decrease of US\$3,186 million over 2008. This included the Brockman 4 and Mesa A iron ore mine developments in Western Australia, expansion of the Yarwun alumina refinery, construction of the Clermont thermal coal mine, expansion of the Kestrel coking coal mine, development of the underground diamond mines at Diavik

and Argyle, and completion of the Madagascar ilmenite mine.

Net cash proceeds from disposals and acquisitions in 2009 were US\$2,028 million, and related to the disposal of Corumba, Jacob's Ranch mine and Alcan Composites, together with proceeds from the initial public offering of Cloud Peak Energy Inc. and related transactions, partly offset by payments to acquire an additional 9.8 per cent in Ivanhoe Mines. Net disposals were US\$2,563 million in 2008 and related to Cortez, Greens Creek and Alcan's aerospace service centres business.

Dividends paid in 2009 of US\$876 million were US\$1,057 million lower than dividends paid in 2008, following the suspension of the interim dividend. Other financing cash flows in 2009 included the net proceeds from rights issues of US\$14.8 billion, and net repayments of borrowings of US\$16.4 billion compared with US\$8.0 billion in 2008.

### Statement of financial position

Net debt decreased to US\$4.3 billion from US\$18.9 billion at 31 December 2009 following the receipt of proceeds from the divestment programme and strong operating cash flows. Net debt to total capital was six per cent at 31 December 2010 and interest cover was 27 times.

Rio Tinto consolidated Oyu Tolgoi LLC on 15 December 2010 following the signing of a new agreement with Ivanhoe Mines. 100 per cent of Oyu Tolgoi LLC's identifiable assets and liabilities have been recognised in the statement of financial position at fair values estimated with the assistance of an independent third party valuer, together with goodwill. The historic cost of acquiring the Group's indirect share of Oyu Tolgoi LLC through its investment in Ivanhoe Mines was deducted from Investments in equity accounted units. The Group's remaining interest in the assets of Ivanhoe that does not relate to Oyu Tolgoi LLC continues to be equity accounted. The transaction generated a non cash gain of US\$531 million.

Due to the complexity of the valuation process, and the proximity of the date on which the agreement was signed to the reporting date, fair values on consolidation are provisional and will be subject to further review during the 12 months from the date on which the agreement was effective.

### Financial risk management

The Group's policies with regard to 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. Further details of our financial risk management are disclosed in note 33 "Financial risk management", to the 2010 financial statements.

The Group's 2010 *Annual report* and financial statements shows the full extent of its financial commitments, including debt. The principal risks and uncertainties, to which the Group is subject, that are thought to be of particular importance are summarised on pages 25 to 28. The effectiveness of internal control procedures continues to be a high priority in the Rio Tinto Group. The board's statement on internal control is set out on page 125.

### Capital management and dividends

The Group's total capital is defined as equity attributable to owners of Rio Tinto, equity attributable to non-controlling interests and net debt, as shown on the next page:



## Total capital

	2010 US\$m	2009 US\$m
Equity attributable to owners of Rio Tinto	58,333	43,831
Equity attributable to non-controlling interests	6,941	2,094
Net debt (note 24)	4,284	18,861
Total capital	69,558	64,786

The Group's overriding objectives when managing capital are to safeguard the business as a going concern; to maximise returns for shareholders and benefits for other stakeholders; and to maintain an optimal capital structure in order to provide a high degree of financial flexibility at the lowest cost of capital. A key objective of the Group is to achieve and maintain a single A credit rating. The board and senior management regularly review the capital structure of the Group taking account of strategic priorities and conditions within which the Group operates.

The Group's capital management objectives allow it to selectively invest at all points of the commodities cycle, both in the Group's own existing growth projects, and other opportunities that may arise, whilst providing a shareholder return.

Net debt reduced from US\$18.9 billion to US\$4.3 billion at 31 December 2010 following strong cash flows from operations, and the debt maturity profile was improved in October 2010 by raising US\$2 billion in bonds with five, ten and 30 year maturities. The proceeds were used in a successful tender for US\$1.9 billion of bonds due in 2013. This prudent balance sheet management and focus on maintaining an efficient capital structure helped lead to the restoration in 2010 of a single A credit rating by Moody's.

Net debt at 31 December 2010 was made up principally from borrowings of US\$14.3 billion, offset by US\$9.9 billion in cash and cash equivalents. The proportion of net debt to total capital stood at 6.2 per cent at 31 December 2010 compared with 29.1 per cent at 31 December 2009. In February 2011, as part of the Group's capital management programme, a share buy-back of US\$5 billion was announced which, subject to market conditions, is planned to be completed by the end of 2012.

Rio Tinto has a progressive dividend policy which aims to increase the US dollar value of ordinary dividends over time, taking into account the results for the past year and the outlook. Under the dividend policy, the interim dividend is set at one half of the total ordinary dividend for the previous year and the final ordinary dividend is expected to be at least equal to the previous interim dividend.

Dividends paid on Rio Tinto plc and Rio Tinto Limited shares are equalised on a net cash basis; that is without taking into account any associated tax credits. Dividends are determined in US dollars. Details relating to the payment of dividends in sterling, Australian dollars and other currencies and on the payment of dividends to holders of American Depositary Receipts (ADRs) are included in the shareholder information on page 262.

The Group's major capital projects are listed on pages 76 to 77.

## Liquidity and capital resources

Details of our Liquidity and Capital risk management are contained within note 33 "Financial risk management", part (v), to the 2010 financial statements.

We expect that contractual commitments for expenditure, together with other expenditure and liquidity requirements will be met from internal cash flow and, to the extent necessary, from the existing facilities described in note 33 "Financial risk management", part (v), to the 2010 financial statements.

## Treasury management and financial instruments

Details of our Treasury management and financial instruments are contained within the introductory paragraphs of note 33 "Financial risk management", to the 2010 financial statements.

## Foreign exchange

The following sensitivities give the estimated effect on underlying earnings assuming that each exchange rate moved in isolation. The relationship between currencies and commodity prices is a complex one and movements in exchange rates can cause movements in commodity prices and vice versa. Where the functional currency of an operation is that of a country for which production of commodities is an important feature of the economy, such as the Australian dollar, there is a certain degree of natural protection against cyclical fluctuations, in that the currency tends to be weak, reducing costs in US dollar terms, when commodity prices are low, and vice versa.

## Earnings sensitivities – exchange rates

	Average exchange rate for 2010 US cents	Effect on net and underlying earnings of 10% change in full year average +/- US\$m
Australian dollar	92	604
Canadian dollar	97	194
Euro	133	29
Chilean peso	US\$1 = 510 pesos	23
New Zealand dollar	72	19
South African rand	14	54
UK sterling	155	18

The exchange rate sensitivities quoted above include the effect on operating costs of movements in exchange rates but exclude the effect of the revaluation of foreign currency financial assets and liabilities. They should therefore be used with care.

Further details of our exposure to foreign currency fluctuations and currency derivatives, and our approach to currency hedging, are contained within note 33 "Financial risk management", part (i), to the 2010 financial statements.

## Interest rates

Details of our exposure to interest rate fluctuations are contained within note 33 "Financial risk management", part (ii), to the 2010 financial statements.



## Commodity prices

The approximate effect on the Group's underlying and net earnings of a ten per cent change from the full year average market price in 2010 for the following products would be:

### Earnings sensitivities – commodity prices

	Unit	Average market price for 2010 US\$	Effect on underlying and net earnings of 10% change in full year average +/- US\$m
Copper	Pound	3.40	349
Aluminium	Tonne	2,173	650
Gold	Ounce	1,222	73
Molybdenum	Pound	16	31
Iron ore	dmu	–	1,343
Thermal and coking coal	Tonne	–	207

The sensitivities give the estimated impact on net earnings of changes in prices assuming that all other variables remain constant. These should be used with care. As noted previously, the relationship between currencies and commodity prices is a complex one and changes in exchange rates can influence commodity prices and vice versa.

Further details of our exposure to commodity price fluctuations are contained within note 33 "Financial risk management", part (iii), to the 2010 financial statements.

## Credit risks

Details of our exposure to credit risks relating to receivables, financial instruments and cash deposits, are contained within note 33 "Financial risk management", part (iv), to the 2010 financial statements.

## Disposals and acquisitions

Information regarding disposals and acquisitions is provided in note 41 "Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses", to the 2010 financial statements and on page 226.

## Critical accounting policies and estimates

Many of the amounts included in the financial statements involve the use of judgment and/or estimation. These judgments and estimates are based on management's best knowledge of the

relevant facts and circumstances, having regard to previous experience, but actual results may differ from the amounts included in the financial statements.

Information about such judgments and estimation is contained in note 1 "Principal accounting policies" to the 2010 financial statements, and/or the other notes to the 2010 financial statements. The key areas are listed below.

- Dual listed company reporting
- Asset carrying values
- Asset lives
- Ore reserve estimates
- Close down, restoration and clean up obligations
- Overburden removal costs
- Deferred tax on fair value adjustments
- Exploration
- Functional currency
- Underlying earnings
- Post retirement benefits
- Deferred tax potentially recoverable on Group tax losses
- Contingencies
- Acquisition accounting

## Off balance sheet arrangements and contractual commitments

The table below presents information in relation to our material off balance sheet arrangements, principally contingent liabilities, commitments for capital expenditure and other expenditure, and commitments under operating leases at 31 December 2010. Information regarding the Group's pension commitments and funding arrangements is provided in note 50 to the 2010 financial statements. Information regarding the Group's closedown and restoration obligations is provided in note 27 to the 2010 financial statements.

We expect that these contractual commitments for expenditure, together with other expenditure and liquidity requirements will be met from internal cash flow and, to the extent necessary, from the existing facilities.

At 31 December 2010	< 1 yr US\$m	1 – 3 yrs US\$m	3 – 5 yrs US\$m	> 5 yrs US\$m	Total US\$m
Expenditure commitments in relation to:					
Operating leases	507	854	561	1,107	3,029
Other (capital commitments)	5,219	2,264	90	–	7,573
	5,726	3,118	651	1,107	10,602
Long-term debt and other financial obligations:					
Debt	1,066	1,789	3,570	7,783	14,208
Interest payments	705	1,472	1,136	4,166	7,479
Unconditional purchase obligations	2,295	2,934	2,515	10,156	17,900
Other	297	400	35	48	780
	4,363	6,595	7,256	22,153	40,367
<b>Total</b>	<b>10,089</b>	<b>9,713</b>	<b>7,907</b>	<b>23,260</b>	<b>50,969</b>

# Five year review

## Selected financial data

The selected consolidated financial data 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 2010 financial statements and notes thereto. The financial statements as included on pages 157 to 256 have been prepared in accordance with International Financial Reporting Standards both as adopted by the EU ("EU IFRS") and as issued by the International Accounting Standards Board ("IFRS").

## Rio Tinto Group

### Income statement data

For the years ending 31 December Amounts in accordance with EU IFRS	2010 US\$m	2009 US\$m	2008 US\$m	2007 US\$m	2006 US\$m
Consolidated sales revenue	56,576	41,825	54,264	29,700	22,465
Group operating profit <sup>(a)</sup>	19,694	7,506	10,194	8,571	8,974
Profit for the year from continuing operations	15,281	5,784	5,436	7,746	7,867
Loss after tax from discontinued operations	(97)	(449)	(827)	–	–
Profit for the year	15,184	5,335	4,609	7,746	7,867
Basic earnings per share <sup>(b)</sup>					
Profit from continuing operations (US cents)	735.4	301.7	286.8	464.9	456.2
Loss after tax from discontinued operations (US cents)	(4.9)	(25.5)	(52.7)	–	–
Profit for the year per share (US cents)	730.5	276.2	234.1	464.9	456.2
Diluted earnings per share <sup>(b)</sup>					
Profit from continuing operations (US cents)	731.1	300.7	285.5	462.9	454.3
Loss after tax from discontinued operations (US cents)	(4.9)	(25.4)	(52.4)	–	–
Profit for the year per share (US cents)	726.2	275.3	233.1	462.9	454.3
<b>Dividends per share</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Dividends declared during the year <sup>(b)</sup>					
US cents					
– interim	45.0	–	55.6	42.5	32.7
– final	63.0	45.0	55.6	68.7	52.3
UK pence					
– interim	28.2	–	29.6	20.9	17.5
– final	39.1	28.8	37.9	35.3	26.7
Australian cents					
– interim	49.3	–	63.3	49.6	42.9
– final and special	61.9	51.6	83.0	76.1	67.8
Dividends paid during the year (US cents) <sup>(b)</sup>					
– ordinary and special	90.0	55.6	124.3	94.8	156.7
Weighted average number of shares – basic (millions) <sup>(b)</sup>	1,961.0	1,763.6	1,570.1	1,572.9	1,630.5
Weighted average number of shares – diluted (millions) <sup>(b)</sup>	1,972.6	1,769.6	1,577.3	1,579.6	1,637.1

### Statement of financial position

As at 31 December Amounts in accordance with EU IFRS	2010 US\$m	2009 US\$m	2008 US\$m	Restated <sup>(c)</sup> 2007 US\$m	2006 US\$m
Total assets	112,402	97,236	89,616	101,091	34,494
Share capital/premium	10,105	9,344	5,826	3,323	3,190
Total equity/net assets	65,274	45,925	22,461	26,293	19,385
Equity attributable to owners of Rio Tinto	58,333	43,831	20,638	24,772	18,232

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

(b) The rights issues completed in July 2009 were at a discount to the then market price. Accordingly, earnings per share and dividends per share for all periods up to the date on which the shares were issued were adjusted for the bonus element of the issue. The bonus factor for Rio Tinto plc was 1.2105 and for Rio Tinto Limited was 1.2679.

(c) The 31 December 2007 balance sheet has been restated for the revisions to Alcan's fair value accounting which were finalised in 2008.

# Acquisitions and divestments

During 2010 Rio Tinto acquired an additional interest in Ivanhoe Mines and completed asset sales totalling US\$4.2 billion. Since 2008, Rio Tinto has completed divestments in excess of US\$11 billion.

## Acquisitions

Asset	Cost US\$m	Status
<b>Acquired in 2011</b>		
<b>Copper</b> – Ivanhoe Mines	751	Participation in the strategic rights offering and purchase of additional shares increasing the Group's holding to 42.1%
<b>Acquired in 2010</b>		
<b>Copper</b> – Ivanhoe Mines	1,588	Purchases of additional shares, maturing of convertible debt facility and exercise of Series A and B warrants increasing the Group's holding to 40.3% as at 31 December 2010. Rio Tinto consolidated Oyu Tolgoi LLC on 15 December 2010 following the signing of a new agreement with Ivanhoe Mines.
<b>Acquired in 2009</b>		
<b>Copper</b> – Ivanhoe Mines	388	The purchase of an additional 9.8% interest increasing the Group's total holding to 19.7%
<b>Acquired in 2008</b>		
None	–	

## Divestments

Asset	Proceeds US\$m	Status
<b>Divested in 2011</b>		
<b>Alcan Engineered Products</b>	Undisclosed	Sold 61 per cent to investment funds affiliated with Apollo Global Management, LLC (Apollo) and the Fonds Stratégique d'Investissement (FSI)
<b>Divested in 2010</b>		
<b>Energy</b> – Cloud Peak	573	Secondary public offering
<b>Alcan Packaging</b> – Beauty	Undisclosed	Sold to Sun European Partners LLP
<b>Alcan Packaging</b> – Medical Flexibles	66	Sold to Amcor
<b>Alcan Packaging</b> – Food Americas	1,200	Sold to Bemis Company Inc.
<b>Energy</b> – Maules Creek (Rio Tinto: 75.7%)	427	Sold to Aston Resources
<b>Energy</b> – Vickery (Rio Tinto: 75.7%)	28	Sold to Whitehaven Coal
<b>Alcan Packaging</b> – global Pharmaceuticals, global Tobacco, Food Europe and Food Asia	1,948	Sold to Amcor
<b>Sundry asset sales</b>	57	Sale of assets including Ghana Bauxite Company, Brockville Specialty Alumina Plant and Rawhide Mine
<b>Divested in 2009</b>		
<b>Energy</b> – Jacobs Ranch	764	Sold to Arch Coal, Inc
<b>Iron Ore</b> – Corumbá mine	814	Sold to Vale
<b>Diamonds &amp; Minerals</b> – Exploration projects in Argentina and Canada	850	Sold to Vale
<b>Aluminium</b> – Ningxia smelter (Rio Tinto: 50%)	125	Sold to Qingtongxia Aluminium Group
<b>Exploration</b> – sundry assets	68	Sold to multiple parties
<b>Energy</b> – Cloud Peak	741	IPO and connected debt offering
<b>Alcan Engineered Products</b> – composites	349	Sold to Schweiter Technologies
<b>Divested in 2008</b>		
<b>Energy</b> – Kintyre project	495	Sold to a joint venture
<b>Copper</b> – Greens Creek mine (Rio Tinto: 70%)	750	Sale completed to Hecla Mining, the Group's minority partner
<b>Copper</b> – Cortez Joint Venture (Rio Tinto: 40%)	1,695	Sold to Barrick Gold, the Group's majority partner, for cash plus a deferred bonus payment and contingent royalty interest
<b>Exploration</b> – sundry assets	134	Sold to multiple parties

# Capital projects

## Capital and major evaluation projects

Project	Approved capital cost (100%) US\$	Status/milestones
<b>Ongoing</b>		
<b>Alumina</b> – expansion of Yarwun alumina refinery from 1.4 million tonnes per year (mtpa) to 3.4mtpa.	1.9bn	Approved in July 2007, the co-generation plant was commissioned in September 2010 and the ship unloader was commissioned in November 2010. Completion is expected in August 2012.
<b>Aluminium</b> – construction of a new 225MW turbine at Shipshaw power station, Saguenay, Quebec, Canada.	228m	Approved in 2008, the project remains on budget and on track to be completed by December 2012.
<b>Coking coal</b> – extension and expansion of Kestrel mine (Rio Tinto share 80%).	1.1bn	The investment will extend the life of the mine to 2031 and increase production to an average of 5.7mtpa (million tonnes per annum). Extension expected to come on stream in late 2012/early 2013.
<b>Copper</b> – construction of phase one of Oyu Tolgoi copper and gold mine in Mongolia <sup>(a)</sup> .	5.9bn	Rio Tinto consolidated Oyu Tolgoi LLC on 15 December 2010 following the signing of a new agreement with Ivanhoe Mines. First ore production is forecast to commence in late 2012 with an initial throughput of 100,000 tonnes of ore per day.
<b>Approved/restarted in 2010/2011</b>		
<b>Molybdenum</b> – investment in phases one and two of Molybdenum Autoclave Process (MAP) project to enable lower grade concentrate to be processed more efficiently than conventional roasters and allow improved recoveries.	340m	First approved in June 2008, the project was put on hold. Approval was given in April 2010 to restart the project. First production from phase 1 is anticipated in the fourth quarter of 2012 and full capacity of 30 million pounds per annum is scheduled for fourth quarter 2013. The phase 2 expansion to 60 million pounds per annum is anticipated to be completed in the first quarter of 2015.
<b>Iron ore</b> – expansion of Iron Ore Company of Canada's concentrate capacity (Rio Tinto: 58.7%).	401m	Initially approved in March 2008, the project recommenced in May 2010 (Rio Tinto share US\$235m). It is projected to expand concentrate capacity by 4mtpa to 22mtpa by 2012 with options to expand further to 26mtpa.
<b>Nickel</b> – construction of the Eagle nickel and copper mine in Michigan (US).	469m	Approved in June 2010, first production is expected in late 2013. The mine is projected to produce an average of 17.3kt (thousand tonnes) and 13.2kt per year of nickel and copper metal respectively over six years.
<b>Iron ore</b> – preparation for the expansion of the Pilbara to 330mtpa and beyond	990m	Approved in July and August 2010, the funding (Rio Tinto share US\$649m) will allow dredging contracts to be issued and long lead items to be ordered as part of early works on the expansion of the Cape Lambert port to 180mtpa capacity.
<b>Iron ore</b> – development of Hope Downs 4 mine in the Pilbara (Rio Tinto: 50%).	1.6bn	Approved in August 2010, first production is expected in 2013. The new mine is projected to have a capacity of 15mtpa and a capital cost of US\$1.2 billion (Rio Tinto share US\$0.6bn). Rio Tinto will fully fund the US\$425 million for the rail, rolling stock and power infrastructure.
<b>Diamonds</b> – Argyle diamond mine underground project.	1.6bn	Originally approved in 2005, the project was slowed in 2009. The remaining US\$803 million to complete was approved in September 2010. The underground is projected to be fully operational in 2013 with targeted production of 20 million carats a year. It should extend the mine life to at least 2019.
<b>Iron ore</b> – debottlenecking of Dampier port to expand the Pilbara capacity to 230mtpa.	321m	Approved in September 2010, the project is projected to add 10mtpa capacity at the Dampier port by Q1 2012. No additional capital expenditure is required at the mines.
<b>Aluminium</b> – ISAL modernisation.	487m	Approved in September 2010, the project is projected to increase annual production from 190kt to 230kt between April 2012 and July 2014. Includes US\$140m in a leading edge casting facility to produce value added billet, approved in October.
<b>Iron ore</b> – expansion of Pilbara infrastructure to 283mtpa.	3.1bn	Approved in October 2010, the investment (Rio Tinto share US\$2.1bn) is projected to increase infrastructure capacity by 53mtpa to 283mtpa by the end of 2013. Further investments in mine expansions will likely be required.
<b>Iron ore</b> – expansion of Brockman 4 mine (from 22mtpa to 40mtpa) and Western Turner Syncline mine (from 6mtpa to 15mtpa) in the Pilbara.	1.2bn	Approved in December 2010, the two projects represent the first two of three mine developments to expand mine capacity to 283mtpa by the fourth quarter of 2013.

**Approved/restarted in 2010/2011 continued**

<b>Aluminium</b> – phase 1 of 60kt per annum AP60 plant in Quebec.	1.1bn	Approved in December 2010, US\$758m will be spent on completing the first phase of the AP60 plant, in addition to the US\$376m spent to date. First hot metal is expected in February 2013.
<b>Aluminium</b> – modernisation and expansion of Kitimat smelter.	640m	A further US\$300m was approved in December 2010 for further construction in preparation for the US\$2.5bn modernisation of the Kitimat smelter. This is in addition to US\$340m spent to date. Final approval is expected in 2011.
<b>Iron ore</b> – phase two expansion of IOC's concentrate capacity to 23.3mtpa (Rio Tinto 58.7%).	277m	Approved in February 2011, phase two is expected to be complete by 2013 (Rio Tinto share US\$163 million) with options to expand further to 26mtpa.
<b>Iron ore</b> – phase two of the Marandoo mine expansion to sustain production at 230mtpa.	933m	Approved in February 2011, the mine is projected to extend Marandoo at 15mtpa by 16 years to 2030.

**Completed in 2010**

<b>Iron ore</b> – construction of new Mesa A/ Warramboe mine (Rio Tinto: 53%).	901m	First ore was produced in February 2010. Initial production of 20mtpa is projected to increase to 25mtpa by the end of 2011.
<b>Diamonds</b> – Diavik (Rio Tinto: 60%) underground development.	787m	First production at end of March 2010.
<b>Thermal coal</b> – Clermont (Rio Tinto: 50.1%) will produce 12mtpa, largely replacing Blair Athol as it ramps down to 3mtpa.	1,290m	First production in second quarter of 2010. Full capacity expected to be reached in 2013.
<b>Iron ore</b> – construction of new 22mtpa Brockman 4 mine and Western Turner Syncline extension of Tom Price mine.	1,521m	Both mines commenced production in July 2010 and full capacity is expected to be reached by the end of 2011. Further expansion options are being assessed.
<b>Iron ore</b> – investment in cleaner, more sustainable power generation to support expansion of mining capacity in Western Australia.	503m	Four new gas turbines at the 240MW Yurralyi Maya site near Dampier were commissioned and came on line progressively in the second half of 2010.
<b>Copper</b> – Northparkes (Rio Tinto 80%) E48 block cave project extending mine life to 2024.	221m	The project restarted in September 2009 with a scope change including an expanded extraction level and increased reserves, secondary crushing and loader automation. Production from E48 commenced in late 2009 with full production occurring in late 2010.

**Completed in 2009**

<b>Iron ore</b> – expansion of Hope Downs mine from 22mtpa to 30mtpa (Rio Tinto: 50%).	350m	Approved in August 2007, the expansion work was completed during the first half of 2009.
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**Completed in 2008**

<b>Aluminium</b> – Development of the 360,000 tonne per annum greenfield Sohar smelter in Oman (Rio Tinto: 20%).	1,700m	Approved in February 2005, first hot metal was produced in June 2008.
<b>Aluminium</b> – Aluminium spent potlining treatment plant in Quebec (Rio Tinto: 100%).	225m	Approved in September 2006, the plant commenced operations in June 2008.
<b>Titanium dioxide</b> – Construction by QMM (Rio Tinto: 80%) of a greenfield ilmenite operation in Madagascar and associated upgrade of processing facilities at RTFT in Canada.	1,000m	First production of ilmenite took place at the end of 2008.
<b>Iron ore</b> – Cape Lambert port expansion (Rio Tinto: 53%) from 55 to 80mtpa and additional rolling stock and infrastructure.	952m	Approved in January 2007, the project was completed at the end of 2008.

Following the consolidation of Oyu Tolgoi LLC, capital expenditure for 2011 is expected to be approximately US\$13 billion. This includes US\$2.3 billion for the Oyu Tolgoi project (approved and funded by Ivanhoe). It also includes US\$4.5 billion for sustaining capital expenditure (Rio Tinto funded).

Evaluation expenditure in 2011, including the Simandou iron ore project and the Resolution and La Granja copper projects, is expected to be around US\$900 million

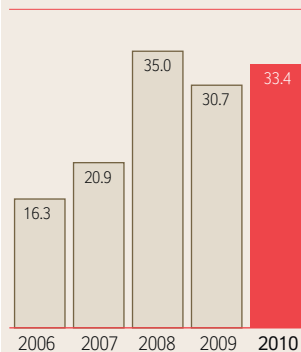
(a) On 3 February 2011, Rio Tinto increased its ownership in Ivanhoe Mines to 42.1 per cent. Ivanhoe Mines owns 66 per cent of the Oyu Tolgoi copper-gold project.



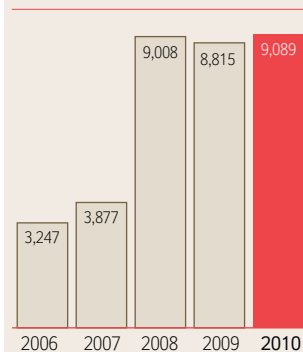
# Summary

## Aluminium

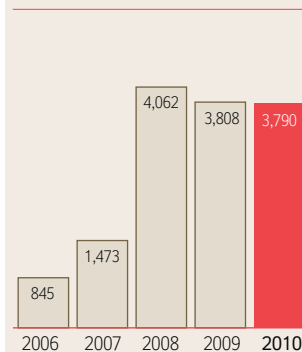
**Mined bauxite**  
(Rio Tinto share) million tonnes



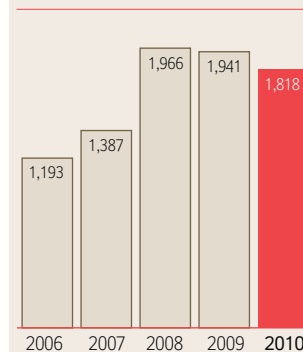
**Alumina production**  
(Rio Tinto share) '000 tonnes



**Aluminium production**  
(Rio Tinto share) '000 tonnes

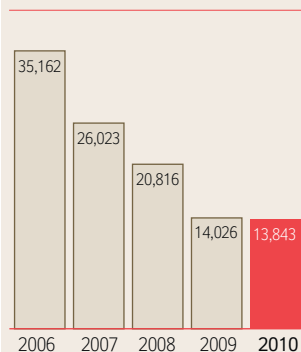


**Bauxite reserves**  
(Rio Tinto share) million tonnes

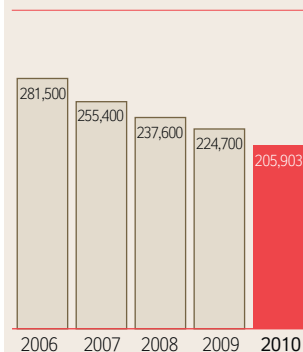


## Diamonds & Minerals

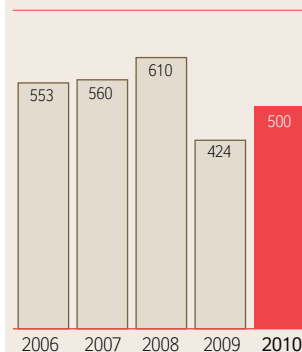
**Mined diamonds**  
(Rio Tinto share) '000 carats



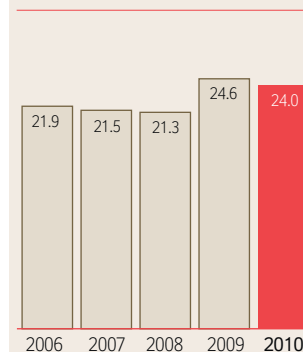
**Diamond reserves**  
(Rio Tinto share) '000 carats



**Mined borates**  
(Rio Tinto share) '000 tonnes as B<sub>2</sub>O<sub>3</sub>

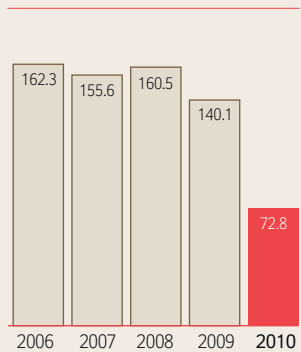


**Borate reserves**  
(Rio Tinto share) million tonnes as B<sub>2</sub>O<sub>3</sub>

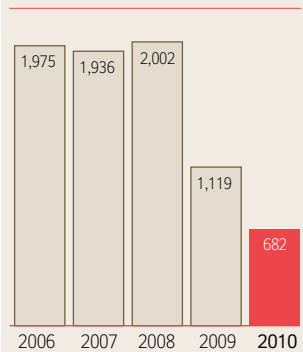


## Energy

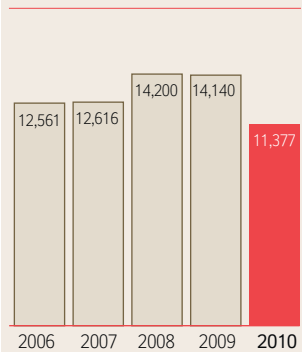
**Mined coal**  
(Rio Tinto share) million tonnes



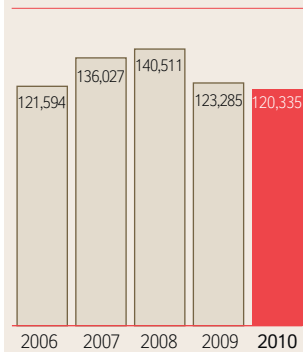
**Coal reserves**  
(Rio Tinto share) million tonnes



**Mined uranium**  
(Rio Tinto share) '000 pounds U<sub>3</sub>O<sub>8</sub>



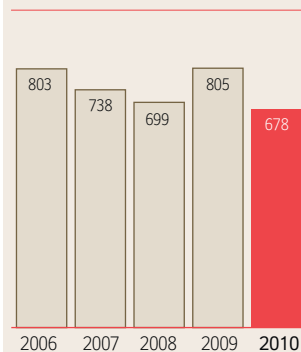
**Uranium reserves**  
(Rio Tinto share) '000 pounds U<sub>3</sub>O<sub>8</sub>



## Copper

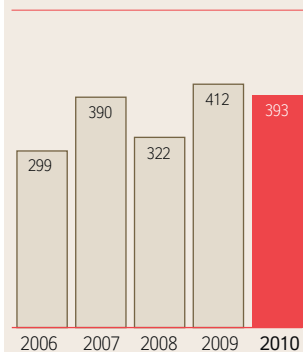
### Mined copper

(Rio Tinto share) '000 tonnes



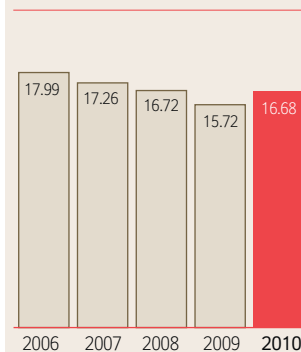
### Refined copper

(Rio Tinto share) '000 tonnes



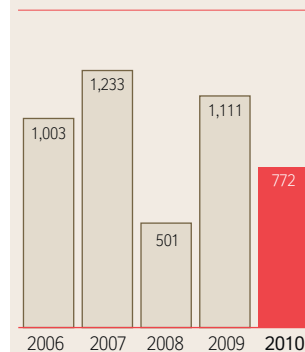
### Copper reserves

(Rio Tinto share) million tonnes



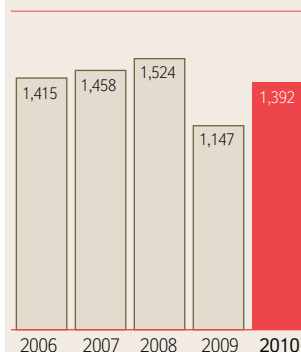
### Mined gold

(Rio Tinto share) '000 ounces



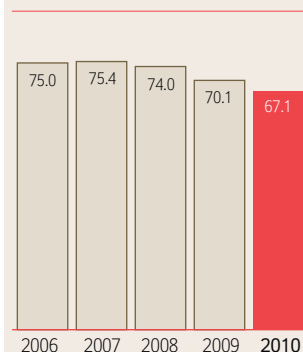
### Mined titanium dioxide

(Rio Tinto share) '000 tonnes



### Titanium dioxide reserves

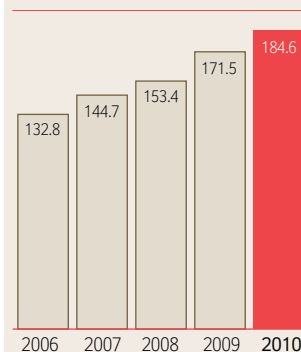
(Rio Tinto share) million tonnes



## Iron Ore

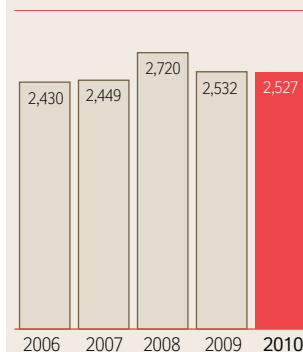
### Mined iron ore

(Rio Tinto share) million tonnes



### Iron ore reserves

(Rio Tinto share) million tonnes



# Metals and minerals production

		2010 Production		2009 Production		2008 Production	
	Rio Tinto % share (a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
ALUMINA ('000 tonnes)							
Gardanne (France) (b)	100.0	–	–	–	–	38	38
Gove (Australia)	100.0	2,473	2,473	2,519	2,519	2,325	2,325
Jonquière (Vaudreuil) (Canada) (c)	100.0	1,301	1,301	1,125	1,125	1,370	1,370
Queensland Alumina (Australia)	80.0	3,821	3,057	3,959	3,167	3,842	3,074
São Luis (Alumar) (Brazil)	10.0	2,507	251	1,657	166	1,504	150
Yarwun (Australia)	100.0	1,377	1,377	1,347	1,347	1,293	1,293
Specialty Plants (Canada/France/Germany) (b) (d)	100.0	631	631	492	492	758	758
Rio Tinto total		9,089		8,815		9,008	
ALUMINIUM ('000 tonnes)							
Alma (Canada)	100.0	434	434	435	435	424	424
Alouette (Sept-Îles) (Canada)	40.0	569	228	573	229	572	229
Alucam (Edéa) (Cameroon)	46.7	76	35	73	34	91	43
Anglesey (UK) (e)	51.0	–	–	106	54	118	60
Arvida (Canada)	100.0	174	174	171	171	172	172
Beauharnois (Canada) (f)	100.0	–	–	11	11	50	50
Bécancour (Canada)	25.1	417	104	420	105	415	104
Bell Bay (Australia)	100.0	177	177	177	177	178	178
Boyne Island (Australia)	59.4	558	332	556	331	556	330
Dunkerque (France)	100.0	260	260	244	244	254	254
Grande-Baie (Canada)	100.0	218	218	215	215	212	212
ISAL (Reykjavik) (Iceland)	100.0	190	190	190	190	187	187
Kitimat (Canada)	100.0	184	184	224	224	247	247
Lannemezan (France) (g)	100.0	–	–	–	–	5	5
Laterrière (Canada)	100.0	212	212	235	235	234	234
Lochaber (UK)	100.0	41	41	38	38	43	43
Lynemouth (UK)	100.0	145	145	109	109	165	165
Ningxia (Qingtongxia) (China) (h)	–	–	–	10	5	163	81
Saint-Jean-de-Maurienne (France)	100.0	96	96	101	101	130	130
Sebree (US)	100.0	196	196	193	193	197	197
Shawinigan (Canada)	100.0	100	100	99	99	100	100
Sohar (Oman) (i)	20.0	367	73	351	70	49	10
SØRAL (Husnes) (Norway)	50.0	88	44	98	49	171	86
Tiwai Point (New Zealand)	79.4	344	273	271	215	316	250
Tomago (Australia)	51.6	528	272	528	272	523	270
Rio Tinto total		3,790		3,808		4,062	
BAUXITE ('000 tonnes)							
Awaso (Ghana) (j)	–	42	34	440	352	796	637
Gove (Australia)	100.0	7,190	7,190	7,185	7,185	6,245	6,245
Porto Trombetas (MRN) (Brazil)	12.0	17,022	2,043	15,645	1,877	18,063	2,168
Sangaredi (Guinea)	(k)	12,413	5,586	11,216	5,047	13,181	5,931
Weipa (Australia)	100.0	18,591	18,591	16,235	16,235	20,006	20,006
Rio Tinto total		33,443		30,696		34,987	
BORATES ('000 tonnes) (l)							
Rio Tinto Minerals – Boron (US)	100.0	483	483	411	411	591	591
Rio Tinto Minerals – Tincalayu (Argentina)	100.0	18	18	13	13	19	19
Rio Tinto total		500		424		610	
COAL – hard coking ('000 tonnes)							
Rio Tinto Coal Australia							
Hail Creek Coal (Australia)	82.0	7,183	5,890	6,308	5,173	6,049	4,960
Kestrel Coal (Australia)	80.0	3,846	3,076	2,868	2,294	3,089	2,471
Rio Tinto total hard coking coal		8,967		7,467		7,431	

See notes on page 83

		2010 Production		2009 Production		2008 Production	
	Rio Tinto % share (a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
<b>COAL – semi-soft coking ('000 tonnes) (m)</b>							
<b>Rio Tinto Coal Australia</b>							
Hunter Valley (Australia)	75.7	2,469	1,869	2,626	1,988	2,865	2,169
Mount Thorley (Australia)	60.6	1,460	884	1,112	674	1,168	708
Warkworth (Australia)	42.1	764	321	530	223	386	162
<b>Rio Tinto total semi-soft coking coal</b>			<b>3,075</b>		<b>2,885</b>		<b>3,039</b>
<b>COAL – thermal ('000 tonnes) (m)</b>							
<b>Rio Tinto Coal Australia</b>							
Bengalla (Australia)	30.3	5,477	1,659	5,466	1,655	5,357	1,622
Blair Athol (Australia)	71.2	6,803	4,846	11,325	8,068	10,194	7,262
Clermont (Australia) (n)	50.1	3,770	1,889	–	–	–	–
Hunter Valley (Australia)	75.7	8,442	6,391	8,606	6,515	7,886	5,970
Kestrel Coal (Australia)	80.0	713	571	849	679	929	744
Mount Thorley (Australia)	60.6	1,518	920	2,230	1,351	1,780	1,078
Tarong Coal (Australia) (o)	–	–	–	–	–	262	262
Warkworth (Australia)	42.1	5,120	2,154	4,632	1,949	5,652	2,378
<b>Total Australian thermal coal</b>			<b>18,430</b>		<b>20,217</b>		<b>19,317</b>
<b>US Coal</b>							
Antelope (US) (p)	–	31,156	15,043	30,865	29,031	32,474	32,474
Colowyo (US) (q)	100.0	2,371	2,371	3,214	3,214	4,446	4,446
Cordero Rojo (US) (p)	–	33,518	16,184	35,687	33,361	36,318	36,318
Decker (US) (p)	–	2,521	609	4,161	2,017	5,939	2,970
Jacobs Ranch (US) (r)	–	–	–	26,537	26,537	38,206	38,206
Spring Creek (US) (p)	–	16,726	8,076	16,035	15,360	16,341	16,341
<b>Total US thermal coal</b>			<b>42,283</b>		<b>109,520</b>		<b>130,755</b>
<b>Rio Tinto total thermal coal</b>			<b>60,713</b>		<b>129,738</b>		<b>150,072</b>
<b>COPPER (mined) ('000 tonnes)</b>							
Bingham Canyon (US)	100.0	249.8	249.8	303.5	303.5	238.0	238.0
Escondida (Chile)	30.0	1,011.0	303.3	1,061.2	318.3	1,281.7	384.5
Grasberg – Joint Venture (Indonesia) (s)	40.0	126.8	50.7	269.3	107.7	17.8	7.1
Northparkes (Australia)	80.0	39.0	31.2	34.3	27.4	24.8	19.8
Palabora (South Africa)	57.7	74.6	43.0	82.6	47.6	85.1	49.1
<b>Rio Tinto total</b>			<b>678.1</b>		<b>804.7</b>		<b>698.5</b>
<b>COPPER (refined) ('000 tonnes)</b>							
Escondida (Chile)	30.0	300.1	90.0	327.2	98.2	257.5	77.3
Kennecott Utah Copper (US)	100.0	269.3	269.3	274.2	274.2	200.6	200.6
Palabora (South Africa)	57.7	58.0	33.4	69.4	40.0	75.9	43.8
<b>Rio Tinto total</b>			<b>392.8</b>		<b>412.4</b>		<b>321.6</b>
<b>DIAMONDS ('000 carats)</b>							
Argyle (Australia)	100.0	9,804	9,804	10,591	10,591	15,076	15,076
Diavik (Canada)	60.0	6,500	3,900	5,565	3,339	9,225	5,535
Murowa (Zimbabwe)	77.8	178	139	124	97	264	205
<b>Rio Tinto total</b>			<b>13,843</b>		<b>14,026</b>		<b>20,816</b>

See notes on page 83

## Metals and minerals production continued

		2010 Production		2009 Production		2008 Production	
	Rio Tinto % share (a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
GOLD (mined) ('000 ounces)							
Barneys Canyon (US)	100.0	2	2	2	2	5	5
Bingham Canyon (US)	100.0	466	466	582	582	368	368
Cortez/Pipeline (US) (t)	–	–	–	–	–	72	29
Escondida (Chile)	30.0	174	52	144	43	144	43
Grasberg – Joint Venture (Indonesia) (s)	40.0	458	183	1,072	429	–	–
Greens Creek (US) (u)	–	–	–	–	–	18	12
Northparkes (Australia)	80.0	65	52	34	27	32	26
Rawhide (US) (v)	–	9	9	19	19	18	9
Others		13	7	13	8	14	8
Rio Tinto total			772		1,111		501
GOLD (refined) ('000 ounces)							
Kennecott Utah Copper (US)	100.0	596	596	479	479	303	303
IRON ORE ('000 tonnes)							
Corumbá (Brazil) (w)	–	–	–	1,509	1,509	2,032	2,032
Hammersley Iron – eight wholly owned mines (Australia)	100.0	112,706	112,706	106,808	106,808	95,553	95,553
Hammersley – Channar (Australia)	60.0	11,016	6,610	11,041	6,625	10,382	6,229
Hammersley – Eastern Range (Australia)	(x)	9,206	9,206	9,318	9,318	8,186	8,186
Hope Downs (Australia)	50.0	31,720	15,860	20,634	10,317	10,936	5,468
Iron Ore Company of Canada (Canada)	58.7	14,710	8,638	13,844	8,129	15,830	9,295
Robe River (Australia) (y)	53.0	59,641	31,610	54,417	28,841	50,246	26,631
Rio Tinto total			184,629		171,547		153,394
LEAD ('000 tonnes)							
Greens Creek (US) (u)	–	–	–	–	–	4.6	3.2
MOLYBDENUM ('000 tonnes)							
Bingham Canyon (US)	100.0	12.9	12.9	11.3	11.3	10.6	10.6
PIG IRON ('000 tonnes)							
Hlsmelt® (Australia) (z)	60.0	–	–	–	–	144	87
SALT ('000 tonnes)							
Dampier Salt (Australia)	68.4	7,589	5,188	8,555	5,848	8,974	6,135
SILVER (mined) ('000 ounces)							
Bingham Canyon (US)	100.0	3,754	3,754	4,871	4,871	3,414	3,414
Escondida (Chile)	30.0	6,140	1,842	5,424	1,627	6,167	1,850
Grasberg – Joint Venture (Indonesia) (s)	40.0	1,721	688	3,685	1,474	549	220
Greens Creek (US) (u)	–	–	–	–	–	1,815	1,275
Others	–	752	577	757	596	655	417
Rio Tinto total			6,862		8,569		7,176
SILVER (refined) ('000 ounces)							
Kennecott Utah Copper (US)	100.0	4,732	4,732	4,050	4,050	3,252	3,252
TALC ('000 tonnes)							
Rio Tinto Minerals – talc (Australia/Europe/North America) (aa)	100.0	1,000	1,000	888	888	1,163	1,163

See notes on page 83



		2010 Production		2009 Production		2008 Production	
	Rio Tinto % share (a)	Total	Rio Tinto share	Total	Rio Tinto share	Total	Rio Tinto share
TITANIUM DIOXIDE FEEDSTOCK ('000 tonnes)							
Rio Tinto Iron & Titanium (Canada/South Africa) (bb) (cc)	100.0	1,392	1,392	1,147	1,147	1,524	1,524
URANIUM ('000 lbs U <sub>3</sub> O <sub>8</sub> )							
Energy Resources of Australia (Australia)	68.4	8,614	5,891	11,500	7,865	11,773	8,052
Rössing (Namibia)	68.6	7,999	5,485	9,150	6,275	8,966	6,149
Rio Tinto total			11,377		14,140		14,200
ZINC ('000 tonnes)							
Greens Creek (US) (u)	–	–	–	–	–	13.9	9.8

**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 on site, except for the data for bauxite and iron ore which represent production of marketable quantities of ore.

- (a) Rio Tinto percentage share, shown above, is as at the end of 2010 and has applied over the period 2008 – 2010 except for those operations where the Rio Tinto ownership has varied during the year; the weighted average ownership for each year is shown below. The Rio Tinto share varies at individual mines and refineries in the "others" category and thus no value is shown.

**Rio Tinto Share %**

Operation	See note	2010	2009	2008
Antelope	(p)	46.2	94.0	100.0
Cordero Rojo	(p)	46.2	94.0	100.0
Decker	(p)	23.1	47.0	50.0
Spring Creek	(p)	46.2	94.0	100.0

- (b) Production of smelter grade alumina at Gardanne ceased at the end of 2008. Production continues from the Gardanne specialty alumina plant.
- (c) Jonquière's (Vaudreuil's) production shows smelter grade alumina only and excludes hydrate produced and used for specialty alumina.
- (d) Rio Tinto sold its 100 per cent interest in the Brockville specialty alumina plant with an effective date of 20 September 2010. Production data are shown up to that date.
- (e) The Anglesey smelter ceased smelting operations at the end of the third quarter of 2009. Casting operations continue.
- (f) The Beauharnois smelter ceased smelting operations in the second quarter of 2009. Casting operations continue.
- (g) The Lannemezan smelter closed in the first quarter of 2008.
- (h) Rio Tinto sold its 50 per cent interest in the Ningxia aluminium smelter with an effective date of 26 January 2009. Production data are shown up to that date.
- (i) Production at the Sohar smelter commenced in the third quarter of 2008.
- (j) Rio Tinto Alcan had an 80 per cent interest in the Awaso mine but purchased the additional 20 per cent of production. Rio Tinto Alcan sold its interest in Ghana Bauxite Company, owner of the Awaso mine, with an effective date of 1 February 2010.
- (k) Rio Tinto has a 22.95 per cent shareholding in the Sangaredi mine but receives 45.0 per cent of production under the partnership agreement.
- (l) Borate quantities are expressed as B<sub>2</sub>O<sub>3</sub>.
- (m) Thermal coal and semi-soft coking coal were previously reported under "Other Coal".
- (n) Production commenced at Clermont in the second quarter of 2010.
- (o) Rio Tinto sold its 100 per cent interest in Tarong Coal with an effective date of 31 January 2008; production data are shown up to that date.

- (p) As a result of the initial public offering of Cloud Peak Energy Inc. on 20 November 2009, Rio Tinto held a 48.3 per cent interest in the Antelope, Cordero Rojo and Spring Creek mines and a 24.1 per cent interest in the Decker mine. These interests were formerly reported under Rio Tinto Energy America but are now managed by Cloud Peak Energy. Following a secondary public offering in December 2010, Rio Tinto completed the divestment of its entire interest in Cloud Peak Energy Inc. with an effective date of 15 December 2010. Production data are shown up to that date.
- (q) During 2008, Rio Tinto acquired a 100 per cent interest in the Colowyo mine, having previously held a partnership interest. All of Colowyo's production was already included in Rio Tinto's share of production.
- (r) Rio Tinto completed the sale of its 100 per cent interest in the Jacobs Ranch mine on 1 October 2009. Production data are shown up to that date.
- (s) Through a joint venture agreement with Freeport-McMoRan Copper & Gold (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 total quantities attributable to the joint venture.
- (t) Rio Tinto sold its 40 per cent interest in the Cortez/Pipeline joint venture on 5 March 2008, with an effective date end of February 2008. Production data are shown up to that date.
- (u) Rio Tinto sold its 70.3 per cent share in the Greens Creek joint venture with an effective date of 16 April 2008. Production data are shown up to that date.
- (v) On 28 October 2008, Rio Tinto increased its shareholding in the Rawhide Joint Venture from 51 per cent to 100 per cent. The previous joint venture shareholder continued to be entitled to 49 per cent of production until 31 December 2008; thereafter Rio Tinto has been entitled to 100 per cent. Rio Tinto sold its 100 per cent interest in the Rawhide mine with an effective date of 25 June 2010. Production data are shown up to that date.
- (w) Rio Tinto completed the sale of its 100 per cent interest in the Corumbá mine, effective 18 September 2009.
- (x) Rio Tinto's share of production includes 100 per cent of the production from the Eastern Range mine. Under the terms of the joint venture agreement (Rio Tinto 54 per cent), Hamersley Iron manages the operation and is obliged to purchase all mine production from the joint venture.
- (y) Production at the Mesa A mine commenced in the first quarter of 2010.
- (z) In March 2009, Rio Tinto announced that Hismelt® would be placed on an extended care and maintenance programme. In December 2010, the Hismelt® joint venture partners agreed to close the Kwinana site permanently and terminate the joint venture.
- (aa) In February 2011, Rio Tinto announced that it had received a binding offer for the purchase of 100 per cent of its talc business. Talc production includes some products derived from purchased ores.
- (bb) Quantities comprise 100 per cent of Rio Tinto Fer et Titane and 50 per cent of Richards Bay Minerals' (RBM) production until late 2009 when RBM concluded a Broad Based Black Economic Empowerment transaction. Rio Tinto Iron & Titanium's share of RBM production reflects a decrease from 50 to 37 per cent with effect from 9 December 2009.
- (cc) Ilmenite mined in Madagascar is being processed in Canada with effect from June 2009. Production figures are sometimes more precise than the rounded numbers shown, hence an apparent small difference may result where the Rio Tinto share is totalled.

# 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 2004 (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 reserve estimates. However, for US reporting, the US Securities and Exchange Commission requires historical price data to be used. For this reason, some 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 page 93, by operation, along with their professional affiliation, employer and accountability for reserves and/or resources. Where operations are not managed by Rio Tinto the reserves are published as received from the managing company.

The ore reserve figures in the following tables are as of 31 December 2010. Summary data for year end 2009 are shown for comparison. Metric units are used throughout. The figures used to calculate Rio Tinto's share of 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 2010		Probable ore reserves at end 2010		Total ore reserves 2010 compared with 2009				Rio Tinto share		
	Tonnage		Grade	Tonnage	Grade	Tonnage		Grade	Interest %	Recoverable mineral	
						2010	2009	2010	2009		
	millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	millions of tonnes	millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	% Al <sub>2</sub> O <sub>3</sub>		millions of tonnes	
BAUXITE (b)											
Reserves at operating mines											
Gove (Australia)	O/P	132	49.4	46	49.2	179	186	49.4	49.4	100.0	179
Porto Trombetas (MRN) (Brazil) (c)	O/P	71	50.7	25	50.9	96	214	50.8	49.6	12.0	12
Sangaredi (Guinea) (d)	O/P			117	52.4	117	130	52.4	52.4	23.0	27
Weipa (Australia)	O/P	612	52.6	990	53.2	1,602	1,699	53.0	52.7	100.0	1,602
Total										1,818	
										Marketable product	
BORATES (e)											
		millions of tonnes		millions of tonnes		millions of tonnes		millions of tonnes		millions of tonnes	
Reserves at operating mine											
Rio Tinto Minerals – Boron (US)	O/P	14.4		9.6		24.0		24.6		100.0 24	

See notes on page 87

	Type of mine (a)	Coal type (g)	Reserves		Marketable reserves		Marketable reserves		Marketable coal quality		Avg. % Yield to give marketable reserves	Rio Tinto share	
			Proved	Probable at end 2010	Proved	Probable at end 2010	Total 2010	Total 2009				Interest %	Marketable reserves
			millions of tonnes	millions of tonnes	millions of tonnes	millions of tonnes	millions of tonnes	millions of tonnes	Calorific value MJ/kg	Sulphur content %			
COAL continued (f)													
US Coal (US)													
Antelope (k)	O/C	SC					–	265	–	–	–	–	–
Colowyo (l)	O/C	SC	12	2	12	2	15	17	23.95	0.45	100	100.0	15
Cordero Rojo (k)	O/C	SC					–	372	–	–	–	–	–
Decker (k)	O/C	SC					–	2	–	–	–	–	–
Spring Creek (k)	O/C	SC					–	272	–	–	–	–	–
Sub-total													
15													
Total reserves at operating mines													
682													
Other undeveloped reserves (m)													
Rio Tinto Coal Australia (Australia)													
Mount Pleasant	O/C	SC		394		324	324	350	26.77	0.47	82	75.7	245
	Type of mine (a)		Proved ore reserves at end 2010		Probable ore reserves at end 2010		Total ore reserves 2010 compared with 2009				Average mill recovery %	Interest %	Recoverable metal
			Tonnage	Grade	Tonnage	Grade	Tonnage		Grade				
							2010	2009	2010	2009			
			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 (n)	O/P		470	0.50	504	0.38	974	524	0.44	0.47	86	100.0	3,691
Escondida (Chile)													
– sulphide	O/P		726	1.15	869	0.91	1,594	1,659	1.02	1.07	82	30.0	3,976
– sulphide leach	O/P		783	0.51	1,735	0.53	2,518	2,377	0.52	0.54	30	30.0	1,185
– oxide	O/P		76	0.75	56	0.90	131	121	0.81	0.81	68	30.0	0,218
Grasberg (Indonesia)	O/P + U/G		825	1.09	1,750	0.93	2,575	2,590	0.98	1.00	89	(o)	6,973
Northparkes (Australia)													
– open pit and stockpiles (p)	O/P		9	0.41			9	10	0.41	0.47	85	80.0	0,024
– underground	U/G				67	0.88	67	70	0.88	0.89	89	80.0	0,420
Palabora (South Africa) (q)	U/G		62	0.60			62	75	0.60	0.60	88	57.7	0,190
Total													
16,676													
Reserves at development projects													
Eagle (US) (r)	U/G				4.1	2.68	4.1	3.6	2.68	2.93	95	100.0	0.105
Oyu Tolgoi (Mongolia)													
– Hugo Dummett North (s)	U/G				410	1.90	410	–	1.90	–	92	26.6	1,910
– Hugo Dummett North Extension (t)	U/G				27	1.85	27	–	1.85	–	94	24.9	0,116
– South Oyu (u)	U/G		127	0.58	828	0.48	955	930	0.49	0.50	81	26.6	1,012
Total													
3,144													
Recoverable diamonds													
DIAMONDS (b)													
			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
Reserves at operating mines													
Argyle (Australia) (v)	O/P + U/G		16	1.1	60	2.5	77	85	2.2	2.1		100.0	166.6
Diavik (Canada)	O/P + U/G		8	2.9	10	3.0	18	20	2.9	3.0		60.0	31.7
Murowa (Zimbabwe) (w)	O/P				10	0.9	10	21	0.9	0.7		77.8	7.6
Total													
205.9													

See notes on page 87

## Ore reserves continued

	Type of mine (a)	Proved ore reserves at end 2010		Probable ore reserves at end 2010		Total ore reserves 2010 compared with 2009				Average mill recovery %	Rio Tinto share	
		Tonnage	Grade	Tonnage	Grade	Tonnage		Grade			Interest %	Recoverable metal
						2010	2009	2010	2009			
		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 (n)	O/P	470	0.22	504	0.18	974	524	0.20	0.25	65	100.0	4.062
Grasberg (Indonesia)	O/P + U/G	825	1.03	1,750	0.74	2,575	2,590	0.83	0.86	69	(o)	12.829
Northparkes (Australia)												
– open pit and stockpiles (p)	O/P	9	0.27			9	10	0.27	0.33	76	80.0	0.045
– underground	U/G			67	0.33	67	70	0.33	0.34	73	80.0	0.416
Total										17.352		
Reserves at development projects												
Eagle (US) (r)	U/G			4.1	0.27	4.1	3.6	0.27	0.29	73	100.0	0.026
Oyu Tolgoi (Mongolia)												
– Hugo Dummett North (s)	U/G			410	0.40	410	–	0.40	–	83	26.6	1.162
– Hugo Dummett North Extension (t)	U/G			27	0.72	27	–	0.72	–	85	24.9	0.132
– South Oyu (u)	O/P	127	0.93	828	0.27	955	930	0.36	0.36	75	26.6	2.189
Total										3.510		
										Marketable product		
		millions of tonnes	%Fe	millions of tonnes	%Fe	millions of tonnes	millions of tonnes	%Fe	%Fe	millions of tonnes		
IRON ORE (b)												
Reserves at operating mines												
Hamersley wholly owned (Australia)												
– Brockman 2 (Brockman ore) (x)	O/P	11	62.6	1	62.5	12	15	62.6	62.7		100.0	12
– Brockman 4 (Brockman ore)	O/P	353	62.2	251	61.9	603	621	62.0	62.0		100.0	603
– Marandoo (Marra Mamba ore) (y)	O/P	205	63.4	31	61.2	236	49	63.1	61.5		100.0	236
– Mt Tom Price (Brockman ore) (z)	O/P	29	63.7	54	63.2	83	93	63.4	63.6		100.0	83
– Mt Tom Price (Marra Mamba ore) (aa)	O/P	18	61.4	2	58.9	20	23	61.2	61.1		100.0	20
– Nammuldi (Marra Mamba ore)	O/P	10	61.3	6	61.2	16	18	61.3	61.2		100.0	16
– Paraburdoo (Brockman ore)	O/P	9	63.3	5	63.7	14	15	63.5	63.1		100.0	14
– Turee Central (Brockman Ore)	O/P	72	62.0	6	61.5	78	74	61.9	61.9		100.0	78
– Western Turner Syncline (Brockman ore)	O/P	224	62.5	67	61.3	291	314	62.2	61.9		100.0	291
– Yandicoogina (Pisolite ore HG) (bb)	O/P	171	58.6	5	58.5	176	209	58.6	58.5		100.0	176
– Yandicoogina (Process Product) (cc)	O/P	91	58.6			91	102	58.6	58.9		100.0	91
Hamersley – Channar (Australia)												
– Brockman ore (dd)	O/P	44	63.1	21	62.7	65	81	63.0	63.0		60.0	39
Hamersley – Eastern Range (Australia)												
– Brockman ore (ee)	O/P	48	62.9	10	62.7	58	71	62.8	62.8		54.0	31
Hope Downs 1 (Marra Mamba ore)	O/P	20	61.6	304	61.5	324	353	61.5	61.4		50.0	162
Iron Ore Company of Canada (Canada) (ff)	O/P	366	65.0	272	65.0	638	584	65.0	65.0		58.7	375
Robe River (Australia)												
– Pannawonica (Pisolite ore)	O/P	190	57.4	58	56.4	248	267	57.2	57.3		53.0	131
– West Angelas (Marra Mamba ore)	O/P	155	62.1	165	61.3	320	347	61.7	61.7		53.0	170
Total										2,527		
Reserves at development projects												
Hope Downs 4 (Brockman Ore)	O/P	73	63.0	64	63.2	136	136	63.1	63.1		50.0	68
		millions of tonnes	%Mo	millions of tonnes	%Mo	millions of tonnes	millions of tonnes	%Mo	%Mo	millions of tonnes		
MOLYBDENUM												
Reserves at operating mine												
Bingham Canyon (US)												
– open pit and stockpiles (n) (gg)	O/P	470	0.042	504	0.035	974	524	0.038	0.044	71	100.0	0.265
		millions of tonnes	%Ni	millions of tonnes	%Ni	millions of tonnes	millions of tonnes	%Ni	%Ni			
NICKEL												
Reserves at development project												
Eagle (US) (r)	U/G			4.1	3.15	4.1	3.6	3.15	3.47	87	100.0	0.113

See notes on page 87

Type of mine (a)	Proved ore reserves at end 2010		Probable ore reserves at end 2010		Total ore reserves 2010 compared with 2009				Average mill recovery %	Rio Tinto share		
	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade	Interest %		Recoverable metal		
					2010	2009					2010	2009
SILVER												
Reserves at operating mines												
Bingham Canyon (US)												
– open pit and stockpiles (n)	O/P	470	2.13	504	1.86	974	524	1.99	2.08	74	100.0	45.846
Grasberg (Indonesia)	O/P + U/G	825	4.22	1,750	4.08	2,575	2,590	4.12	4.18	70	(o)	80.141
Total												
125.987												
Marketable product												
millions of tonnes												
TALC (e)												
Reserves at operating mines												
Rio Tinto Minerals – talc (hh)	O/P + U/G	23.5		8.7		32.2	33.5			100.0		32.2
(Europe/North America/Australia)												
TITANIUM DIOXIDE FEEDSTOCK (e)												
Reserves at operating mines												
RTFT (Canada)	O/P	27.2		23.5		50.7	51.4			100.0		50.7
QMM (Madagascar) (ii)	D/O	1.8		7.5		9.3	11.9			80.0		7.4
RBM (South Africa)	D/O	5.3		18.8		24.2	24.9			37.0		8.9
Total												
67.1												
Recoverable metal												
millions of tonnes												
URANIUM												
Reserves at operating mines												
Energy Resources of Australia (Australia)												
– Ranger #3 (jj)	O/P	3.5	0.213	21.4	0.106	24.9	27.7	0.121	0.135	85	68.4	0.017
Rössing (Namibia) (kk)	O/P	46.1	0.032	125.4	0.040	171.5	192.7	0.038	0.031	84	68.6	0.037
Total												
0.055												

**Notes:**

- (a) Type of mine: O/P: open pit, O/C: open cut, U/G: underground, D/O: dredging operation.
- (b) 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.
- (c) The decrease in reserves at Porto Trombetas results from production as well as reclassification of material to resource ahead of permitting.
- (d) The decrease in reserves at Sangaredi follows production.
- (e) Reserves of industrial minerals are expressed in terms of marketable product, ie after all mining and processing losses. In the case of borates, the marketable product is B<sub>2</sub>O<sub>3</sub>.
- (f) For coal, the yield factors shown reflect the impact of further processing, where necessary, to provide marketable coal.
- (g) Coal type: SC: steam/thermal coal, MC: metallurgical/coking.
- (h) Analyses of coal from the US were undertaken according to ASTM Standards on an "As Received" moisture basis whereas the coals from Australia have been analysed on an "Air Dried" moisture basis in accordance with Australian Standards. Marketable reserve tonnages are reported at product moisture.
- (i) The reduced reserves at Blair Athol reflect production and reclassification of material to resources following an economic re-evaluation.
- (j) The lower reserve at Hail Creek has resulted from model updates and yield data refinement, production depletions and reclassification of tonnes to resource following a strategic review.
- (k) Rio Tinto completed the divestment of its 48.3 per cent interest in the Antelope, Cordero Rojo and Spring Creek mines and its 24.1 per cent interest in the Decker mine with an effective date of 15 December 2010.
- (l) The lower reserve tonnage at Colowyo follows production depletion.
- (m) 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.
- (n) A strategic review of the Bingham Canyon pit has led to significant conversions of resources to reserves with resulting recasting of tonnage and grade figures. This has added tonnes far in excess of the annual production.
- (o) 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.
- (p) Tonnage and grade depletions at Northparkes stem from campaign mining and selective stockpiling ahead of processing.
- (q) The decrease in the Palabora reserve tonnage follows production as well as planning and scheduling updates.
- (r) The Eagle reserve increase is the result of an updated economic model and a mine design review.
- (s) Hugo Dummett North is reported for the first time as a result of technical and economic studies.
- (t) Hugo Dummett North Extension is reported for the first time as a result of technical and economic studies.
- (u) Rio Tinto's interest in South Oyu increased from 19.9 to 26.6 per cent during 2010.
- (v) Mine production has reduced the reserve at Argyle.
- (w) A geological re-interpretation and subsequent model update has led to a revision of the Murowa reserve.
- (x) The reserve decrease at Hamersley Brockman 2 reflects production and updating of the model.
- (y) Hamersley Marandoo (Marra Mamba ore) reserve increase follows a strategic review.
- (z) The Hamersley Mt Tom Price (Brockman ore) reserve decrease reflects production and updating of the model.
- (aa) Production led to a decrease in the Hamersley Mt Tom Price (Marra Mamba ore) reserve.
- (bb) The Hamersley Yandicoogina (Pisolite ore HG) reserve decrease reflects production and a model update.
- (cc) The Hamersley Yandicoogina (Process Product) reserve tonnage decreased following production and selective stockpiling.
- (dd) The Hamersley Channar (Brockman ore) reserve decrease reflects a model update and production.
- (ee) The Hamersley Eastern Range (Brockman ore) reserve decrease reflects a model update and production.
- (ff) Reserves at Iron Ore Company of Canada are reported as marketable product (65 per cent pellets and 35 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 and a modelling cut off grade of 28 per cent concentrate weight yield. The marketable product is obtained from mined material comprising 860 million dry tonnes at 38.2 per cent iron (Proved) and 630 million dry tonnes at 37.8 per iron (Probable).
- (gg) Molybdenum grades interpolated from exploration drilling assays have been factored based on a long reconciliation history to blasthole and mill samples.
- (hh) In February 2011, Rio Tinto announced that it had received a binding offer for the purchase of 100 per cent of its talc business.
- (ii) Reserve changes at QMM are due to decreased metallurgical recovery, mine design changes and the conversion of unscheduled reserve material to resources.
- (jj) Mine production and planning updates have reduced the Ranger #3 reserve.
- (kk) Production together with a revised model has led to a decrease in Rössing reserve tonnes and an increase in grade.



# 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 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 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 reserves, managed operations' estimates are completed using or testing against Rio Tinto long term pricing and market forecasts/scenarios.

Resources are stated as additional to the reserves reported earlier. Where operations are not managed by Rio Tinto the resources are published as received from the managing company. Where new project resources or reserves are footnoted as being reported for the first time, additional information about them can be viewed on the Rio Tinto website, in the section titled "what we produce".

	Likely mining method (a)	Measured resources at end 2010		Indicated resources at end 2010		Inferred resources at end 2010		Total resources 2010 compared with 2009				Rio Tinto interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
								2010	2009	2010	2009	
		millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	millions of tonnes	millions of tonnes	% Al <sub>2</sub> O <sub>3</sub>	% Al <sub>2</sub> O <sub>3</sub>	
BAUXITE												
Gove (Australia)	O/P	12	49.4	32	49.4	4	50.1	49	49	49.5	49.4	100.0
Porto Trombetas (MRN) (Brazil) (b)	O/P	101	48.1	23	48.2	412	49.1	536	441	48.9	49.2	12.0
Sangaredi (Guinea)	O/P	82	48.7	179	48.3	230	48.3	491	491	48.4	48.4	23.0
Weipa (Australia)	O/P	137	50.1	1,432	51.2	446	51.9	2,014	1,889	51.3	51.2	100.0
		millions of tonnes		millions of tonnes		millions of tonnes		millions of tonnes	millions of tonnes			
BORATES												
Rio Tinto Minerals – Boron (US) (c)	O/P					0.1		0.1	0.1			100.0
Jadar (Serbia) (d)	U/G					16.2		16.2	16.2			100.0
		Coal type (e)	Coal resources at end 2010									
				Measured	Indicated	Inferred						
COAL (f)				millions of tonnes	millions of tonnes	millions of tonnes		millions of tonnes	millions of tonnes			
Chapudi (South Africa) (g)	O/C	SC		92	600	694		1,386	1,040			58.0
Rio Tinto Coal Australia (Australia)												
Bengalla (h)	O/C + U/G	SC + MC		12	18	53		83	170			30.3
Blair Athol (i)	O/C	SC		6	0.2			6	7			71.2
Clermont	O/C	SC		11		4		15	15			50.1
Hail Creek (j)	O/C	MC		131	124	110		365	136			82.0
Hunter Valley Operations (k)	O/C + U/G	SC + MC		201	428	368		997	1,413			75.7
Kestrel Coal (l)	U/G	SC + MC		1		3		4	9			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
Maules Creek (m)	O/C	SC + MC						–	398			–
Mount Pleasant (n)	O/C + U/G	SC + MC		162	245	205		612	699			75.7
Mount Thorley Operations (o)	O/C + U/G	SC + MC		1	25	74		99	129			60.6
Oaklands	O/C	SC		596	584	90		1,270	1,280			75.7
Valeria	O/C	SC			698	64		762	762			71.2
Vickery (p)	O/C + U/G	SC + MC						–	300			–
Warkworth (q)	O/C + U/G	SC + MC		4	175	299		477	530			42.1
Winchester South	O/C	SC + MC			17	175		192	192			75.0
US Coal (US)												
Antelope (r)	O/C	SC						–	73			–
Colowyo	O/C	SC		46	14	0.1		59	57			100.0
Cordero Rojo (r)	O/C	SC						–	159			

See notes on page 92

	Likely mining method (a)	Measured resources at end 2010		Indicated resources at end 2010		Inferred resources at end 2010		Total resources 2010 compared with 2009				Rio Tinto interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
		2010	2009	2010	2009	2010	2009	2010	2009			
<b>COPPER</b>												
		millions of tonnes	% Cu	millions of tonnes	% Cu	millions of tonnes	% Cu	millions of tonnes	millions of tonnes	% Cu	% Cu	
Bingham Canyon (US) (s)	O/P					86	0.14	86	647	0.14	0.47	100.0
Eagle (US) (t)	U/G			0.6	0.75	0.1	0.86	0.7	0.9	0.77	2.12	100.0
Escondida (Chile)												
– sulphide (u)	O/P	62	0.75	48	0.74	653	0.72	763	742	0.72	0.83	30.0
– sulphide leach (v)	O/P	210	0.44	495	0.42	2,707	0.45	3,412	3,874	0.45	0.47	30.0
– oxide (v)	O/P					12	0.80	12	34	0.80	0.78	30.0
Grasberg (Indonesia) (w)	O/P + U/G	502	0.71	1,778	0.62	91	0.39	2,371	2,863	0.63	0.56	(w)
La Granja (Peru)	O/P					3,000	0.51	3,000	2,770	0.51	0.51	100.0
Northparkes (Australia) (x)	O/P + U/G	14	0.91	4	0.71	271	0.55	288	17	0.57	0.86	80.0
Oyu Tolgoi (Mongolia)												
– Heruga ETG (y)	U/G					910	0.48	910	760	0.48	0.48	24.9
– Heruga IVN (z)	U/G					60	0.48	60	–	0.48	–	26.6
– Hugo Dummett North (aa)	U/G			293	1.71	723	0.97	1,016	1,426	1.18	1.39	26.6
– Hugo Dummett North Extension (bb)	O/P + U/G			90	1.77	96	1.15	186	213	1.45	1.51	24.9
– Hugo Dummett South (cc)	U/G					490	1.05	490	490	1.05	1.05	26.6
– South Oyu (cc)	O/P			164	0.42	267	0.34	431	456	0.37	0.38	26.6
Palabora (South Africa)												
– stockpiles		6.4	0.31					6.4	6.4	0.31	0.31	57.7
Resolution (US)	U/G					1,624	1.47	1,624	1,624	1.47	1.47	55.0
<b>DIAMONDS</b>												
		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	U/G	11	3.5	23	3.7	6	3.6	40	40	3.6	3.6	100.0
Bunder (India)	O/P					37	0.7	37	37	0.7	0.7	100.0
Diavik (Canada)	O/P + U/G	3.6	2.8	0.4	2.6	3.6	3.0	7.5	7.5	2.9	3.0	60.0
Murowa (Zimbabwe) (dd)	O/P					9.5	0.1	9.5	1.4	0.1	0.4	77.8
<b>GOLD</b>												
		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) (s)	O/P					86	0.10	86	647	0.10	0.18	100.0
Eagle (US) (t)	U/G			0.6	0.09	0.1	0.11	0.7	0.9	0.09	0.19	100.0
Grasberg (Indonesia) (w)	O/P + U/G	502	0.63	1,778	0.56	91	0.40	2,371	2,863	0.57	0.51	(w)
Northparkes (Australia) (x)	O/P + U/G	14	0.30	4	0.13	271	0.26	288	17	0.26	0.26	80.0
Oyu Tolgoi (Mongolia)												
– Heruga ETG (y)	U/G					910	0.49	910	760	0.49	0.55	24.9
– Heruga IVN (z)	U/G					60	0.37	60	–	0.37	–	26.6
– Hugo Dummett North (aa)	U/G			293	0.38	723	0.30	1,016	1,426	0.32	0.34	26.6
– Hugo Dummett North Extension (bb)	O/P + U/G			90	0.58	96	0.31	186	213	0.44	0.48	24.9
– Hugo Dummett South (cc)	U/G					490	0.09	490	490	0.09	0.09	26.6
– South Oyu (cc)	O/P			164	0.27	267	0.23	431	456	0.25	0.25	26.6
Wabu (Indonesia)	O/P					43	2.56	43	43	2.56	2.56	(w)

See notes on page 92

# Mineral resources continued

	Likely mining method (a)	Measured resources at end 2010		Indicated resources at end 2010		Inferred resources at end 2010		Total resources 2010 compared with 2009				Rio Tinto interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
								2010	2009	2010	2009	
IRON ORE												
		millions of tonnes	% Fe	millions of tonnes	% Fe	millions of tonnes	% Fe	millions of tonnes	millions of tonnes	% Fe	% Fe	
Hamersley wholly owned (Australia)												
– Brockman 2 (ee)	O/P	11	62.4	27	62.7	2	61.9	40	28	62.6	62.1	100.0
– Brockman 4 (ff)	O/P	31	62.2	18	61.9	5	62.6	54	35	62.1	62.1	100.0
– Marandoo Marra Mamba (gg)	O/P	123	62.5	12	61.2	19	60.6	154	375	62.2	62.6	100.0
– Mt Tom Price high grade	O/P	35	63.3	67	63.8	9	64.4	111	112	63.7	63.6	100.0
– Mt Tom Price low grade	O/P	26	56.9	25	55.6	3	55.0	54	55	56.2	56.2	100.0
– Mt Tom Price Marra Mamba (hh)	O/P	14	61.9	3	61.8			17	19	61.9	61.9	100.0
– Nammuldi Detrital	O/P	2	60.0	75	60.6			77	82	60.6	60.7	100.0
– Nammuldi Marra Mamba	O/P	128	62.7	141	62.8	5	59.4	274	280	62.7	62.6	100.0
– Paraburdoo Brockman	O/P	28	62.9	36	63.6	37	63.4	101	102	63.3	63.3	100.0
– Paraburdoo Marra Mamba (ii)	O/P					2	60.8	2	1	60.8	59.4	100.0
– Turee Syncline (jj)	O/P	9	61.8	2	61.6	7	62.2	18	10	61.9	61.6	100.0
– Western Turner Syncline	O/P	40	62.4	15	62.0	5	61.8	60	60	62.3	62.2	100.0
– Yandicoogina-Junction	O/P	363	58.1	213	58.1	51	57.6	627	652	58.1	58.0	100.0
Hamersley undeveloped resources (kk)												
– High Grade Brockman ore	O/P	42	62.6	1,082	62.6	2,528	62.5	3,652	3,441	62.5	62.5	(kk)
– Brockman Process ore	O/P	325	57.6	339	57.9	711	56.8	1,375	1,289	57.3	57.2	(kk)
– Marra Mamba (ll)	O/P			725	62.2	2,366	61.9	3,091	2,336	61.9	62.0	(kk)
– Channel Iron deposits (mm)	O/P	65	57.6	286	57.8	2,240	57.0	2,591	2,010	57.1	57.2	100.0
– Detrital deposits (nn)	O/P			172	61.1	463	61.0	635	216	61.0	61.4	86.9
Hamersley – Channar (Australia)												
– Brockman	O/P	27	61.8	7	61.7	1	61.2	35	35	61.8	61.8	60.0
Hamersley – Eastern Range (Australia)												
– Brockman	O/P	17	61.7	4	62.0	11	62.5	32	31	62.0	61.9	54.0
Hope Downs (Australia)												
– Hope Downs 1 Marra Mamba	O/P	5	61.6	75	61.9	14	59.7	94	97	61.6	61.6	50.0
– Hope Downs 1 Detritals	O/P			4	60.1	4	58.8	8	8	59.5	59.5	50.0
– Hope Downs 4 Brockman	O/P	14	61.5	30	62.0	134	62.4	178	163	62.3	62.5	50.0
Hope Downs undeveloped resources												
– Brockman (oo)	O/P					116	61.9	116	154	61.9	61.5	50.0
– Brockman Process ore (pp)	O/P	54	56.9	28	57.6	125	56.7	207	180	56.9	57.4	50.0
– Marra Mamba and Detritals	O/P					210	61.6	210	225	61.6	61.0	50.0
Iron Ore Company of Canada (Canada) (qq)												
Palabora (South Africa)	O/P	202	39.3	754	38.2	1,417	37.8	2,373	2,540	38.1	37.9	58.7
Robe River (Australia)												
– Marra Mamba	O/P	80	62.0	131	62.0	3	60.9	214	210	62.0	61.9	53.0
– Pisolite (rr)	O/P	136	56.4	87	54.4	97	55.4	320	107	55.6	57.0	53.0
– Detritals (ss)	O/P			6	60.2			6	–	60.2	–	53.0
Robe River undeveloped resources												
– Marra Mamba (tt)	O/P			197	61.4	244	60.4	441	382	60.9	60.9	53.0
– Pisolite	O/P	54	60.0	1,212	59.0	443	55.0	1,709	1,633	58.0	57.9	53.0
– Detritals	O/P					33	61.0	33	33	61.0	61.0	53.0
Simandou (Guinea) (uu)												
	O/P	330	67.2	1,335	65.7	728	66.1	2,393	2,254	66.0	66.0	95.0

See notes on page 92

	Likely mining method (a)	Measured resources at end 2010		Indicated resources at end 2010		Inferred resources at end 2010		Total resources 2010 compared with 2009				Rio Tinto interest %
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage		Grade		
								2010	2009	2010	2009	
<b>LITHIUM</b>		millions of tonnes	% Li <sub>2</sub> O	millions of tonnes	% Li <sub>2</sub> O	millions of tonnes	% Li <sub>2</sub> O	millions of tonnes	millions of tonnes	% Li <sub>2</sub> O	% Li <sub>2</sub> O	
Jadar (Serbia) (d)	U/G					125.3	1.8	125.3	125.3	1.8	1.8	100.0
<b>MOLYBDENUM</b>		millions of tonnes	% Mo	millions of tonnes	% Mo	millions of tonnes	% Mo	millions of tonnes	millions of tonnes	% Mo	% Mo	
Bingham Canyon (US) (s) (vv)	O/P					86	0.007	86	647	0.007	0.034	100.0
Oyu Tolgoi (Mongolia)												
– Heruga ETG (y)	U/G					910	0.014	910	760	0.014	0.015	24.9
– Heruga IVN (z)	U/G					60	0.013	60	–	0.013	–	26.6
Resolution (US)	U/G					1,624	0.037	1,624	1,624	0.037	0.037	55.0
<b>NICKEL</b>		millions of tonnes	% Ni	millions of tonnes	% Ni	millions of tonnes	% Ni	millions of tonnes	millions of tonnes	% Ni	% Ni	
Eagle (US) (t)	U/G			0.6	0.88	0.1	0.81	0.7	0.9	0.87	2.77	100.0
Sulawesi (Indonesia) (ww)	O/P					162	1.62	162	162	1.62	1.62	80.0
<b>SILVER</b>		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) (s)	O/P					86	1.09	86	647	1.09	2.08	100.0
Grasberg (Indonesia) (w)	O/P + U/G	502	3.45	1,778	3.45	91	2.79	2,371	2,863	3.42	3.26	(w)
Wabu (Indonesia)	O/P					43	2.49	43	43	2.49	2.49	(w)
<b>TALC</b>		millions of tonnes		millions of tonnes		millions of tonnes		millions of tonnes	millions of tonnes			
Rio Tinto Minerals – Talc (xx) (Australia/Europe/N America)	O/P + U/G	17		19		19		55	70			100.0
<b>TITANIUM DIOXIDE FEEDSTOCK</b>		millions of tonnes		millions of tonnes		millions of tonnes		millions of tonnes	millions of tonnes			
RTFT (Canada)	O/P	4.1						4.1	4.1			100.0
QMM (Madagascar)	D/O	0.2		33.8		4.0		38.0	38.1			80.0
RBM (South Africa) (yy)	D/O			1.2		1.6		2.8	3.0			37.0
<b>URANIUM</b>		millions of tonnes	%U <sub>3</sub> O <sub>8</sub>	millions of tonnes	%U <sub>3</sub> O <sub>8</sub>	millions of tonnes	%U <sub>3</sub> O <sub>8</sub>	millions of tonnes	millions of tonnes	%U <sub>3</sub> O <sub>8</sub>	%U <sub>3</sub> O <sub>8</sub>	
Energy Resources of Australia (Australia)												
– Jabiluka	U/G	1.2	0.887	13.9	0.520	10.0	0.545	25.1	25.1	0.547	0.547	68.4
– Ranger #3	O/P	29.8	0.079	95.6	0.083	6.0	0.119	131.3	127.2	0.084	0.085	68.4
Rössing (Namibia) (zz)	O/P	15.7	0.025	179.8	0.026	50.3	0.021	245.8	104.0	0.025	0.023	68.6
<b>ZINC</b>		millions of tonnes	%Zn	millions of tonnes	%Zn	millions of tonnes	%Zn	millions of tonnes	millions of tonnes	%Zn	%Zn	
La Granja (Peru) (aaa)	O/P					3,000	0.09	3,000	2,770	0.09	0.10	100.0

See notes on page 92

## Notes

- (a) Likely mining method: O/P = open pit; O/C = open cut; U/G = underground; D/O = dredging operation.
- (b) The increased resource tonnage at Porto Trombetas is due to model update and the reclassification of reserve material ahead of permitting.
- (c) Boron resources are reported as in situ  $B_2O_3$ , rather than marketable product as in reserves.
- (d) Jadar resources are reported as the in situ mineral content to align with the Boron (US) estimates. The Jadar lithium resource is expressed as in situ tonnes of mineralised material.
- (e) Coal type: SC = steam/thermal coal, MC = metallurgical/coking coal.
- (f) Rio Tinto reports Coal Resources on an in situ moisture basis.
- (g) On 19 November 2010, Rio Tinto entered into an agreement to sell its 56.1 per cent interest in the Chapudi Coal project. The agreement is proceeding through final review and approval processes in South Africa. The increased resource is a result of additional drilling.
- (h) Resource tonnage at Bengalla was reduced due to redefined resource limits.
- (i) The decrease in resource tonnes at Blair Athol follows resource, mining and economic model updates.
- (j) Resource tonnage at Hail Creek increased following reclassification of reserves and economic model update.
- (k) Re-evaluation of the resource limits and underground prospects reduced resource tonnage at Hunter Valley Operations.
- (l) Resource tonnes decreased at Kestrel Coal due to conversion of resources to reserves and subsequent re-evaluation of the mine plan.
- (m) Rio Tinto sold its 75.7 per cent interest in the Maules Creek property with transfer being effective on 18 February 2010.
- (n) Resource tonnage at Mount Pleasant was reduced due to refined resource limits.
- (o) The decrease in resource tonnes at Mount Thorley Operations follows a review of underground mining potential.
- (p) Rio Tinto sold its 75.7 per cent interest in the Vickery property with transfer being effective on 4 February 2010.
- (q) The decrease in resource tonnes at Warkworth followed a review of underground mining potential.
- (r) Rio Tinto completed the divestment of its 48.3 per cent interest in the Antelope and Cordero Rojo mines with an effective date of 15 December 2010.
- (s) Bingham Canyon resources are lower following conversion to reserves.
- (t) Resource tonnes at Eagle have decreased following a model update.
- (u) Escondida sulphide resource grades are reduced after completion of a new economic study and model update.
- (v) The Escondida sulphide leach and oxide resources decreased after a review of the economic assumptions used to define the resources pit limit.
- (w) 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. Resource model updates and pit re-designs have resulted in lower tonnes and higher grades at Grasberg.
- (x) Technical and economic studies led to increased tonnes at lower grades at Northparkes.
- (y) Resources increased following additional drilling and extending the strike length of Heruga ETG up to the Oyu Tolgoi licence boundary. Rio Tinto's interest has increased from 19.5 to 24.9 per cent during 2010.
- (z) Heruga IVN resources are reported for the first time following technical and economic studies.
- (aa) Transfer of resources to reserves has reduced the resource tonnes and grade at Hugo Dummett North. Rio Tinto's interest increased from 19.9 to 26.6 per cent during 2010.
- (bb) Transfer of resources to reserves has reduced the resource tonnes and grade at Hugo Dummett North Extension. Rio Tinto's interest has increased from 19.5 to 24.9 per cent during 2010.
- (cc) Rio Tinto's interest in Hugo Dummett South and South Oyu increased from 19.9 to 26.6 per cent during 2010.
- (dd) A geological re-interpretation and subsequent model update has led to a revision of the Murowa resource.
- (ee) The Hamersley Brockman 2 resource tonnes were increased following a model update.
- (ff) Changes in the pit design resulted in increased Hamersley Brockman 4 resources.
- (gg) The decrease in Hamersley Marandoo Marra Mamba resource tonnes is due to a model update and conversion of resources to reserves.
- (hh) Re-design of the pit reduced the resource tonnes at Mt Tom Price Marra Mamba.
- (ii) Transfer of reserves back to resources has increased the Hamersley Paraburdoo Marra Mamba resource tonnes and grade.
- (jj) A model update has resulted in improved resource tonnes at Hamersley Turee Syncline.
- (kk) Resources in this category consist of 43 separate deposits, 26 of which are wholly owned by Hamersley Iron. Tenure of Shovelanna (50 per cent Hamersley Iron) has now been granted.
- (ll) A model update led to an increase in the undeveloped Hamersley Marra Mamba resource tonnes.
- (mm) Geological model updates led to increased Hamersley Channel Iron undeveloped resource tonnes.
- (nn) Technical and economic studies have resulted in reporting of new Hamersley Detrital undeveloped resources.
- (oo) Model updates yielded lower Hope Downs Brockman resource figures.
- (pp) Technical and economic studies resulted in improved Hope Downs Brockman Process ore resource tonnes.
- (qq) IOC resources are quoted on an in situ dry tonnes and grades basis. This resource would produce marketable product (57 per cent pellets and 43 per cent concentrate for sale at two per cent moisture content) of 89 million tonnes at 65 per cent iron (measured), 329 million tonnes at 65 per cent iron (indicated) and 578 million tonnes at 65 per cent iron (inferred) at cut off grades of 21 to 25 per cent concentrator weight yield.
- (rr) Review of the geological model resulted in higher Robe River Pisolite resource tonnes.
- (ss) Robe River high grade detritals are reported for the first time following technical and economic studies.
- (tt) Model updates have improved the undeveloped Robe River Marra Mamba resources.
- (uu) Rio Tinto's interest in Simandou is quoted as 95 per cent, the other five per cent being held by the IFC. Chalco has the right to earn 47 per cent of this 95 per cent. The Government of Guinea has an option to subscribe up to 20 per cent of the entire project reducing ownership of all existing partners to 80 per cent. Rio Tinto's current tenure comprises exploration permits extended for three months from 24 February 2011 by virtue of a mining concession application Rio Tinto has lodged. It will be necessary to procure grant of that application or some alternative grant from the Government of Guinea to maintain title. Rio Tinto is in discussions with the Government of Guinea seeking to procure this.
- (vv) Molybdenum grades interpolated from exploration drilling assays have been factored based on a long reconciliation history to blasthole and mill samples.
- (ww) Rio Tinto's interest in Sulawesi reduced from 100 per cent to 80 per cent following an agreement with a third party signed in November 2010.
- (xx) Review of geological models and conversion of resources to reserves has reduced Rio Tinto Minerals talc resource tonnes. In February 2011, Rio Tinto announced that it had received a binding offer for the purchase of 100 per cent of its talc business.
- (yy) Resources at RBM decreased after a model update, a review of product recovery factors and mining depletions.
- (zz) A model update and subsequent pitshell redesigns resulted in an increased resource at Rössing.
- (aaa) Re-modelling at La Granja has reduced the zinc resource grade.



# Competent Persons

Primary Commodity	Name	Association (a)	Employer	Accountability	Deposits
Bauxite	L McAndrew	AusIMM	Rio Tinto	Reserves	Rio Tinto Alcan – Gove, Weipa
	J Bower	AusIMM	Rio Tinto	Resources	Rio Tinto Alcan – Gove, Weipa, Sangaredi
	J P C de Melo Franco	AusIMM	MRN Consultant	Resources, Reserves	Rio Tinto Alcan – Porto Trombetas (MRN)
	L Fouché	AusIMM	Rio Tinto	Reserves	Rio Tinto Alcan – Sangaredi
Borates	L Karlsson	AusIMM	Rio Tinto	Reserves, Resources	Rio Tinto Minerals – Boron Operations
	P Ellis	AusIMM	Rio Tinto	Resources	Rio Tinto Coal Australia – Blair Athol, Clermont, Hail Creek, Kestrel, Kestrel West, Winchester South
	J Buddee	AusIMM	Rio Tinto	Reserves	Rio Tinto Coal Australia – Bengalla, Hunter Valley Operations, Mount Thorley, Warkworth, Mount Pleasant
Coal	G Carr	AusIMM	Rio Tinto	Reserves	Rio Tinto Coal Australia – Blair Athol, Kestrel, Clermont, Hail Creek
	J Bamberry	AIG	Rio Tinto	Resources	Rio Tinto Coal Australia – Hunter Valley Operations, Mount Thorley, Mount Pleasant, Warkworth, Bengalla
	A Waltho	AusIMM	Rio Tinto	Resources	Rio Tinto Coal Australia – Valeria, Lake Elphinstone, Oaklands
	M Guptill	AusIMM	Rio Tinto	Reserves, Resources	Colowyo
Copper	S Kristensen	AusIMM	Rio Tinto	Resources	Rio Tinto Energy – Chapudi
	K Mudge	AusIMM	Rio Tinto	Reserves	Kennecott Utah Copper – Bingham Canyon (b) (c) (d)
	J Vickery	AusIMM	Rio Tinto	Reserves, Resources	La Granja (e)
	M Howson	IMMM	Rio Tinto	Resources	Northparkes (b)
	A Lye	AIG	Rio Tinto	Reserves, Resources	Palabora (f)
	S Ngidi	SAIMM	Rio Tinto	Reserves	Resolution (c)
	H-D Paetzold	SACNASP	Rio Tinto	Resources	Oyu Tolgoi (b) (c)
	C Hehnke	AusIMM	Rio Tinto	Resources	Minera Escondida
	S Torr	AusIMM	Ivanhoe Mines	Reserves, Resources	PT Freeport – Grasberg, Wabu (b) (d)
	A Zuzunaga	AusIMM	BHP Billiton	Reserves	
	O Cortés	AusIMM		Resources	
	A Issel	SME	PT Freeport	Resources	
Diamonds	G MacDonald	AIPG		Reserves	
	R Platell	AusIMM	Rio Tinto	Reserves, Resources	Argyle
	S Brennan	AusIMM			
	R Platell	AusIMM	Rio Tinto	Resources	Bunder
	C Yip	AusIMM	Rio Tinto	Reserves	Diavik
	K Thompson	NAPEGG		Resources	
Iron Ore	A Davy	IMMM	Rio Tinto	Resources	Murowa
	A Kumar	AusIMM		Reserves	
	J Phillips	AusIMM	Rio Tinto	Resources	Rio Tinto Iron Ore – Hamersley, Hope Downs, Robe River, Rio Tinto Iron Ore Atlantic – Simandou
	P Savory	AusIMM		Resources	
	M Slavik	AusIMM		Reserves	
	M Blake	PEG		Resources	
	R Williams	AusIMM	Rio Tinto	Reserves	Iron Ore Company of Canada – Carol Lake
	T Leriche	PEG		Reserves, Resources	
Lithium	J Garcia	EuroGeol	Rio Tinto	Resources	Rio Tinto Minerals – Jadar (g)
Nickel	D Rennie	APEGBC	Roscoe Postle Assoc.	Reserves, Resources	Eagle (b) (h)
	N Lecuyer	OIQ		Reserves	
	D Guibal	AusIMM	SRK Consulting	Resources	La Sampala
Talc	M Wurm	AIG	Rio Tinto	Reserves, Resources	Australian mines
	J-F Robert	AusIMM	Rio Tinto	Reserves, Resources	European mines
	D Marek	CIMM	Rio Tinto	Reserves, Resources	North American mines
Titanium Dioxide Feedstock	J Dumouchel	APEGGA	Rio Tinto	Resources	Rio Tinto Fer et Titane
	Y Bourque	OIQ		Reserves, Resources	
	J Dumouchel	APEGGA	Rio Tinto	Reserves, Resources	QIT Madagascar Minerals
	C Ware	SACNASP	Rio Tinto	Reserves, Resources	Richards Bay Minerals
Uranium	A van der Heyden	AusIMM	Hellman & Schofield	Resources	Energy Resources of Australia – Ranger 3, Jabiluka II
	G Rogers	AusIMM	Rio Tinto		
	R Miller	AusIMM	Rio Tinto	Reserves	Energy Resources of Australia – Ranger 3
	J Forkes	IMMM	Rio Tinto	Resources	Rössing SJ/SK
	W-D Wieland	SAIMM		Reserves	

As defined by JORC – see page 84

(a) AusIMM: Australasian Institute of Mining and Metallurgy, AIG: Australian 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, NAPEGG: Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories, PEG: Professional Engineers and Geoscientists Newfoundland and Labrador, BGS: British Geological Society, PEG: 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 zinc.
- (f) Includes iron ore.
- (g) Includes borates.
- (h) Includes copper.

# Mines and production facilities

## Group mines as at 31 December 2010

(Rio Tinto's interest 100 per cent unless otherwise shown)

Mine	Location	Access	Title/lease
<b>BAUXITE</b>			
<b>CBG Sangaredi (23%)</b>	Kamsar, Guinea	Road, air and port	Lease expires in 2038
<b>Gove</b>	Gove, Northern Territory, Australia	Road, air and port	100% leasehold, expiring in 2011, with most leases having a right of renewal for a further 42 years (freehold interest in underlying land held in escrow by the Northern Land Council on behalf of the Arnhem Land Aboriginal Land Trust until expiry of the leases, including period of renewal); additional lease is to be granted by the Arnhem Land Aboriginal Land Trust for the purpose of residue disposal.
<b>MRN Porto Trombetas (12%)</b>	Porto Trombetas, Para, Brazil	Air or port	Mineral rights granted for undetermined period
<b>Weipa/Ely</b>	Weipa, Queensland, Australia	Road, air and port	The Weipa Queensland Government lease expires in 2041 with an option of 21 year extension, then two years' notice of termination; the Ely Alcan Queensland Pty. Limited Agreement Act 1965 expires in 2048 with 21 year right of renewal with a two year notice period
<b>COPPER</b>			
<b>Escondida (30%)</b>	Atacama Desert, Chile	Pipeline and road to deep sea port at Coloso; road and rail	Rights conferred by Government under Chilean Mining Code
<b>Grasberg joint venture (40% of production)</b>	Papua, Indonesia	Pipeline, road and port	Indonesian Government Contracts of Work expire in 2021 with option of two ten year extensions
<b>Kennecott Utah Copper Bingham Canyon</b>	Near Salt Lake City, Utah, US	Pipeline, road and rail	Owned
<b>Northparkes (80%)</b>	Goonumbla, New South Wales, Australia	Road and rail	State Government mining lease issued in 1991 for 21 years. Development consent approved in 2009 for extension of mine life to 2025
<b>Palabora (57.7%)</b>	Phalaborwa, Limpopo Province, South Africa	Rail and road	Lease from South African Government until deposits depleted. Base metal claims owned by Palabora
<b>DIAMONDS &amp; MINERALS</b>			
<b>Diamonds</b>			
<b>Argyle Diamonds</b>	Kimberley Ranges, Western Australia	Road and air	Mining tenement held under Diamond (Argyle Diamond Mines Joint Venture) Agreement Act 1981–1983; lease extended for 21 years from 2004
<b>Diavik (60%)</b>	Northwest Territories, Canada	Air, ice road in winter	Mining leases from Canadian Federal Government expiring in 2017 and 2018
<b>Murowa (77.8%)</b>	Zvishavane, Zimbabwe	Road and air	Claims and mining leases
<b>Industrial Minerals</b>			
<b>Rio Tinto Minerals – Boron</b>	California, US	Road, rail and port	Owned
<b>Rio Tinto Minerals – Talc</b>	Trimouns, France (other smaller operations in Australia, Europe and North America)	Road and rail	Owner of ground (orebody) and long term lease agreement to 2012
<b>Rio Tinto Fer et Titane Lac Tio</b>	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
<b>QIT Madagascar Minerals (80%)</b>	Fort-Dauphin, Madagascar	Road and port	Mining lease
<b>Richards Bay Minerals (37%)</b>	Richards Bay, KwaZulu-Natal, South Africa	Rail, road and port	Long term renewable mineral leases; State lease for Reserve 4 initially runs to end 2022; Ingonyama Trust lease for Reserve 10 runs to 2022. Application made for both mineral leases to be converted to new order mining rights following transfer in December 2009 of 26% interest to investor groups of previously disadvantaged South Africans in terms of Mining Charter legislation

History	Type of mine	Power source
Bauxite mining commenced in 1973. Shareholders are 51% Halco and 49% Government of Guinea. Rio Tinto Alcan has held 45% of Halco since 2004. Current annual capacity is 13 million tonnes	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. Current production capacity about ten million tonnes per annum with mine life estimated to 2030	Open cut	Central power station located at the Gove refinery
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 Alcan (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 at Weipa. 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. In 2004 a mine expansion was completed at Weipa that has 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. A second shiploader that increases the shipping capability was commissioned in 2006 at Weipa. First ore extracted at Ely in 2007	Open cut	On site generation; new power station commissioned in 2006
Production started in 1990 and expanded in phases to 2002 when 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. Modernisation includes smelter complex and expanded tailings dam	Open pit	On site generation supplemented by long term contracts with Rocky Mountain Power
Production started in 1995; interest acquired in 2000	Open pit and underground	Supplied from State grid
Development of 20 year underground mine commenced in 1996 with open pit closure in 2003	Underground	Supplied by ESKOM via grid network
Interest increased from 59.7% following purchase of Ashton Mining in 2000. Underground mine project approved in 2005 to extend mine life to 2018	Open pit to underground in future	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 is expected to start production in 2010, ramping up to full production in 2013	Open pit to underground in future	On site diesel generators; installed capacity 27MW with an upgrade under way
Discovered in 1997. Small scale production started in 2004	Open pit	Supplied by ZESA with diesel generator back up
Deposit discovered in 1925 and acquired by Rio Tinto in 1967	Open pit	On site co-generation units
Production started in 1885; acquired in 1988. Australian mine Three Springs acquired in 2001	Open pit	Supplied by Atel and on site generation units. Australian Three Springs mine power supplied by Western Power
Production started 1950; interest acquired in 1989	Open pit	Long term contract with Hydro-Quebec
Began as exploration project 1980s; construction approved 2005; ilmenite production started end of 2008	Mineral sand dredging	On site diesel generators
Production started 1977; interest acquired 1989. Fifth mining plant commissioned in 2000. One mining plant decommissioned in 2008	Beach sand dredging	Contract with ESKOM

## Mines and production facilities continued

### Group mines as at 31 December 2010 continued

(Rio Tinto's interest 100 per cent unless otherwise shown)

Mine	Location	Access	Title/lease
<b>ENERGY</b>			
<b>Energy Resources of Australia</b> (68.4%) Ranger	Northern Territory, Australia	Road	Mining tenure granted by Federal Government
<b>Rio Tinto Coal Australia</b> Bengalla (30.3%) Blair Athol (71.2%) Hail Creek (82%) Hunter Valley Operations (75.7%) Kestrel (80%) Mount Thorley Operations (60.6%) Warkworth (42.1%)	New South Wales and Queensland, Australia	Road, rail, conveyor and port	Leases granted by state
<b>Colowyo</b> (100%)	Colorado, US	Rail and road	Leases from US and state governments and private parties, with minimum coal production levels, and adherence to permit requirements and statutes
<b>Rössing Uranium</b> (68.6%)	Namib Desert, Namibia	Rail, road and port	National government grant
<b>IRON ORE</b>			
<b>Hamersley Iron</b> Brockman 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
<b>Hope Downs joint venture</b> (50% mine, 100% infrastructure)	Pilbara region, Western Australia	Railway owned and operated by Rio Tinto	Agreements for life of mine with Government of Western Australia
<b>Iron Ore Company of Canada</b> (58.7%)	Labrador City, Province of Labrador and Newfoundland	Railway and port facilities in Sept-Iles, Quebec (owned and operated by IOC)	Sublease with the Labrador Iron Ore Royalty Income Fund which has lease agreements with the Government of Newfoundland and Labrador that are due to be renewed in 2020 and 2022
<b>Robe River Iron Associates</b> (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
<b>Dampier Salt</b> (68.4%)	Dampier, Lake MacLeod and Port Hedland, Western Australia	Road and port	State agreements (mining leases) expiring in 2013 at Dampier, 2018 at Port Hedland and 2021 at Lake MacLeod with options to renew in each case

History	Type of mine	Power source
Mining commenced 1981. Interest acquired through North in 2000. Life of mine extension to 2020 announced in 2007	Open pit	On site diesel/steam power generation
Production started for export at Blair Athol in 1984. Kestrel was acquired and recommissioned in 1999. Hail Creek started in 2003. Coal & Allied shares were first acquired in 1977, and management control gained in 1993. Successive acquisitions of surrounding assets results in the current portfolio	Open cut and underground (Kestrel)	State owned grid
Colowyo was acquired in 1995	Open cut	Supplied by IPPs and Co-operatives through national grid service
Production began in 1978	Open pit	Namibian National Power
Annual capacity increased to 68 million tonnes during 1990s. Yandicoogina first ore shipped in 1999 and port capacity increased. Eastern Range started 2004	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
Interest acquired in 2000 through North. Current operation began in 1962 and has processed over one billion tonnes of crude ore since. Annual capacity 17.5 million tonnes of concentrate of which 13.5 million tonnes can be pelletised	Open pit	Supplied by Newfoundland Hydro under long term contract
First shipment in 1972. Annual sales reached 30 million tonnes in late 1990s. Interest acquired in 2000 through North. West Angelas first ore shipped in 2002 and mine expanded in 2005. Current capacity approximately 50 million tonnes per year	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
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



## 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 2010 (based on 100% ownership)
<b>ALUMINIUM</b>				
<b>Alma</b>	Alma, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium rod, t-foundry, molten metal, high purity, remelt	438,000 tonnes per year aluminium
<b>Alouette (40%)</b>	Sept-Îles, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium high purity, remelt	590,000 tonnes per year aluminium
<b>Alucam (46.7%)</b>	Edéa, Cameroon	100% freehold	Aluminium smelter producing aluminium slab, remelt	100,000 tonnes per year aluminium
<b>Arvida</b>	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium billet, molten metal	176,000 tonnes per year aluminium
<b>Bécancour (25.1%)</b>	Bécancour, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium slab, billet, t-foundry, remelt	430,000 tonnes per year aluminium
<b>Bell Bay</b>	Bell Bay, Northern Tasmania, Australia	100% freehold	Aluminium smelter producing aluminium slab, molten metal, small form and t-foundry, remelt	180,000 tonnes per year aluminium
<b>Boyne Smelters (59.4%)</b>	Boyne Island, Queensland, Australia	100% freehold	Aluminium smelter producing aluminium billet, EC grade, small form and t-foundry, remelt	559,000 tonnes per year aluminium
<b>Dunkerque</b>	Dunkerque, France	100% freehold	Aluminium smelter producing aluminium slab, small form foundry, remelt	262,000 tonnes per year aluminium
<b>Gardanne</b>	Gardanne, France	100% freehold	Refinery producing specialty aluminas	635,000 tonnes per year specialty aluminas
<b>Gove</b>	Gove, Northern Territory, Australia	100% leasehold, expiring in 2011, with most leases having a right of renewal for a further 42 years (freehold interest in underlying land held in escrow by the Northern Land Council on behalf of the Arnhem Land Aboriginal Land Trust until expiry of the leases, including period of renewal); additional lease is to be granted by the Arnhem Land Aboriginal Land Trust for the purpose of residue disposal	Refinery producing alumina	2,570,000 tonnes per year alumina
<b>Grande-Baie</b>	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium slab, molten metal, high purity, remelt	218,000 tonnes per year aluminium
<b>ISAL</b>	Reykjavik, Iceland	100% freehold	Aluminium smelter producing aluminium slab, remelt	189,000 tonnes per year aluminium
<b>Jonquière (Vaudreuil)</b>	Jonquière, Quebec, Canada	100% freehold	Refinery producing specialty aluminas and smelter grade aluminas	1,500,000 tonnes per year alumina
<b>Kitimat (a)</b>	Kitimat, British Columbia, Canada	100% freehold	Aluminium smelter producing aluminium billet, slab, remelt	184,000 tonnes per year aluminium
<b>Laterrière</b>	Saguenay, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium slab, remelt, molten metal	238,000 tonnes per year aluminium
<b>Lochaber</b>	Fort William, Scotland, UK	100% freehold	Aluminium smelter producing aluminium slab, remelt	44,000 tonnes per year aluminium
<b>Lynemouth</b>	Lynemouth, Northumberland, UK	100% freehold	Aluminium smelter producing aluminium slab, remelt	181,000 tonnes per year aluminium
<b>Queensland Alumina (80%)</b>	Gladstone, Queensland, Australia	73.3% freehold; 26.7% leasehold (of which more than 80% expires in 2026 and after)	Refinery producing alumina	3,959,000 tonnes per year alumina
<b>Saint-Jean-de-Maurienne</b>	Saint-Jean-de-Maurienne, France	100% freehold	Aluminium smelter producing aluminium rod, remelt	139,000 tonnes per year aluminium
<b>São Luis (Alumar) (10%)</b>	São Luis, Maranhão, Brazil	100% freehold	Refinery producing alumina	3,390,000 tonnes per year alumina
<b>Seabee</b>	Robards, Kentucky, US	100% freehold	Aluminium smelter producing aluminium billet, small form foundry, t-foundry, remelt	198,000 tonnes per year aluminium
<b>Shawinigan</b>	Shawinigan, Quebec, Canada	100% freehold	Aluminium smelter producing aluminium billet, remelt	100,000 tonnes per year aluminium
<b>Sohar (20%)</b>	Sohar, Oman	100% leasehold (expiring 2039)	Aluminium smelter producing aluminium, high purity, remelt	370,000 tonnes per year aluminium
<b>SØRAL (50%)</b>	Husnes, Norway	100% freehold	Aluminium smelter producing aluminium billet, remelt	173,000 tonnes per year aluminium

## Group smelters and refineries continued

(Rio Tinto's interest 100 per cent unless otherwise shown)

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2010 (based on 100% ownership)
<b>ALUMINIUM</b>				
<b>Tiwai Point</b> (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
<b>Tomago</b> (51.6%)	Tomago, New South Wales, Australia	100% freehold	Aluminium smelter producing aluminium billet, slab, remelt	533,000 tonnes per year aluminium
<b>Yarwun</b>	Gladstone, Queensland, Australia	97% freehold, 3% leasehold (expiring 2101 and after)	Refinery producing alumina	1,400,000 tonnes per year alumina
<b>COPPER</b>				
<b>Kennecott Utah Copper</b>	Magna, Salt Lake City, Utah, US	100% freehold	Flash smelting furnace/Flash converter furnace copper refinery	335,000 tonnes per year refined copper
<b>Palabora</b> (57.7%)	Phalaborwa, South Africa	100% freehold	Reverberatory Pierce Smith copper refinery	90,000 tonnes per year refined copper
<b>DIAMONDS &amp; MINERALS</b>				
<b>Boron</b>	California, US	100% freehold	Borates refinery	565,000 tonnes per year boric oxide
<b>Rio Tinto Fer et Titane Sorel Plant</b>	Sorel-Tracy, Quebec, Canada	100% freehold	Ilmenite smelter	1,100,000 tonnes per year titanium dioxide slag, 900,000 tonnes per year iron
<b>Richards Bay Minerals</b> (37%)	Richards Bay, South Africa	100% freehold	Ilmenite smelter	1,060,000 tonnes per year titanium dioxide slag, 550,000 tonnes per year iron
<b>IRON ORE</b>				
<b>Hlsmelt®</b> (60%) (b)	Kwinana, Western Australia	100% leasehold (expiring in 2010 with rights of renewal for further 25 year terms)	Hlsmelt® ironmaking plant producing pig iron	800,000 tonnes per year pig iron
<b>IOC Pellet Plant</b> (59%)	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	13,500,000 tonnes per year pellet

### Notes:

- (a) Capacity as at 31 December 2010 reflects the closures of two potlines in preparation for the Kitimat modernisation project. The nameplate capacity of the Kitimat smelter remains at 282,000 tonnes per year.
- (b) In March 2009, Rio Tinto announced that Hlsmelt® would be placed on an extended care and maintenance programme. In December 2010, the Hlsmelt® joint venture partners agreed to close the Kwinana site permanently and terminate the joint venture. A closure study is expected to be completed by 2012.

## Mines and production facilities continued

### Information on Group power plants

(Rio Tinto's interest 100 per cent unless otherwise shown)

	Location	Title/lease	Plant type/product	Capacity as of 31 December 2010 (based on 100% ownership)
<b>ALUMINIUM</b>				
<b>Gladstone power station</b> (42%)	Gladstone, Queensland, Australia	100% freehold	Thermal power station	1,680 megawatts
<b>Highlands power stations</b>	Lochaber, Kinlochleven, UK	100% freehold	Hydroelectric power	80 megawatts
<b>Lynemouth power station</b>	Lynemouth, UK	100% freehold	Thermal power station	420 megawatts
<b>Kemano power station</b>	Kemano, British Columbia, Canada	100% freehold	Hydroelectric power	896 megawatts
<b>Quebec power stations</b>	Saguenay, Quebec, Canada (Chute-à-Caron, Chute-à-la- Savane, Chutes-des-Passes, Chute-du-Diable, Isle- Maligne, Shipshaw)	100% freehold (except Péribonka lease to 2058)	Hydroelectric power	2,919 megawatts
<b>Vigelands power station</b>	Nr Kristiansand, Norway	100% freehold	Hydroelectric power	26 megawatts
<b>Yarwun alumina refinery co-generation plant</b>	Gladstone, Queensland, Australia	100% freehold	Gas turbine and heat recovery steam generator providing process steam and power for the alumina refining operations. Excess power sold to grid.	160 megawatts
<b>COPPER</b>				
<b>Phalaborwa power station</b> (57.7%)	Phalaborwa, Limpopo Province, South Africa	100% freehold	Steam turbine running off waste heat boilers at the copper smelter	9.27 megawatts
<b>Puncakjaya Power</b> (22.12%)	Grasberg, Papua, Indonesia	Lease	Diesel power plant Thermal power plant	193 megawatts
<b>Kennecott Utah Copper Power Stations</b>	Salt Lake City, Utah, US	100% freehold	Thermal power station	175 megawatts
			Steam turbine running off waste heat boilers at the copper smelter	31.8 megawatts
			Combined heat and power plant supplying steam to the copper refinery	6.2 megawatts
<b>Kennecott Utah Copper</b>	Salt Lake City, Utah, US	100% freehold (in 2011 or 2012)	Combined heat and power plant supplying steam to the molybdenum autoclave plant	6.2 megawatts (in 2011 or 2012)

	Location	Title/lease	Plant type/product	Capacity as of 31 December 2010 (based on 100% ownership)
<b>DIAMONDS &amp; MINERALS</b>				
<b>Boron co-generation plant</b>	Boron, California, US	100% freehold (Rio Tinto Minerals operates a second plant owned by a third party)	Co-generation uses natural gas to generate steam, used to run Boron's refining operations	100MW (85MW of which are sold to a local utility)
<b>ENERGY</b>				
<b>Energy Resources of Australia</b> (Rio Tinto: 68%)	Ranger mine, Jabiru, Northern Territory, Australia	100% freehold	Five diesel generator sets rated at 5.1MW; 1 diesel generator rated at 1.9MW	27.4MW
<b>IRON ORE</b>				
<b>Cape Lambert power station</b> (Rio Tinto: 53%)	Cape Lambert, Western Australia, Australia	Lease	Gas fired boilers with steam turbines	105MW
<b>Paraburdoo power station</b>	Paraburdoo, Western Australia, Australia	Lease	LM6000 PC gas fired turbines	153MW
<b>Yurralyi Maya power station</b> (Rio Tinto: 58%)	Dampier, Western Australia, Australia	Lease	LM6000 PD gas fired turbines	180MW

# Board of directors

The board comprises the chairman, three executive directors and ten independent non executive directors.



1. Jan du Plessis



2. Tom Albanese



3. Robert Brown



4. Vivienne Cox



5. Sir Rod Eddington



6. Guy Elliott



7. Michael Fitzpatrick



8. Yves Fortier



9. Ann Godbehere



10. Richard Goodmanson



11. Andrew Gould



12. Lord Kerr of Kinlochard



13. Hon. Paul Tellier



14. Sam Walsh



1. **Jan du Plessis (c and e)** Chairman, BCom, LLB, CA (SA), age 57  
Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited effective September 2008. Jan was elected by shareholders at the 2009 annual general meetings. He was appointed chairman at the conclusion of the 2009 annual general meetings.  
Skills and experience: Jan worked in various management positions in the South African Rembrandt Group from 1981, and in 1988, became Group Finance Director of Compagnie Financière Richemont, the Swiss luxury goods group, becoming chairman of British American Tobacco in 2004.  
External appointments (current and recent): Non executive director of Marks and Spencer Group plc since 2008, non executive director of British American Tobacco plc from 1999 and chairman of the board from 2004 until 2009, non executive director and chairman of the audit committee of Lloyds Banking Group plc from 2005 and 2008 respectively until 2009, chairman of RHM plc from 2005 until 2007.
2. **Tom Albanese (e)** Chief executive, BS (Mineral Economics), MS (Mining Engineering), age 53  
Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2006. Tom was last re-elected in 2008.  
Skills and experience: Tom joined Rio Tinto in 1993 on Rio Tinto's acquisition of Nerco and held a series of management positions before being appointed chief executive of the Industrial Minerals group in 2000, after which he became chief executive of the Copper group and head of Exploration in 2004. He took over as chief executive with effect from 2007.  
External appointments (current and recent): Director of Ivanhoe Mines Limited from 2006 to 2007, director of Palabora Mining Company from 2004 to 2006, member of the executive committee of the International Copper Association from 2004 to 2006, member of the board of visitors, Duke University, Fuqua School of Business from 2009.
3. **Robert Brown (c, d and f)** Non executive director, BSc, age 66  
Appointment and election: Appointed a director of Rio Tinto plc and Rio Tinto Limited in April 2010. Bob was elected by shareholders at the 2010 annual general meetings.  
Skills and experience: Bob is chairman of Groupe Aeroplan Inc and serves on the board of Bell Canada Enterprises (BCE Inc), the holding company for Bell Canada. 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 where he was first 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 Groupe Aeroplan Inc since 2005 and chairman since 2008, non executive director of Bell Canada Enterprises (BCE Inc) since 2009, president and chief executive officer of CAE Inc from 2004 until 2009, non executive director of Nortel Corporation from 2000 to 2006, Ace Aviation Holdings Inc from 2004 to 2009 and Fier CPVC Montreal L.P., trustee of Jazz Air Income Fund from 2006-2008.
4. **Vivienne Cox (a, c, d and f)** Non executive director, MA (Oxon), MBA (INSEAD), Honorary PhD (Hull), age 51  
Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2005. Vivienne was last re-elected in 2008.  
Skills and experience: Vivienne was executive vice president and chief executive officer, Alternative Energy for BP plc until 2009. She became a member of the BP group chief executive's committee when she became chief executive of the Gas, Power and Renewables business. During her career at BP she worked in chemicals, exploration, finance and refining and marketing. Vivienne holds degrees in chemistry from Oxford University and in business administration from INSEAD.  
External appointments (current and recent): Non executive director of the Department for International Development since December 2010, non executive director of The Climate Change Organisation since December 2010, non executive director of Climate Change Capital Limited since 2008 and non executive chairman since 2009, member of the supervisory board of Vallourec since February 2010, member of the offshore advisory committee of Mainstream Renewable Power since September 2010, member of the board of INSEAD since 2009, executive vice president for BP plc between 2004 and 2009.
5. **Sir Rod Eddington (c, d and f)** Non executive director, BEng, MEng, DPhil (Oxon), age 61  
Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2005. Sir Rod was last re-elected in 2009 and will retire at the conclusion of the Rio Tinto Limited annual general meeting in 2011.  
Skills and experience: Sir Rod was chief executive of British Airways plc until 2005. Prior to his role with British Airways, Sir Rod was managing director of Cathay Pacific Airways from 1992 until 1996 and executive chairman of Ansett Airlines from 1997 until 2000.  
External appointments (current and recent): Non executive chairman of JPMorgan Australia and New Zealand since 2006, director of CLP Holdings since 2006, director of News Corporation plc since 1999, director of John Swire & Son Pty Limited since 1997, chairman of Infrastructure Australia since 2008, director of Allco Finance Group Limited from 2006 until 2009, chief executive of British Airways plc from 2000 until 2005, chairman of the EU/Hong Kong Business Co-operation Committee of the Hong Kong Trade Development Council from 2002 until 2006.
6. **Guy Elliott (e)** Chief financial officer, MA (Oxon), MBA (INSEAD), age 55  
Appointment and election: Chief financial officer of Rio Tinto plc and Rio Tinto Limited since 2002. Guy was last re-elected in 2010.  
Skills and experience: Guy joined the Group in 1980 after gaining an MBA having previously been in investment banking. He subsequently held a variety of commercial and management positions, including head of Business Evaluation and president of Rio Tinto Brasil.  
External appointments (current and recent): Non executive director and member of the audit committee of Royal Dutch Shell plc since September 2010. Non executive director and senior independent director of Cadbury plc from 2007 and 2008 respectively until March 2010.

7. **Michael Fitzpatrick (a, b, c and f)** Non executive director, BEng, BA (Oxon), age 58

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2006. Michael was re-elected at the 2010 annual general meetings.

Skills and experience: Michael sold his interest in, and ceased to be a director of, Hastings Funds Management Ltd during 2005, the pioneering infrastructure asset management company which he founded in 1994. He is chairman of Treasury Group Limited, an incubator of fund management companies. He is chairman of the Australian Football League, having previously played the game professionally, and is a former chairman of the Australian Sports Commission.

External appointments (current and recent): Chairman of Treasury Group Limited since 2005, director of the Walter & Eliza Hall Institute of Medical Research since 2001, chairman of the Victorian Funds Management Corporation from 2006 to 2008, managing director of Hastings Funds Management Ltd from 1994 to 2005, director of Australian Infrastructure Fund Limited from 1994 to 2005.

8. **Yves Fortier (c, d and f)** Non executive director, CC, OQ, QC, LLD, Av Em, age 75

Appointments and election: Director of Rio Tinto plc and Rio Tinto Limited since 2007. Yves was elected by shareholders in 2008 and will retire at the conclusion of the Rio Tinto Limited annual general meeting in 2011.

Skills and experience: Yves Fortier was ambassador and permanent representative of Canada to the United Nations from 1988 to 1992. He is chairman emeritus and a senior partner of the law firm Ogilvy Renault and was chairman of Alcan from 2002 until 2007.

External appointments (current and recent): Chairman emeritus and senior partner of Ogilvy Renault since 2009, chairman of Ogilvy Renault from 1992 until 2009, director of NOVA Chemicals Corporation from 1998 until 2009, chairman and director of Alcan Inc. from 2002 until 2007, director of Royal Bank of Canada from 1992 to 2005, director of Nortel Corporation from 1992 to 2005, governor of Hudson's Bay Company from 1998 to 2006, trustee of the International Accounting Standards Committee from 2000 to 2006.

9. **Ann Godbehere (a, c and f)** Non executive director, FCGA, age 55

Appointment and election: Appointed a director of Rio Tinto plc and Rio Tinto Limited in February 2010. Ann was elected by shareholders at the 2010 annual general meetings. Ann is chairman of the Audit committee.

Skills and experience: Ann succeeded Sir David Clementi as chairman of the Audit committee upon his retirement from the board at the conclusion of the 2010 annual general meetings. Ann has more than 25 years' experience in the financial services industry. She spent ten years at Swiss Re, latterly as chief financial officer from 2003 until 2007 and from 2008 until 2009 she was interim chief financial officer and executive director of Northern Rock post nationalisation.

External appointments (current and recent): Non executive director of UBS AG since 2009, non executive director of Atrium Underwriting Group Limited and Ariel Group Limited since 2007, non executive director of Prudential since 2007 and chairman of the Audit committee since 2009, chief financial officer and executive director of Northern Rock from 2008 to 2009.

10. **Richard Goodmanson (b, c, d and f)** Non executive director, MBA, BEc and BCom, BEng (Civil), age 63

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2004. He was last re-elected in 2008 and is chairman of the Committee on social and environmental accountability.

Skills and experience: Richard was executive vice president and chief operating officer of DuPont until 2009. He was responsible for a number of the global functions, and for the non US operations of DuPont, with particular focus on growth in emerging markets. During his career he has worked at senior levels for McKinsey & Co, PepsiCo and America West Airlines, where he was president and chief executive officer.

External appointments (current and recent): Non executive director of Qantas Airways Limited since 2008, economic adviser to the governor of Guangdong Province, China from 2003 to 2009, executive vice president and chief operating officer of DuPont from 1999 until 2009, director of the United Way of Delaware between 2002 and 2009 (chairman between 2006 and 2007).

11. **Andrew Gould (b, c and f)** Non executive director, BA, FCA, age 64

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2002. Andrew was appointed the senior independent non executive director and chairman of the Remuneration committee at the conclusion of the 2008 annual general meetings. Andrew was last re-elected in 2009.

Skills and experience: Andrew is chairman and chief executive officer of Schlumberger Limited, where he has held a succession of financial and operational management positions, including that of executive vice president of Schlumberger Oilfield Services and president and chief operating officer of Schlumberger Limited. He has worked in Asia, Europe and the US. He joined Schlumberger in 1975. He holds a degree in economic history from Cardiff University and qualified as a chartered accountant with Ernst & Young.

External appointments (current and recent): Chairman and chief executive officer of Schlumberger Limited since 2003, member of the board of trustees of King Abdullah University of Science and Technology in Jeddah, Saudi Arabia since 2008, member of the advisory board of the King Fahd University of Petroleum and Minerals in Dhahran, Saudi Arabia since 2007, member of the commercialisation advisory board of Imperial College of Science Technology and Medicine, London since 2002, member of the UK prime minister's Council of Science and Technology from 2004 to 2007.

12. **Lord Kerr of Kinlochard (a, c, d and f)** Non executive director, GCMG, MA, age 69

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2003. He was last re-elected in 2010.

Skills and experience: John Kerr was in the UK Diplomatic Service for 36 years and headed it from 1997 to 2002 as permanent under secretary at the Foreign Office. John previously served in HM Treasury, and in the Soviet Union and Pakistan, as ambassador to the European Union (1990 to 1995), and the US (1995 to 1997). He has been an independent member of the House of Lords since 2004.

External appointments (current and recent): Director of Scottish Power Limited since 2009, deputy chairman of Royal Dutch Shell plc since 2005, director of The Scottish American Investment Trust plc since 2002, advisory board member, BAE Systems since 2008,

chairman of the Centre for European Reform (London) since 2008, vice president of the European Policy Centre (Brussels) since 2007, chairman of the Court and Council of Imperial College, London since 2005, trustee of the Carnegie Trust for the Universities of Scotland since 2005, director of The "Shell" Transport and Trading Company plc 2002 to 2005, advisory board member, Scottish Power (Iberdrola) from 2007 to 2009, trustee of the National Gallery from 2002 to 2010 and trustee of the Rhodes Trust from 1997 to 2010.

**13. Hon. Paul Tellier (a, b, c and f)** Non executive director, LL.L, BLitt (Oxon), LLD, CC. age 71

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2007. Paul was elected at the 2008 annual general meetings.

Skills and experience: Paul was clerk of the Privy Council Office and secretary to the Cabinet of the Government of Canada from 1985 to 1992 and was president and chief executive officer of the Canadian National Railway Company from 1992 to 2002. Until 2004, he was president and chief executive officer of Bombardier Inc.

External appointments (current and recent): Chairman of Global Container Terminals since 2007, director of McCain Foods since 1996, trustee of the International Accounting Standards Foundation since 2007, co-chair of the Prime Minister of Canada's Advisory Committee on the Renewal of the Public Service since 2006, strategic advisor to Société Générale (Canada) since 2005, member of the advisory board of General Motors of Canada since 2005, director of Bell Canada from 1996 to May 2010, director of BCE Inc from 1999 to May 2010, non executive director of Alcan Inc. from 1998 to 2007.

**14. Sam Walsh** Executive director, AO, BCom (Melbourne), age 61

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2009. Sam was elected by shareholders at the 2010 annual general meetings.

Skills and experience: Sam was appointed executive director and chief executive, Iron Ore and Australia in 2009. He 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 within the Group, including from 2001 to 2004 chief executive of the Aluminium group and from 2004 to 2009 chief executive of the Iron Ore group. Sam is also a Fellow of the Australian Institute of Management, the Australasian Institute of Mining and Metallurgy and the Australian Institute of Company Directors. In June 2010, Sam was appointed an Officer in the General Division of the Order of Australia.

External appointments (current and recent): Member of the University of Western Australia's Energy and Minerals Institute board of trustees since September 2010, director of West Australian Newspaper Holdings Limited since 2008, director of the Committee for Perth Ltd between 2006 and 2009, director of the Australian Mines and Metals Association between 2001 and 2005, director of the Australian Chamber of Commerce and Industry between 2003 and 2005.

## Directors who left the Group during 2010

### Sir David Clementi MA, MBA

Director of Rio Tinto plc and Rio Tinto Limited since 2003. Sir David was chairman of the Audit committee until his retirement at the conclusion of the 2010 annual general meetings.

Skills and experience: Sir David was chairman of Prudential plc until 2008, prior to which he was deputy governor of the Bank of England. His earlier career was with Kleinwort Benson where he spent 22 years, holding various positions including chief executive and vice chairman. A graduate of Oxford University and a qualified chartered accountant, Sir David also holds an MBA from Harvard Business School.

External appointments (current and recent) upon leaving the Group: Non executive director of Foreign & Colonial Investment Trust plc since 2008, chairman, King's Cross Central General Partnership since 2008, chairman of Prudential plc from 2002 until 2008, member of the Financial Reporting Council between 2003 and 2007.

### David Mayhew

Director of Rio Tinto plc and Rio Tinto Limited from 2000 until his retirement at the conclusion of the 2010 annual general meetings.

Skills and experience: David joined Cazenove in 1969 and in 1986 he became the partner in charge of the firm's Capital Markets Department. He became chairman of Cazenove Group Limited in 2001 and JPMorgan Cazenove in 2005 until January 2010 when he became vice chairman of JPMorgan.

External appointments (current and recent) upon leaving the Group: Vice chairman of JPMorgan effective January 2010, chairman of Cazenove Group Limited between 2001 and January 2010, chairman of JPMorgan Cazenove Holdings Limited (formerly Cazenove Group plc) between 2005 and January 2010.

#### Notes

- (a) Audit committee
- (b) Remuneration committee
- (c) Nominations committee
- (d) Committee on social and environmental accountability
- (e) Chairman's committee
- (f) Independent

# Executive committee

The Executive committee is responsible, under the leadership of the chief executive, for the management of the business, setting performance targets and implementation of the Group's strategy.



1. Hugo Bague



2. Preston Chiaro



3. Bret Clayton



4. Jacynthe Côté

## 1. Hugo Bague MA (Linguistics), age 50

**Skills and experience:** Hugo Bague was appointed Group executive, People & Organisation in 2009 having joined 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.

**External appointments (current and recent):** Non executive director and member of the nominating and governance committee and the compensation committee of Jones Lang LaSalle Incorporated since March 2011. Member of the Advisory Council of United Business Institute in Brussels, Belgium since 1995.

## 2. Preston Chiaro BSc (Hons) (Environmental Engineering), MEng (Environmental Engineering), age 57

**Skills and experience:** Preston was appointed Group executive, Technology & Innovation in 2009. He joined the Group in 1991 at Kennecott Utah Copper's Bingham Canyon mine as vice president, Technical Services. In 1995 he became vice president and general manager of the Boron Operations in California and was chief executive of Rio Tinto Borax from 1999 to 2003. Preston then became chief executive of the Energy group and in 2007, upon a management re-organisation, he also assumed responsibility for the Industrial Minerals group.

**External appointments (current and recent):** Director of Cloud Peak Energy Inc from 2008 to 2011, board member of Resources for the Future since 2006, director of Rössing Uranium Limited from 2004 to 2009, director of the World Coal Institute between 2003 and 2009 (chairman from 2006 to 2008), chairman of the Coal Industry Advisory Board to the International Energy Agency between 2004 and 2006, director of Energy Resources of Australia Limited between 2003 and 2006, director of Coal & Allied Industries Limited between 2003 and 2006.

## 3. Bret Clayton BA (Accounting), age 49

**Skills and experience:** Bret was appointed Group executive, Business Support & Operations in 2009. He joined the Group in 1995 and has held a series of management positions, including chief

executive of the Copper and Diamonds groups, president and chief executive officer of Rio Tinto Energy America and chief financial officer of Iron Ore. Prior to joining the Group, Bret worked for PricewaterhouseCoopers for nine years, providing auditing and consulting services to the mining industry.

**External appointments (current and recent):** Non executive director and member of the audit committee of Alcan Engineered Products since January 2011, non executive director of Ivanhoe Mines Limited between 2007 and 2009, member of the board of directors and the executive committee of the International Copper Association between 2006 and 2009, member of the Coal Industry Advisory Board to the International Energy Agency (IEA) between 2003 and 2006, member of the board of directors of the US National Mining Association between 2002 and 2006.

## 4. Jacynthe Côté BChem, age 53

**Skills and experience:** Jacynthe became chief executive, Rio Tinto Alcan in 2009. She joined Alcan in 1988 and has significant operational and international experience in the aluminium industry. She was chief executive officer, Primary Metal, Rio Tinto Alcan, where she was responsible for all primary metal facilities and power generation installations worldwide. Her previous roles in Alcan include president and chief executive officer, Bauxite & Alumina business group and senior management roles in business planning, human resources and environment, health and safety. Jacynthe has a degree in chemistry from Laval University in Quebec.

**External appointments (current and recent):** Member of the Advisory Board of the Montreal Neurological Institute since July 2010, member of the Hautes Etudes Commerciales Board since 2009, member of the Canadian Council of Chief Executives since 2009, member of the International Aluminium Institute since 2006.

## 5. Andrew Harding BEng (Mining Engineering), MBA, age 44

**Skills and experience:** Andrew was appointed chief executive, Copper in 2009. He joined Rio Tinto in 1992, initially working for Hamersley Iron. Andrew went on to hold operating roles within the Energy, Aluminium and Iron Ore product groups, including at the Mount Thorley, Hunter Valley, Weipa, Mount Tom Price, Marandoo and Brockman mines. In 2007, he became global practice leader, Mining within Rio Tinto's Technology &





5. Andrew Harding



6. Harry Kenyon-Slaney



7. Doug Ritchie



8. Debra Valentine

Innovation group. Prior to his current role, Andrew was president and chief executive officer, Kennecott Utah Copper.

External appointments (current and recent): Director of Ivanhoe Mines Limited between 2009 and July 2010 and from February 2011.

**6. Harry Kenyon-Slaney** BSc (Hons) (Geology), age 50

Skills and experience: Harry was appointed chief executive of Rio Tinto's Diamonds & Minerals product group in 2009. 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 prior to his current role, became managing director of Rio Tinto Iron & Titanium in 2007.

External appointments (current and recent): Chairman of the Australian Uranium Association from 2006 to 2007, chairman of the Copper Development Association, South Africa from 2000 to 2003, director of Energy Resources of Australia Limited from 2004 to 2007.

**7. Doug Ritchie** LLB, FAusIMM, FAIM, FAICD, age 54

Skills and experience: Doug was appointed chief executive of Rio Tinto's Energy group in 2009. He has been with the Group since 1986 when he joined CRA as corporate counsel. Since then he has held a number of roles in various Rio Tinto businesses and corporate functions, including Exploration, Project Development and the Energy, Aluminium and Diamonds & Minerals product groups. Doug's previous roles have included head of Business Evaluation, managing director of Dampier Salt, Rio Tinto Coal Australia and Rio Tinto Diamonds. Prior to his current role, he was managing director, Strategy of Rio Tinto.

External appointments (current and recent): Director of Australian Coal Association from 2006 to 2008, director of Dalrymple Bay Coal Terminal Pty Ltd from 2006 to 2007, director of Queensland Resources Council from 2006 to 2007, deputy chairman of the Coal Industry Advisory Board to the IEA, director of Coal & Allied Industries Limited between 2006 and 2007 and since 2008, director of Rossing Uranium Limited since 2009, and a director of the World Coal Association since 2010.

**8. Debra Valentine** BA (History), JD, age 57

Skills and experience: Debra was appointed Group executive, Legal & External Affairs in 2009 having joined Rio Tinto as global head of Legal in 2008. Debra previously worked at United Technologies Corporation in the US where she was vice president, deputy general counsel and 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.

External appointments (current and recent): Member, Council on Foreign Relations since 1993, American Law Institute 1991, commissioner, Congressional Antitrust Modernisation Commission from 2004 to 2007.

Tom Albanese, Guy Elliott and Sam Walsh were also members of the Executive committee in 2010 through their positions as chief executive, chief financial officer and chief executive of the Iron Ore group respectively. Their biographies are shown on pages 103 and 105.

### Company secretaries

**Ben Mathews** BA (Hons), FCIS, age 44

Skills and experience: Ben joined as company secretary of Rio Tinto plc during 2007. Prior to joining Rio Tinto, he spent five years with BG Group plc, as company secretary. He has previously worked for National Grid plc, British American Tobacco plc and PricewaterhouseCoopers LLP. Ben is a fellow of the Institute of Chartered Secretaries and Administrators and has a joint honours degree in French and European Studies.

External appointments (current and recent): None.

**Stephen Consedine** BBus, CPA, age 49

Skills and experience: Stephen joined Rio Tinto in 1983 and has held various positions in Accounting, Treasury, and Employee Services before becoming company secretary of Rio Tinto Limited in 2002. He holds a business degree and is a certified practising accountant.

External appointments (current and recent): None.



# Directors' report

The directors present their report and audited financial statements for the year ended 31 December 2010.

## Dual listed structure and constitutional documents

An explanation of the dual listed companies structure (DLC), which unified Rio Tinto plc and Rio Tinto Limited in 1995, and of the Companies' constitutional documents can be found on page 271. This section also provides a description of voting rights restrictions which may apply in respect of the shares of either Company under specified circumstances.

## Activities and business review

Rio Tinto's principal activities during 2010 were minerals exploration, development, production and processing.

The business review, which is set out on pages 2 to 76 provides a comprehensive review of the development, performance and likely future developments of Rio Tinto's operations for the year ended 31 December 2010. The information set out in the business review is incorporated by reference into this report and is deemed to form part of this report.

The subsidiary and associated undertakings principally affecting the profits or net assets of the Group in the year are listed in notes 37 to 40 to the financial statements.

Significant changes and events affecting the Group during 2010 and until the date of this report have been:

- On 1 February 2010, the sale to Amcor of the majority of the Alcan Packaging businesses, comprising Alcan Packaging global Pharmaceuticals, global Tobacco, Food Europe and Food Asia divisions, completed for US\$1,948 million.
- During 2010, the Group increased its ownership in Ivanhoe Mines to 40.3 per cent and to 42.1 per cent in January 2011. Rio Tinto controls and manages the Oyu Tolgoi copper/gold project in Mongolia and has agreed a pathway to increase its stake in Ivanhoe Mines to 49 per cent.
- The sale of the Alcan Packaging Food Americas division to Bemis Company, Inc for a total consideration of US\$1.2 billion completed on 1 March 2010.
- On 19 March 2010, Rio Tinto announced that it had signed a non binding memorandum of understanding with Chinalco to establish a joint venture covering the development and operation of the Simandou iron ore project in Guinea, in which Chinalco would acquire a 47 per cent interest of Rio Tinto's 95 per cent holding in the Simandou project. On 29 July 2010, Rio Tinto and Chalco, a subsidiary of Chinalco, signed a binding agreement to establish the joint venture, with Chalco providing US\$1.35 billion on an earn in basis through sole funding of ongoing development work over the next two to three years.
- On 29 March 2010, the four Shanghai employees detained on 5 July 2009 on charges of receiving bribes and stealing commercial secrets were convicted by Shanghai Number One Intermediate People's Court.
- On 31 March 2010, Rio Tinto announced that it had received a binding offer from Sun European Partners, LLP to acquire the Alcan Beauty Packaging business. On 5 July 2010, Rio Tinto announced the completion of the sale of its Alcan Packaging business for an undisclosed sum and the acquisition by Amcor of the Medical Flexibles business for US\$66 million.
- With the structural shift in the iron ore market away from benchmarking pricing, Rio Tinto announced on 9 April 2010 that it would be negotiating contracts with its customers to supply iron ore priced on a quarterly basis.
- The re-commencement of Rio Tinto's expansion programme in its Iron Ore Company of Canada (IOC) operations was announced on 6 May 2010, with the investment by IOC of US\$401 million to increase its annual concentrate capacity by four million tonnes to 22 million tonnes by 2012. On 9 February 2011, a further US\$277 million investment was announced in the next phase of a project that will ultimately raise IOC's concentrate production capacity by 40 per cent to 26 million tonnes per year (Mt/a).
- On 15 June 2010, Rio Tinto announced that it would invest US\$469 million in constructing the Kennecott Eagle nickel and copper mine in Michigan's Upper Peninsula (US).
- Together with BHP Billiton, Rio Tinto announced on 21 June 2010 that it had signed a Heads of Agreement with the Western Australian Government under which (i) they agreed to pay iron ore royalties at all their mines at a rate of 5.625 per cent for fine ore and 7.5 per cent for lump ore from 1 July 2010; (ii) they agreed to a set of State Agreement amendments to promote greater efficiency and flexibility for their respective operations; and (iii) they made a combined payment to the State Government's Consolidated Revenue Fund of A\$350 million.
- On 30 June 2010, the Australian Competition Tribunal issued a decision to not declare the Hamersley railway line available for third party access under Part IIIA of the Trade Practices Act. The Robe River line was declared, but only until 2018, rather than for the 20 year period desired by the applicants.
- Between July and September 2010, Rio Tinto announced investments to expand Cape Lambert port and to de-bottleneck Dampier Port to increase capacity as detailed on page 77.
- On 5 August 2010, the Group received a binding offer for the sale of 61 per cent of Alcan Engineered Products to certain investment funds affiliated with Apollo Global Management, LLC (Apollo) and the Fonds Stratégique d'Investissement. The divestment completed on 4 January 2011.
- On 30 August 2010, Rio Tinto announced an investment, together with its joint venture participant, Hope Downs Iron Ore Pty Ltd, of US\$1.6 billion to develop the Hope Downs 4 iron ore project in Western Australia.
- On 14 September 2010, the Group announced its investment of US\$803 million to ramp up the underground block cave project at its Argyle diamond mine in Western Australia.
- On 21 September 2010, Rio Tinto completed the off market buy-back of all of the Rio Tinto Limited ordinary shares held by Tinto Holdings Australia Pty Ltd.
- On 23 September 2010, Rio Tinto Alcan announced a US\$347 million investment to modernise and increase the ISAL smelter's capacity by 20 per cent following the completion of a long term energy supply agreement with Landsvirkjun, the Icelandic power utility. This was followed by an announcement on 1 October 2010 of a further investment of US\$140 million to develop a value-added casting facility.

- On 18 October 2010, Rio Tinto announced that it had jointly decided with BHP Billiton to end plans for an iron ore production joint venture in the Pilbara region in Western Australia following extensive discussions with regulators.
- Rio Tinto announced on 20 October 2010 that it would invest a further US\$3.1 billion to expand its iron ore infrastructure in the Pilbara. On 26 November 2010, it was announced that new drilling results and ongoing assessment of assets in the Pilbara had revealed a 2.0 billion tonne addition to the Mineral Resource base. Rio Tinto announced on 1 December 2010 that it approved a further US\$1.2 billion investment for significant expansions at the Brockman 4 and Western Turner Syncline mines in the Pilbara in its drive to lift annual iron ore production capacity in Western Australia's Pilbara region to 283 Mt/a. Rio Tinto also approved a final feasibility study into increasing Pilbara production capacity to 333 Mt/a.
- On 3 December 2010, Rio Tinto Limited and Sinosteel Corporation announced the extension of their 1987 Channar Mining joint venture in the Pilbara region, leading the way for a further 50 million tonnes of iron ore to be produced under this joint venture in addition to the original Channar agreements for the production of 200 million tonnes.
- Rio Tinto and Chinalco signed a non-binding Memorandum of Understanding on 3 December 2010 to establish an exploration joint venture in China to explore mainland China for world-class mineral deposits. Chinalco will hold a 51 per cent interest in the joint venture and Rio Tinto will hold a 49 per cent interest.
- On 14 December 2010, Rio Tinto announced it is to invest in its Canadian aluminium smelters to improve production efficiency through modernisation and expansion. The bulk of this new investment – US\$758 million – will be spent on completing the first phase of the AP60 plant in Saguenay-Lac-Saint-Jean, Quebec. Rio Tinto will also invest an additional US\$300 million for further construction in preparation for the US\$2.5 billion modernisation of the Kitimat smelter in British Columbia.
- Rio Tinto completed the divestment of its equity holdings in Cloud Peak Energy Inc on 21 December 2010, following a secondary public offering with gross proceeds of US\$573.3 million.
- On 23 December 2010, Rio Tinto announced that it had entered into an agreement to acquire all the issued and outstanding shares of Riversdale Mining Limited by way of a recommended off-market takeover offer for a valuation of approximately A\$3.9 billion. The offer has been extended to 18 March 2011.
- Rio Tinto approved a US\$933 million investment on 9 February 2011 to extend the life of the Marandoo iron ore mine in the Pilbara region by 16 years to 2030.
- On 10 February 2011, Rio Tinto announced a capital management programme, comprising a US\$5 billion share buy-back which, subject to market conditions, it expects to complete by the end of 2012.
- On 23 February 2011, the Group received a binding offer from Imerys to acquire the talc business for US\$340 million. The binding offer is subject to customary closing conditions.

Details of events after the statement of financial position date are contained in note 48 to the financial statements.

As permitted by sections 299(3) and 299A(3) of the Australian Corporations Act 2001, information which is likely to result in unreasonable prejudice, regarding likely future developments in, and the expected results of the operations of the Group or its strategies and prospects, has been omitted.

### Risk identification, assessment and management

A summary of the Group's position regarding risk identification, assessment and management is contained in the risk management section on page 24. The Group's principal risks and uncertainties are set out on pages 25 to 28.

### Share capital

Details of the Group's share capital as at 31 December 2010 can be found at notes 28 and 29 to the financial statements. Details of the rights and obligations attached to each class of shares can be found on page 269 under the heading "Dual listed companies structure – voting rights". The voting rights of shares held beneficially by a third party in line with an employee share plan are set out on page 137.

Details of certain agreements triggered on a change of control can be found on page 269 under the heading "Dual listed companies structure".

Details of certain restrictions on holding shares in Rio Tinto are described on page 270 under the heading "Dual listed companies structure – limitations on ownership of shares and merger obligations". There are no other restrictions on the transfer of ordinary shares in Rio Tinto plc save for:

- restrictions that may from time to time be imposed by laws and regulations (for example, those relating to market abuse and insider dealing);
- restrictions that may be imposed pursuant to the Listing Rules of the UK Financial Services Authority, whereby certain employees of the Group require approval to deal in shares;
- restrictions on the transfer of shares that may be imposed under Rio Tinto plc's Articles of Association or under Part 22 of the UK Companies Act 2006, in either case following a failure to supply information required to be disclosed following service of a request under section 793 of the UK Companies Act 2006; and
- restrictions on the transfer of shares held under certain employee share plans while they remain subject to the plan.

Details of the substantial shareholders of Rio Tinto plc and Rio Tinto Limited can be found on page 274.

At the annual general meetings held in 2010, shareholders authorised:

- the purchase by Rio Tinto Limited and its subsidiaries, and the on-market repurchase by Rio Tinto plc of up to 152,488,000 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 152,488,000 Rio Tinto plc shares acquired by Rio Tinto Limited or its subsidiaries under the above authority;
- 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); and
- the off-market buy-back by Rio Tinto Limited of up to all of Rio Tinto Limited's shares indirectly held by Rio Tinto plc through Tinto Holdings Australia Pty Ltd.

On 21 September 2010, Rio Tinto completed the off-market buy-back of all of the Rio Tinto Limited shares held by Tinto Holdings Australia Pty Ltd. The buy-back was undertaken in two tranches: Rio Tinto Limited acquired 150,437,365 shares from Tinto Holdings Australia Pty Ltd at a price per share of A\$69.27 on 27 August 2010. The remaining 20,635,155 shares were bought back at a price of A\$75.13 on 21 September 2010.

All shares repurchased by Rio Tinto Limited from Tinto Holdings Australia Pty Ltd were subsequently cancelled.

During 2010, in order to satisfy obligations under employee share plans, Rio Tinto plc issued 2,336,005 shares from treasury, and Rio Tinto plc's registrar purchased on market 693,000 shares and delivered 561,852 ordinary shares to plan participants. Rio Tinto Limited's registrar purchased on market and delivered 1,550,969 shares to plan participants.

Also during the year, the Companies' registrar purchased on market 660,948 Rio Tinto plc shares and 658,700 Rio Tinto Limited shares to satisfy obligations to shareholders under the dividend reinvestment plans.

On 10 February 2011, Rio Tinto announced a capital management programme, comprising a US\$5 billion share buy-back which, subject to market conditions, is expected to complete by the end of 2012. In the period to 21 February 2011, 1,725,000 Rio Tinto plc shares were repurchased for a total aggregate consideration of US\$125,500,000.

For the period 1 January 2011 to 21 February 2011, Rio Tinto plc issued 354,237 shares from treasury in connection with employee share plans and Rio Tinto Limited's registrar purchased on market and delivered 462,169 shares to plan participants.

Awards over 3,010,321 Rio Tinto plc shares and 1,783,657 Rio Tinto Limited shares were granted under employee share plans during 2010. As at 21 February 2011, awards were outstanding over 11,624,153 Rio Tinto plc shares and 5,842,538 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.

## Dividends

The total dividend for 2010 will be US 108 cents, of which US 45 cents was paid as an interim dividend in September 2010. Final dividends of 39.14 pence or 61.94 Australian cents per share will be paid on 31 March 2011. Full details of dividends paid and the dividend policy can be found on page 262.

## Annual general meetings

The 2011 annual general meetings will be held on 14 April in London and on 5 May in Perth. Separate notices of the 2011 annual general meetings are produced for the shareholders of each Company.

## Directors

The names of the directors who served during the year, together with their biographical details and other information are shown on pages 102 to 105. Sir David Clementi and David Mayhew retired at the conclusion of the Rio Tinto Limited annual general meeting held on 26 May 2010. Sam Walsh, Ann Godbehere and Robert Brown were appointed as directors with effect from 5 June 2009, 9 February 2010 and 1 April 2010, respectively and were elected by shareholders at the 2010 annual general meetings.

## Purchases of shares

	Rio Tinto plc (a) Total number of shares purchased	(b) Average price paid per share US\$	(c) Total number of shares purchased as part of publicly announced plans or programmes	Rio Tinto Limited (a) Total number of shares purchased	(b) Average price paid per share US\$	(c) Total number of shares purchased as part of publicly announced plans or programmes	Rio Tinto Group Approximate dollar value of shares that may yet be purchased under the plans or programmes US\$
<b>2010</b>							
1 Jan to 31 Jan	–	–	–	269,187	71.95	–	–
1 Feb to 28 Feb	–	–	–	493,543	63.91	–	–
1 Mar to 31 Mar	–	–	–	181,346	68.66	–	–
1 Apr to 30 Apr	271,553	61.02	–	416,995	72.54	–	–
1 May to 31 May	–	–	–	46,962	52.97	–	–
1 Jun to 30 Jun	–	–	–	60,687	58.94	–	–
1 Jul to 31 Jul	–	–	–	7,116	61.96	–	–
1 Aug to 31 Aug	–	–	–	145,532	66.80	–	–
1 Sep to 30 Sep	1,082,395	56.28	–	350,185	68.61	–	–
1 Oct to 31 Oct	–	–	–	25,545	81.43	–	–
1 Nov to 30 Nov	–	–	–	63,622	88.26	–	–
1 Dec to 31 Dec	–	–	–	148,949	85.93	–	–
<b>Total</b>	<b>1,353,948</b>	<b>57.23</b>	<b>–</b>	<b>2,209,669</b>	<b>68.24</b>	<b>–</b>	<b>–</b>
<b>2011</b>							
1 Jan to 31 Jan	–	–	–	225,999	84.90	–	–
1 Feb to 21 Feb	1,725,000	72.77	1,725,000	236,170	88.17	–	4,875,000,000

Notes:

(a) Rio Tinto plc ordinary shares of 10p each; 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' registrar in connection with the dividend reinvestment plans and employee share plans are not deemed to form part of any publicly announced plan or programme.

A provision of the new UK Corporate Governance Code requires all directors to retire and submit themselves for re-election by shareholders annually. With the exception of Sir Rod Eddington and Yves Fortier who will be retiring at the conclusion of the 2011 annual general meetings, all directors will stand for re-election at the 2011 annual general meetings.

Details of directors' service contracts and letters of appointment can be found on page 138 and page 141.

A table of directors' attendance at board and committee meetings during 2010 is on page 118.

### Remuneration of directors and executives

The Remuneration report starting on page 128 forms part of the Directors' report and includes details of the nature and amount of each element of the remuneration (including share options) of each of the directors and of the key management personnel and highest paid executives below board level in respect of whom disclosures are required in 2010.

The 2009 Remuneration report was approved by shareholders at the 2010 annual general meetings.

### Secretaries

Details of the company secretary of each of Rio Tinto plc and Rio Tinto Limited together with their qualifications and experience are set out on page 107.

### Corporate governance

A full report on corporate governance can be found on pages 114 to 127 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 and the company secretaries of the Companies, 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 pages 32 and 33 of the Sustainable development review.

### Donations

During 2010, the Group spent US\$166 million on community assistance programmes and payments into benefit receiving trusts set up in directly negotiated community impact benefit agreements. As required by UK regulation, donations in the UK during 2010 amounted to £1.8 million (2009: £1.8 million) including £0.18 million for education programmes, £0.97 million for environment programmes, £0.01 million for health

programmes, £0.57 million for general sponsorships and donations, and management costs totalling £0.05 million. No donations were made for political purposes in the EU, Australia or elsewhere, as defined by the UK Companies Act 2006.

### Governmental regulations

Rio Tinto is subject to extensive governmental regulations affecting all aspects of its operations and consistently seeks to apply best practice in all of its activities. Due to Rio Tinto's product and geographical spread, there is unlikely to be any single governmental regulation in effect that could have a material effect on the Group's business.

Rio Tinto's operations in Australia and New Zealand are subject to state and federal regulations of general application governing mining and processing, land tenure and use, environmental requirements, including site specific environmental licences, permits and statutory authorisations, workplace health and safety, trade and export, corporations, competition, access to infrastructure, foreign investment and taxation. Some operations are conducted under specific agreements with the respective governments and associated acts of parliament.

In addition, Rio Tinto's uranium operations in the Northern Territory, Australia and Namibia are subject to specific regulation in relation to mining and the export of uranium.

US and Canada-based operations are subject to local, state, provincial and national regulations governing mining and processing, access to infrastructure, land tenure and use, environmental aspects of operations, product and workplace health and safety, trade and export administration, corporations, competition, securities and taxation. In relation to hydroelectric power generation in Canada, water rights, as well as power sales and purchases, are regulated by the Quebec and British Columbia provincial agencies.

Rio Tinto's operations in Europe are subject to national and European rules and regulations governing general and specific aspects of current and planned operations, notably land tenure and use, workplace health and safety, environmental issues, including applicable regulations in case of sale or closure of industrial sites and permit requirements concerning activities listed for environmental protection purposes, chemical risks management (REACH), competition requirements including compliance with antitrust rules, trade and export, corporations, intellectual property, labour requirements (including personal data protection), investment and taxation.

Rio Tinto's South African-based operations are subject to black economic empowerment legislation which includes the requirement to transfer (for fair value) 26 per cent of the Group's South African mining assets to historically disadvantaged South Africans by 2014.

### Environmental regulation

Rio Tinto measures its performance against environmental regulation by rating incidents on a low, moderate, high, or critical scale of likelihood and consequence of impacting the environment. High and critical ratings are reported to the executive management team and the Committee on social and environmental accountability, including progress with remedial actions. Prosecutions and other breaches are also used to gauge Rio Tinto's performance.



In 2010, there were 18 environment incidents rated high at Rio Tinto managed operations compared with 12 in 2009.

These incidents were of a nature to affect the environment or to concern local communities. Of these, nine resulted from water discharge, six were spills and three related to air emissions. Examples of these include:

- discharge standards for water being exceeded and also the overflow of leachate from a landfill to an adjacent water course at Alucam, Cameroon.
- leakage of unleaded petrol from a storage tank at Gove, Australia.
- a spill of alumina and coke waste from the loading dock at the port for Alucam, Cameroon.
- recorded levels for dust and tar in air emissions which exceeded permitted amounts on a number of occasions at Rotterdam, Holland.
- flooding during a storm event which led to the overflow of water from the red mud retention dam onto land adjoining the facility at Gardanne, France.
- overflow from a retention pond into local waterways during a high rainfall event at Kitimat, Canada.
- flooding of sediment-laden water off site onto nearby land and creeks following heavy rainfall at Northparkes, Australia.
- a pump failure at a weir during a storm resulted in an overflow of mine water into the local river at Palabora, South Africa.
- recording of levels of SO<sub>2</sub> in air emissions above permitted amounts on a number of occasions at Palabora, South Africa.

During 2010, 13 operations incurred fines amounting to US\$540,328 (US\$80,150 in 2009). Several fines paid in 2010 relate to incidents that occurred in 2008 and 2009. An amount of US\$262,046 relates to an incident that occurred in September 2008 at a plant in Saguenay, Canada. An amount of US\$174,697 relates to an incident that occurred in April 2009 at a port facility in Saguenay, Canada. An amount of US\$48,527 relates to an incident that occurred in August 2008 at a plant in Saguenay, Canada.

Australian corporations that exceed specified thresholds are required under the Australian National Greenhouse and Energy Reporting Act 2007 to register and report on greenhouse gas emissions and energy use and production. Three Rio Tinto entities, Rio Tinto Limited, Alcan Gove Pty Limited and Pechiney Consolidated Australia Limited are separately covered by the Act. All three companies submitted their reports by the required 31 October 2010 deadline.

The same three Rio Tinto entities have obligations under the Australian Energy Efficiency Opportunities Act 2006 (EEO). All three completed the required annual public reporting for 2010. Eight operations undertook EEO assessments in 2010. This completed the first five year cycle of assessments for Rio Tinto corporations. EEO requirements continue to be communicated to all sites covered by the Act, with internal reporting and compliance systems augmented.

Further information in respect of the Group's environmental performance is included throughout this Annual report, in the Sustainable development section on pages 29 to 41 and on the website.

## Legal proceedings

Neither Rio Tinto plc nor Rio Tinto Limited nor any of their subsidiaries is a defendant in any proceedings which the directors believe will have a material effect on either Company's financial position or profitability. Contingencies are disclosed in note 35 to the financial statements.

## Exploration, research and development

The Group carries out exploration and research & development in support of its activities as described more fully under Exploration, and Technology & Innovation on pages 62 to 64. Amounts charged for the year net of any gains on disposal generated a net loss for exploration and evaluation of US\$72 million (2009: net gain US\$380 million). Research and development costs were US\$187 million (2009: US\$193 million).

## Auditors

PricewaterhouseCoopers LLP and PricewaterhouseCoopers 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 2011 annual general meetings. The resolution will also 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 256 in the financial statements.

No person who was an officer of Rio Tinto during 2010 was a director or partner of the auditors at a time when the auditors 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 auditor is unaware;
- the directors have 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 auditor is aware of that information.

## Principal auditor – audit and non audit fees and services

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

	2010 US\$m	2009 US\$m
Audit fees <sup>(a)</sup>	16.7	23.2
Audit services in connection with divestment programme <sup>(b)</sup>	9.1	22.0
Tax fees	0.4	2.1
All other fees <sup>(c)</sup>	7.1	14.8
	33.3	62.1

(a) Audit fees relating to statutory audits.

(b) Represents fee for audit of carve out financial statements

(c) All other fees in 2010 include those relating to the bond issues, divestment programme and similar corporate projects.



Further information on audit and non audit fees is set out in note 43 to the financial statements.

A description of Rio Tinto's policies to uphold the independence of the Group's principal auditors is set out in the corporate governance section on page 125. Based on advice provided by the Audit committee as set out in the Report of the Audit committee on page 119, the directors are satisfied that the provision of non audit services by PricewaterhouseCoopers is compatible with the general standard of independence for auditors and the standards imposed by the Australian Corporations Act 2001 and US legislation.

### Financial instruments

Details of the Group's financial risk management objectives and policies and exposure to risk are described in note 33 to the 2010 financial statements.

### Value of land

Most of the Group's interests in mining properties and leases, and in other land and buildings have been included in the financial statements at cost in accordance with its accounting policies. It is not possible to estimate the market value of such interests in land as this will depend on product prices over the long term which will vary with market conditions.

### Creditor payments

It is the Group's policy to agree terms of payments with suppliers when entering into contracts and to meet its obligations accordingly. The Group does not follow any specific published code or standard on payment practice.

At 31 December 2010, there were 23 days' (2009: 24 days) purchases outstanding in respect of the Group based on the total invoiced by suppliers during the year.

### UK Financial Reporting Review Panel

Following discussions with the UK Financial Reporting Review Panel (FRRP), Rio Tinto has agreed to include certain additional information in the 2010 Annual report at the FRRP's request. This information includes on page 32, additional details of the potential health risks posed by exposure to workers and communities surrounding uranium mines; on page 34, details of the sensitivities the Group faces in dealing with local communities, such as at the La Granja copper development in Peru and the Eagle project in Michigan in the United States; on page 37, an example of the potential for the Group's projects to impact on biodiversity, with information relating to biodiversity projects associated with the Group's activities in Madagascar; on page 38, additional details of the nature of the Group's interests in the non-managed Grasberg mine in Indonesia, the nature of the environmental risks and social issues relating to that mine; and reference to the sale of shares by the Norwegian Government Pension Fund in 2008 as an example of the possible impact of the reputational risks faced by the Group in relation to its non-managed operations.

### 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.

The Directors' report is made in accordance with a resolution of the board.



Jan du Plessis, *chairman*  
4 March 2011

# Corporate governance



Rio Tinto's board is ultimately responsible for the success of the Group and upholds high standards of corporate governance that will enable us to achieve our vision of global sector leadership.

The board of directors firmly believes that high standards of corporate governance form an essential underpinning to the achievement of Rio Tinto's vision to become the sector leading global mining and metals company and to maximise shareholder returns.

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. Statements of compliance with each of the corporate governance codes applied by these jurisdictions are set out on page 127.

## 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.

## Responsibilities

The principal role of the board is to set the Group's vision and to regularly review its strategic direction. In doing this, the board also has responsibility for the establishment and maintenance of effective standards of corporate governance across the Group and oversees management's control and accountability framework.

A formal schedule of matters specifically reserved for decision or consideration by the board as a whole has been agreed by the directors. This schedule covers areas such as the Group's strategy, major investments and acquisitions. It is available on the corporate governance section of the website.

In line with its principal role, the board is ultimately accountable to Rio Tinto's shareholders for the performance of the business. Responsibility for day to day management of the business is delegated to the chief executive who, in turn, has established an executive team, the Executive committee, with authorities delegated to individual executives, all within an agreed financial control framework. 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 133 of the Remuneration report). These performance targets are determined by the Remuneration committee on behalf of the board for the chief executive based upon his proposals and objectives for the year. The chief executive establishes targets for the other members of his Executive committee which are then cascaded throughout management teams. Further details of the performance evaluation of the executive directors and other senior executives is discussed in the Remuneration report.

## Board performance

### Key activities during 2010

- Monitoring economic developments in order to meet the challenges of the financial volatility of OECD countries and the opportunities presented by the growing levels of urbanisation and industrialisation in populous parts of the world.
- Promoting the growth of the business, evidenced in particular by: the signature of a joint venture agreement with Chalco for the development and operation of the Simandou iron ore project in Guinea; the approval of further funding for expansion of Pilbara iron ore capacity to 283 million tonnes per annum; and other corporate activity relating to Oyu Tolgoi and Riversdale.
- Positioning Rio Tinto to meet fiscal and monetary challenges, including engagement with the Australian Government in relation to its proposed Resources Super Profits Tax and its subsequent replacement with a Minerals Resource Rent Tax.
- Overseeing the management of the risks facing Rio Tinto, seeking to influence government and other external stakeholders within the mining and natural resource sector relating to resource nationalism and socio-economic development.

- Reviewing each of the product group strategies.
- Considering and eventually withdrawing from plans to create the Western Australian iron ore production joint venture with BHP Billiton.
- Driving completion of the divestment programme.

### Board objectives

- Prioritise value adding growth.
- Support the vision of global sector leadership.
- Regular review and oversight of Group strategy.
- Review financial and non-financial performance metrics.
- Oversee succession planning for the board and senior executives.
- Strive for excellence in the Group's governance processes and policies, including risk governance.
- Review and implement actions from board and board committee performance evaluations.
- Deliver year-on-year improvement in safety performance.
- Maintain a strong balance sheet.

## Board balance and independence

### *Chairman and chief executive*

The roles of the chairman and chief executive are separate and the division of their respective responsibilities has been reviewed and approved by the board.

### *Board balance*

Rio Tinto has a diverse board comprising directors drawn from a wide range of professional backgrounds and geographic areas. The board supports the principle of diversity and its implementation throughout Rio Tinto and believes that a board and employee community reflective of the Group's global activities is critical to the success of the organisation. See pages 116 to 117 for more information on diversity.

As of the date of this report, the board consists of 14 directors: the chairman, three executive directors, and ten independent non executive directors.

The names, skills and experience of each director together with their terms in office are shown in the biographical details on pages 102 to 105. Details of changes to the board during 2010 and in the year to date are set out in the Directors' report on page 110.

Sir Rod Eddington and Yves Fortier have announced their intention to retire from the boards upon the conclusion of the 2011 annual general meetings. The board will then comprise 12 directors of which eight will be independent non executive directors.

### *Director independence*

The tests of independence of a non executive director in the jurisdictions where Rio Tinto has listings are not wholly consistent. The board has therefore adopted a formal policy for the determination of the independence of its non executive directors. This policy, which includes materiality thresholds for the measurement of independence to be approved by the board, is available on the Group's website.

Among its key criteria 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 to both 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 parties' consolidated gross revenue per annum, although the test also takes other circumstances into account.

Applying these criteria, the board is satisfied that all of its non executive directors are independent in accordance with this policy.

Jan du Plessis, upon his original appointment to the board as a non executive director in September 2008, was deemed to be independent in accordance with the criteria set by the board's policy. At the time of his appointment as non executive chairman from 20 April 2009, the board determined that he continued to be independent under the policy. In the board's view, he continues to satisfy the tests for independence under the Australian Securities Exchange Corporate Governance Principles and Recommendations ("ASX Principles") and the New York Stock Exchange Corporate Governance Standards ("NYSE Standards").

## Conflict of interests

UK company law allows the board to authorise a situation in which there is, or may be, a conflict between the interests of Rio Tinto and the direct or indirect interests of a director or between the director's duties to Rio Tinto and to another person. Further to the approval obtained from shareholders in 2008, Rio Tinto plc's articles of association give directors the power to authorise such conflicts. The board has adopted procedures for ensuring that its powers to authorise conflicts operate effectively and for this purpose, a register of conflicts and any authorisation granted by the board is maintained by the company secretary and reviewed bi-annually by the board.

## Executive directors' other directorships

Executive directors may on occasion be invited to become non executive directors of other companies. The board has adopted 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 exposure. For further information see page 139.

### How the board members spent their time in 2010\*

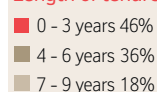


\*Excludes board committee responsibilities and delegated authorities by the board

### Industry/background experience



### Length of tenure – Non executive directors only



### Election and re-election

The directors may appoint additional members to join the board during the year. Directors appointed in this way will, upon the recommendation of the board, offer themselves for election by shareholders at the first annual general meetings after their appointment.

In subsequent years the re-election of directors is subject to each director meeting the independence criteria detailed above, the absence of any conflicts of interests, ongoing commitment to Group activities, and satisfactory performance.

In accordance with a new provision of the UK Corporate Governance Code (formerly the Combined Code), Rio Tinto expects to submit all directors for re-election annually with effect from its annual general meetings in 2011.

Non executive directors are normally expected to serve at least six years and, except in special circumstances, would not normally serve more than nine years.

### Governance

The board meets regularly in order to effectively conduct its business. In 2010, there were eight scheduled board meetings and three board meetings convened and held at short notice. The number of meetings held in 2010 is a reflection of the considerable corporate activity considered by the board during the year, particularly in relation to the proposed iron ore production joint venture with BHP Billiton in Western Australia, divestments, capital expenditure commitments and acquisition opportunities. Details of the directors' attendance at all of the board and committee meetings held in 2010 are set out on page 118.

The board has regular discussions with the executives during the year on the Group's strategy. These discussions will typically include strategy presentations that are given by product group chief executives, other members of the Executive committee or global heads of function. The board also holds an annual two day strategy-setting 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 team through effective allocation of the Group's resources.

Directors receive timely, regular and appropriate management and other information to enable them to fulfil their duties. They also have direct access to the advice and services of the company secretaries. In the event that they consider it to be required in the delivery of their fiduciary duties, the directors are also able to obtain independent professional advice at the Group's expense through the company secretaries.

In addition to these formal processes, the directors are in regular informal communication with members of the Executive committee and other senior executives. This helps to foster an open and regular exchange of knowledge and experience between management and the non executive directors.

To continue building on the formal induction programmes, which all new non executive directors undertake, they are routinely provided with training and development opportunities. In 2010, these opportunities included a briefing on reserves and mineral resource reporting. The directors are also encouraged to participate in site visits to the Group's operations around the world and to meet local employees. In 2010, directors were able

to benefit in this way by a visit to the Group's coal operations in Australia. The board also takes the opportunity to combine attendance at the annual general meeting in Australia with site visits.

### Board performance evaluation

Under the leadership and guidance of the chairman and with the support of the company secretary, the directors continue to review the design and effectiveness of the board evaluation processes. These processes have been further refined in 2010 resulting in an annual exercise to evaluate not only the board's effectiveness, but also that of the board committees and individual directors.

Each non executive director's performance is appraised personally by the chairman each year. For 2010, in light of the publication of the new UK Corporate Governance Code, which requires the evaluation of the board to be externally facilitated at least every three years, a range of alternatives for conducting the evaluation of the board and committees was considered. The board concluded that an evaluation process led by Jan du Plessis, in his capacity as chairman of the board, managed by the company secretary, but overseen by an independent third party, was appropriate for 2010, since it was considered that this approach would promote further transparency and objectivity and facilitate a challenging and rigorous self-assessment process (summarised opposite).

For the board committees, a similar process was followed with the assistance of the external facilitator, agreed with the committee chairman and completed by each committee member and regular attendees.

The senior independent non executive director leads a discussion involving all of the non executive directors without the chairman in attendance to assess the chairman's performance, taking into consideration the views of the executive. Feedback is provided directly to the chairman by the senior independent non executive director.

The chief executive undertakes a performance evaluation of the other executive directors. Taking into consideration the views of the chairman and non executive directors, feedback is often provided directly to the executive directors by the chief executive.

Based upon the results of these evaluations (summarised opposite), it was concluded that the board and its committees are operating effectively and that the individual directors' performance continues to be effective and demonstrates the level of commitment expected by Rio Tinto.

### Diversity

#### Rio Tinto's commitment to diversity and inclusion

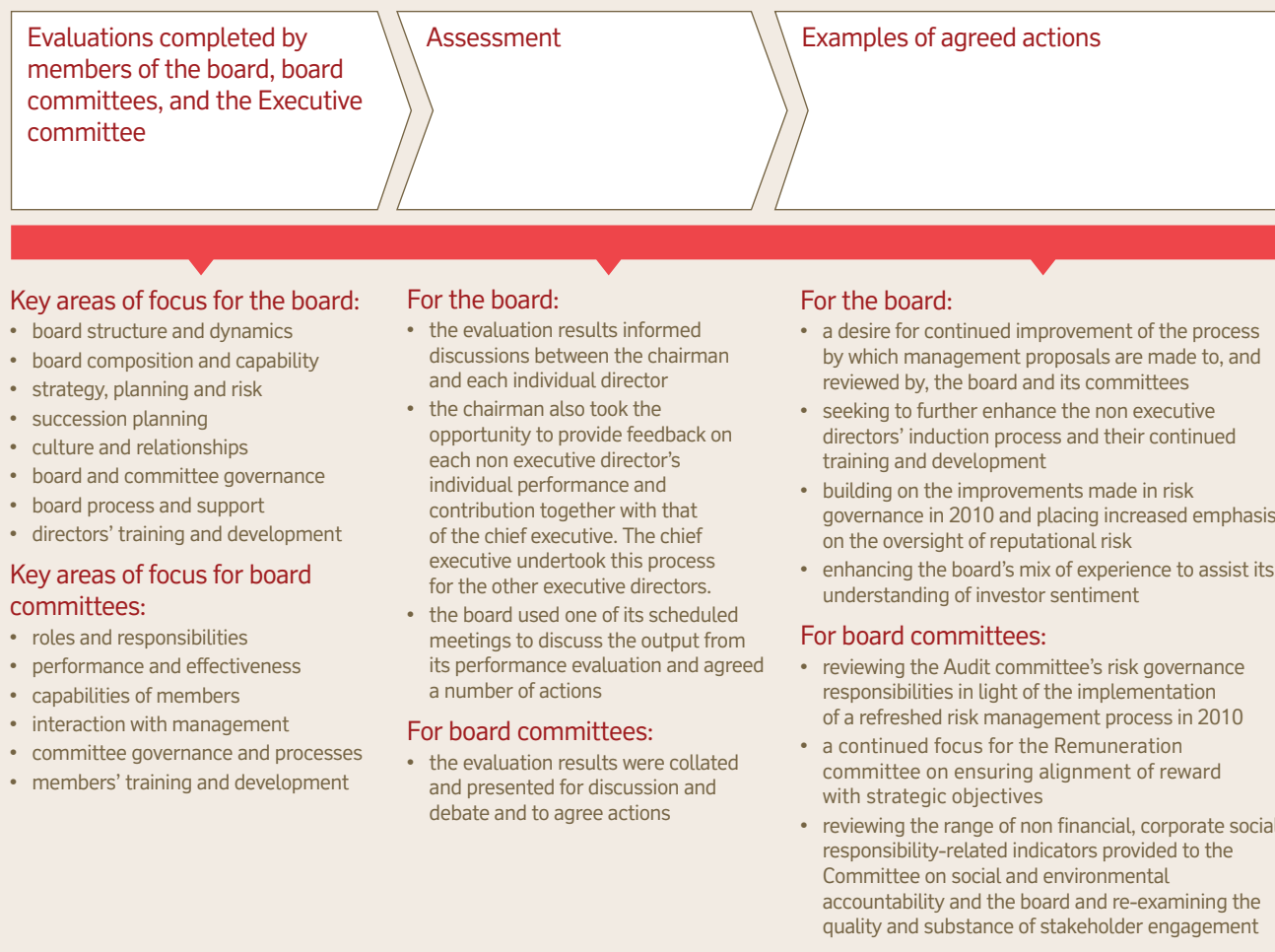
We believe that diversity improves business outcomes. We are a global company, and wherever we operate, and across every part of our business, we strive to create an inclusive culture in which difference is recognised and valued. By bringing together men and women from diverse backgrounds and giving each person the opportunity to contribute their skills, experience and perspectives, we believe that we are best able to develop innovative solutions to challenges and deliver sustainable value for Rio Tinto and its stakeholders.

#### What diversity and inclusion means for Rio Tinto

- Embracing workforce diversity irrespective of age, gender, race, national and ethnic origin, religion, sexual orientation, physical ability, language.

## Board and board committee evaluations

Based upon the results of these evaluations, it was concluded that the board and its committees are operating effectively



- Valuing diversity of perspective – leveraging the diverse thinking, skills, experience and working styles of our employees.
- Building a flexible organisation – providing opportunities for work arrangements that accommodate the diverse needs of individuals at different life and career stages.
- Respecting stakeholder diversity – developing strong and sustainable relationships with diverse shareholders, communities, employees, governments, customers and suppliers.

### How we are building an inclusive environment at Rio Tinto

We use five levers to drive action and build awareness about diversity and inclusion. Long and short term initiatives are prioritised based on need and impact.

- Governance models, such as the recently established Group Diversity Council
- Policies, practices and targets
- Leadership and cultural competence
- Stakeholder relationships
- Education and communication

### What our current focus is

Priorities for 2011 include five year programmes to:

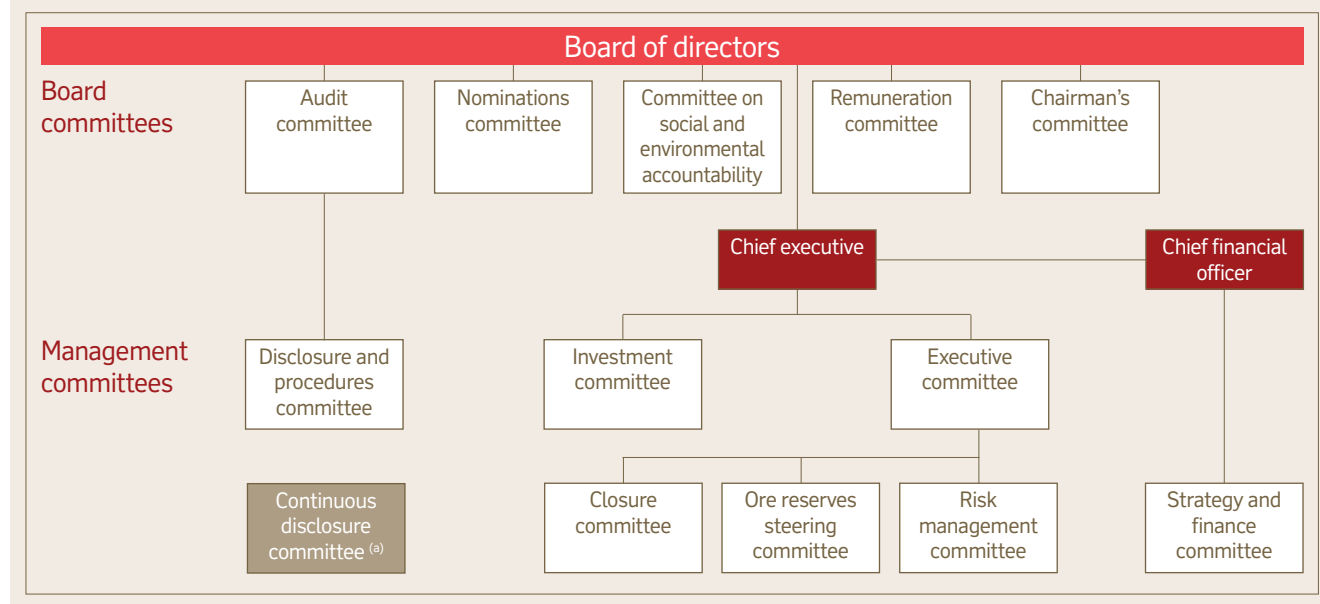
- Improve the representation of women in senior management roles and the pipeline of female talent; and
- Improve the number of individuals from under-represented nationalities in professional and leadership roles, especially people from emerging regions in which Rio Tinto is developing business.



## Board committees

The board has established committees which are responsible for audit, remuneration, executive and non executive succession, social and environmental matters and assisting the board to deliver its responsibilities. Each committee plays a vital role in helping the board ensure that high standards of corporate governance are maintained throughout the Group. The committees are governed by terms of reference which are reviewed annually and can be viewed in the corporate governance section of the website.

### Governance structure



(a) The Continuous disclosure committee is an independent management committee.

### Attendance at board and committee meetings during 2010

	Board scheduled <sup>(b)</sup>	Board short notice <sup>(b)</sup>	Audit committee <sup>(b)</sup>	Nominations committee <sup>(b)</sup>	Committee on social and environmental accountability <sup>(b)</sup>	Remuneration committee <sup>(b)</sup>	Chairman's committee <sup>(b)</sup>
Tom Albanese	8/8	3/3	–	–	–	–	17/18
Sir David Clementi <sup>(a)</sup>	2/3	1/1	4/4	1/1	–	1/1	–
Robert Brown	6/6	3/3	–	2/2	4/4	–	–
Vivienne Cox	8/8	2/3	7/7	3/3	–	–	–
Jan du Plessis	8/8	3/3	–	3/3	–	–	18/18
Sir Rod Eddington	8/8	2/3	–	3/3	6/6	–	–
Guy Elliott	8/8	3/3	–	–	–	–	16/18
Michael Fitzpatrick	8/8	3/3	7/7	3/3	–	3/3	–
Yves Fortier	8/8	2/3	–	3/3	5/6	–	–
Ann Godbehere	8/8	2/3	6/6	2/2	–	–	–
Richard Goodmanson	8/8	3/3	–	3/3	6/6	3/3	–
Andrew Gould	8/8	2/3	–	3/3	–	3/3	–
Lord Kerr	8/8	3/3	7/7	3/3	6/6	–	–
David Mayhew <sup>(a)</sup>	2/3	1/1	–	–	–	–	–
Paul Tellier	8/8	3/3	7/7	3/3	–	3/3	–
Sam Walsh	8/8	3/3	–	–	–	–	–

(a) Retired from the board on 26 May 2010.

(b) Number of meetings attended/maximum the director could have attended

## Audit committee report

### Members <sup>(a) (b)</sup>

1. Ann Godbehere – chair
2. Vivienne Cox
3. Michael Fitzpatrick
4. Lord Kerr
5. Paul Tellier

(a) Sir David Clementi was chair of the Audit committee until his retirement on 26 May 2010.  
 (b) Ann Godbehere became a member upon her appointment on 9 February 2010, and became chair upon Sir David Clementi's retirement.



### Key responsibilities

The primary function of the Audit committee, as set out in its terms of reference which are summarised below, is to assist the board in fulfilling its responsibilities by monitoring decisions and processes designed to ensure the integrity of financial reporting and sound systems of internal control and risk management. The scope of the Committee's responsibilities includes: financial reporting and internal controls over financial reporting; internal controls; corporate assurance; external auditors; risk management; and the 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 such direct access to the resources of the Group as it may reasonably require including the external and internal auditors.

The Audit committee's main responsibilities include the review of accounting principles, policies and practices adopted in the preparation of public financial information, review with management of procedures relating to financial and capital expenditure controls, including internal audit plans and reports, review with external auditors of the scope and results of their audit, review and approval of the auditors' fees, the nomination of auditors for appointment by shareholders, and the review of and recommendation to the board for approval of Rio Tinto's risk management policies and processes. Its responsibilities also include the oversight of the whistleblowing programme.

### Governance processes

To ensure the Committee discharges its responsibilities, it meets not less than four times per year and arranges occasional training sessions which may cover new legislation and other information relevant to the Committee's role. The Audit committee met seven times in 2010. The Group's chairman, chief executive, chief financial officer, other senior financial management, external and internal auditors regularly attend its meetings.

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 UK's Combined Code on Corporate Governance ("the Code"), the ASX Principles, the NYSE Code and US legislation, and 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 experience. Following the retirement of Sir David Clementi as its chairman with effect from the conclusion of the 2010 annual general meetings, Ann Godbehere, chairman of the Committee since 25 May 2010, and Michael Fitzpatrick are considered by the board to have recent and relevant financial experience and are therefore the Committee's financial experts. All other members of the Committee are, in the opinion of the Audit committee, deemed to be financially literate by virtue of their business experience.

The Audit committee applies policies for the pre-approval of permitted services provided by the Group's principal auditors. All of the engagements for services provided by them were either within the pre-approval policies or approved by the Audit committee. The directors are satisfied that the provision of non audit services by PricewaterhouseCoopers in accordance with this procedure is compatible with the general standard of independence for auditors imposed by relevant regulations, including the Australian Corporations Act 2001, and US legislation.

The Committee considered reports from the Group's Auditors, PricewaterhouseCoopers, and Rio Tinto Corporate 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 respectively. A review of the scope and the outputs from the annual Internal Control Questionnaire, a key element of Rio Tinto's internal control framework, was also evaluated.

### Key achievements

During 2010 the Committee undertook the following activities:

- reviewed and updated the terms of reference to reflect:
  - i. the Committee's role with respect to resource and reserves evaluation and reporting;
  - ii. the Committee's amended responsibility with respect to risk. Following the establishment of a Risk management committee and the enhancement of the board's oversight role for risk management, the Committee is now responsible for conducting an annual review of the maturity and effectiveness of management processes relating to risk;
  - iii. the Committee's role in overseeing the operation of the integrity and compliance programme including the whistleblowing facility.
- evaluated the effectiveness of PricewaterhouseCoopers, agreed the fees payable in respect of the 2010 audit, assessed their

independence in accordance with both UK and Australian standards and US legislation and recommended to the board that they be proposed for re-appointment at the 2010 annual general meetings.

- appointed a new external audit partner in accordance with the policy governing audit partner rotation.
- reviewed the effectiveness of the Group's third party provider of Internal Audit services.
- engaged in training sessions on the governance process surrounding ore reserves and mineral resources.
- completed its annual performance evaluation and reported the results to the board.

### Priorities for 2011

In addition to discharging the responsibilities set out above, the Committee's priorities for 2011 include:

- reviewing the effectiveness of the Group's risk management processes;
- oversight of the Internal Audit strategic review;
- focusing on training and development, particularly in relation to new legislation and regulation, including the US Dodd Frank Act and the UK Bribery Act.

Ann Godbehere, *chairman*

## Nominations committee report

### Members<sup>(a)</sup>

- |                           |                       |
|---------------------------|-----------------------|
| 1. Jan du Plessis – chair | 7. Ann Godbehere      |
| 2. Robert Brown           | 8. Richard Goodmanson |
| 3. Vivienne Cox           | 9. Andrew Gould       |
| 4. Sir Rod Eddington      | 10. Lord Kerr         |
| 5. Michael Fitzpatrick    | 11. Paul Tellier      |
| 6. Yves Fortier           |                       |

(a) Membership of the Nominations committee was extended to all non executive directors with effect from 1 January 2010.



### 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 skills, diversity and capacity required to ensure it remains relevant and appropriately aligned to oversee the delivery of Rio Tinto's strategy.

Taking into account these factors, the Committee develops and agrees the desired profiles of potential candidates for board membership. In consultation with external search consultants, it then oversees a recruitment process to supplement the board's skills or to replace directors as needed. The recruitment process itself includes identification of suitable candidates, followed by a formal assessment of each candidate, leading to a final selection process. Proposals for new board members are submitted to the full board for approval. On behalf of the board, the Committee also reviews proposals for senior executive appointments, monitors executive succession planning and oversees the board's policy on external appointments of executive committee members.

### Governance processes

The Committee meets not less than twice a year. In 2010, the Committee met three times.

The members of the Committee are all independent and free of any relationship that would affect their impartiality in carrying out their responsibilities. The chairman is considered independent under the ASX Principles and the NYSE Code. Under the Code he is not considered independent following his appointment as chairman, however the Code specifically allows the chairman to chair the Nominations committee. The composition of the Committee is therefore also compliant with the Code.

### Key achievements in 2010

During 2010, the Committee:

- extended the membership of the Committee to all non executive directors of Rio Tinto;
- following consideration of the overall balance of skills, knowledge, experience and diversity on the board against current and future requirements of the Group, conducted a rigorous search and selection process resulting in the appointment of Ann Godbehere and Robert Brown as non executive directors; and
- considered the proposed annual re-election of directors, taking into account the board's policy on independence and the results of the evaluations of the non executive directors;
- undertook its annual performance evaluation and reported the results to the board.

### Priorities for 2011

- to review plans formulated for both executive and non executive director succession ;
- to consider the implications arising from the annual re-election of directors, including possible revisions to terms of appointment; and
- to monitor emerging regulation, including relating to diversity.

Jan du Plessis, *chairman*

## Committee on social and environmental accountability

### Members<sup>(a)</sup>

1. Richard Goodmanson – chair
2. Robert Brown
3. Sir Rod Eddington
4. Yves Fortier
5. Lord Kerr
6. Vivienne Cox

(a) Vivienne Cox joined the Committee on social and environmental accountability on 30 November 2010.



### Key responsibilities

The Committee assists the board to oversee management processes, standards, and strategies designed to manage social and environmental risks and achieve 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.

### Governance processes

The Committee meets not less than four times a year. In 2010, the Committee met six times. The chairman, chief executive, and other senior management regularly attend its meetings.

The members of the Committee are all independent and free of any relationship that would affect their impartiality in carrying out their responsibilities.

### Key achievements in 2010

During 2010 the Committee undertook the following activities:

- Reviewed performance during the year against each of the Committee's core areas of activity;
- Reviewed the adequacy of critical controls and corporate culture arising from publicised disasters external to the Group;
- Assessed the Group's business resilience and corporate recovery programme;
- Reviewed the processes for the management of key operational (non financial) risks in the Group;
- Oversaw the conduct of an independent internal sustainable development assurance audit and reviewed the results; and
- Undertook its annual performance evaluation and reported the results to the board.

### Priorities for 2011

- To assess progress towards embedding a zero harm culture through the Group and its non-managed operations;
- To continually review the approach to sustainable development to ensure it remains focused on the social, environmental, economic and governance risks most relevant to supporting the Group's vision and delivering our strategy;
- To review work plans formulated for health, safety, environment, communities and employment practices;
- To consider the implications of emerging legislation; and
- To continue to improve the diversity of the Group's workforce

The sustainable development review has been reviewed by the Committee and approved by the board.

 For more information read page 29

### Remuneration committee

#### Members<sup>(a)</sup>

1. Andrew Gould – chair
2. Michael Fitzpatrick
3. Richard Goodmanson
4. Paul Tellier

(a) Sir David Clementi was a member of the Remuneration committee until his retirement on 26 May 2010.



#### Key responsibilities

The Remuneration committee assists the board to fulfil its oversight responsibility to shareholders to ensure that remuneration policy and practices reward fairly and responsibly and with a clear link to corporate and individual performance.

The report of the Remuneration committee on pages 128 to 155 has been reviewed by the Committee and approved by the board. Key responsibilities, governance processes, key achievements in 2010, and priorities for 2011 are set out in the report.

### Chairman's committee report

#### Members

1. Jan du Plessis – chair
2. Tom Albanese
3. Guy Elliott



#### 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 deal 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, as appropriate.

Jan du Plessis, *chairman*

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### Australia and Canada forum

An advisory forum has been established in each of Australia and Canada to advise the board and executive management on political, economic and social developments in those countries which could affect the successful development of Rio Tinto's businesses. Each forum meets twice annually and is attended by the chairman, chief executive, chief financial officer, local directors and senior management.

## Management committees

The chief executive has delegated authority from the board for the day to day management of the Group's operations. The chief executive, chief financial officer and the heads of the product and global support groups share management responsibility for the management of the business.

The chief executive is assisted by the work of management committees in monitoring performance and delivering Rio Tinto's strategy. The management committees are described below.

### Executive committee

The Executive committee is responsible, under the leadership of the chief executive, for the day to day management of the business, setting performance targets and implementation of the Group's strategy and direction as determined by the board. Based upon the financial authorities vested in the chief executive by the board, each member of this committee has delegated financial authorities, within a clear internal control framework, for the management of their respective areas. The members of the Committee are: the chief executive; the chief financial officer; the five product group chief executives; the Group executive, Technology & Innovation; the Group executive, Legal & External Affairs; the Group executive, People & Organisation; and the Group executive, Business Support & Operations.

### Other management committees

Other management committees have been established to monitor performance, maintain controls and support the delivery of the Group's strategy.

### Investment committee

The purpose of the Investment committee is to review proposals for major capital decisions to ensure that they accord with the strategic objectives established by the board. The members of the Committee are: the chief executive (chair); the chief financial officer; the Group executive, Technology & Innovation; and the Group executive, Business Support & Operations.

### Strategy and finance committee

The Strategy and finance committee is responsible, under the leadership of the chief financial officer, to review and advise on issues that arise in the day to day workings within the functional areas of the chief financial officer's direct reports. The members of the Committee are: the chief financial officer; the global head of Planning & Reporting; the global head of Treasury; the global head of Taxation; the head of Investor Relations; and the head of Business Development.

### Ore reserves steering committee

The Ore reserves steering committee is the primary governance body over the ore reserve estimation and disclosure processes. The members of the Committee are: the Group executive, Technology & Innovation (chair); the global head of Planning &

Reporting; the global practice leader, Mining, Technology & Innovation; the chief adviser, Evaluation; the chief adviser, Orebody Knowledge, Technology & Innovation; the chief adviser, Resources and Reserves, Technology & Innovation; the general manager, Resource Development, Iron Ore; and the chief geologist, Rio Tinto Exploration.

### Continuous disclosure committee

The Committee is responsible for determining whether information relating to Rio Tinto may require disclosure to the markets under the continuous disclosure requirements in the jurisdictions in which Rio Tinto is listed. The members of the committee are: the chief financial officer (chair); the company secretary of Rio Tinto plc; General counsel Asia Pacific; the head of Business Development; the head of Investor Relations; and the global practice leader, Media Relations.

### Disclosure and procedures committee

The primary role of this Committee is to assist the board, Audit committee and individual directors and officers who are required under various regulations to endorse the Group's shareholder reports and other public documents. The members of the Committee are: the company secretary of Rio Tinto plc (chair); the global head of Planning & Reporting; the head of Investor Relations; the head of Compliance; and the head of Corporate Assurance.

### Closure committee

This Committee oversees the closure management programme to manage the significant financial, reputational and operational risk of site closures. The members of the Committee are: the global head of Planning & Reporting (chair); the global head of Health, Safety, Environment & Communities; the Group executive, Legal & External Affairs; the global practice leader, Communities; the vice president, Human Resources, Functions; and the Group executive, Technology & Innovation. The activities of the Committee are supported by a sub-committee to implement the closure management programme.

### Risk management committee

The Risk management committee assists the Executive committee and the board in ensuring that robust risk management exists across Rio Tinto. The Committee ensures that a sufficient level of risk analysis is applied to critical decisions and provides assurance to the Executive committee and the board that risk processes at all levels are effective and compliant with overall risk policy.

The members of the Committee are: the chief executive (chair); the chief financial officer; the Group executive, Business Support & Operations; the Group executive, Technology & Innovation; the Group executive, People & Organisation and the Group executive, Legal and External Affairs. In addition, a product group chief executive officer attends the Committee on a rotating basis.

### Global code of conduct

Rio Tinto's commitment to integrity and compliance is set out in *The way we work*, our global code of business conduct and one of the Group's most important documents. See page 16 for more information.

*The way we work* contains principles and standards of conduct which reaffirm the Group's commitment to corporate responsibility. It is inspired by our four core values: accountability, respect, teamwork and integrity. It is supported by Rio Tinto's extensive framework of policies and standards.

Core policies are adopted by the board after wide consultation, externally and within the Group. Once adopted, they are communicated to business units worldwide, together with mandatory standards, guidance notes and resources to support implementation. Business units are required to devote the necessary effort by management to implement and report on these policies and standards.

Rio Tinto's core policies, addressed in *The way we work*, include: access to land; business integrity; communities; corporate governance; employment; environment; human rights; internal controls and reporting; occupational health; political involvement; government relations; safety; sustainable development; and transparency. These are supported by policies in the areas of data privacy, risk, information management and security.

Each policy is supported by standards and guidance, expanding on the minimum expectations on topics such as antitrust, continuous disclosure, antibribery, compliance, cultural heritage and health, safety and the environment. These policies and standards apply to all Rio Tinto managed businesses. Where the Group does not have operating responsibility for a business, Rio Tinto's policies 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 whistleblowing programme called *Speak-OUT*. Employees may report concerns, including suspicion of violations of the Group's financial reporting or environmental procedures. The *Speak-OUT* programme is independently administered, confidential, and our employees can use this programme without fear of recrimination. A process has been established for the investigation of any matters reported. Details of *Speak-OUT* call activity are set out on page 39.

### Dealing in Rio Tinto securities

Rio Tinto has a set of 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 from the chairman or the company secretary before any proposed dealing to ensure that they do not deal when in possession of inside information. Directors and members of the Executive committee will not be given clearance during "close periods" immediately preceding the announcement of annual and interim results. The rules prohibit the hedging of unvested options. The "Rules for dealing in Rio Tinto securities" comply with the new requirements of the ASX Listing Rules effective from 1 January 2011 and can be viewed in the corporate governance section of the website.

### Communication

Rio Tinto recognises the importance of effective timely communication with shareholders and the wider investment community.

To ensure that trading in its securities takes place in an informed market, the Group has adopted continuous disclosure standards which are overseen by the Continuous disclosure committee and form part of the Group's corporate governance standards (see page 123). Rio Tinto makes immediate disclosure to the listing authorities of any information that a reasonable person would expect to have a material effect on its share price in accordance with their rules. 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 in depth information on health, safety and the environment, as well as general investor information, publications and policies and guidance. Full and half year results as well as any major presentations are also webcast. 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. Rio Tinto's external auditor, PricewaterhouseCoopers, attends the annual general meetings and is available to answer questions about the conduct of the audit and the preparation and content of the auditor's report. Any questions received and answers provided are made available at that meeting, and shareholders have the opportunity to meet informally with directors after the meeting.

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, chairmen of board committees, and other non executive directors are also available on request. 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.

During 2010, these meetings with the investment community focused on the issues of strategy, board succession; corporate governance; executive remuneration; and the operational and financial platform of the Group. Further information on these issues is set out on pages 18, 120, 114, 128 and 42 respectively.

The Group also organises regular investor seminars which provide a two way communication opportunity with investors and analysts. Feedback is communicated to the board. Surveys of major shareholders' opinions and perceptions of the Group 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 maximise the return to shareholders through a strategy of investing in large, long term, cost competitive mines and businesses. The directors recognise that creating shareholder return is the reward for taking and accepting risk. The risks facing shareholders are, to some extent, managed by the Group's diversified portfolio of assets spread across multiple geographies, currencies and commodities.

A description of some of the principal risks and uncertainties that could affect Rio Tinto are found on pages 25 to 28.

### Risk policy and standard

The board recognises that risk is an integral component of the business, and that it is characterised by both threat and opportunity. 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. 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 and management process are set out in the *Risk policy and standard* which is in the corporate governance section of 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 makes up the Rio Tinto approach to identifying, evaluating and managing the material business risks faced by the Group. Clear accountability for risk management is defined throughout the Group and is a key performance area of line managers.

The responsibility for identifying and managing risks lies with Rio Tinto's managers and business leaders at all levels, but a number of specific roles have been defined to support the implementation of the framework. The top level process has been strengthened during 2010 by a review of the Group's approach to managing its risk, the appointment of a head of Group risk to this new role, and the introduction of a risk management committee that reports to the Executive committee.

### Internal controls

The directors are responsible for the Group's system of internal controls and for reviewing annually its effectiveness in providing shareholders with a return on their investments that is consistent with a responsible assessment and management of risks. 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 2010. Whilst the Audit committee is responsible for oversight of the effectiveness of the risk management process, accountability for identifying and managing risks rests with the chief executive and is cascaded throughout the Group through the Executive committee.

## Internal risk control systems

Two of the Group's management committees, the Executive committee and the Disclosures and procedures 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 Code and US legislation. Each year, the leaders of the Group's businesses and administrative offices complete an internal control questionnaire that seeks to confirm 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. The results of the internal control evaluation are presented to the Audit committee in support of their review of the Group's internal controls. Assurance functions, including internal auditors and sustainable development auditors, perform reviews of the integrity and effectiveness of control activities and provide regular written and oral reports to the Audit committee, Committee on social and environmental accountability and management committees.

In 2010, information was reported by management to the Audit committee to enable it to assess the effectiveness of the internal controls and the management of material business risks. 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. Accordingly, the review of their internal controls is less comprehensive than that of the Group's managed operations.

## Auditors and internal assurance

### Auditor independence

As indicated in the report of the Audit committee on pages 119 to 120, Rio Tinto has adopted policies designed to uphold the independence of the Group's principal 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 Group's principal auditors to provide statutory audit services, other services pursuant to legislation, taxation services and certain other services are pre-approved. Any engagement of the Group's principal auditors to provide other permitted services is subject to the specific approval of the Audit committee or its chairman.

Prior to the commencement of each financial year the Group's chief financial officer and its principal auditors submit to the Audit committee a schedule of the types of services that are expected to be performed during the following year for its approval. 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 Group's principal 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 Group's principal 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 as well as remuneration payable to other accounting firms, is set out in note 43 to the financial statements.

PricewaterhouseCoopers have been the Group's auditors for a number of years. Each year, the Committee reviews the effectiveness of the external audit process and the independence of the auditors. Based upon its 2010 review, the Committee was satisfied with the external audit process that was conducted and that the independence of the auditors was in no way compromised. The Committee does not consider it necessary to undertake a tender process for the auditors. In accordance with rotation rules, the principal auditors' engagement partners will rotate every five years. The UK audit partner will rotate at the end of the 2010 audit and the Australian audit partner is due to rotate at the end of the 2011 audit.

### Corporate Assurance

The Corporate Assurance function 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 efficiency and effectiveness of the relevant systems and processes. The function has adopted 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 the Committee on social and environmental accountability (CSEA) and has full access to all functions, records, property and personnel of the Group. The head of Corporate Assurance reports functionally to both the Audit committee and CSEA, providing each committee with information relevant to their specific terms of reference.

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 CSEA for approval.

In respect of its internal audit function, Rio Tinto utilises the services of external service providers. The Audit committee has a policy which addresses conflicts of interest in relation to management requested engagements of the service provider. 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 Corporate 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 of 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.

The directors are responsible for maintaining proper accounting records, in accordance with the UK Companies Act 2006 and the Australian Corporations Act 2001. 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 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/or business.

The directors consider that the *2010 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 relies on a sound system of risk management and internal controls and confirms 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 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 common management of each 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 finance 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 IFRS.

Because of its 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.

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.

Management conducted an assessment of the effectiveness of internal control over financial reporting as of 31 December 2010, based on the Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), 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.

### Statement of compliance with governance codes and standards in 2010

In compiling this report, the directors have referred to The Combined Code on Corporate Governance, published by the UK Financial Reporting Council (the Code), the Australian Securities Exchange (ASX) Corporate Governance Principles and Recommendations 2nd edition (the ASX Principles), and the New York Stock Exchange (NYSE) Corporate Governance Standards (the NYSE Standards).

In accordance with the Listing Rules of the UK Listing Authority and the ASX, Rio Tinto confirms that throughout 2010 and at the date of this document the Group applied the principles of, and was compliant with, the provisions of Section 1 of the Code and was also fully compliant with the ASX Principles.

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 one exception. The NYSE Standards state that companies must have a nominating/corporate governance committee composed entirely of independent directors, with written terms of reference 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 120. This committee does not develop corporate governance principles for the board's approval. The board itself performs this task and approves the Group's overall system of governance and internal controls.

Rio Tinto's website contains further information about the corporate governance framework.



# Remuneration report

## About the report and committee

This report explains the roles, responsibilities and activities of the Remuneration committee and includes detailed disclosures on director and executive remuneration. It outlines how Rio Tinto ensures that its people are appropriately focused on driving continuous, sustainable improvements in performance to maximise total shareholder return by sustainably finding, developing, mining and processing natural resources in order to achieve our vision of becoming the sector leading global mining and metals company.

Following the outcome of the shareholder vote on the Remuneration report at the 2010 annual general meetings, the chairman led a consultation process with a range of shareholders to more fully understand any concerns that they have with the Group's executive remuneration policy and practice and to discuss the Committee's review of the Group's long term incentive plans (LTIPs). The feedback provided was discussed by the Committee and has been taken into account in further developing the executive remuneration policy. During 2010, the Committee conducted a detailed review of its competitive benchmarking policy for members of the Executive committee. The conclusions are set out below, and have informed the remuneration decisions made by the Committee for the Executive committee. The Committee is proposing to review the LTIPs and commence a further round of consultation with shareholders on the form of any new plans before the plans expire in 2014.

Based upon the support expressed by shareholders during the earlier consultation exercise, the Committee is recommending to shareholders for approval at the 2011 annual general meetings amendments to the LTIPs to mitigate any unintended consequences from recent legislative changes in Australia. To ensure that Australian participants are not adversely impacted by the change in tax treatment of share options in Australia, the Committee has concluded that certain amendments are required to the rules of the Group's Performance Share Plan (PSP), formerly the Mining Companies Comparative Plan (MCCP). The proposed changes mean that, participants in the Performance Share Plan and Share Option Plan will be given the opportunity to express their preference as to whether they receive their entire award in the form of Performance Shares as opposed to the current mix of Performance Shares and Performance Options. In order to implement these changes, a resolution to amend the rules of the PSP is being submitted to shareholders for approval at the 2011 annual general meetings. The notices of meeting for the 2011 annual general meetings contain further detailed information.

This report has been drawn up in accordance with applicable legislation and corporate governance guidance in the UK and Australia, which are the UK Combined Code on Corporate Governance, Schedule 8 of the Large and Medium sized Companies and Groups (Accounts and Reports) Regulations 2008, the UK Listing Authority Listing Rules, the Australian Corporations Act 2001 and Principle 8 of the revised Australian Securities Exchange Corporate Governance Principles and Recommendations 2nd edition (the ASX Principles).

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, including the directors. For the purposes of this report, the Committee has determined that the key management personnel are, in addition to the directors, members of the Executive committee. The Executive committee comprises the executive directors, product group chief executive officers (PGCEOs) and Group executives. Throughout this report, the members of the Executive committee, including the executive directors, are collectively referred to as

"executives". The executives are listed on page 139 together with the positions held during the year and dates of appointment.

Australian legislation further requires disclosures in respect of the five highest paid executives below board level selected from the senior managers who make, or participate in making, decisions that affect the whole, or a substantial part, of the business of the Group, or have the capacity to significantly affect the Group's financial standing. The Committee has determined that below board level, only members of the Executive committee constitute the group of senior managers that make decisions that affect the whole, or a substantial part, of the business of the Group.

In addition to executive remuneration, this report covers the chairman's and the non-executive directors' remuneration, see page 140.

## Remuneration committee responsibilities

The Committee's role is to ensure that remuneration policy and practices reward employees fairly and responsibly with a clear link to corporate and individual performance, and are aligned with shareholders' interests in maximising shareholder return. 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.

These responsibilities include:

- monitoring the effectiveness and appropriateness of executive remuneration policy and practice;
- reviewing and determining the terms of service, including remuneration and any termination arrangements, for the chairman, executive directors, PGCEOs, Group executives and the company secretary of Rio Tinto plc;
- reviewing and confirming the remuneration framework and policies for other senior managers; and
- approving the use of share and cash based short and long term incentive plans for the Group, taking into account their alignment with the Group strategy.

The Committee considers the level of pay and conditions throughout the Group when determining executive remuneration and ensures the same principles are used when designing the broader employee remuneration policies. The Committee takes into account aggregate remuneration levels and the mix between the executives and professional staff. This ensures the comparative ratios are reasonable given differences in scope and responsibilities. The Committee is committed to ensuring that remuneration policy and practices reward people fairly and responsibly with a clear link to corporate and individual performance and reflecting, to the extent practicable, global corporate governance guidance on executive remuneration.

During 2010, the Committee met three times. The membership and meeting attendances are detailed in the corporate governance section on page 118. The Committee reviewed its terms of reference in 2010 and concluded that its responsibilities had been met and that its terms of reference remain appropriate. The Committee also undertook its annual performance evaluation and reported the results to the board.

The chairman and chief executive participated in meetings at the invitation of the Committee during 2010. The members of the Committee are all independent and free of any relationship that would affect their impartiality in carrying out their responsibilities. The Committee is supported by members of senior management who regularly attend meetings to provide information as requested by the Committee. These included Hugo Bague (Group executive, People & Organisation), Jane Craighead (Global practice leader, Total Rewards) and Ben Mathews

(company secretary, Rio Tinto plc). None of the attendees mentioned above were present when matters associated with their own remuneration were considered.

### Remuneration committee advisers

The independent advisers engaged by and reporting to the Committee during 2010 were Deloitte LLP. In addition to specialist

remuneration advice, Deloitte LLP provided unrelated taxation advice and advisory services to Rio Tinto. Deloitte LLP did not provide advice on executive remuneration matters other than to the Committee. The Committee has also drawn on the services and publications of a range of external service providers and remuneration consultants such as Towers Watson, Hay Group and Mercer in relation to market data and external validation of total shareholder return (TSR) performance.

## Executive remuneration

### Remuneration strategy

Rio Tinto operates in global and local markets where it competes for a limited pool of talented executives. To support its strategic drivers, the Group needs high quality, committed people. The executive remuneration strategy, and underlying policy, provides this support by enabling the Group to attract and retain talent that will maximise shareholder value.

The remuneration strategy (summarised below) is guided by our B-E-S-T approach, which is based on the principles of aligning remuneration arrangements with strategic Business objectives, Empowering employees by differentiating top performers, whilst fostering Simplicity and Transparency in the design and communication of these arrangements.

The components of this strategy, and how it supports our overall business strategy for achieving our vision of global sector leadership, are set out below:

Remuneration strategy	Supporting our business strategy
<b>Shareholder alignment</b> We aim to incentivise management to deliver shareholder value, for example, by having relative TSR as the metric for our performance based long term incentive plans.	Delivering rewards based on the relative standing of our performance against both the HSBC Global Mining Index and the broader market of large global companies as measured through the Morgan Stanley Capital Index (MSCI) helps drive superior performance, by providing greater upside potential and rewarding high wealth creation for our shareholders in growth periods.
<b>Long term focus</b> We aim 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 so that our executives successfully contribute to our business of focusing on investing in and operating large, long term, cost competitive mines and businesses. The Performance Options and Performance Shares have a three and four year time horizon, respectively. The Committee has also introduced a deferral of a proportion of the annual bonus, payable in shares after three years.
<b>Health and safety</b> We aim to promote and reward sustainable development, with a strong focus on health and safety in the annual bonus targets.	As an organisation, we strive for superior long term shareholder value creation in a healthy, safe and environmentally appropriate way. These are key elements of our commitment to operational excellence and licence to operate, two of the Group's strategic drivers. This is why we have health and safety as key performance indicators in the Short Term Incentive Plan (measured in relation to all injury frequency rates, significant potential incidents rate and semi quantitative risk assessment).
<b>Competitive, performance related packages</b> We aim to provide remuneration levels necessary to recruit and retain executives of the high calibre required to deliver our strategy. We benchmark our remuneration against our key peers to ensure we offer packages that are appropriate, with due regard for performance, without being excessive.	High quality people, who are capable of achieving stretching performance targets, are essential in generating superior returns for the Group. By providing competitive and performance related remuneration, we can attract the talent needed to further solidify our strategic advantage and respond quickly and strategically to changing market opportunities and challenges.

### Remuneration policy

The Committee has recently conducted a review of the comparator groups which should be used for remuneration benchmarking comparisons. It has concluded that, for the purposes of assessing the appropriate level of executive remuneration, the FTSE 30, (excluding financial services companies, and with due regard for size and complexity) will be an initial comparator group. Additional references will be made to a supplementary comparator group, composed of a cross section of international industrial organisations (broadly comparable to Rio Tinto in terms of global reach, revenue, market capitalisation and complexity) for which the Company competes for talent. Specific comparisons will also be made against other international mining companies where appropriate.

Typically, base salaries will be positioned at the median of these comparator groups, with total remuneration positioned across the full market range according to performance.

A summary of the current remuneration arrangements is set out below:

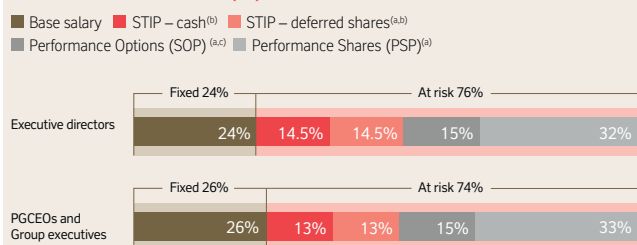
	Objective of component	Remuneration arrangements
<b>Base Salary</b> (fixed)	<ul style="list-style-type: none"> <li>Provides the fixed element of the remuneration package</li> <li>Typically, base salaries will be positioned at the median of the identified comparator groups, with total remuneration positioned across the full market range according to performance</li> </ul>	<ul style="list-style-type: none"> <li>Salary adjustments effective 1 March 2011</li> <li>Any increases are determined with reference to underlying Group performance and global economic conditions</li> </ul>
<b>Short Term Incentive Plan ("STIP")</b> (at risk)	<ul style="list-style-type: none"> <li>Focuses participants on achieving annual performance goals, which are based on the Group's KPIs, to create sustainable shareholder value</li> <li>50 per cent of the bonus delivered in cash and 50 per cent delivered in deferred shares under the Rio Tinto Bonus Deferral Plan (BDP), vests in the December of the third year after the end of performance year to which they relate (generally subject to continued employment) to ensure ongoing alignment between the executives and shareholders</li> </ul>	<ul style="list-style-type: none"> <li>Target STIP opportunity 100 per cent for PGCEOs and Group executives to 120 per cent of base salary for executive directors</li> <li>Maximum STIP opportunity of 200 per cent of base salary</li> <li>Performance targets include earnings, cash flow, safety and individual performance objectives</li> </ul>
<b>Performance Options – Share Option Plan ("SOP")</b> (at risk)	<ul style="list-style-type: none"> <li>Rewards participants for increasing the share price and delivering superior TSR performance against other companies over a long term horizon</li> <li>Three year performance period to provide long term alignment with shareholders</li> <li>"How" performance is generated is as important as "what level" of performance is delivered. Therefore, before awards vest, the Committee must also satisfy itself that TSR performance is an appropriate reflection of the underlying performance of the business and can adjust vesting accordingly</li> </ul>	<ul style="list-style-type: none"> <li>Market value Performance Options vest based on the TSR performance against the HSBC Global Mining Index</li> <li>Target (and maximum) face value of 300 per cent of base salary</li> </ul>
<b>Performance Shares – Performance Share Plan ("PSP")</b> (formerly the Mining Companies Comparative Plan) (at risk)	<ul style="list-style-type: none"> <li>Rewards participants for increasing the share price and delivering superior TSR performance against other companies over a long term horizon</li> <li>Four year performance period to provide long term alignment with shareholders</li> <li>As with Performance Options, before vesting the Committee must also satisfy itself that TSR performance is an appropriate reflection of the underlying performance of the business and can adjust vesting accordingly</li> </ul>	<ul style="list-style-type: none"> <li>Conditional share awards vest based on TSR performance relative to 50 per cent – the HSBC Global Mining Index; 50 per cent – the Morgan Stanley Capital World Index (MSCI)</li> <li>Target award equal to face value of 200 per cent of base salary</li> <li>1.5 times target award vesting for outperformance of the relevant index</li> <li>Subject to shareholder approval at the 2011 annual general meetings, from 2011 executives allowed to express a preference regarding the "mix" of the long term incentive opportunity between: <ul style="list-style-type: none"> <li>Keeping the current mix of Performance Shares / Performance Options</li> <li>Receiving their full opportunity in Performance Shares</li> </ul> </li> <li>Overall the expected value of the total compensation opportunity will remain the same. In order to facilitate this choice it is proposed that the individual grant limits under the PSP be increased</li> </ul>
<b>Management Share Plan ("MSP")</b> (usually time based)	<ul style="list-style-type: none"> <li>Enhance the Group's ability to attract and retain key staff in an increasingly tight and competitive labour market</li> </ul>	<ul style="list-style-type: none"> <li>Conditional share awards generally vest based on continued service with the company until the date of vesting</li> <li>Members of the Executive committee are not eligible to participate in awards under this plan</li> <li>Shares to satisfy the awards are purchased in the market and no new shares are issued to satisfy awards</li> </ul>
<b>Post employment Benefits</b> (fixed)	<ul style="list-style-type: none"> <li>Provides locally competitive post employment benefits for participants in a cost efficient manner</li> </ul>	<ul style="list-style-type: none"> <li>Post employment benefit arrangements offered</li> </ul>
<b>Shareholding requirement</b>	<ul style="list-style-type: none"> <li>Provides alignment with shareholders' interests</li> </ul>	<ul style="list-style-type: none"> <li>Executive directors – Two times base salary over a three year period from appointment</li> <li>Other members of the Executive committee – Two times base salary over a five year period from appointment</li> </ul>

## Remuneration mix

Consistent with the Group's strategy, the Committee seeks to achieve a remuneration mix which best reflects the long term nature of the business. As such, the total remuneration package is designed to provide an appropriate balance between fixed and variable components with a focus on long term variable pay.

The remuneration mix assuming target STIP and LTIP awards with the current mix of Performance Shares and Performance Options is set out below and is identical for each group.

### 2010 Remuneration mix (%)



- (a) Performance Options, Performance Shares and STIP deferred shares constitute long term incentives  
 (b) Annual bonus constitutes STIP cash and STIP deferred shares  
 (c) The Performance Options are the percentage of each executive's remuneration that consists of options

## Remuneration components

### Base salary

The Committee has completed a comprehensive review of the remuneration levels of the chief executive, executive directors, PGCEOs and Group executives.

This review took into account:

- Rio Tinto's strong performance in 2010 and the Group's growth ambitions for the future
- an assessment of individual performance
- the motivation of people with critical skills, at a time of a highly competitive market for talent in the industry
- the retention of individuals within the Group's succession planning processes who are vital to the creation of long term shareholder value, and
- that salaries have remained at March 2008 levels for the chief executive and members of the Executive committee.

These factors were viewed in light of the results of a full, independent review of base salary and total compensation, which was commissioned by the Committee to enable it to make fully informed decisions around pay. This made reference to the Company's benchmarking comparator groups, namely the FTSE 30, excluding financial services, and additional references to global industrial companies that the Company competes with for talent. The conclusion from this review was that it was considered in the best interests of our shareholders to restore pay to a more competitive market position. The Committee therefore approved adjustments in base salaries, which take effect on 1 March 2011, as shown in the table below.

The Committee was aware, when making this decision, that these adjustments were outside the range of a typical annual salary review in its major markets. However, it is equally aware that this still leaves the remuneration of the majority of executives below market rate, within a highly competitive global market for talent.

Name	2011 Base salary	2010 Base salary	2009 Base salary
<b>Executive directors</b>			
Tom Albanese	£1,030,000	£907,500	£907,500
Guy Elliott	£720,000	£675,500	£675,500
Sam Walsh	A\$1,590,000	A\$1,475,000	A\$1,475,000
<b>Other members of executive committee</b>			
Hugo Bague	£415,000	£360,000	£360,000
Preston Chiaro	US\$770,000	US\$725,000	US\$725,000
Bret Clayton	US\$745,000	US\$700,000	US\$700,000
Jacynthe Côté	US\$885,000	US\$825,000	US\$825,000
Andrew Harding <sup>(a)</sup>	£420,000	US\$650,000	US\$650,000
Harry Kenyon-Slaney	£420,000	£360,000	£360,000
Doug Ritchie	A\$930,000	A\$850,000	A\$850,000
Debra Valentine	US\$630,000	US\$570,000	US\$570,000

(a) Andrew Harding was paid in US\$ until his relocation to the UK

## Short Term Incentive Plan ("STIP")

Awards made under the STIP are based on performance against financial, safety and individual business objectives. The financial objectives are balanced equally between earnings performance and cash flow performance. The Committee selected these measures as they are key performance indicators (KPIs) used in managing the business.

As the potential impact of fluctuations in exchange rates and some prices are outside the control of the Group, for earnings and cash flow metrics, the Committee compares on an equal weighting the actual results (unflexed) and underlying performance (flexed) for prices and exchange rates.

Safety performance is a priority for Rio Tinto. Its inclusion in the STIP (measured in relation to all injury frequency rates, significant potential incidents rate and semi-quantitative risk assessment) is a strong reminder that the safety of our employees is paramount and should not be compromised when targeting superior financial results.

Individual performance metrics for executives are calibrated to be specific, measurable objectives which are aligned with Rio Tinto's strategy. Seventy per cent of the STIP awards are based on business measures (earnings, cash flow and safety) and 30 per cent on individual measures. For PGCEOs, the business measures of the relevant product group contribute to nearly half of the 70 per cent weighting.

The maximum annual bonus opportunity under the STIP for the executives is 200 per cent of salary (target opportunity of 120 per cent of salary for executive directors and 100 per cent of salary for PGCEOs and Group executives). Half of any bonus earned will be payable in cash with the remaining 50 per cent being deferred into shares, under the Rio Tinto Bonus Deferral Plan. These shares vest, generally subject to continued employment, in December of the third year after the end of the performance year to which they relate.

The Committee continues to review the appropriateness of using STIP to incentivise both environmental as well as health performance.

## STIP measures for 2010

	Weighting for Executive directors and Group executives %	Weighting for PGCEOs <sup>(b)</sup> %
<b>Business measures</b>		
<b>Rio Tinto Group<sup>(a)</sup></b>		
Earnings	26.25	10.50
Cash flow	26.25	10.50
<b>Product group<sup>(a)(b)</sup></b>		
Earnings	–	15.75
Cash flow	–	15.75
<b>Safety<sup>(c)</sup></b>	17.50	17.50
<b>Individual objectives</b>		
Individual objectives are tailored to each executive but are generally based on the achievement of strategic initiatives, key project deliverables and leadership competencies	30.00	30.00

(a) The earnings and cash flow measures are weighted 50:50 between flexed and unflexed performance respectively

(b) Sam Walsh is considered a PGCEO with regard to STIP performance measures

(c) Safety measures included All Injury Free Rate (AIFR), Semi Quantitative Risk Assessment (SQRA) and Significant Potential Incidents (SPI), which make up 50 per cent, 30 per cent and 20 per cent of overall safety weighting respectively

The same weightings for the STIP will apply for 2011.

## STIP business performance outcomes

Rio Tinto had both strong earnings and cash flow results in 2010 which resulted in the Group and product groups achieving above target outcomes for the STIP financial measures.

Rio Tinto met or exceeded the Group's and product group's safety targets across all three measures including an 18 per cent reduction in the AIFR. However, three fatalities in 2010 necessitated a downward adjustment of the overall Group's safety results. The safety scores for Tom Albanese, Sam Walsh, and Hugo Bague were capped at 100 per cent of target and Bret Clayton's score was further reduced as a result of the fatalities.

## Performance evaluation process for individual executives

Rio Tinto conducts an annual performance management process for all of its senior executives. In the case of members of the Executive committee, the chief executive conducts the review. In the case of the chief executive, the chairman of the Committee conducts the review in conjunction with the chairman of the board.

The key objectives of the performance process are to:

- improve organisational effectiveness by creating alignment between the executive's individual objectives and Rio Tinto's strategy, and
- provide a consistent, transparent and balanced approach to measure, recognise and reward executive performance.

Annual individual objectives are set with the Committee in the first quarter of each year. Annual performance reviews are completed during early January of the following year.

Performance evaluations for each executive took place in January 2011 in accordance with the process described. Individual objectives and awards for 2010 for the executives are set out opposite.



### STIP outcomes by executive for 2010

Name	Business /Individual objectives (% of target)		Summary of individual objectives
Executive directors			
Tom Albanese	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership across the Group</li><li>• Deliver operational improvements</li><li>• Ensure Rio Tinto's portfolio remains strong</li><li>• Strengthen Rio Tinto's "licence to operate"</li></ul>
	Individual	150.0	
	Safety	100.0	
Guy Elliott	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of the finance function</li><li>• Ensure continued primacy in strategic formation and development</li><li>• Complete the Group's divestment programme</li></ul>
	Individual	150.0	
	Safety	154.4	
Sam Walsh	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of Rio Tinto Iron Ore.</li><li>• Provide successful leadership of the design and (subject to regulatory approvals), commence the implementation of the Western Australian Iron Ore Production Joint Venture with BHP Billiton</li><li>• Gain approval for strategic initiatives</li><li>• Target new global growth opportunities</li></ul>
	PG Financial	188.3	
	Individual	165.5	
	PG Safety	100.0	
Other members of the Executive committee			
Hugo Bague	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership across health, safety, environment &amp; communities and human resource streams</li><li>• Foster employee engagement for operational improvement</li><li>• Ensure organisational agility and workforce flexibility through functional optimisation and business partnering</li></ul>
	Individual	130.0	
	Safety	100.0	
Preston Chiaro	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of the Technology &amp; Innovation function</li><li>• Create value through effective engagement with business units</li><li>• Demonstrate progression of the climate and energy strategy</li><li>• Broaden strategic production planning across Rio Tinto</li></ul>
	Individual	134.5	
	T&I Safety	177.3	
Bret Clayton	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of the Business Support &amp; Operations function</li><li>• Expand corporate risk management to drive a cultural shift in risk management over the longer term</li><li>• Establish additional evaluation techniques for large, long term assets, where appropriate, and consistent with the Group strategy</li><li>• Progress the long term business model to reflect business and geographical diversity</li></ul>
	Individual	125.0	
	BS&O Safety	83.4	
Jacynthe Côté	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of Rio Tinto Alcan</li><li>• Drive further sustainable cost reduction</li><li>• Continue the divestment programme of selected assets</li><li>• Drive value improvement on key growth projects to reduce capital expenditure intensity</li></ul>
	PG Financial	144.5	
	Individual	133.3	
	PG Safety	200.0	
Andrew Harding	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of Copper</li><li>• Ensure appropriate resources, structure and support to deliver sustainable value in key strategic locations</li><li>• Pursue growth opportunities</li><li>• Establish relationships with key partners, governments and NGOs</li></ul>
	PG Financial	148.8	
	Individual	143.0	
	PG Safety	180.0	
Harry Kenyon-Slaney	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of Diamonds &amp; Minerals</li><li>• Develop and communicate a clear vision, growth strategy and structure</li><li>• Develop product group wide collaborative structures and provide active guidance and coaching to ensure the development of talent</li><li>• Ensure effective management of new strategic joint ventures</li></ul>
	PG Financial	171.5	
	Individual	143.0	
	PG Safety	200.0	
Doug Ritchie	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership of Energy</li><li>• Develop clear and deliverable plans for volume delivery and economic expansion in a sustainable manner</li><li>• Conduct a global energy study to gain insights into the development and changes to the global energy market and its impact on our existing and future strategy</li></ul>
	PG Financial	154.8	
	Individual	139.0	
	PG Safety	103.3	
Debra Valentine	Group Financial	159.8	<ul style="list-style-type: none"><li>• Provide effective leadership to the legal, external relations, media, security and compliance functions</li><li>• Deliver key corporate projects and support for business needs</li><li>• Focus on developing government relations capabilities across key countries</li></ul>
	Individual	137.0	
	Safety	154.4	

### STIP awards by executive for 2010

Stated in '000	2010 STIP		% of maximum STIP awarded	% of maximum STIP forfeited	% of target STIP awarded
	Cash	Deferred Shares			
Executive directors					
Tom Albanese	£797	£797	73.2	26.8	146.4
Guy Elliott	£632	£632	78.0	22.0	155.9
Sam Walsh	A\$1,416	A\$1,416	80.0	20.0	160.0
Other members of Executive committee					
Hugo Bague	£253	£253	70.2	29.8	140.4
Preston Chiaro	US\$563	US\$563	77.6	22.4	155.2
Bret Clayton	US\$476	US\$476	68.0	32.0	136.0
Jacynthe Côté	US\$636	US\$636	77.0	23.0	154.1
Andrew Harding	US\$249	US\$249	77.4	22.6	154.8
	£140	£140			
Harry Kenyon-Slaney	£298	£298	82.8	17.2	165.5
Doug Ritchie	A\$604	A\$604	71.0	29.0	142.1
Debra Valentine	US\$433	US\$433	76.0	24.0	152.0

### Long term incentives

The Group operates the following long term incentive plans:

- The Share Option Plan – a market value share option plan which is subject to TSR performance and has been approved by shareholders.
- Performance Share Plan (formerly the Mining Companies Comparative Plan) – a performance share plan which is subject to TSR performance and has also been approved by shareholders. The name changed from M CCP to PSP and all references to the M CCP have been changed to the PSP.
- The Management Share Plan – a plan which generally provides time based awards.

#### Share Option Plan ("SOP")

Under the SOP, options are granted to purchase shares at an exercise price based on the share price at the date of grant. The maximum face value of grants under the SOP is 300 per cent of base salary.

The vesting of options is subject to the achievement of a stretching total shareholder return (TSR) performance condition, comparing Rio Tinto's TSR performance to that of the HSBC Global Mining Index as at 31 December of the third year after grant. If Rio Tinto's TSR performance is equal to the performance of the index, the higher of one third of the actual grant or 20,000 options may vest. No options will vest if Rio Tinto's TSR performance is less than the index's performance. The full award will only vest if TSR performance is equal to or greater than the HSBC Global Mining Index plus five per cent per annum. Between these points, options will become exercisable on a sliding scale.

#### Performance Share Plan ("PSP")

Rio Tinto's performance share plan, the PSP, is designed to incentivise management to drive business performance. Target awards under the plan can be made with a face value of up to 200 per cent of base salary.

Vesting of PSP awards, made since 2010, are subject to Rio Tinto TSR performance compared against:

- 50 per cent – the performance of the HSBC Global Mining Index;
- 50 per cent – the performance of the Morgan Stanley Capital World Index (MSCI).

The use of both the HSBC Global Mining Index and MSCI reflects the fact that Rio Tinto competes against 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 as well as the mining sector.

Vesting for awards is as follows:

Outperformance of the index by 8% per annum	1.5 times target award vests
Performance between index and 8% out performance	Straight line vesting
Performance equal to index	0.35 times target award
Performance less than index	Nil vesting

The outperformance required for maximum vesting has been calibrated to be equivalent to the upper quartile performance against these indices and, as such, is considered by the Committee to be particularly stretching.

The Committee considers that TSR is an appropriate performance measure for the SOP and PSP as it captures objectively the return Rio Tinto delivers to its shareholders over the long term and rewards executives for the extent to which the Group's TSR has outperformed its comparators.

The Committee recognises the importance of ensuring that the level of vesting is commensurate with the underlying performance of the business. Therefore, when approving vesting under the SOP and PSP, the Committee will ensure it is satisfied that TSR performance is a genuine reflection of the value available to shareholders and the underlying performance of the Group and will adjust levels accordingly, if required.

### Proposed changes to the Performance Share Plan from 2011

As referred to on page 128 in relation to the shareholder consultation exercise conducted in 2010, the Committee is recommending to shareholders for approval at the 2011 annual general meetings certain changes to the PSP rules. These changes ensure that participants are not adversely impacted by the recent change in the tax treatment of options in Australia. As set out above, the Committee currently grants Performance Shares under the PSP with a face value of up to 200 per cent of base salary and Performance Options with a face value of up to 300 per cent of base salary.

The Committee believes that Performance Options continue to be an appropriate incentive tool for senior executives as they create a strong degree of alignment with shareholders. However, following the tax changes in Australia, the Committee intends that, for LTIP awards granted from 2011 onwards, executives will be given an opportunity to indicate their preference regarding the “mix” of their LTIPs. The alternative approaches will be to:

- retain the current mix of Performance Shares and Performance Options, which is determined annually by the Remuneration committee; or
- receive their full long term incentive opportunity in Performance Shares.

To allow Rio Tinto the flexibility to grant participants their full LTIP award in the form of Performance Shares (where they choose to do so), the individual limits under the rules of the PSP will need to be increased to a face value award of up to 300 per cent of base salary. Participants would have the opportunity to earn up to one and half times this amount based on the extent to which the performance condition is met. This amount has been calibrated to be broadly equivalent in expected value terms to the value of the LTIP awards under the current mix of shares and options. Therefore, the increase in face value terms of Performance Shares is not on a one-for-one basis to Performance Options.

The Company will seek shareholder approval at the 2011 annual general meetings to increase the individual PSP limits so that annual maximum face value of Performance Shares that may be awarded is increased from of 200 per cent to 300 per cent of base salary.

### *Management Share Plan (“MSP”)*

The primary focus of the MSP is to support the Group’s ability to attract and retain key staff in an increasingly tight and competitive labour market. 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 a strong retention tool. Executive committee members do not participate in the MSP and no awards were made to any executives in 2010.

Jacynthe Côté, Andrew Harding, Harry Kenyon-Slaney and Doug Ritchie received grants under the MSP prior to becoming PGCEOs. Hugo Bague and Debra Valentine received grants prior to Group executives being excluded from participation in the plan in 2010. These previous grants vested in part in 2010 and the remainder will vest during 2011 as set out in Table 4a.

## Long term incentives granted in 2010

Options over either Rio Tinto plc or Rio Tinto Limited shares, as appropriate, were granted to each executive under the SOP on 22 March 2010.

A conditional award of performance shares in either Rio Tinto plc or Rio Tinto Limited shares was also made to each executive under the PSP on 22 March 2010.

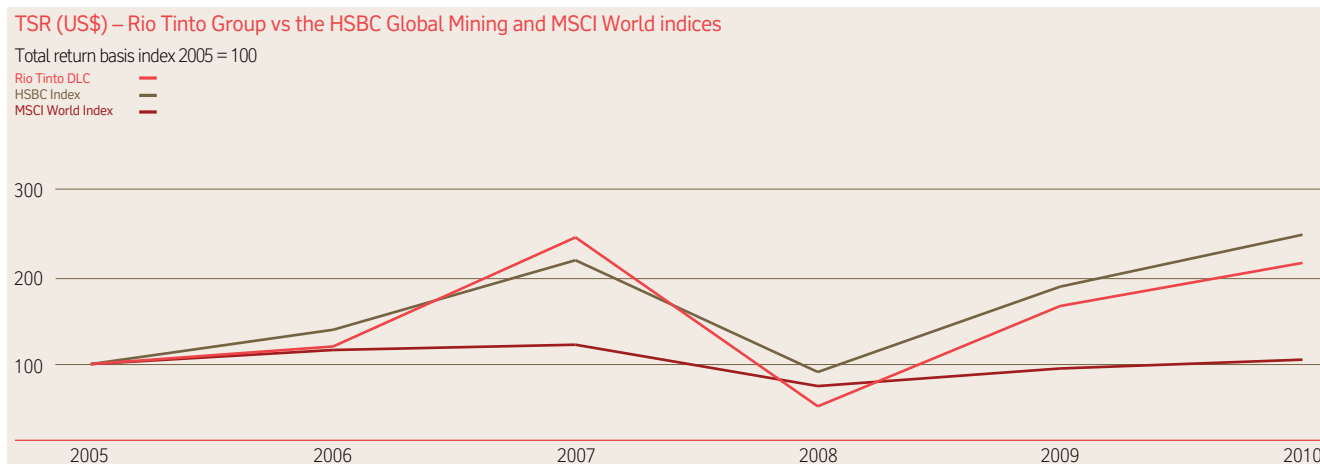
The LTIP awards for each executive are set out below.

Stated in '000	2009 LTIP Expected value of awards granted	2010 LTIP Expected value of awards granted	% change
<b>Executive directors</b>			
Tom Albanese	£1,723	£1,723	–
Guy Elliott	£1,283	£1,283	–
Sam Walsh	A\$2,803	A\$2,803	–
<b>Other members of Executive committee</b>			
Hugo Bague	£684	£684	–
Preston Chiaro	US\$1,378	US\$1,378	–
Bret Clayton	US\$1,092	US\$1,092	–
Jacynthe Côté	US\$1,287	US\$1,287	–
Andrew Harding <sup>(a)</sup>	US\$386	US\$618	60.1
Harry Kenyon-Slaney <sup>(a)</sup>	£175	£684	290.9
Doug Ritchie <sup>(a)</sup>	A\$607	A\$1,615	166.1
Debra Valentine	US\$1,083	US\$1,083	–

(a) 2009 LTIP awards were granted prior to Messrs Harding, Kenyon-Slaney and Ritchie on becoming PGCEOs and reflect the award made to them in their former role.

## Long term performance indicators and outcomes

The graph below illustrates the TSR performance of the Group against the HSBC Global Mining Index and the MSCI over the past five years. These two indices have been selected as they are the broad equity indices against which Rio Tinto's TSR performance is assessed under the PSP and SOP, and they reflect the fact that Rio Tinto competes against a global market for investors as well as within the mining sector.



In 2010, Rio Tinto achieved strong earnings and share price performance. This strong performance has a direct impact on the LTIP. The effect of this performance on shareholder wealth, as measured by TSR delivered during the relevant calendar year, is detailed in the table below.

#### Rio Tinto shareholder return 2006-2010

Year	Dividends paid during the year	Share price – Rio Tinto plc pence		Share price – Rio Tinto Limited A\$		Total shareholder return (TSR)		
	US cents per share	1 Jan	31 Dec	1 Jan	31 Dec	RTP%	RTL %	Group %
2010	90.0	3,390	4,487	74.89	85.47	34.6	15.3	32.6
2009	68.0	1,231	3,390	29.97	74.89	182.2	156.7	172.8
2008	152.0	4,392	1,231	105.65	29.97	(71.5)	(71.1)	(71.5)
2007	116.0	2,245	4,392	58.60	105.65	99.5	82.9	92.8
2006	191.5	2,193	2,245	54.42	58.60	6.2	9.2	7.4

#### Long term incentive outcomes for 2010

Despite continued strong share price performance in 2010, the share price for the performance period included baseline prices from periods of very strong commodity markets that existed prior to the 2008-2009 downturn. Therefore share options granted in 2008 did not vest and were cancelled and awards under the PSP only partially vested.

#### SOP

Plan performance period that ended 31 December 2010

Comparator group	HSBC Global Mining Index
Index TSR %	6.9
Rio Tinto TSR %	0.3
% of shares vested	–
% of shares forfeited	100

#### PSP

Plan performance period that ended 31 December 2010

Comparator companies	Alcoa, Anglo American, Barrick Gold, BHP Billiton, Cameco, Freeport-McMoRan, Gmexico 'B', Impala Newmont Mining, Peabody Energy, Potash, Teck Cominco, Vale do Rio Dolce, Xstrata
TSR Ranking <sup>(a)</sup>	7 <sup>th</sup> (49% TSR)
% of shares vested	Executive directors and PGCEOs: 36.4 Group executives: 55.6
% of shares forfeited	Executive directors and PGCEOs: 63.6 Group executives: 44.4

(a) Rio Tinto must achieve a ranking of 5<sup>th</sup> for vesting to begin at 35%. No awards vest below this level.

#### MSP

Plan period	Plan period that ended 31 December 2010
% of shares vested	100
% of shares forfeited	–

#### 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. Executives may participate in the Rio Tinto plc Share Savings Plan or the Rio Tinto Limited Share Savings Plan depending on whether they are employed by Rio Tinto plc or Rio Tinto Limited. The plans allow the participant to save up to £250 per month (or equivalent in local currency) for a defined period, not exceeding five years, before exercising options granted at a discount of up to 20 per cent to the market value at the time of grant. Grants made to executives under these plans are set out in Table 5 on pages 152 to 155.

The Share Ownership Plan is available to eligible employees in the UK who may receive an annual award of shares up to five per cent of salary, subject to a cap of £3,000. Under this plan, employees may also make contributions from salary each month to purchase shares at the prevailing market price subject to a cap of £1,500 per annum. The Company matches the shares purchased on a one for one basis. This plan was first approved by shareholders in 2001 and in line with the rules of the plan, after being in operation for ten years, it will be submitted to shareholders for renewal at the Rio Tinto plc 2011 annual general meeting.

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

#### Dilution

Awards under the SOP and PSP may be satisfied by treasury shares, the issuance of new shares or the purchase of shares in the market. Currently, Rio Tinto plc satisfies awards by the issuance of new shares or the transfer of shares from treasury. Rio Tinto Limited satisfies awards by the market purchase and delivery of shares to plan participants. Rio Tinto plc complies with the ABI guidelines in relation to the issuance of new shares. 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 49 to the financial statements.



## Post employment benefits

Executives may participate in post employment benefit arrangements offered by the Group. No post employment benefits are provided to non executive directors. The following table details the post employment benefit components for Rio Tinto's executive directors.

Details of executive directors' pension entitlements are set out in Table 2 on pages 146 and 147.

Country/Executive director	Post employment benefit
<b>UK</b>	Plan membership – UK employer pension plans as provided to other UK based employees. Pension is indexed to UK price inflation to a maximum of ten per cent per annum
Tom Albanese	Tom Albanese specific provision: <ul style="list-style-type: none"> <li>• Target defined benefit of 2/3rds of basic salary at age 60, inclusive of benefits accrued in the US</li> </ul>
Guy Elliott	Guy Elliott specific provision: <ul style="list-style-type: none"> <li>• Target defined benefit of 2.3 per cent of basic salary for each year of service with the Company to age 60</li> </ul>
<b>Australia</b>	Plan membership – Australian employer funded superannuation plan as provided to other Australian based employees
Sam Walsh	<ul style="list-style-type: none"> <li>• Target defined benefit is a lump sum multiple of 4.05 times final basic salary at age 62</li> <li>• Additional Company contribution on a defined contribution basis of 20 per cent of the lesser of 50 per cent of the annual STIP award or 20 per cent of basic salary. This is in line with typical market practice in Australia</li> </ul>

## Other payments during 2010

This section provides information on any one-time payments made during the year which are not a core element of the remuneration package.

### *Bonus Deferral Plan ("BDP") / Company Contributed Awards ("CCA")*

During the global and industry downturn in 2009, the Committee decided to defer the 2008 STIP payments into shares in order to conserve cash. Executive directors and PGCEOs were required to defer 100 per cent, and all other executives were required to defer 50 per cent, of any bonus due in respect of 2008. The bonus deferral for executive directors and PGCEOs vest 100 per cent based on service at the end of 2011. In the case of the other executives, an amount equal to 25 per cent of salary was added to the amount of the bonus deferral to provide enhanced retention in a challenging period. The shares vest on the basis of 50 per cent vesting at the end of 2010 and 50 per cent at the end of 2011. Fifty per cent of the shares awarded under the BDP and CCA vested for Jacynthe Côté, Hugo Bague, Andrew Harding, Harry Kenyon-Slaney, Doug Ritchie and Debra Valentine on 1 December 2010. These shares were conditionally awarded prior to the named executives becoming PGCEOs or Group executives. The payments made under these awards are detailed in Table 1a.

### *One-off long term incentive grant*

Upon promotion to the role of CEO Rio Tinto Alcan, and based on the terms of her legacy Alcan Inc. contract, Jacynthe Côté was granted a one-time conditional award of shares equal to 25 per cent of her current annual base salary to incentivise her to deliver synergy savings and to promote the effective integration of Rio Tinto Alcan from an organisational and cultural perspective. The award was subject to performance conditions which provided for 50 per cent of the award that vested on 1 February 2010 and a further 50 per cent that vested on 1 February 2011 as the performance conditions were met. The performance conditions attached to vesting related to the full achievement of objectives based on the integration and re-organisation of Rio Tinto Alcan. Effective from October 2007, Jacynthe Côté was also granted a one-off time based, special retention grant as part of her legacy Alcan Inc. arrangements on assuming the role of president and CEO Primary Metals, Rio Tinto Alcan. The remaining 60 per cent of this grant vested on 25 October 2010. The payments made under these awards are detailed in Table 1a.

### *Relocation payment*

Andrew Harding relocated from the US to the UK in 2010 as part of the terms of his promotion to PGCEO Copper. As part of the relocation, the Company paid Andrew Harding a one time payment, net of taxes, to compensate him for the loss on sale he incurred when selling his residence in Salt Lake City, Utah as determined by two independent appraisers. The payment is detailed in Table 1a.

### *Future tax payment*

In 2011, Rio Tinto will be responsible for a tax payment, the amount of which is not yet determined, on behalf of Dick Evans, a former executive director who retired on 31 December 2009. These payments are in accordance with Rio Tinto's contractual obligations relating to his service for Rio Tinto and will be disclosed when known and paid.

## Other remuneration and statutory disclosures

### *Executives' service contracts*

The executives have service contracts that 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. Debra Valentine's service contract can be terminated by either party with six months' notice in writing. For Jacynthe Côté, the 12 months' notice includes salary and target bonus opportunity, in line with typical market practice in Canada and her legacy Alcan Inc. contract.

If termination is a result of a redundancy, the terms of the relevant policy would apply in the same way as for other local employees. In the case of involuntary termination, Jacynthe Côté would receive 24 months' salary and target bonus opportunity inclusive of notice in line with entitlements under her legacy Alcan Inc. contract.

In the case of dismissal for cause, the Company can terminate employment without notice and without payment of any salary or compensation in lieu of notice. Bonus and outstanding awards under the LTIP are forfeited in these circumstances.

STIP and LTIP rules cover any entitlements that participants may have upon termination. If termination is due to any reason besides cause or resignation, participants are eligible to receive a pro rata STIP based on the portion of the performance period worked. Any outstanding deferred shares normally vest in full upon termination. Outstanding Performance Options or Performance Shares will vest at the normal vesting date subject to performance against the performance conditions, with any awards held for less than 12 months at the date of termination reduced pro rata. MSP awards generally vest pro rata upon termination.

Contractual entitlements to severance are not triggered by a change of control. All of the Company's share plans contain provisions relating to a change of control. Outstanding deferred shares would normally vest in full and outstanding Performance Shares and Performance Options would normally vest and become exercisable on a change of control on a pro rata basis, subject to the satisfaction of any performance conditions at that time.

Name	Position(s) held during 2010	Date of appointment to current position	Notice period
<b>Executive directors</b>			
Tom Albanese	Chief executive	1 May 2007	12 months
Guy Elliott	Chief financial officer	19 June 2002	12 months
Sam Walsh	CEO Iron Ore and Australia	5 June 2009	12 months
<b>Other members of executive committee</b>			
Hugo Bague	Group executive, People & Organisation	1 August 2007	12 months
Preston Chiaro	Group executive, Technology & Innovation	1 November 2009	12 months
Bret Clayton	Group executive, Business Support & Operations	1 November 2009	12 months
Jacynthe Côté	CEO Rio Tinto Alcan	1 February 2009	12 months
Andrew Harding	CEO Copper	1 November 2009	12 months
Harry Kenyon-Slaney	CEO Diamonds & Minerals	1 November 2009	12 months
Doug Ritchie	CEO Energy	1 November 2009	12 months
Debra Valentine	Group executive, Legal & External Affairs	15 January 2008	6 months

### Shareholding policy for executives

The Company recognises the importance of aligning executives' interests with those of shareholders and they are therefore expected to build up a shareholding. The Committee determined that executive directors should aim to reach a holding equivalent in value to two times their base salary over three years, with PGCEOs and Group executives aiming to achieve this holding over five years.

### Share dealing policy

Key management personnel and employee insiders are bound by the "Rules for dealing in Rio Tinto securities" which comply with the requirements of the ASX Listing Rules and are consistent with the UK Listing Authority's Model Code. These rules are available on the Rio Tinto website. The rules apply fixed closed periods before results announcements as well as other periods during which key management personnel are prohibited from trading Rio Tinto securities. Directors and executives are required to certify that they do not hold any inside information when seeking clearance to deal in Rio Tinto securities.

Executives participate in long term incentive plans which involve the award of Rio Tinto securities at a future date and are dependent upon the satisfaction of performance conditions. Therefore, the rules contain a provision prohibiting an executive from limiting his or her exposure to risk in relation to the securities. The award of shares and options under the incentive plans is conditional upon compliance with the rules. All employees subject to the rules receive regular training and information.

### 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 their experience and knowledge, to the benefit of the Group. This policy limits each executive's external directorships to one FTSE 100 company or equivalent. Consequently, where there is no likelihood that such a directorship will give rise to a conflict of interest, the boards will normally give their consent to the appointment. The executive is permitted to retain the fees earned.

In 2010, the following executives received fees from external appointments: Guy Elliott received US\$100,537 (2009: US\$124,000) and Sam Walsh A\$120,690 (2009: A\$120,000).

Details of all board members' and executives' external appointments can be found on pages 102 to 105.

### Company secretary remuneration

The executive remuneration policy applies to the company secretary of each of Rio Tinto plc and Rio Tinto Limited. They participate in the same performance-based remuneration arrangements as the executives. The individual performance measures for the company secretaries' STIP comprise Group and individual objectives. Their personal measures reflect the key responsibilities of the company secretarial role and include ensuring compliance with regulatory requirements, oversight of good corporate governance practice and the provision of corporate secretarial services.

## Chairman and non executive directors' remuneration

### Remuneration policy

#### Chairman

The Remuneration committee determines the terms of service, including remuneration, of the chairman. The chairman receives a fixed annual fee and does not receive any additional fee or allowance for either committee membership or for overseas travel. He is provided with a car and driver for business purposes, private medical insurance and he participates in the Rio Tinto Medical Expenses Plan which Group employees are eligible to join. He is also covered under the Group's accident policy. These are disclosed as benefits in Table 1b on page 146. He does not participate in the Group's incentive plans or pension arrangements.

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 chairman is not present at any discussion regarding his own remuneration.

#### 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. Non executive directors receive a fixed annual fee comprising a base fee, committee membership or committee chairmanship fees, as applicable, and allowances for attending meetings which involve medium or long distance air travel. Rio Tinto does not pay retirement benefits to non executive directors, nor do any of them participate in any of the Group's incentive plans.

The fees payable to non executive directors are subject to review by the chairman's committee. During 2010, the review took into account market and related developments. In light of Rio Tinto's size, the complexity of its Dual Listed Companies' structure and the resulting demands on directors as well as market developments, the base fee for non executive directors was increased to £80,000 from 1 January 2011. Committee fees were also increased, as indicated in the table below, with effect from 1 January 2011. Fees were last increased in November 2007. Allowances for overseas meetings involving long and medium distance flights were increased for the first time since 2005 effective 1 January 2010 to take into account market developments.

### Remuneration components

The table below sets out the annual fees payable to the chairman and the non executive directors in £/A\$, as appropriate.

	2011	2010 <sup>(a)</sup>	2009
<b>Director fees</b>			
Chairman's fee	£700,000	£700,000	£700,000
Non executive director base fee	£80,000	£70,000	£70,000/A\$160,000
Senior independent director	£35,000	£35,000	£35,000
<b>Committee fees</b>			
Audit committee chairman	£35,000	£30,000	£30,000
Audit committee member	£15,000	£15,000	£15,000/A\$37,500
Remuneration committee chairman	£30,000	£20,000	£20,000
Remuneration committee member	£10,000	£10,000	£10,000/A\$25,000
Nominations committee member	£7,500	£7,500	£7,500
Committee on social and environmental accountability chairman	£25,000	£20,000	£20,000
Committee on social and environmental accountability member	£10,000	£7,500	£7,500/A\$18,750
<b>Overseas meeting allowances</b>			
Long distance (flights over 10 hours per journey)	£7,500	£7,500	£4,000/A\$10,000
Medium distance (flights of 5-10 hours per journey)	£3,500	£3,500	£2,000/A\$5,000

(a) From 1 January 2010, fees were set in £ only.

### Remuneration paid during 2010

Details of each element of remuneration paid to the chairman and non executive directors during 2010 is set out in Table 1b. No post employment, long term or termination payments were paid and no share based payments were made. The total payments made to the chairman and non executive directors in 2010 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.

### Shareholding policy

In 2006, the board recommended that non executive directors be encouraged to build up a shareholding within three years of their appointment equal in value to one year's base fee. To help facilitate this, a non executive directors' share purchase plan has been established under which non executive directors may elect to invest a proportion of their fees net of tax on a regular basis to acquire shares on the open market. Details of non executive directors' share interests in the Group are set out in Table 3 on page 147.

### Letters of appointment

Non executive directors have formal letters of appointment setting out their duties and responsibilities. These letters are available for inspection at Rio Tinto plc's registered office, and at the annual general meeting. Each non executive director is appointed by the board subject to their election and periodic re-election by shareholders as detailed on page 116. 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 chairman's letter of appointment 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.

### Audited information

Under Schedule 8 of the Large and Medium sized Companies and Groups (Accounts and Reports) Regulations 2008, the information included in respect of the non executive directors and the directors' short term employee benefits and termination benefits in Tables 1a and 1b, and the information included in respect of the directors accrued benefits, transfer values and defined contribution pension in Table 2, Tables 4a and 4b and Table 5 are all auditable.

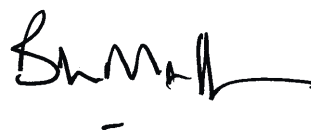
The information provided in this Remuneration report has been audited as required by section 308(c) of the Corporations Act 2001.

The Australian Securities and Investments Commission issued an order dated 22 December 2010 under which the information included in the Remuneration report to comply with paragraph 25 of Australian Accounting Standard AASB 124 "Related Party Disclosures" (relating to "key management personnel" compensation) is also auditable. This information comprises Tables 1 (executive and non executive directors set out in Table 1a and 1b respectively), 3, 4 and 5 and the disclosures provided under the headings Executive remuneration and Chairman and non executive director remuneration.

### Annual general meetings

Shareholders will be asked to vote on this Remuneration report at the Companies' 2011 annual general meetings.

By order of the board



**Ben Mathews**

Secretary  
Remuneration committee  
4 March 2011

## Remuneration tables

### Remuneration received in 2010

The table below provides a summary of the executives' actual remuneration in 2009 and 2010 stated in the relevant currency. This is in addition to statutory disclosure requirements. The purpose of this table is to enable shareholders to better understand the actual remuneration received by executives and to provide an overview of the actual outcomes of the Group's remuneration arrangements. The remuneration details set out in Tables 1a and 1b on pages 144 and 146, include theoretical accounting values relating to various parts of the remuneration packages, most notably LTIP arrangements.

#### Actual remuneration received in 2010

Stated in '000	Year	Base salary paid	Other payments and benefits <sup>(a)</sup>	STIP payment <sup>(b)</sup>	Total short term pay	Value of LTIP awards granted <sup>(c)</sup>	Remuneration received	% change from 2009 to 2010
Executive directors								
Tom Albanese	2010	£907	£1,313	£1,594	£3,814	£1,723	£5,537	31.4%
	2009	£907	£995	£589	£2,491	£1,723	£4,214	
Guy Elliott	2010	£675	£504	£1,264	£2,443	£1,283	£3,726	29.4%
	2009	£675	£370	£552	£1,597	£1,283	£2,880	
Sam Walsh	2010	A\$1,475	A\$477	A\$2,832	A\$4,784	A\$2,803	A\$7,587	24.4%
	2009	A\$1,475	A\$511	A\$1,308	A\$3,294	A\$2,803	A\$6,097	
Other key management personnel								
Hugo Bague	2010	£360	£220	£505	£1,085	£684	£1,769	0.2%
	2009	£360	£437	£284	£1,081	£684	£1,765	
Preston Chiaro <sup>(d)</sup>	2010	US\$725	US\$1,098	US\$1,126	US\$2,949	US\$1,378	US\$4,327	31.7%
	2009	US\$725	US\$792	US\$390	US\$1,907	US\$1,378	US\$3,285	
Bret Clayton <sup>(d)</sup>	2010	US\$700	US\$1,270	US\$952	US\$2,922	US\$1,092	US\$4,014	38.4%
	2009	US\$700	US\$574	US\$534	US\$1,808	US\$1,092	US\$2,900	
Jacynthe Côté <sup>(e)</sup>	2010	US\$825	–	US\$1,271	US\$2,096	US\$1,287	US\$3,383	21.4%
	2009	US\$813	–	US\$686	US\$1,499	US\$1,287	US\$2,786	
	2010	–	C\$2,094	–	C\$2,094	–	C\$2,094	-4.8%
	2009	–	C\$2,200	–	C\$2,200	–	C\$2,200	
Andrew Harding <sup>(f)</sup>	2010	£180	£255	£281	£716	–	£716	NA
	2010	–	A\$143	–	A\$143	–	A\$143	
	2010	US\$325	US\$113	US\$499	US\$937	US\$618	US\$1,555	NA
	2009	US\$421	US\$556	US\$402	US\$1,379	US\$386	US\$1,765	
Harry Kenyon-Slaney <sup>(g)</sup>	2010	£360	£173	£596	£1,129	£684	£1,813	122.7%
	2009	£267	£258	£114	£639	£175	£814	
Doug Ritchie <sup>(h)</sup>	2010	A\$850	A\$360	A\$1,208	A\$2,418	A\$1,615	A\$4,033	46.4%
	2009	A\$734	A\$873	A\$540	A\$2,147	A\$607	A\$2,754	
Debra Valentine <sup>(d)</sup>	2010	US\$570	US\$1,100	US\$866	US\$2,536	US\$1,083	US\$3,619	27.7%
	2009	US\$570	US\$713	US\$468	US\$1,751	US\$1,083	US\$2,834	

(a) Includes superannuation, pension, health care, expatriate payments, car allowances or cars, and other contractual payments.

(b) The increase in STIP payments is attributable to improved performance and the change in STIP structure compared to 2009.

(c) The LTIP value is the current expected value of the LTIP awards granted. The expected value of the awards was recalibrated in 2010 to reflect updated assumptions used in the valuation model.

(d) Tax equalisation costs are significantly higher in 2010 based on higher earnings on STIP and equity income.

(e) The 2009 values are based on pay received in US\$ for time as both CEO Rio Tinto Alcan – Primary Metal and PGCEO Rio Tinto Alcan. 'Other payment and benefits' includes a one time special bonus.

(f) The 2009 values are based on pay received in US\$ for time as both CEO KUC and PGCEO Copper. In 2010 Andrew Harding relocated to the UK. The payment in A\$ is for the payment of his long service leave balance in Australia.

(g) The 2009 values are based on pay received for time as both CEO RTI&T and PGCEO Diamonds and Minerals.

(h) The 2009 values are based on pay received for time as both Managing Director Strategy within Rio Tinto Australia and PGCEO Energy.



## 2011 performance payment potential

Executives are eligible for bonuses and grants in respect of 2011 if they meet service and performance criteria. Provided below is the minimum and maximum performance payment potential for each current executive based on the remuneration framework.

Executive	Annual bonus		Annual bonus		Election 1				Election 2			
	Potential range of cash bonus payments in March 2012 in respect of 2011		Potential range of bonus deferral in March 2012 in respect of 2011		Performance options (SOP)		Performance shares (PSP)		Performance options (SOP)		Performance shares (PSP)	
	Min	Max	Min	Max	(% of March 2011 salary)		(% of March 2011 salary)		(% of March 2011 salary)		(% of March 2011 salary)	
	Min	Max	Min	Max	Min	Max <sup>(b)</sup>	Min	Max <sup>(b)</sup>	Min	Max <sup>(c)</sup>	Min	Max <sup>(c)</sup>
Tom Albanese	0	£1,030,000	0	£1,030,000	0	0	0	450	0	300	0	200
Guy Elliott	0	£720,000	0	£720,000	0	0	0	450	0	300	0	200
Sam Walsh	0	A\$1,590,000	0	A\$1,590,000	0	0	0	450	0	300	0	200
Hugo Bague	0	£415,000	0	£415,000	0	0	0	450	0	300	0	200
Preston Chiaro	0	US\$770,000	0	US\$770,000	0	0	0	450	0	300	0	200
Bret Clayton	0	US\$745,000	0	US\$745,000	0	0	0	450	0	300	0	200
Jacynthe Côté <sup>(a)</sup>	0	US\$885,000	0	US\$885,000	0	0	0	450	0	300	0	200
Andrew Harding	0	£420,000	0	£420,000	0	0	0	450	0	300	0	200
Harry Kenyon-Slaney	0	£420,000	0	£420,000	0	0	0	450	0	300	0	200
Doug Ritchie	0	A\$930,000	0	A\$930,000	0	0	0	450	0	300	0	200
Debra Valentine	0	US\$630,000	0	US\$630,000	0	0	0	450	0	300	0	200

(a) In addition, Jacynthe Côté's remaining MSP award vested on 1 February 2011. See page 135.

(b) Maximum reflects potential under the plan to vest one and a half times the original award for outstanding performance if the participant elects their full long-term incentive opportunity in Performance Shares. This assumes the amendments to the PSP are approved by shareholders at the 2011 annual general meetings.

(c) Maximum reflects the potential under the plans to vest if the participants elect for a mix of Performance Options and Performance Shares.

# Remuneration report continued

**Table 1a – Executives' remuneration**

Short term benefits							Long term benefits Value of share based awards <sup>(f)</sup>			
Stated in US\$'000 <sup>(a)</sup>		Base salary	Cash bonus <sup>(b)</sup>	Other cash based benefits <sup>(c)</sup>	Non monetary benefits <sup>(d)</sup>	Total short term benefits <sup>(e)</sup>	Other long term benefits	BDP <sup>(g)</sup>	CCA <sup>(h)</sup>	PSP
<b>Executive director</b>										
Tom Albanese	2010	1,403	1,248	3	318	2,972	–	487	–	1,522
	2009	1,421	947	8	323	2,699	–	186	–	3,915
Guy Elliott	2010	1,044	989	23	244	2,300	–	359	–	1,061
	2009	1,057	888	24	168	2,137	–	122	–	2,862
Dick Evans	2009	1,500	5,491	–	422	7,413	–	505	–	4,013
Sam Walsh	2010	1,354	1,391	83	9	2,837	–	552	–	1,220
	2009	1,167	1,170	71	20	2,428	–	184	–	2,697
<b>Other key management personnel</b>										
Hugo Bague	2010	557	396	103	196	1,252	–	130	62	354
	2009	564	752	139	210	1,665	–	36	59	344
Preston Chiaro	2010	725	563	–	888	2,176	–	262	–	708
	2009	725	390	83	492	1,690	–	125	–	2,265
Bret Clayton	2010	700	476	–	1,106	2,282	–	147	–	705
	2009	700	534	–	444	1,678	–	34	–	1,486
Jacynthe Côté	2010	907	2,214	–	40	3,161	–	213	102	643
	2009	813	2,226	–	27	3,066	–	60	97	556
Andrew Harding	2010	603	469	168	413	1,653	–	141	59	408
	2009	421	596	–	298	1,315	–	26	47	415
Keith Johnson	2009	383	287	78	19	767	–	–	–	2,340
Harry Kenyon-Slaney	2010	557	466	112	25	1,160	–	148	43	336
	2009	418	362	77	61	918	–	37	41	455
Doug Ritchie	2010	780	593	32	92	1,497	–	178	71	522
	2009	581	986	23	2	1,592	–	31	57	756
Grant Thorne	2009	728	593	4	1	1,326	–	60	74	1,232
Debra Valentine	2010	570	433	–	906	1,909	–	153	70	286
	2009	570	468	–	543	1,581	–	50	67	203

**Notes to Table 1a**

- (a) The total remuneration is reported in US dollars. The amounts have been converted using the relevant 2010 average exchange rates of £1= US\$1.5459, A\$1= US\$0.9178, €1= US\$1.3262 and C\$1= US\$0.9704. The annual cash bonus payable under the STIP has been converted using the relevant 2010 year end exchange rates of £1= US\$1.5660, A\$1= US\$0.9825 and C\$1= US\$0.9886.
- (b) 'Cash bonus' relates to the cash portion of the STIP. For Jacynthe Côté, it also includes a special one-off bonus as described in the Remuneration report on page 138.
- (c) 'Other cash based benefits' include cash in lieu of a car and fuel. For Hugo Bague, Harry Kenyon-Slaney and Andrew Harding, it includes a cash supplement equal to 20 per cent of the amount by which their 'Contributory Salary' exceeds the 'Earning Cap' as defined in the Rio Tinto Pension Fund. For Andrew Harding, it also includes a Long Service Leave payment for his service in Australia.
- (d) 'Non monetary benefits' for executives include healthcare. The provision of a car, professional advice, and secondment costs comprising housing, tax equalisation and relocation payments made to and on behalf of executives living outside their home country. Preston Chiaro, Bret Clayton and Debra Valentine's 2010 tax equalisation costs are higher than their 2009 figures. This is a result of higher earnings on their STIP and share based income in 2010. For Andrew Harding, as described in the Remuneration report on page 138, it also includes a one time payment, net of taxes, to compensate him for the loss on sale he incurred when selling his residence in Salt Lake City, Utah in the amount of US\$109,425. For Doug Ritchie, it includes tax equalisation costs in respect of his expatriate arrangements in 2006. For Tom Albanese and Guy Elliott, it includes the value of Company provided transport. Rio Tinto provides accident cover for employee members of the Rio Tinto Pension Fund. The accident cover for executive members of the Rio Tinto Pension Fund in 2010 was US\$7,537.
- (e) 'Total short term benefits' represent the short term benefits total required under regulations made under the UK Companies Act 2006 and total remuneration under the Australian Corporations Act 2001 and applicable accounting standards.
- (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 SOP, the MSP, the BDP and the SSP have been calculated at their dates of grant using an independent lattice-based option valuation model provided by external consultants, Lane Clark and Peacock LLP. Some of these awards will be settled in cash, rather than the transfer of shares, and so the fair value of these cash settled awards has been calculated based on Rio Tinto's share price at 31 December 2010. With effect from 2010, the Group's policy for settling awards granted under the Performance Share Plan (the PSP) changed. For settlement of all future awards under this plan, participants will be assigned shares and offered a third party facility to realise these shares for cash and/or to meet any tax liabilities. Accordingly, the fair values of the awards granted prior to this change were re-measured at 1 July 2010 and from that date treated as equity-settled awards. This re-measurement was calculated using a Monte Carlo valuation model based on the market price of shares and their relative TSR performance at 30 June 2010. The fair value of awards granted after July 2010 is measured at date of grant. Further details of the valuation methods and assumptions used for these awards are included in note 49 (Share Based Payments) in the 2010 Full 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.
- (g) 'BDP (Bonus Deferral Plan)' represents the accounting value in note f above of the deferral of the 2008 and 2010 bonus under STIP into Rio Tinto Shares. The shares granted under the BDP are shown in Table 4a. The number of shares awarded in 2010 have not been approved and granted and are therefore not shown in Table 4b.

Table 1a – Executives' remuneration continued

Stated in US\$'000 <sup>(a)</sup>		Long term benefits Value of share based awards <sup>(i)</sup>			Post employment benefits <sup>(i)</sup>			Total remuneration	Currency of actual payment <sup>(m)</sup>	
		MSP <sup>(i)</sup>	SOP <sup>(i)</sup>	Others <sup>(k)</sup>	Pension and superannuation	Other post employment benefits	Termination benefits			
Executive director										
Tom Albanese	2010	-	1,667	7	1,708	-	-	8,363	£	
	2009	-	1,179	4	1,230	-	-	9,213	£	
Guy Elliott	2010	-	1,059	7	512	-	-	5,298	£	
	2009	-	691	5	389	-	-	6,206	£	
Dick Evans	2009	-	1,838	-	342	-	-	14,111	US\$/C\$	
Sam Walsh	2010	-	1,136	3	346	-	-	6,094	A\$	
	2009	-	636	-	313	-	-	6,258	A\$	
Other key management personnel										
Hugo Bague	2010	209	338	5	41	-	-	2,391	£	
	2009	341	72	2	41	-	-	2,560	£	
Preston Chiaro	2010	-	767	1	210	-	-	4,124	US\$	
	2009	-	550	1	218	-	-	4,849	US\$	
Bret Clayton	2010	-	739	-	163	1	-	4,037	US\$	
	2009	-	494	1	129	1	-	3,823	US\$	
Jacynthe Côté	2010	952	483	-	409	4	-	5,967	US\$/C\$	
	2009	1,106	75	-	364	3	-	5,327	US\$/C\$	
Andrew Harding	2010	178	330	2	58	-	-	2,829	£/US\$/A\$	
	2009	144	36	3	64	-	-	2,050	US\$	
Keith Johnson	2009	-	689	2	158	-	1,357	5,313	£	
Harry Kenyon-Slaney	2010	96	290	9	131	-	-	2,213	£	
	2009	114	44	1	88	-	-	1,698	£	
Doug Ritchie	2010	424	354	1	207	-	-	3,254	A\$	
	2009	247	69	3	164	-	-	2,919	A\$	
Grant Thorne	2009	280	101	3	188	-	-	3,264	A\$	
Debra Valentine	2010	515	307	1	187	7	-	3,435	US\$	
	2009	427	29	1	163	8	-	2,529	US\$	

(h) 'CCA (Company Contributed Awards)' represents the shares provided to employees below the executive directors and PGCEO level under the 2008 BDP to provide and enhance retention.

(i) Jacynthe Côté's 2009 MSP award was granted with special terms. Subject to satisfying certain non-marker performance conditions, 50 per cent of her award vested on 1 February 2010 and the remaining 50 per cent vested on 1 February 2011. Allowance for these special terms has been made in the 2010 figure and the 2009 figure has been recalculated (previously stated in 2009: US\$990,000)

(j) Hugo Bague's 2009 SOP award was previously omitted from the 2009 Annual report and has now been included in the restated 2009 figures.

(k) 'Others' include the Share Savings Plan and Share Ownership Plan as described in the Remuneration report on page 137.

(l) 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. For Andrew Harding, the 2009 cost has been restated to remove US\$2,374 which were his own contributions. For Tom Albanese, the 2009 cost has been restated as an incorrect methodology was used in 2008 and 2009 to value future salary increases to retirement. The restated figure for 2008 is US\$1,702,000. The figure previously disclosed in 2009 was US\$1,056,00 and in 2008 was US\$1,443,000.

(m) Jacynthe Côté's remuneration is stated in US dollars. To convert the base salary and service based retention to Canadian dollars, a fixed exchange rate of US\$1= C\$1.13740 was used during the year. All other short term benefits received are paid in Canadian dollars.

**Table 1b – Non executive directors' remuneration**

Stated in US\$'000 <sup>(a)</sup>		Short term benefits			Total remuneration <sup>(d)</sup>	Currency of actual payment
		Fees	Other cash based benefits <sup>(b)</sup>	Non monetary benefits <sup>(c)</sup>		
Chairman						
Jan du Plessis	2010	1,082	–	243	1,325	£
	2009	808	–	37	845	£
Non executive directors						
Robert Brown	2010	98	44	–	142	£
Sir David Clementi	2010	74	–	5	79	£
	2009	172	9	–	181	£
Vivienne Cox	2010	144	12	–	156	£
	2009	133	9	–	142	£
Sir Rod Eddington	2010	120	33	–	153	A\$
	2009	143	29	–	172	A\$
Michael Fitzpatrick	2010	145	22	–	167	A\$
	2009	162	29	–	191	A\$
Yves Fortier	2010	131	41	–	172	£
	2009	133	22	–	155	£
Ann Godbehere	2010	144	23	–	167	£
Richard Goodmanson	2010	166	66	–	232	£
	2009	157	13	6	176	£
Andrew Gould	2010	197	–	–	197	£
	2009	200	–	–	200	£
Lord Kerr	2010	178	23	–	201	£
	2009	168	9	–	177	£
Jim Leng	2009	37	–	13	50	£
David Mayhew	2010	58	–	6	64	£
	2009	197	–	–	197	£
Paul Skinner	2009	584	14	82	680	£
Paul Tellier	2010	158	59	–	217	£
	2009	149	22	–	171	£

**Notes to Table 1b**

- (a) The total remuneration is reported in US dollars. The amounts have been converted using the relevant 2010 average exchange rates of £1= US\$1.5459 and A\$1= US\$0.9178.
- (b) 'Other cash based benefits' for non executive directors comprise overseas meeting allowances.
- (c) 'Non monetary benefits' include for Jan du Plessis the value of Company provided transport and medical insurance premiums. Company provided transport was made available to Jan du Plessis with effect from his appointment as chairman on 20 April 2009. The cost of this facility was shared with his former principal employer until his retirement from that role on 31 October 2009. For Sir David Clementi and David Mayhew, it includes the value of a retirement gift. Rio Tinto plc provides accident cover for non executive directors; the total premium paid in 2010 was US\$5,092.
- (d) Represents disclosure of total emoluments and compensation required by regulations made under the UK Companies Act 2006 and total remuneration under Australian Corporations Act 2001 and applicable accounting standards.

**Table 2 – Directors' pension entitlements (as at 31 December 2010)**
**Defined benefit pensions**

		Accrued benefits				Transfer values				
	Age	Years of service completed	At 31 Dec 2009 £'000 pa pension	At 31 Dec 2010 £'000 pa pension	Change in accrued benefits during the year ended 31 Dec 2010 £'000 pa pension	Change in accrued benefit net of inflation <sup>(a)</sup> £'000 pa pension	At 31 Dec 2009 £'000	At 31 Dec 2010 <sup>(a)</sup> £'000	Change, net of personal contributions £'000	Transfer value of change in accrued benefit net of inflation <sup>(a)</sup> £'000
UK directors										
Tom Albanese <sup>(b) (c) (d)</sup>	53	29	336	395	59	47	4,060	5,561	1,501	862
Guy Elliott <sup>(c)</sup>	55	30	456	471	15	(6)	7,706	9,054	1,348	(119)
			A\$'000 lump sum	A\$'000 lump sum	A\$'000 lump sum	A\$'000 lump sum	A\$'000	A\$'000	A\$'000	A\$'000
Australian director										
Sam Walsh	61	19	5,203	5,493	290	144	5,203	5,493	209	144

**Notes to Table 2**

- (a) Price inflation is calculated as the increase in the relevant retail or consumer price index over the year to 31 December 2010, except for Australia where a September to September change is used.
- (b) Tom Albanese accrued pension benefits in the US plans for service up to 30 June 2006 and is accruing benefits in the UK plans for subsequent service.
- (c) The transfer value of benefits in the UK plans is calculated in a manner consistent with "Retirement Benefit Schemes - Transfer Values (GN11)" published by the Institute of Actuaries and the Faculty of Actuaries.
- (d) The transfer value of benefits in the US plans is represented by the Accumulated Benefit Obligation calculated on the accounting assumptions used for the Group's post-retirement benefits disclosures.
- (e) The assumptions used to calculate cash equivalent transfer values for the UK directors changed with effect from 1 May 2010. The factors were updated following completion of the formal Trustee funding valuation of the Rio Tinto Pension Fund to reflect the Trustee's revised assumptions for calculating cash equivalent transfer values. This has resulted in a significant increase in the transfer value of Tom Albanese's and Guy Elliott's benefits over 2010.

**Table 2 – Directors' pension entitlements (as at 31 December 2010) continued**  
*Defined contribution pensions*

	Age	Years of service completed	Company contributions	
			Year to 31 Dec 2009 A\$'000	Year to 31 Dec 2010 A\$'000
Australian director				
Sam Walsh	61	19	59	59

**Table 3 – Directors' and executives' beneficial interests in Rio Tinto shares**

Provided below are the beneficial interests in Rio Tinto shares of directors and executives, including connected persons.

	Rio Tinto plc			Rio Tinto Limited			Movements		
	1 Jan 2010 <sup>(a)</sup>	31 Dec 2010 <sup>(b)</sup>	21 Feb 2011 <sup>(b)</sup>	1 Jan 2010 <sup>(a)</sup>	31 Dec 2010 <sup>(b)</sup>	21 Feb 2011 <sup>(b)</sup>	Exercise of options <sup>(c)</sup>	Compensation <sup>(d)</sup>	Other <sup>(e)</sup>
<b>Directors</b>									
Tom Albanese	129,438	227,955	237,094	–	–	–	276,059	41,102	(209,505)
Robert Brown	–	2,200	2,200	–	–	–	–	–	2,200
Sir David Clementi	1,024	1,173	1,173	–	–	–	–	–	149
Vivienne Cox	2,912	2,912	2,912	–	–	–	–	–	–
Jan du Plessis	30,000	30,000	30,000	–	–	–	–	–	–
Sir Rod Eddington	–	–	–	–	–	–	–	–	–
Guy Elliott	95,099	96,435	96,447	–	–	–	33,000	19,676	(51,328)
Michael Fitzpatrick	–	–	–	6,252	6,252	6,252	–	–	–
Yves Fortier	2,697	3,954	3,954	–	–	–	–	–	1,257
Ann Godbehere	–	–	–	–	–	–	–	–	–
Richard Goodmanson	4,990	7,028	7,028	–	–	–	–	–	2,038
Andrew Gould	1,642	2,642	2,642	–	–	–	–	–	1,000
Lord Kerr	12,000	12,000	12,000	–	–	–	–	–	–
David Mayhew	3,812	3,812	3,812	–	–	–	–	–	–
Paul Tellier	10,396	12,093	12,093	–	–	–	–	–	1,697
Sam Walsh	–	–	–	66,950	46,950	46,950	113,223	27,192	(160,415)
<b>Executives</b>									
Hugo Bague	16,296	18,822	21,665	–	–	–	–	11,132	(5,763)
Preston Chiaro	79,776	91,012	99,070	–	–	–	207,576	22,416	(210,698)
Bret Clayton	18,927	22,579	27,079	–	–	–	30,281	17,384	(39,513)
Jacynthe Côté	–	7,045	10,840	–	–	–	–	18,708	(7,868)
Andrew Harding	–	–	–	5,184	11,293	11,293	21,786	8,392	(24,069)
Harry Kenyon-Slaney <sup>(f)</sup>	18,501	18,710	18,722	–	–	–	–	16,815	(16,594)
Doug Ritchie	–	–	–	6,825	19,469	27,891	455	20,832	(221)
Debra Valentine	–	4,624	4,991	–	–	–	367	6,369	(1,745)

**Notes to Table 3**

- (a) Or date of appointment, if later.  
(b) Or date of retirement or resignation or at date no longer a KMP, if earlier.  
(c) Shares obtained through the exercise of options under the Rio Tinto Share Savings Plan or the Rio Tinto Share Option Plan. The number of shares retained may differ from the number of options exercised.  
(d) Shares obtained through the Rio Tinto Share Ownership Plan and/or vesting of awards under the Performance Share Plan, Management Share Plan and Bonus Deferral Plan.  
(e) 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.  
(f) The balance as at 31 December 2009 for Harry Kenyon-Slaney was understated in the 2009 Remuneration report by 2,683 shares.  
(g) Interests in outstanding awards under option schemes and LTIPs are set out in Tables 4 and 5.



Table 4a – Executives with awards under long term incentive plans 2010

	Conditional award granted	Market price at award	1 Jan 2010 <sup>(a)</sup>	Awarded	Lapsed/cancelled	Dividend shares	Vested	31 Dec 2010 <sup>(b)</sup>	Performance period concludes	Date of election	Market price at election	Monetary value of vested award US\$'000 <sup>(c)</sup>
<b>Bonus Deferral Plan</b>												
Tom Albanese	17-Mar-09	£19.82	28,278	–	–	–	–	28,278	01-Dec-11	–	–	–
Hugo Bague	17-Mar-09	£19.82	2,320	–	–	31	2,351	–	01-Dec-10	15-Dec-10	£44.30	161
	17-Mar-09	£19.82	2,721	–	–	37	2,758	–	01-Dec-10	17-Dec-10	£44.18	188
	17-Mar-09	£19.82	5,043	–	–	–	–	5,043	01-Dec-11	–	–	–
Preston Chiaro	17-Mar-09	£19.82	19,082	–	–	–	–	19,082	01-Dec-11	–	–	–
Bret Clayton	17-Mar-09	£19.82	5,229	–	–	–	–	5,229	01-Dec-11	–	–	–
Jacynthe Côté	17-Mar-09	£19.82	8,342	–	–	113	8,455	–	01-Dec-10	13-Dec-10	£44.79	585
	17-Mar-09	£19.82	8,342	–	–	–	–	8,342	01-Dec-11	–	–	–
Guy Elliott	17-Mar-09	£19.82	18,644	–	–	–	–	18,644	01-Dec-11	–	–	–
Andrew Harding	17-Mar-09	A\$52.01	2,598	–	–	31	2,629	–	01-Dec-10	20-Dec-10	A\$85.45	206
	17-Mar-09	A\$52.01	2,599	–	–	–	–	2,599	01-Dec-11	–	–	–
	09-Jul-09	A\$47.60	546	–	–	5	551	–	01-Dec-10	20-Dec-10	A\$85.45	43
	09-Jul-09	A\$47.60	547	–	–	–	–	547	01-Dec-11	–	–	–
Harry Kenyon-Slaney	17-Mar-09	£19.82	4,284	–	–	57	4,341	–	01-Dec-10	14-Dec-10	£44.40	298
	17-Mar-09	£19.82	4,284	–	–	–	–	4,284	01-Dec-11	–	–	–
Doug Ritchie	17-Mar-09	A\$52.01	3,168	–	–	37	3,205	–	01-Dec-10	20-Dec-10	A\$85.45	251
	17-Mar-09	A\$52.01	3,169	–	–	–	–	3,169	01-Dec-11	–	–	–
	09-Jul-09	A\$47.60	666	–	–	7	673	–	01-Dec-10	20-Dec-10	A\$85.45	53
	09-Jul-09	A\$47.60	667	–	–	–	–	667	01-Dec-11	–	–	–
Debra Valentine	17-Mar-09	£19.82	3,183	–	–	43	3,226	–	01-Dec-10	17-Dec-10	£44.18	220
	17-Mar-09	£19.82	3,101	–	–	42	3,143	–	01-Dec-11	30-Dec-10	£45.84	223
	17-Mar-09	£19.82	6,286	–	–	–	–	6,286	01-Dec-11	–	–	–
Sam Walsh	17-Mar-09	A\$52.01	19,022	–	–	–	–	19,022	01-Dec-11	–	–	–
	09-Jul-09	A\$47.60	4,004	–	–	–	–	4,004	01-Dec-11	–	–	–
<b>Performance Share Plan</b>												
Tom Albanese	07-Mar-06	£26.30	54,480	–	32,906	–	21,574	–	31-Dec-09	09-Mar-10	£36.94	1,232
	13-Mar-07	£26.81	53,412	–	–	–	–	53,412	31-Dec-10	–	–	–
	10-Mar-08	£52.58	59,362	–	–	–	–	59,362	31-Dec-11	–	–	–
	17-Mar-09	£19.82	48,019	–	–	–	–	48,019	31-Dec-12	–	–	–
	22-Mar-10	£37.30	–	79,486	–	–	–	79,486	31-Dec-13	–	–	–
Hugo Bague	09-Sep-07	£35.45	7,305	–	–	–	–	7,305	31-Dec-10	–	–	–
	10-Mar-08	£52.58	14,128	–	–	–	–	14,128	31-Dec-11	–	–	–
	22-Mar-10	£37.30	–	31,531	–	–	–	31,531	31-Dec-13	–	–	–
Preston Chiaro	07-Mar-06	£26.30	41,377	–	24,992	–	16,385	–	31-Dec-09	24-Feb-10	£33.625	852
	13-Mar-07	£26.81	31,084	–	–	–	–	31,084	31-Dec-10	–	–	–
	10-Mar-08	£52.58	23,688	–	–	–	–	23,688	31-Dec-11	–	–	–
	17-Mar-09	£19.82	20,904	–	–	–	–	20,904	31-Dec-12	–	–	–
	22-Mar-10	£37.30	–	40,559	–	–	–	40,559	31-Dec-13	–	–	–
Bret Clayton	07-Mar-06	£26.30	13,033	–	5,592	–	7,441	–	31-Dec-09	15-Feb-10	£32.75	377
	13-Mar-07	£26.81	27,316	–	–	–	–	27,316	31-Dec-10	–	–	–
	10-Mar-08	£52.58	22,871	–	–	–	–	22,871	31-Dec-11	–	–	–
	17-Mar-09	£19.82	20,182	–	–	–	–	20,182	31-Dec-12	–	–	–
	22-Mar-10	£37.30	–	39,160	–	–	–	39,160	31-Dec-13	–	–	–
Jacynthe Côté	10-Mar-08	£52.58	22,299	–	–	–	–	22,299	31-Dec-11	–	–	–
	17-Mar-09	£19.82	23,787	–	–	–	–	23,787	31-Dec-12	–	–	–
	22-Mar-10	£37.30	–	46,153	–	–	–	46,153	31-Dec-13	–	–	–
Guy Elliott	07-Mar-06	£26.30	49,231	–	29,736	–	19,495	–	31-Dec-09	01-Mar-10	£34.685	1,045
	13-Mar-07	£26.81	37,328	–	–	–	–	37,328	31-Dec-10	–	–	–
	10-Mar-08	£52.58	30,930	–	–	–	–	30,930	31-Dec-11	–	–	–
	17-Mar-09	£19.82	35,743	–	–	–	–	35,743	31-Dec-12	–	–	–
	22-Mar-10	£37.30	–	59,166	–	–	–	59,166	31-Dec-13	–	–	–
Andrew Harding	07-Mar-06	A\$69.60	5,253	–	2,254	–	2,999	–	31-Dec-09	22-Feb-10	A\$72.51	200
	09-Jul-09	A\$47.60	1,105	–	475	–	630	–	31-Dec-09	22-Feb-10	A\$72.51	42
	13-Mar-07	A\$74.50	3,777	–	–	–	–	3,777	31-Dec-10	–	–	–
	09-Jul-09	A\$47.60	795	–	–	–	–	795	31-Dec-10	–	–	–
	10-Mar-08	A\$126.48	6,485	–	–	–	–	6,485	31-Dec-11	–	–	–
	09-Jul-09	A\$47.60	1,365	–	–	–	–	1,365	31-Dec-11	–	–	–
	22-Mar-10	A\$75.03	–	31,064	–	–	–	31,064	31-Dec-13	–	–	–

Table 4a – Executives with awards under long term incentive plans 2010 continued

	Conditional award granted	Market price at award	1 Jan 2010 <sup>(a)</sup>	Awarded	Lapsed/ cancelled	Dividend shares	Vested	31 Dec 2010 <sup>(b)</sup>	Performance period concludes	Date of election	Market price at election	Monetary value of vested award US\$'000 <sup>(c)</sup>
<b>Performance Share Plan</b>												
Harry Kenyon-Slaney	07-Mar-06	£26.30	6,028	–	2,587	–	3,441	–	31-Dec-09	18-Feb-10	£34.41	183
	13-Mar-07	£26.81	8,514	–	–	–	–	8,514	31-Dec-10	–	–	–
	10-Mar-08	£52.58	7,210	–	–	–	–	7,210	31-Dec-11	–	–	–
	22-Mar-10	£37.30	–	31,531	–	–	–	31,531	31-Dec-13	–	–	–
Doug Ritchie	07-Mar-06	A\$69.60	7,308	–	3,136	–	4,172	–	31-Dec-09	18-Mar-10	A\$76.99	295
	09-Jul-09	A\$47.60	1,538	–	660	–	878	–	31-Dec-09	18-Mar-10	A\$76.99	62
	13-Mar-07	A\$74.50	10,200	–	–	–	–	10,200	31-Dec-10	–	–	–
	09-Jul-09	A\$47.60	2,147	–	–	–	–	2,147	31-Dec-10	–	–	–
	10-Mar-08	A\$126.48	8,691	–	–	–	–	8,691	31-Dec-11	–	–	–
	09-Jul-09	A\$47.60	1,829	–	–	–	–	1,829	31-Dec-11	–	–	–
	22-Mar-10	A\$75.03	–	32,180	–	–	–	32,180	31-Dec-13	–	–	–
Debra Valentine	10-Mar-08	£52.58	13,967	–	–	–	–	13,967	31-Dec-11	–	–	–
	22-Mar-10	£37.30	–	31,887	–	–	–	31,887	31-Dec-13	–	–	–
Sam Walsh	07-Mar-06	A\$69.60	33,655	–	20,328	–	13,327	–	31-Dec-09	19-Feb-10	A\$71.00	868
	09-Jul-09	A\$47.60	7,084	–	4,279	–	2,805	–	31-Dec-09	19-Feb-10	A\$71.00	183
	13-Mar-07	A\$74.50	25,103	–	–	–	–	25,103	31-Dec-10	–	–	–
	09-Jul-09	A\$47.60	5,284	–	–	–	–	5,284	31-Dec-10	–	–	–
	10-Mar-08	A\$126.48	21,366	–	–	–	–	21,366	31-Dec-11	–	–	–
	09-Jul-09	A\$47.60	4,497	–	–	–	–	4,497	31-Dec-11	–	–	–
	17-Mar-09	A\$52.01	26,670	–	–	–	–	26,670	31-Dec-12	–	–	–
	09-Jul-09	A\$47.60	5,614	–	–	–	–	5,614	31-Dec-12	–	–	–
	22-Mar-10	A\$75.03	–	55,842	–	–	–	55,842	31-Dec-13	–	–	–
<b>Management Share Plan</b>												
Hugo Bague	10-Mar-08	£52.58	1,826	–	–	–	–	1,826	31-Dec-10	–	–	–
	17-Mar-09	£19.82	16,769	–	–	–	–	16,769	31-Dec-11	–	–	–
Jacynthe Côté	10-Mar-08	£52.58	7,296	–	–	–	–	7,296	31-Dec-10	–	–	–
	17-Mar-09	£19.82	5,462	–	–	–	5,462	–	01-Feb-10	26-Feb-10	£33.64	284
	17-Mar-09	£19.82	5,463	–	–	–	–	5,463	01-Feb-11	–	–	–
Andrew Harding	13-Mar-07	A\$74.50	1,250	–	–	70	1,320	–	31-Dec-09	22-Feb-10	A\$72.51	88
	09-Jul-09	A\$47.60	263	–	–	–	263	–	31-Dec-09	22-Feb-10	A\$72.51	18
	10-Mar-08	A\$126.48	837	–	–	–	–	837	31-Dec-10	–	–	–
	09-Jul-09	A\$47.60	176	–	–	–	–	176	31-Dec-10	–	–	–
	17-Mar-09	A\$52.01	8,490	–	–	–	–	8,490	31-Dec-11	–	–	–
	09-Jul-09	A\$47.60	1,787	–	–	–	–	1,787	31-Dec-11	–	–	–
Harry Kenyon-Slaney	13-Mar-07	£26.81	3,026	–	–	136	3,162	–	31-Dec-09	18-Feb-10	£34.41	168
	10-Mar-08	£52.58	932	–	–	–	–	932	31-Dec-10	–	–	–
	17-Mar-09	£19.82	7,403	–	–	–	–	7,403	31-Dec-11	–	–	–
Doug Ritchie	13-Mar-07	A\$74.50	2,750	–	–	154	2,904	–	31-Dec-09	03-Mar-10	A\$73.87	197
	09-Jul-09	A\$47.60	578	–	–	–	578	–	31-Dec-09	03-Mar-10	A\$73.87	39
	10-Mar-08	A\$126.48	1,252	–	–	–	–	1,252	31-Dec-10	–	–	–
	09-Jul-09	A\$47.60	263	–	–	–	–	263	31-Dec-10	–	–	–
	17-Mar-09	A\$52.01	8,572	–	–	–	–	8,572	31-Dec-11	–	–	–
	09-Jul-09	A\$47.60	1,804	–	–	–	–	1,804	31-Dec-11	–	–	–
	14-Sep-09	A\$58.05	9,879	–	–	–	–	9,879	31-Dec-11	–	–	–
Debra Valentine	10-Mar-08	£52.58	1,820	–	–	–	–	1,820	31-Dec-10	–	–	–
	10-Mar-08	£52.58	6,052	–	–	–	–	6,052	15-Jan-11	–	–	–
	10-Mar-08	£52.58	6,053	–	–	–	–	6,053	15-Jan-12	–	–	–
	17-Mar-09	£19.82	19,107	–	–	–	–	19,107	31-Dec-11	–	–	–

Table 4b – Executives with awards under long term incentive plans 2011

	Conditional award granted	Market price at award	1 Jan 2011 <sup>(a)</sup>	Awarded	Lapsed/ cancelled	Dividend shares	Vested	21 Feb 2011 <sup>(b)</sup>	Date of election	Market price at election	Monetary value of vested award US\$'000 <sup>(b)</sup>
<b>Bonus Deferral Plan</b>											
Tom Albanese	17-Mar-09	£19.82	28,278	–	–	–	–	28,278	–	–	–
Hugo Bague	17-Mar-09	£19.82	5,043	–	–	–	–	5,043	–	–	–
Preston Chiaro	17-Mar-09	£19.82	19,082	–	–	–	–	19,082	–	–	–
Bret Clayton	17-Mar-09	£19.82	5,229	–	–	–	–	5,229	–	–	–
Jacynthe Côté	17-Mar-09	£19.82	8,342	–	–	–	–	8,342	–	–	–
Guy Elliott	17-Mar-09	£19.82	18,644	–	–	–	–	18,644	–	–	–
Andrew Harding	17-Mar-09	A\$52.01	2,599	–	–	–	–	2,599	–	–	–
	09-Jul-09	A\$47.60	547	–	–	–	–	547	–	–	–
Harry Kenyon-Slaney	17-Mar-09	£19.82	4,284	–	–	–	–	4,284	–	–	–
	17-Mar-09	£19.82	4,284	–	–	–	–	4,284	–	–	–
Doug Ritchie	17-Mar-09	A\$52.01	3,169	–	–	–	–	3,169	–	–	–
	09-Jul-09	A\$47.60	667	–	–	–	–	667	–	–	–
Debra Valentine	17-Mar-09	£19.82	6,286	–	–	–	–	6,286	–	–	–
Sam Walsh	17-Mar-09	A\$52.01	19,022	–	–	–	–	19,022	–	–	–
	09-Jul-09	A\$47.60	4,004	–	–	–	–	4,004	–	–	–
<b>Performance Share Plan</b>											
Tom Albanese	13-Mar-07	£26.81	53,412	–	–	–	–	53,412	–	–	–
	10-Mar-08	£52.58	59,362	–	–	–	–	59,362	–	–	–
	17-Mar-09	£19.82	48,019	–	–	–	–	48,019	–	–	–
	22-Mar-10	£37.30	79,486	–	–	–	–	79,486	–	–	–
Hugo Bague	09-Sep-07	£35.45	7,305	–	3,244	–	4,061	–	15-Feb-11	£45.50	286
	10-Mar-08	£52.58	14,128	–	–	–	–	14,128	–	–	–
	22-Mar-10	£37.30	31,531	–	–	–	–	31,531	–	–	–
Preston Chiaro	13-Mar-07	£26.81	31,084	–	19,770	–	11,314	–	16-Feb-11	£45.20	791
	10-Mar-08	£52.58	23,688	–	–	–	–	23,688	–	–	–
	17-Mar-09	£19.82	20,904	–	–	–	–	20,904	–	–	–
	22-Mar-10	£37.30	40,559	–	–	–	–	40,559	–	–	–
Bret Clayton	13-Mar-07	£26.81	27,316	–	17,373	–	9,943	–	14-Feb-11	£46.82	719
	10-Mar-08	£52.58	22,871	–	–	–	–	22,871	–	–	–
	17-Mar-09	£19.82	20,182	–	–	–	–	20,182	–	–	–
	22-Mar-10	£37.30	39,160	–	–	–	–	39,160	–	–	–
Jacynthe Côté	10-Mar-08	£52.58	22,299	–	–	–	–	22,299	–	–	–
	17-Mar-09	£19.82	23,787	–	–	–	–	23,787	–	–	–
	22-Mar-10	£37.30	46,153	–	–	–	–	46,153	–	–	–
Guy Elliott	13-Mar-07	£26.81	37,328	–	–	–	–	37,328	–	–	–
	10-Mar-08	£52.58	30,930	–	–	–	–	30,930	–	–	–
	17-Mar-09	£19.82	35,743	–	–	–	–	35,743	–	–	–
	22-Mar-10	£37.30	59,166	–	–	–	–	59,166	–	–	–

Table 4b – Executives with awards under long term incentive plans 2011 continued

	Conditional award granted	Market price at award	1 Jan 2011 <sup>(a)</sup>	Awarded	Lapsed/ cancelled	Dividend shares	Vested	21 Feb 2011 <sup>(b)</sup>	Date of election	Market price at election	Monetary value of vested award US\$'000 <sup>(f)</sup>
<b>Performance Share Plan</b>											
Andrew Harding	13-Mar-07	A\$74.50	3,777	–	–	–	–	3,777	–	–	–
	09-Jul-09	A\$47.60	795	–	–	–	–	795	–	–	–
	10-Mar-08	A\$126.48	6,485	–	–	–	–	6,485	–	–	–
	09-Jul-09	A\$47.60	1,365	–	–	–	–	1,365	–	–	–
Harry Kenyon-Slaney	22-Mar-10	A\$75.03	31,064	–	–	–	–	31,064	–	–	–
	13-Mar-07	£26.81	8,514	–	3,781	–	4,733	–	17-Feb-11	£44.99	329
	10-Mar-08	£52.58	7,210	–	–	–	–	7,210	–	–	–
	22-Mar-10	£37.30	31,531	–	–	–	–	31,531	–	–	–
Doug Ritchie	13-Mar-07	A\$74.50	10,200	–	4,529	–	5,671	–	18-Feb-11	A\$87.61	456
	09-Jul-09	A\$47.60	2,147	–	954	–	1,193	–	18-Feb-11	A\$87.61	96
	10-Mar-08	A\$126.48	8,691	–	–	–	–	8,691	–	–	–
	09-Jul-09	A\$47.60	1,829	–	–	–	–	1,829	–	–	–
Debra Valentine	22-Mar-10	A\$75.03	32,180	–	–	–	–	32,180	–	–	–
	10-Mar-08	£52.58	13,967	–	–	–	–	13,967	–	–	–
	22-Mar-10	£37.30	31,887	–	–	–	–	31,887	–	–	–
	–	–	–	–	–	–	–	–	–	–	–
Sam Walsh	13-Mar-07	A\$74.50	25,103	–	15,966	–	9,137	–	15-Feb-11	A\$88.14	739
	09-Jul-09	A\$47.60	5,284	–	3,361	–	1,923	–	15-Feb-11	A\$88.14	156
	10-Mar-08	A\$126.48	21,366	–	–	–	–	21,366	–	–	–
	09-Jul-09	A\$47.60	4,497	–	–	–	–	4,497	–	–	–
	17-Mar-09	A\$52.01	26,670	–	–	–	–	26,670	–	–	–
	09-Jul-09	A\$47.60	5,614	–	–	–	–	5,614	–	–	–
Management Share Plan	22-Mar-10	A\$75.03	55,842	–	–	–	–	55,842	–	–	–
	10-Mar-08	£52.58	1,826	–	–	49	1,875	–	15-Feb-11	£45.50	132
	17-Mar-09	£19.82	16,769	–	–	–	–	16,769	–	–	–
	10-Mar-08	£52.58	7,296	–	–	–	–	7,296	–	–	–
	17-Mar-09	£19.82	5,463	–	–	–	–	5,463	–	–	–
	–	–	–	–	–	–	–	–	–	–	–
Andrew Harding	10-Mar-08	A\$126.48	837	–	–	–	–	837	–	–	–
	09-Jul-09	A\$47.60	176	–	–	–	–	176	–	–	–
	17-Mar-09	A\$52.01	8,490	–	–	–	–	8,490	–	–	–
	09-Jul-09	A\$47.60	1,787	–	–	–	–	1,787	–	–	–
Harry Kenyon-Slaney	10-Mar-08	£52.58	932	–	–	25	957	–	17-Feb-11	£44.99	67
	17-Mar-09	£19.82	7,403	–	–	–	–	7,403	–	–	–
	–	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–	–
Doug Ritchie	10-Mar-08	A\$126.48	1,252	–	–	40	1,292	–	18-Feb-11	A\$87.61	104
	09-Jul-09	A\$47.60	263	–	–	3	266	–	18-Feb-11	A\$87.61	21
	17-Mar-09	A\$52.01	8,572	–	–	–	–	8,572	–	–	–
	09-Jul-09	A\$47.60	1,804	–	–	–	–	1,804	–	–	–
Debra Valentine	14-Sep-09	A\$58.05	9,879	–	–	–	–	9,879	–	–	–
	10-Mar-08	£52.58	1,820	–	–	–	–	–	–	–	–
	10-Mar-08	£52.58	6,052	–	–	–	–	6,052	–	–	–
	10-Mar-08	£52.58	6,053	–	–	–	–	6,053	–	–	–
–	17-Mar-09	£19.82	19,107	–	–	–	–	19,107	–	–	–

## Notes to Tables 4a and 4b

- (a) Or at date of appointment, if later.  
(b) Or at date of resignation, if earlier.  
(c) Awards denominated in pounds sterling were for Rio Tinto plc ordinary shares of 10p each and awards denominated in Australian dollars were for Rio Tinto Limited shares.  
(d) The weighted fair value per share of conditional awards granted in 2010 was as follows: Performance Share Plan was £38.26 for Rio Tinto plc and A\$79.54 for Rio Tinto Limited.  
(e) Conditional awards are awarded at no cost to the recipient and no amount remains unpaid on any shares granted.  
(f) The amount in US dollars has been converted from sterling at the rate of £1 = US\$1.5459 and Australian dollars at the rate of A\$1 = US\$0.9178, being the average exchange rates for 2010.

**Table 5 – Executives holding options to acquire Rio Tinto plc and Rio Tinto Limited shares 2010**

	Date of Grant	1 Jan 10 <sup>(a)</sup>	Granted	Vested during 2010	Exercised	Lapsed/ cancelled <sup>(b)</sup>
<b>Share Savings Plan</b>						
Tom Albanese	06-Oct-06	957	–	–	–	–
Hugo Bague	17-Oct-08	288	–	–	–	–
	20-Oct-09	84	–	–	–	–
Preston Chiaro	17-Oct-08	367	–	–	–	–
	05-Oct-10	–	189	–	–	–
Bret Clayton	05-Oct-07	197	–	197	197	–
Guy Elliott	17-Oct-08	629	–	–	–	–
Andrew Harding	06-Oct-06	455	–	455	455	–
	20-Oct-09	723	–	–	–	–
Harry Kenyon-Slaney	05-Oct-07	280	–	–	–	–
	20-Oct-09	434	–	–	–	–
Doug Ritchie	06-Oct-06	455	–	455	455	–
	20-Oct-09	422	–	–	–	–
Debra Valentine	17-Oct-08	367	–	–	–	–
	05-Oct-10	–	189	–	–	–
Sam Walsh	17-Oct-08	505	–	–	–	505
	20-Oct-09	125	–	–	–	–
	05-Oct-10	–	457	–	–	–
<b>Share Option Plan</b>						
Tom Albanese	06-Mar-01	30,840	–	–	30,840	–
	06-Mar-01	93,500	–	–	93,500	–
	13-Mar-02	151,719	–	–	151,719	–
	07-Mar-03	168,459	–	–	–	–
	22-Apr-04	101,706	–	–	–	–
	09-Mar-05	101,592	–	–	–	–
	07-Mar-06	81,722	–	–	–	–
	13-Mar-07	80,117	–	–	–	80,117
	10-Mar-08	89,045	–	–	–	–
	17-Mar-09	72,029	–	–	–	–
	22-Mar-10	–	119,230	–	–	–
Hugo Bague	09-Sep-07	10,693	–	–	–	10,693
	17-Mar-09	15,714	–	–	–	–
	22-Mar-10	–	47,297	–	–	–
Preston Chiaro	07-Mar-03	44,982	–	–	44,982	–
	22-Apr-04	85,328	–	–	85,328	–
	09-Mar-05	76,899	–	–	76,899	–
	07-Mar-06	62,067	–	–	–	–
	13-Mar-07	46,627	–	–	–	46,627
	10-Mar-08	35,533	–	–	–	–
	17-Mar-09	31,355	–	–	–	–
	22-Mar-10	–	60,838	–	–	–
Bret Clayton	22-Apr-04	16,117	–	–	16,117	–
	09-Mar-05	13,967	–	–	13,967	–
	07-Mar-06	13,033	–	–	–	–
	13-Mar-07	40,975	–	–	–	40,975
	10-Mar-08	34,307	–	–	–	–
	17-Mar-09	30,274	–	–	–	–
	22-Mar-10	–	58,740	–	–	–
Jacynthe Côté	17-Mar-09	35,680	–	–	–	–
	22-Mar-10	–	69,230	–	–	–



	Vested and exercisable on 31 Dec 2010 <sup>(b)</sup>	31 Dec 2010 <sup>(b)</sup>	Exercise price	Value of options exercised during 2010 <sup>(e)</sup>	Market price on date of exercise	Date from which first exercisable	Expiry date
<b>Share Savings Plan</b>							
Tom Albanese	-	957	£17.084	-	-	01-Jan-12	01-Jul-12
Hugo Bague	-	288	£26.576	-	-	01-Jan-12	01-Jul-12
	-	84	£21.480	-	-	01-Jan-13	01-Jul-13
Preston Chiaro	-	367	£16.935	-	-	01-Jan-11	17-Jan-11
	-	189	£31.660	-	-	01-Jan-13	06-Jan-13
Bret Clayton	-	-	£29.385	£1,046	£34.695	01-Jan-10	06-Jan-10
Guy Elliott	-	629	£26.576	-	-	01-Jan-14	01-Jul-14
Andrew Harding	-	-	A\$40.691	A\$11,815	A\$66.660	01-Jan-10	01-Jul-10
	-	723	A\$48.73	-	-	01-Jan-15	01-Jul-15
Harry Kenyon-Slaney	-	280	£23.850	-	-	01-Jan-13	01-Jul-13
	-	434	£21.480	-	-	01-Jan-15	01-Jul-15
Doug Ritchie	-	-	A\$40.691	A\$14,218	A\$71.940	01-Jan-10	01-Jul-10
	-	422	A\$48.73	-	-	01-Jan-15	01-Jul-15
Debra Valentine	-	367	£16.935	-	-	01-Jan-11	18-Jan-11
	-	189	£31.660	-	-	01-Jan-13	06-Jan-13
Sam Walsh	-	-	A\$66.081	-	-	01-Jan-14	01-Jul-14
	-	125	A\$48.73	-	-	01-Jan-15	01-Jul-15
	-	457	A\$59.26	-	-	01-Jan-16	01-Jul-16
<b>Share Option Plan</b>							
Tom Albanese	-	-	£10.455	£816,797	£36.940	06-Mar-05	06-Mar-11
	-	-	£10.455	£2,426,792	£36.410	06-Mar-05	06-Mar-11
	-	-	£12.050	£3,776,285	£36.940	13-Mar-05	13-Mar-12
	168,459	168,459	£10.434	-	-	07-Mar-06	07-Mar-13
	101,706	101,706	£10.979	-	-	22-Apr-09	22-Apr-14
	101,592	101,592	£15.086	-	-	09-Mar-08	09-Mar-15
	81,722	81,722	£22.397	-	-	07-Mar-09	07-Mar-16
	-	-	£22.315	-	-	13-Mar-10	13-Mar-10
	-	89,045	£47.280	-	-	10-Mar-11	10-Mar-18
	-	72,029	£16.530	-	-	17-Mar-12	17-Mar-19
	-	119,230	£37.050	-	-	22-Mar-13	22-Mar-20
Hugo Bague	-	-	£28.506	-	-	09-Sep-10	09-Sep-10
	-	15,714	£16.530	-	-	17-Mar-12	17-Mar-19
	-	47,297	£37.050	-	-	22-Mar-13	22-Mar-20
Preston Chiaro	-	-	£10.434	£972,780	£32.060	07-Mar-06	07-Mar-13
	-	-	£10.979	£1,798,799	£32.060	22-Apr-09	22-Apr-14
	-	-	£15.086	£1,305,283	£32.060	09-Mar-08	09-Mar-15
	62,067	62,067	£22.397	-	-	07-Mar-09	07-Mar-16
	-	-	£22.315	-	-	13-Mar-10	13-Mar-10
	-	35,533	£47.280	-	-	10-Mar-11	10-Mar-18
	-	31,355	£16.530	-	-	17-Mar-12	17-Mar-19
	-	60,838	£37.050	-	-	22-Mar-13	22-Mar-20
Bret Clayton	-	-	£10.979	£476,756	£40.560	22-Apr-09	22-Apr-14
	-	-	£15.086	£355,795	£40.560	09-Mar-08	09-Mar-15
	13,033	13,033	£22.397	-	-	07-Mar-09	07-Mar-16
	-	-	£22.315	-	-	13-Mar-10	13-Mar-10
	-	34,307	£47.280	-	-	10-Mar-11	10-Mar-18
	-	30,274	£16.530	-	-	17-Mar-12	17-Mar-19
	-	58,740	£37.050	-	-	22-Mar-13	22-Mar-20
Jacynthe Côté	-	35,680	£16.530	-	-	17-Mar-12	17-Mar-19
	-	69,230	£37.050	-	-	22-Mar-13	22-Mar-20

Table 5 – Executives holding options to acquire Rio Tinto plc and Rio Tinto Limited shares 2010 continued

	Date of Grant	1 Jan 10 <sup>(a)</sup>	Granted	Vested during 2010	Exercised	Lapsed/cancelled <sup>(i)</sup>
<b>Share Option Plan</b>						
Guy Elliott	13-Mar-02	74,691	–	–	33,000	–
	07-Mar-03	117,886	–	–	–	–
	22-Apr-04	89,213	–	–	–	–
	09-Mar-05	88,332	–	–	–	–
	07-Mar-06	70,330	–	–	–	–
	13-Mar-07	53,324	–	–	–	53,324
	10-Mar-08	44,186	–	–	–	–
	17-Mar-09	53,615	–	–	–	–
	22-Mar-10	–	88,749	–	–	–
Andrew Harding	13-Mar-02	2,894	–	–	2,894	–
	07-Mar-03	9,383	–	–	9,383	–
	22-Apr-04	1,526	–	–	1,526	–
	09-Mar-05	2,275	–	–	2,275	–
	07-Mar-06	5,253	–	–	5,253	–
	13-Mar-07	3,777	–	–	–	3,777
	17-Mar-09	6,268	–	–	–	–
	22-Mar-10	–	46,597	–	–	–
Harry Kenyon-Slaney <sup>(h)</sup>	13-Mar-07	9,103	–	–	–	9,103
	17-Mar-09	6,938	–	–	–	–
	22-Mar-10	–	47,297	–	–	–
Doug Ritchie	07-Mar-06	7,308	–	–	–	–
	13-Mar-07	10,200	–	–	–	10,200
	17-Mar-09	8,230	–	–	–	–
	22-Mar-10	–	48,270	–	–	–
Debra Valentine	17-Mar-09	13,558	–	–	–	–
	22-Mar-10	–	47,831	–	–	–
Sam Walsh	22-Apr-04	54,400	–	–	54,400	–
	09-Mar-05	58,823	–	–	58,823	–
	07-Mar-06	48,079	–	–	–	–
	13-Mar-07	35,861	–	–	–	35,861
	10-Mar-08	30,523	–	–	–	–
	17-Mar-09	40,005	–	–	–	–
	22-Mar-10	–	83,763	–	–	–

**Notes to Table 5**

- (a) Or at date of appointment, if later.
- (b) Or at date of retirement or resignation, if earlier.
- (c) All options granted over ordinary shares. Rio Tinto plc – ordinary shares of 10p 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 performance conditions for the Share Option Plan are detailed on page 134.
- (d) The closing price of Rio Tinto plc ordinary shares at 31 December 2010 was £44.87 (2009: £33.90) and the closing price of Rio Tinto Limited shares at 31 December 2010 was A\$85.70 (2009: A\$74.89). The high and low prices during 2010 of Rio Tinto plc and Rio Tinto Limited shares were £28.12 and £45.84 and A\$61.70 and A\$87.94 respectively.
- (e) The exercise price represents the price payable on the options.
- (f) The weighted fair value per option during 2010, at date of grant was as follows: Rio Tinto plc Share Savings Plan two year contract £9.36; three year contract £11.15 and five year contract £10.61. Rio Tinto Limited Share Savings Plan three year contract A\$24.56 and five year contract A\$23.85. Rio Tinto plc Share Option Plan £13.91 (March 2010 grant); Rio Tinto Limited Share Option Plan A\$26.97 (March 2010 grant).
- (g) The value of options exercised during 2010 is calculated by multiplying the number of options exercised by the difference between the market price and the exercise price on date of exercise.
- (h) In 2001 Harry Kenyon-Slaney was granted 6,857 phantom options over Rio Tinto plc shares at a price of £10.455 per share. These were exercised on 18 February 2010 at a price of £33.50 per share.
- (i) Options granted in 2007 under the Share Option Plan failed to satisfy their performance condition and did not vest. The value of the lapsed options are shown in the table below.

	Market price at date of lapse	Value of options lapsed during 2010
Tom Albanese	£37.09	£1,183,728
Hugo Bague	£35.40	£73,717
Preston Chiaro	£37.09	£688,913
Bret Clayton	£37.09	£605,405
Guy Elliott	£37.09	£787,862
Andrew Harding	\$75.96	A\$66,025
Harry Kenyon-Slaney	£37.09	£134,496
Doug Ritchie	\$75.96	A\$178,306
Sam Walsh	\$75.96	A\$626,886

	Vested and exercisable on 31 Dec 2010 <sup>(b)</sup>	31 Dec 2010 <sup>(b)</sup>	Exercise price	Value of options exercised during 2010 <sup>(c)</sup>	Market price on date of exercise	Date from which first exercisable	Expiry date
<b>Share Option Plan</b>							
Guy Elliott	41,691	41,691	£12.050	£845,460	£37.670	13-Mar-05	13-Mar-12
	117,886	117,886	£10.434	–	–	07-Mar-06	07-Mar-13
	89,213	89,213	£10.979	–	–	22-Apr-09	22-Apr-14
	88,332	88,332	£15.086	–	–	09-Mar-08	09-Mar-15
	70,330	70,330	£22.397	–	–	07-Mar-09	07-Mar-16
	–	–	£22.315	–	–	13-Mar-10	13-Mar-10
	–	44,186	£47.280	–	–	10-Mar-11	10-Mar-18
	–	53,615	£16.530	–	–	17-Mar-12	17-Mar-19
	–	88,749	£37.050	–	–	22-Mar-13	22-Mar-20
Andrew Harding	–	–	A\$23.762	A\$148,311	A\$75.010	13-Mar-05	13-Mar-12
	–	–	A\$17.227	A\$542,177	A\$75.010	07-Mar-06	07-Mar-13
	–	–	A\$18.297	A\$86,544	A\$75.010	22-Apr-09	22-Apr-14
	–	–	A\$30.933	A\$100,275	A\$75.010	09-Mar-08	09-Mar-15
	–	–	A\$54.951	A\$105,369	A\$75.010	07-Mar-09	07-Mar-16
	–	–	A\$58.479	–	–	13-Mar-10	13-Mar-10
	–	6,268	A\$33.451	–	–	17-Mar-12	17-Mar-19
	–	46,597	A\$76.150	–	–	22-Mar-13	22-Mar-20
Harry Kenyon-Slaney <sup>(h)</sup>	–	–	£22.315	–	–	13-Mar-10	13-Mar-10
	–	6,938	£16.530	–	–	17-Mar-12	17-Mar-19
	–	47,297	£37.050	–	–	22-Mar-13	22-Mar-20
Doug Ritchie	7,308	7,308	A\$54.951	–	–	07-Mar-09	07-Mar-16
	–	–	A\$58.479	–	–	13-Mar-10	13-Mar-10
	–	8,230	A\$33.451	–	–	17-Mar-12	17-Mar-19
	–	48,270	A\$76.150	–	–	22-Mar-13	22-Mar-20
Debra Valentine	–	13,558	£16.530	–	–	17-Mar-12	17-Mar-19
	–	47,831	£37.050	–	–	22-Mar-13	22-Mar-20
Sam Walsh	–	–	A\$18.297	A\$3,030,243	A\$74.000	22-Apr-09	22-Apr-14
	–	–	A\$30.933	A\$2,533,330	A\$74.000	09-Mar-08	09-Mar-15
	48,079	48,079	A\$54.951	–	–	07-Mar-09	07-Mar-16
	–	–	A\$58.479	–	–	13-Mar-10	13-Mar-10
	–	30,523	A\$118.067	–	–	10-Mar-11	10-Mar-18
	–	40,005	A\$33.451	–	–	17-Mar-12	17-Mar-19
	–	83,763	A\$76.150	–	–	22-Mar-13	22-Mar-20

# 2010 Financial statements

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# Group income statement

Years ended 31 December

	Note	2010 US\$m	2009 US\$m	2008 US\$m
Gross sales revenue (including share of equity accounted units) <sup>(a)</sup>		60,323	44,036	58,065
<b>Continuing operations</b>				
Consolidated sales revenue	31	56,576	41,825	54,264
Net operating costs (excluding items shown separately)	3	(36,667)	(33,818)	(37,641)
Impairment charges less reversals	5	(982)	(1,573)	(8,015)
Gain on consolidation and on disposal of interests in businesses	2, 41	839	692	2,231
Exploration and evaluation costs	12	(594)	(514)	(1,134)
Profits on disposal of interests in undeveloped projects	12	522	894	489
<b>Operating profit</b>		19,694	7,506	10,194
Share of profit after tax of equity accounted units	6	1,101	786	1,039
<b>Profit before finance items and taxation</b>		20,795	8,292	11,233
<b>Finance items</b>				
Net exchange gains/(losses) on external debt and intragroup balances	24	529	365	(176)
Net gains/(losses) on derivatives not qualifying for hedge accounting		162	261	(173)
Interest receivable and similar income	7	163	120	204
Interest payable and similar charges	7	(778)	(929)	(1,618)
Amortisation of discount		(294)	(249)	(292)
		(218)	(432)	(2,055)
<b>Profit before taxation</b>		20,577	7,860	9,178
<b>Taxation</b>	8	(5,296)	(2,076)	(3,742)
<b>Profit from continuing operations</b>		15,281	5,784	5,436
<b>Discontinued operations</b>				
Loss after tax from discontinued operations	2	(97)	(449)	(827)
<b>Profit for the year</b>		15,184	5,335	4,609
– attributable to non-controlling interests		860	463	933
– attributable to owners of Rio Tinto (Net earnings)		14,324	4,872	3,676
<b>Basic earnings/(loss) per share <sup>(b)</sup></b>				
Profit from continuing operations	9	735.4c	301.7c	286.8c
Loss from discontinued operations	9	(4.9c)	(25.5c)	(52.7c)
<b>Profit for the year</b>	9	730.5c	276.2c	234.1c
<b>Diluted earnings/(loss) per share <sup>(b)</sup></b>				
Profit from continuing operations	9	731.1c	300.7c	285.5c
Loss from discontinued operations	9	(4.9c)	(25.4c)	(52.4c)
<b>Profit for the year</b>	9	726.2c	275.3c	233.1c

(a) Gross sales revenue includes the sales revenue of equity accounted units (after adjusting for sales to subsidiaries) of US\$4,254 million (2009: US\$3,197 million; 2008: US\$3,801 million) in addition to Consolidated sales revenue. Consolidated sales revenue includes subsidiary sales to equity accounted units which are not included in gross sales revenue.

(b) The 2009 rights issues were at a discount to the then market price. Accordingly, earnings per share for all periods up to the date on which the shares were issued have been adjusted for the bonus element of the issues. See note 46 for other information relating to the rights issues.



# Group statement of comprehensive income

Years ended 31 December

	2010 Attributable to:			2009 Attributable to:		
	Owners of Rio Tinto US\$m	Non- controlling interests US\$m	Total US\$m	Owners of Rio Tinto US\$m	Non- controlling interests US\$m	Total US\$m
<b>Profit after tax for the year</b>	<b>14,324</b>	<b>860</b>	<b>15,184</b>	<b>4,872</b>	<b>463</b>	<b>5,335</b>
<b>Other comprehensive income:</b>						
Currency translation adjustment	1,230	274	1,504	3,732	429	4,161
Currency translation on companies disposed of transferred to the income statement	6	–	6	(13)	–	(13)
Cash flow hedge fair value gains/(losses):						
– Cash flow hedge fair value losses	(72)	(21)	(93)	(206)	(107)	(313)
– Cash flow hedge losses transferred to the income statement	47	48	95	16	34	50
– Cash flow hedge gains on companies disposed of transferred to the income statement	–	–	–	(4)	(1)	(5)
Gains on revaluation of available for sale securities	213	2	215	357	1	358
Gains on revaluation of available for sale securities transferred to the income statement	(10)	–	(10)	(3)	–	(3)
Actuarial losses on post retirement benefit plans (note 50)	(765)	(17)	(782)	(847)	3	(844)
Share of other comprehensive income of equity accounted units, net of tax	206	–	206	368	–	368
Tax relating to components of other comprehensive income (note 8)	257	(4)	253	297	24	321
<b>Other comprehensive income for the year, net of tax</b>	<b>1,112</b>	<b>282</b>	<b>1,394</b>	<b>3,697</b>	<b>383</b>	<b>4,080</b>
<b>Total comprehensive income for the year</b>	<b>15,436</b>	<b>1,142</b>	<b>16,578</b>	<b>8,569</b>	<b>846</b>	<b>9,415</b>

	2008 Attributable to:		
	Owners of Rio Tinto US\$m	Non- controlling interests US\$m	Total US\$m
<b>Profit after tax for the year</b>	<b>3,676</b>	<b>933</b>	<b>4,609</b>
<b>Other comprehensive income:</b>			
Currency translation adjustment	(4,383)	(411)	(4,794)
Currency translation on companies disposed of transferred to the income statement	(2)	–	(2)
Cash flow hedge fair value gains/(losses):			
– Cash flow hedge fair value gains	28	6	34
– Cash flow hedge losses transferred to the income statement	245	107	352
Losses on revaluation of available for sale securities	(173)	(1)	(174)
Gains on revaluation of available for sale securities transferred to the income statement	(1)	–	(1)
Actuarial losses on post retirement benefit plans (note 50)	(1,294)	(20)	(1,314)
Share of other comprehensive expense of equity accounted units, net of tax	(283)	–	(283)
Tax relating to components of other comprehensive income/(expense) (note 8)	280	(36)	244
<b>Other comprehensive expense for the year, net of tax</b>	<b>(5,583)</b>	<b>(355)</b>	<b>(5,938)</b>
<b>Total comprehensive (expense)/income for the year</b>	<b>(1,907)</b>	<b>578</b>	<b>(1,329)</b>

# Group cash flow statement

Years ended 31 December

	Note	2010 US\$m	2009 US\$m	2008 US\$m
<b>Cash flow from consolidated operations <sup>(a)</sup></b>		<b>22,126</b>	<b>13,224</b>	<b>19,195</b>
Dividends from equity accounted units		1,404	610	1,473
<b>Cash flows from operations</b>		<b>23,530</b>	<b>13,834</b>	<b>20,668</b>
Net interest paid		(696)	(1,136)	(1,538)
Dividends paid to holders of non-controlling interests in subsidiaries		(457)	(410)	(348)
Tax paid		(4,100)	(3,076)	(3,899)
<b>Net cash generated from operating activities</b>		<b>18,277</b>	<b>9,212</b>	<b>14,883</b>
<b>Cash flow from investing activities</b>				
Acquisitions of subsidiaries, joint ventures & associates	41	(907)	(396)	(9)
Disposals of subsidiaries, joint ventures & associates	41	604	2,424	2,572
Net proceeds from the disposal of assets held for sale	19	3,196	–	–
Purchase of property, plant & equipment and intangible assets		(4,591)	(5,388)	(8,574)
Sales of financial assets		227	253	171
Purchases of financial assets		(145)	(44)	(288)
Other funding of equity accounted units		(154)	(265)	(334)
Other investing cash flows		59	59	281
<b>Cash used in investing activities</b>		<b>(1,711)</b>	<b>(3,357)</b>	<b>(6,181)</b>
<b>Cash flow before financing activities</b>		<b>16,566</b>	<b>5,855</b>	<b>8,702</b>
<b>Cash flow from financing activities</b>				
Equity dividends paid to owners of Rio Tinto		(1,754)	(876)	(1,933)
Proceeds from issue of ordinary shares in Rio Tinto		92	14,877	23
Proceeds from additional borrowings		1,947	5,775	4,697
Repayment of borrowings		(11,307)	(22,220)	(12,677)
Receipt from close out of interest rate swaps		–	–	710
Proceeds from issue of shares to non-controlling interests		250	53	72
Other financing cash flows		162	(72)	–
<b>Cash used in financing activities</b>		<b>(10,610)</b>	<b>(2,463)</b>	<b>(9,108)</b>
Effects of exchange rates on cash and cash equivalents		(139)	(284)	(101)
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>5,817</b>	<b>3,108</b>	<b>(507)</b>
Opening cash and cash equivalents less overdrafts		4,142	1,034	1,541
<b>Closing cash and cash equivalents less overdrafts</b>	21	<b>9,959</b>	<b>4,142</b>	<b>1,034</b>
<b>(a) Cash flow from consolidated operations</b>				
Profit from continuing operations		15,281	5,784	5,436
Adjustments for:				
– Taxation	8	5,296	2,076	3,742
– Finance items		218	432	2,055
– Share of profit after tax of equity accounted units	6	(1,101)	(786)	(1,039)
– Gain on consolidation and on disposal of interests in businesses	41	(839)	(692)	(2,231)
– Impairment charges less reversals	5	982	1,573	8,015
– Depreciation and amortisation		3,437	3,427	3,475
– Provisions (including exchange differences on provisions)	27	907	930	265
Utilisation of provisions	27	(507)	(363)	(464)
Utilisation of provision for post retirement benefits	27	(1,110)	(470)	(448)
Change in inventories		(492)	653	(1,178)
Change in trade and other receivables		(1,316)	908	658
Change in trade and other payables		983	(570)	951
Other items		387	322	(42)
		<b>22,126</b>	<b>13,224</b>	<b>19,195</b>


# Group statement of financial position

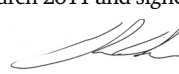
At 31 December

	Note	2010 US\$m	2009 US\$m
<b>Non-current assets</b>			
Goodwill	11	15,296	14,268
Intangible assets	12	5,700	5,730
Property, plant and equipment	13	56,024	45,803
Investments in equity accounted units	14	6,503	6,735
Loans to equity accounted units		227	170
Inventories	16	375	284
Trade and other receivables	17	1,826	1,375
Deferred tax assets	18	1,863	2,231
Tax recoverable		89	85
Other financial assets	20	1,334	841
		<b>89,237</b>	<b>77,522</b>
<b>Current assets</b>			
Inventories	16	4,756	4,889
Trade and other receivables	17	5,582	4,447
Loans to equity accounted units		110	168
Tax recoverable		542	501
Other financial assets	20	521	694
Cash and cash equivalents	21	9,948	4,233
		<b>21,459</b>	<b>14,932</b>
Assets of disposal groups held for sale	19	1,706	4,782
<b>Total assets</b>		<b>112,402</b>	<b>97,236</b>
<b>Current liabilities</b>			
Bank overdrafts repayable on demand	21	(7)	(91)
Borrowings	22	(1,057)	(756)
Trade and other payables	25	(6,576)	(5,759)
Other financial liabilities	26	(265)	(412)
Tax payable		(2,773)	(1,329)
Provisions	27	(1,117)	(1,182)
		<b>(11,795)</b>	<b>(9,529)</b>
<b>Non-current liabilities</b>			
Borrowings	22	(13,277)	(22,155)
Trade and other payables	25	(879)	(591)
Other financial liabilities	26	(416)	(601)
Tax payable		(417)	(299)
Deferred tax liabilities	18	(5,175)	(4,304)
Provision for post retirement benefits	27	(4,339)	(4,993)
Other provisions	27	(9,023)	(7,519)
		<b>(33,526)</b>	<b>(40,462)</b>
Liabilities of disposal groups held for sale	19	(1,807)	(1,320)
<b>Total liabilities</b>		<b>(47,128)</b>	<b>(51,311)</b>
<b>Net assets</b>		<b>65,274</b>	<b>45,925</b>
Capital and reserves			
Share capital – Rio Tinto plc	28	246	246
– Rio Tinto Limited (excluding Rio Tinto plc interest)	29	5,601	4,924
Share premium account <sup>(a)</sup>		4,258	4,174
Other reserves	30	15,643	14,010
Retained earnings	30	32,585	20,477
<b>Equity attributable to owners of Rio Tinto</b>		<b>58,333</b>	<b>43,831</b>
Attributable to non-controlling interest <sup>(a)</sup>		6,941	2,094
<b>Total equity</b>		<b>65,274</b>	<b>45,925</b>

(a) Refer to statement of changes in equity.

The notes on pages 163 to 246 are an integral part of these consolidated financial statements. The financial statements on pages 157 to 256 were approved by the directors on 4 March 2011 and signed on their behalf by

  
Jan du Plessis Chairman

  
Tom Albanese Chief executive

  
Guy Elliott Chief financial officer

# Group statement of changes in equity

Years ended

## 31 December 2010

	Attributable to owners of Rio Tinto						
	Share capital (notes 28 and 29) US\$m	Share premium US\$m	Other reserves (note 30) US\$m	Retained earnings (note 30) US\$m	Total US\$m	Non- controlling interests US\$m	Total equity US\$m
<b>Opening balance</b>	5,170	4,174	14,010	20,477	43,831	2,094	45,925
Total comprehensive income for the year <sup>(a)</sup>	–	–	1,645	13,791	15,436	1,142	16,578
Currency translation arising on Rio Tinto Limited's share capital <sup>(b)</sup>	677	–	–	–	677	–	677
Dividends	–	–	–	(1,754)	(1,754)	(457)	(2,211)
Own shares purchased from owners of Rio Tinto to satisfy share options	–	–	(84)	(39)	(123)	–	(123)
Treasury shares reissued	–	84	–	8	92	–	92
Consolidation of Oyu Tolgoi <sup>(c)</sup>	–	–	–	–	–	3,912	3,912
Shares issued to holders of non-controlling interests	–	–	–	–	–	250	250
Employee share options	–	–	48	69	117	–	117
Cash settled share options reclassified as equity settled	–	–	24	33	57	–	57
<b>Closing balance</b>	5,847	4,258	15,643	32,585	58,333	6,941	65,274

## 31 December 2009

	Attributable to owners of Rio Tinto						
	Share capital (notes 28 and 29) US\$m	Share premium <sup>(d)</sup> US\$m	Other reserves (note 30) US\$m	Retained earnings (note 30) US\$m	Total US\$m	Non- controlling interests US\$m	Total equity US\$m
<b>Opening balance</b>	1,121	4,705	(2,322)	17,134	20,638	1,823	22,461
Total comprehensive income for the year <sup>(a)</sup>	–	–	4,401	4,168	8,569	846	9,415
Currency translation arising on Rio Tinto Limited's share capital <sup>(b)</sup>	710	–	–	–	710	–	710
Dividends	–	–	–	(876)	(876)	(410)	(1,286)
Own shares purchased from owners of Rio Tinto to satisfy share options	–	–	(35)	(17)	(52)	–	(52)
Ordinary shares issued	3,339	(531)	11,936	3	14,747	–	14,747
Shares issued to holders of non-controlling interests	–	–	–	–	–	53	53
Subsidiaries now equity accounted	–	–	–	–	–	(218)	(218)
Employee share options	–	–	30	65	95	–	95
<b>Closing balance</b>	5,170	4,174	14,010	20,477	43,831	2,094	45,925

## 31 December 2008

	Attributable to owners of Rio Tinto						
	Share capital (notes 28 and 29) US\$m	Share premium US\$m	Other reserves (note 30) US\$m	Retained earnings (note 30) US\$m	Total US\$m	Non- controlling interests US\$m	Total equity US\$m
<b>Opening balance</b>	1,391	1,932	2,416	19,033	24,772	1,521	26,293
Total comprehensive income/(expense) for the year <sup>(a)</sup>	–	–	(4,649)	2,742	(1,907)	578	(1,329)
Currency translation arising on Rio Tinto Limited's share capital <sup>(b)</sup>	(258)	–	–	–	(258)	–	(258)
Dividends	–	–	–	(1,933)	(1,933)	(348)	(2,281)
Own shares purchased from owners of Rio Tinto to satisfy share options	–	–	(128)	–	(128)	–	(128)
Ordinary shares issued	–	6	–	25	31	–	31
Own shares purchased and cancelled	(12)	2,767	12	(2,767)	–	–	–
Shares issued to holders of non-controlling interests	–	–	–	–	–	72	72
Employee share options	–	–	27	34	61	–	61
<b>Closing balance</b>	1,121	4,705	(2,322)	17,134	20,638	1,823	22,461

(a) Refer to Statement of comprehensive income for further details.

(b) Refer to note 1 (d).

(c) Rio Tinto consolidated Oyu Tolgoi LLC on 15 December 2010 following the signing of a new agreement with Ivanhoe Mines. Refer to note 41.

(d) Charges to share premium in 2009 include underwriting fees and other fees for the Rio Tinto plc rights issue together with the mark-to-market losses from inception to receipt of proceeds on forward contracts taken out by Rio Tinto plc to provide confidence in the absolute dollar proceeds of the rights issue. Refer to note 46.

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## Reconciliation with Australian Accounting Standards

The financial statements of Rio Tinto Group ("the Group") have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union ("EU IFRS"), which differs in certain respects from the version of IFRS 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 United Kingdom Generally Accepted Accounting Practice (UK GAAP). Under EU IFRS, goodwill on acquisitions prior to 1998 which was eliminated directly against equity in the Group's UK GAAP financial statements, has not been reinstated. This was permitted under the rules governing the transition to EU 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 residual of such goodwill, which amounted to US\$584 million at 31 December 2010 (2009: US\$597 million; 2008: US\$752 million).

Save for the exception described above, the Group's financial statements drawn up in accordance with EU 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 United Kingdom 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 United Kingdom 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 EU IFRS. The Merger was accounted for as a merger under UK GAAP. As permitted under the rules governing the transition to EU 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 EU IFRS.

The main consequence of adopting merger rather than acquisition accounting is that the statement of financial position 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 statement of financial position, 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 22 December 2010. The main provisions of the order are that the financial statements are prepared in accordance with IFRS and include a reconciliation from EU IFRS to the Australian Accounting Standards (see above).

For further details of the ASIC Class Order relief, see page 254.



# Notes to the 2010 financial statements

## 1 Principal accounting policies

### Corporate information

The financial statements of the Group were authorised for issue in accordance with a directors' resolution on 4 March 2011. Rio Tinto plc and Rio Tinto Limited are listed and incorporated respectively on Stock Exchanges in the United Kingdom and Australia. Rio Tinto plc's registered office is at 2 Eastbourne Terrace, London W2 6LG, United Kingdom. Rio Tinto Limited's registered office is at 120 Collins Street, Melbourne, Australia, 3000.

Rio Tinto's business is finding, mining and processing mineral resources. Major products are iron ore, aluminium, copper, diamonds, coal, uranium, gold and industrial minerals (borax, titanium dioxide, salt, talc). Activities span the world but are strongly represented in Australia and North America with significant businesses in South America, Asia, Europe and Africa.

### Basis of preparation

The basis of preparation and accounting policies used in preparing the financial statements for the year ended 31 December 2010 are set out below.

The financial statements for the year ended 31 December 2010 have been prepared in accordance with International Financial Reporting Standards both as adopted by the EU ("EU IFRS") and as issued by the International Accounting Standards Board ("IFRS"), interpretations issued from time to time by the International Financial Reporting Interpretations Committee (IFRIC) adopted by the European Union that are mandatory for the year ended 31 December 2010, the Companies Act 2006 applicable to companies reporting under IFRS and in accordance with applicable United Kingdom law, applicable Australian law as amended by the Australian Securities and Investments Commission Order dated 22 December 2010 and Article 4 of the European Union IAS regulation.

The EU IFRS financial information has been drawn up on the basis of accounting policies consistent with those applied in the financial statements for the year to 31 December 2009, except for the following:

- IAS 1 (amendment), "Presentation of financial statements"
- IAS 27 (revised) "Consolidated and separate financial statements". The standard requires the effects of all increases or decreases in the ownership of subsidiaries to be recorded in equity if there is no change in control. They will therefore no longer result in goodwill or gains and losses. The standard also specifies the accounting when control is lost. Any remaining interest in the company is re-measured to fair value and a gain or loss is recognised in profit or loss.
- IAS 38 (amendment), "Intangible Assets"
- IFRS 3 (amendment) "Business combinations". Under the revised standard, all payments to purchase a business are to be recorded at fair value at the acquisition date with contingent payments classified as debt subsequently re-measured through the income statement. All acquisition related costs should be expensed. When a business is acquired in which the Group previously held a non-controlling stake, the existing stake is re-measured to fair value at the date of acquisition. Any difference between fair value and carrying value is taken to the income statement.
- IFRS 5 (amendment), "Non-current assets held for sale and discontinued operations"
- Eligible Hedged Items (an amendment to IAS 39 Financial Instruments: Recognition and Measurement)
- IFRIC 17 Non cash distributions to owners
- IFRS 2 amendment, "Share-based payment" – Group cash-settled share-based payment transactions
- Improvements to IFRS 2009. This standard collates further minor changes to IFRS.

The effect of adopting these standards, where the standards require retrospective application, is not material to Group earnings or to shareholders' funds in the prior year. Therefore, prior year information has not been restated. A post tax gain of US\$531 million has been recorded on the control of Oyu Tolgoi LLC in 2010 as a result of the application of the amendment to IFRS 3 with a consequent increase in the provisional fair value of identifiable net assets associated with the transaction.

The Group has not applied the following pronouncements which are not mandatory for 2010 but have been endorsed by the European Union:

- Amendment to IAS 24, "Related party disclosures" – mandatory for year 2011. The definition of a related party has been clarified to simplify the identification of related party relationships, particularly in relation to significant influence and joint control. When the revised standard is applied, the Group and the parent will need to disclose any transactions between its subsidiaries and its associates. The Group is currently putting systems in place to capture the necessary information. It is, therefore, not possible at this stage to disclose the impact, if any, of the revised standard on the related party disclosures.
- IFRIC 19 Extinguishing financial liabilities with equity instruments – mandatory for year 2011
- Amendment to IFRIC 14, IAS 19, "Prepayments of a minimum funding requirement" – mandatory for year 2011
- Improvements to IFRS 2010 – mandatory for year 2011. This standard collates further minor changes to IFRS

## 1 Principal accounting policies continued

### Standards and interpretations not yet endorsed by the European Union

- Amendment to IAS 12, "Deferred Tax: Recovery of underlying assets", mandatory for year 2012
- IFRS 9, "Financial instruments", mandatory for year 2013

The Group is evaluating the impact of the above pronouncements. The above changes are not expected to be material to the Group's earnings or to shareholders' funds.

### Judgments in applying accounting policies and key sources of estimation uncertainty

Many of the amounts included in the financial statements involve the use of judgment and/or estimation. These judgments and estimates are based on management's best knowledge of the relevant facts and circumstances, having regard to previous experience, but actual results may differ from the amounts included in the financial statements. Information about such judgments and estimation is contained in the accounting policies and/or the Notes to the financial statements, and the key areas are summarised below.

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 (page 162)
- Review of asset carrying values and impairment charges and reversals note 1(e) and (i), note 5 and note 11
- Estimation of asset lives – note 1(e) and (i)
- Determination of ore reserve estimates – note 1(j)
- Close down, restoration and clean up obligations – note 1(k)
- Deferral of stripping costs – note 1(h)
- Recognition of deferred tax on mineral rights recognised in acquisitions – note 1(m)
- Recoverability of potential deferred tax assets – note 1(m) and note 18(d) and (e)
- Capitalisation of exploration and evaluation costs – note 1(f)
- Identification of functional currencies – note 1(d)
- The definition of Underlying earnings – note 2
- Acquisitions – note 1(b)

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 and impairment charges and reversals note 1(e) and (i), note 5 and note 11
- Estimation of close down and restoration costs and the timing of expenditure – note 1(k) and note 27
- Estimation of environmental clean up costs and the timing of expenditure – note 1(k) and note 27
- Estimation of liabilities for post retirement costs – note 50
- Recoverability of potential deferred tax assets – note 1(m) and note 18(d) and (e)
- Contingencies – note 1(k) and note 35

These areas of judgment and estimation are discussed further on page 178.

### (a) Accounting convention

The financial information included in the financial statements for the year ended 31 December 2010, and for the related comparative period, has been prepared under the historical cost convention, as modified by the revaluation of certain derivative contracts, financial assets and post retirement assets and liabilities. The Group's policy in respect of these items is set out in the notes below.

## (b) Basis of consolidation

The financial statements consist of the consolidation of the accounts of Rio Tinto plc and Rio Tinto Limited (together “the Companies”) and their respective subsidiaries (together “the Group”).

All intragroup balances, transactions, income and expenses and profits or losses, including unrealised profits arising from intragroup transactions, have been eliminated on consolidation. Unrealised losses are eliminated in the same way as unrealised gains except that they are only eliminated to the extent that there is no evidence of impairment.

*Subsidiaries:* Subsidiaries are entities over which the Companies have the power to govern the financial and operating policies in order to obtain benefits from their activities. Control is presumed to exist where the Companies own more than one half of the voting rights (which does not always equate to percentage ownership) unless it can be demonstrated that ownership does not constitute control. Control does not exist where other parties hold veto rights over significant operating and financial decisions or where the Companies cannot obtain benefits from the activities of the entities they have the power to govern. Similarly, the Group has control where another party owns more than one half of the voting rights of an entity but the Group can control those voting rights through a contractual arrangement. In assessing control, potential voting rights that are currently exercisable or convertible are taken into account. The consolidated financial statements include all the assets, liabilities, revenues, expenses and cash flows of the Companies and their subsidiaries after eliminating intragroup transactions as noted above.

For partly owned subsidiaries, the allocation of net assets and net earnings to outside shareholders is shown in the line ‘Attributable to non-controlling interests’ on the face of the Group statement of financial position and Group income statement.

*Associates:* An associate is an entity, that is neither a subsidiary nor a joint venture, over whose operating and financial policies the Group exercises significant influence. Significant influence is presumed to exist where the Group has between 20 per cent and 50 per cent of the voting rights, but can also arise where the Group holds less than 20 per cent if it has the power to be actively involved and influential in policy decisions affecting the entity. The Group’s share of the net assets, post tax results and reserves of associates are included in the financial statements using the equity accounting method. This involves recording the investment initially at cost to the Group, which therefore includes any goodwill on acquisition, and then, in subsequent periods, adjusting the carrying amount of the investment to reflect the Group’s share of the associates’ post-acquisition profits or losses, which is recognised in the income statement, and its share of post-acquisition comprehensive income, which is recognised within the line item ‘share of other comprehensive income of equity accounted units’ in the Group statement of comprehensive income. Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group’s interest in the associates.

*Joint ventures:* A joint venture is a contractual arrangement whereby two or more parties undertake an economic activity that is subject to joint control. Joint control is the contractually agreed sharing of control such that significant operating and financial decisions require the unanimous consent of the parties sharing control. In some situations, joint control exists even though the Group has an ownership interest of more than 50 per cent because of the veto rights held by joint venture partners. The Group has two types of joint ventures:

*Jointly controlled entities (JCEs):* A JCE is a joint venture that involves the establishment of a corporation, partnership or other entity in which each venturer has a long term interest. JCEs are accounted for using the equity accounting method. In addition, for both associates and jointly controlled entities, the carrying value will include any long term debt interests that in substance form part of the Group’s net investment.

*Jointly controlled assets (JCAs):* A JCA is a joint venture in which the venturers have joint control over the assets contributed to or acquired for the purposes of the joint venture. JCAs do not involve the establishment of a corporation, partnership or other entity. This includes situations where the participants derive benefit from the joint activity through a share of the production, rather than by receiving a share of the results of trading. The Group’s proportionate interest in the assets, liabilities, revenues, expenses and cash flows of JCAs are incorporated into the Group’s financial statements under the appropriate headings. The Group uses the term “Equity accounted units” to refer to associates and jointly controlled entities collectively. Where necessary, adjustments are made to the results of subsidiaries, joint ventures and associates to bring their accounting policies into line with those used by the Group.

## 1 Principal accounting policies continued

### Acquisitions

On the acquisition of a subsidiary, the acquisition method of accounting is used whereby the purchase consideration is allocated to the identifiable assets, liabilities and contingent liabilities (identifiable net assets) of the subsidiary on the basis of fair value at the date of acquisition. Provisional fair values allocated at a reporting date are finalised within 12 months of the acquisition date.

The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Costs related to the acquisition of a subsidiary are expensed as incurred. On an acquisition by acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets. Where the Group has a previously held interest in the acquiree, this is remeasured to fair value at acquisition with any gain or loss being recognised in the income statement.

The results of businesses acquired during the year are brought into the consolidated financial statements from the date on which control, joint control or significant influence commences.

### Disposals

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:

- 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 and are presented separately on the face of the statement of financial position with the related assets and liabilities being presented as a single asset and a single liability respectively. Comparative statement of financial position information is not restated. Disposal groups acquired with a view to resale are held at fair value determined at the acquisition date and no profits or losses are recognised between acquisition date and disposal date, unless there is a subsequent impairment.

For a disposal group held for sale that continues to be carried at its carrying amount, the profit on disposal, calculated as net sales proceeds less the carrying amount, is recognised in the income statement in the period during which control passes to the buyer. Where the fair value less costs to sell of a disposal group is lower than the carrying amount at the time of classification as held for sale, the resulting charge is recognised in the income statement in that period. On classification as held for sale, the assets are no longer depreciated. When the fair value less costs to sell of a disposal group falls below the carrying amount during the period in which it is classified as held for sale, the charge is included in the income statement at that time.

If the disposal group or groups represent a separate major line of business or geographical area of operations, or are part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations, or are subsidiaries acquired exclusively with a view to resale, they are classified as "discontinued operations". The net results attributable to such discontinued operations are shown separately and comparative figures in the income and cash flow statements are restated.

The Group accounts for transactions with non-controlling interests as transactions with equity owners of the Group.

For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity. The results of businesses are taken out of the financial statements from the date on which control, joint control or significant influence ceases. At this point any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in the income statement. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the appropriate share of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to the income statement.

### (c) Sales revenue

Sales revenue comprises sales to third parties at invoiced amounts, with most sales being priced ex works, free on board (fob) or cost, insurance and freight (cif). Amounts billed to customers in respect of shipping and handling are classed as sales revenue where the Group is responsible for carriage, insurance and freight. All shipping and handling costs incurred by the Group are recognised as operating costs. 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 are presented as an operating cost or, where they are in substance a profit based tax, within taxes. Gross sales revenue disclosed as part of the income statement includes the Group's share of the sales revenue of equity accounted units. To avoid duplication, this excludes sales by jointly controlled entities to third parties of products purchased from the Group and sales by jointly controlled entities of products to the Group for onward sale to third parties. It also excludes charges by jointly controlled entities to the Group. Co-product revenues are included in sales revenue.

A large proportion of Group production is sold under medium to long term contracts, but 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.

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, 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 forward market prices. At each reporting date provisionally priced metal is marked to market based on the forward selling price for the quotation 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 33.

Certain of the Group's products, such as iron ore, were previously sold under long term contracts at a benchmark price. During 2010, pricing for the majority of iron ore customers changed to a quarterly basis reflecting the structural shift away from annual benchmark pricing. Consistent with prior years, where the benchmark price has not been formally agreed by individual customers at the end of an accounting period, revenue is reported based on the best available information, having reference to the terms of the contractual agreement and, where appropriate, to sales with other customers.

### (d) Currency translation

The functional currency for each entity in the Group, and for jointly controlled entities and associates, is the currency of the primary economic environment in which it operates. For many entities, this is the currency of the country in which they operate. Transactions denominated in other currencies are converted to the functional currency at the exchange rate ruling at the date of the transaction unless hedge accounting applies, in which case the contract rate is used. Generally, this applies when derivatives or embedded derivatives are designated as cash flow hedges of the Group's sales. The Group's accounting policies for derivative financial instruments and hedge accounting are explained in more detail in note 1(p) (iii). Monetary assets and liabilities denominated in foreign currencies are retranslated at year end exchange rates.



## 1 Principal accounting policies continued

The US dollar is the currency in which the Group's financial statements are presented, as it most reliably reflects the global business performance of the Group as a whole. On consolidation, income statement items are translated from the functional currency into US dollars at average rates of exchange. Statement of financial position items are translated into US dollars at year end exchange rates. Exchange differences on the translation of the net assets of entities with functional currencies other than the US dollar, and any offsetting exchange differences on net debt hedging those net assets, are recognised directly in the foreign currency translation reserve via the statement of comprehensive income (with the exception of translation adjustments relating to Rio Tinto Limited's share capital which are shown in the Group statement of changes in equity).

Exchange gains and losses which arise on balances between Group entities are taken to the foreign currency translation reserve where the intragroup balance is, in substance, part of the Group's net investment in the entity.

The balance of the foreign currency translation reserve relating to an operation that is disposed of is transferred to the income statement at the time of the disposal.

The Group finances its operations primarily in US dollars but part of the Group's US dollar debt is located in subsidiaries having functional currencies other than the US dollar. Except as noted above, exchange gains and losses relating to such US dollar debt are charged or credited to the Group's income statement in the year in which they arise. This means that the impact of financing in US dollars on the Group's income statement is dependent on the functional currency of the particular subsidiary where the debt is located.

Exchange differences arising on closure provisions are capitalised at operating mines. Except as noted above, or in note 1 (p) 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)

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 Group's share of the identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the values assigned are reassessed. Any excess after that reassessment is recognised directly in the income statement.

Goodwill is initially determined based on provisional fair values. Fair values are finalised within 12 months of the acquisition date. Goodwill on acquisition of subsidiaries is separately disclosed and goodwill on acquisitions of associates and JCEs is included within investments in equity accounted units. Acquisitions of subsidiaries with non-controlling interests are described in note 1 (b).

In 1997 and previous years, goodwill was eliminated against reserves in the year of acquisition as a matter of accounting policy, as was then permitted under UK GAAP. Such goodwill was not reinstated under subsequent UK accounting standards or on transition to IFRS.

Goodwill is not amortised; rather it is tested annually for impairment. Goodwill is allocated to the cash generating unit or group of cash generating units expected to benefit from the related business combination for the purposes of impairment testing which is carried out in accordance with accounting policy note 1(i). Goodwill impairments cannot be reversed. Investments in equity accounted units are tested for impairment as a single asset. Goodwill included in the Group's investment in equity accounted units is not tested on an annual basis therefore but only as part of the Group's overall testing for impairment when a trigger for impairment has been identified.

Intangible assets acquired as part of an acquisition of a business are capitalised separately from goodwill if the asset is separable or arises from contractual or legal rights, and the fair value can be measured reliably on initial recognition.

Purchased intangible assets are initially recorded at cost and finite life intangible assets are amortised over their useful economic lives on a straight line or units of production basis, as appropriate. Intangible assets having indefinite lives and intangible assets that are not yet ready for use are not amortised and are reviewed annually for impairment in accordance with accounting policy note 1(i).

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 determination 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 future investment intentions. The life cycles of the products and processes that depend on the asset are also considered. Where amortisation is calculated on a straight line basis, the following useful lives have been determined for classes of intangible assets:

#### *Trademark, patented and non-patented technology*

Trademarks: 14 to 20 years

Patented and non-patented technology: 10 to 20 years

#### *Other intangible assets*

Internally generated intangible assets and computer software: 2 to 5 years

Other intangible assets: 2 to 20 years

#### *Contract based intangible assets*

Power contracts: 2 to 39 years

Other purchase and customer contracts: 5 to 15 years

### (f) Exploration and evaluation

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. Evaluation expenditure arises from a detailed assessment of deposits or other projects that have been identified as having economic potential. Expenditure on exploration activity is not capitalised.

Capitalisation of evaluation expenditure commences when there is a high degree of confidence in the project's viability and hence it is probable that future economic benefits will flow to the Group.

The carrying values of capitalised evaluation amounts are reviewed twice per annum by management and the results of these reviews are reported to the Audit committee. In the case of undeveloped projects, there may be only inferred resources to form a basis for the impairment review. The review is based on a status report regarding the Group's intentions for development of the undeveloped project. In some cases, the 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 reduced output which results where existing smelters and/or refineries are closed. It is often the case that technological and other improvements will allow successor smelters and/or refineries to more than replace the capacity of their predecessors.

Subsequent recovery of the resulting carrying value 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 written off.

### (g) Property, plant and equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and accumulated impairment losses. The cost of property, plant and equipment comprises its purchase price, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the estimated close down and restoration costs associated with the asset. Once a mining project has been established as commercially viable, expenditure other than that on land, buildings, plant and equipment is capitalised under "Mining properties and leases" together with any amount transferred from "Exploration and evaluation".

In open pit mining operations, it is necessary to remove overburden and other waste materials to access ore from which minerals can be extracted economically. The process of mining 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 investment in construction of the mine.

Costs associated with 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 until the point when substantially all the activities that are necessary to make the asset ready for its intended use are complete.

### (h) Deferred stripping

As noted above, stripping costs incurred in the development of a mine (or pit) before production commences are capitalised as part of the cost of constructing the mine (or pit) and subsequently amortised over the life of the mine (or pit) on a units of production basis.

Where a mine operates several open pits that are regarded as separate operations for the purpose of mine planning, 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 relating to the combined operation.

## 1 Principal accounting policies continued

The Group's determination of whether multiple pit mines are considered separate or integrated operations depends on each mine's specific circumstances. The following factors would point towards the 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 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.

This additional factor would point to an integrated operation in accounting for stripping costs:

- 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.

The relative importance of each of the above factors is considered in each case to determine whether, on balance, the stripping costs should be attributed to the individual pit or to the combined output from the several pits.

The Group defers stripping costs incurred subsequently, during the production stage of its operations, for those operations where this is the most appropriate basis for matching the costs against the related economic benefits and the effect is material. This is generally the case where there are fluctuations in stripping costs over the life of the mine (or pit). The amount of stripping costs deferred is based on the ratio ("Ratio") obtained by dividing the tonnage of waste mined either by the quantity of ore mined or by the quantity of minerals contained in the ore. In some operations, the quantity of ore is a more practical basis for matching costs with the related economic benefits where there are important co-products or where the grade of the ore is relatively stable from year to year. Stripping costs incurred in the period are deferred to the extent that the current period Ratio exceeds the life of mine (or pit) Ratio. Such deferred costs are then charged against reported profits to the extent that, in subsequent periods, the current period Ratio falls short of the life of mine (or pit) Ratio.

The life of mine (or pit) Ratio is based on proved and probable reserves of the mine (or pit). The life of mine (or pit) waste-to-ore Ratio is a function of the pit design(s) and therefore changes to that design will generally result in changes to the Ratio. Changes in other technical or economic parameters that impact on reserves will also have an impact on the life of mine (or pit) Ratio even if they do not affect the pit design(s). Changes to the life of mine (or pit) Ratio are accounted for prospectively.

In the production stage of some mines (or pits), further development of the mine (or pit) requires a phase of unusually high overburden removal activity that is similar in nature to pre-production mine development. The costs of such unusually high overburden removal activity are deferred and charged against reported profits in subsequent periods on a units of production basis. This accounting treatment is consistent with that for stripping costs incurred during the development phase of a mine (or pit), before production commences.

Deferred stripping costs are included in "Mining properties and leases" within property, plant and equipment or in "Investments in equity accounted units", as appropriate. These form part of the total investment in the relevant cash generating unit, which is reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable. Amortisation of deferred stripping costs is included in net operating costs or in the Group's share of the results of its equity accounted units, as appropriate.

### (i) Depreciation and impairment

#### Depreciation of non-current assets

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the mine if shorter. 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, the economic benefits from the asset are consumed in a pattern which is linked to the production level. Except as noted below, such assets are depreciated on a units of production basis.

*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 as follows:

*Land and Buildings*

Land: Not depreciated

Buildings: 5 to 50 years

*Plant and equipment*

Other plant and equipment: 3 to 35 years

Power assets: 25 to 100 years

Capital work in progress: Not depreciated

Residual values and useful lives are reviewed, and adjusted if appropriate, at each statement of financial position date. Changes to the estimated residual values or useful lives are accounted for prospectively. In applying the units of production method, depreciation is normally calculated using the quantity of material extracted from the mine in the period as a percentage of the total quantity of material to be extracted in current and future periods based on proved and probable reserves and, for some mines, other mineral resources. Such non-reserve material may be included in depreciation calculations in limited circumstances and where there is a high degree of confidence in its economic extraction.

Development costs that relate to a discrete section of an orebody, and which only provide benefit over the life of those reserves, are depreciated over the estimated life of that discrete section. Development costs incurred which benefit the entire orebody are depreciated over the estimated life of the orebody.

**Impairment of non-current assets**

Property, plant and equipment and intangible assets with finite lives are reviewed for impairment if there is any indication that the carrying amount may not be recoverable. Impairment is assessed at the level of cash-generating units which, in accordance with IAS 36 "Impairment of Assets", are identified as the smallest identifiable group of assets that generates cash inflows, which are largely independent of the cash inflows from other assets. In some cases, the business units within product groups consist of several operations with independent cash generating streams, which therefore constitute separate cash-generating units.

In addition, an impairment loss is recognised for any excess of carrying amount over the fair value less costs to sell of a non-current asset or disposal group held for sale.

Goodwill and intangible assets that are not yet ready for use or have an indefinite life are reviewed for impairment annually or at any time during the year if an indicator of impairment is identified. Goodwill acquired through business combinations is allocated to the cash-generating unit, or groups of cash-generating units that are expected to benefit from the related business combination. The cash-generating unit or groups of cash-generating units represent the lowest level within the Group at which goodwill is monitored for internal management purposes, and these groups are not larger than the reporting segments determined in accordance with IFRS 8 "Operating segments".

When 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 to sell ("fair value"). The best evidence of fair value is the value obtained from an active market or binding sale agreement. Where neither exists, fair value is based on the best information available to reflect the amount the Group could receive for the cash generating unit in an arm's length transaction. This is often estimated using discounted cash flow techniques.

Where recoverable amount is assessed using fair value based on discounted cash flow techniques, the resulting estimates are based on detailed "life of mine" and/or production plans. For value in use, recent cost levels are considered, together with expected changes in costs that are compatible with the current condition of the business and which meet the requirements of IAS 36.

The cash flow forecasts for fair value 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 clean up. These may include net cash flows expected to be realised from extraction, processing and sale of mineral resources that do not currently qualify for inclusion in proved or probable ore reserves. Such non-reserve material is included where 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 reserves. Typically, the additional evaluation to achieve reserve status for such material has not yet been done because this would involve incurring 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 fair value purposes are based on the current life-of-mine plan or long term production plan for the cash-generating unit. Because future cash flows are estimates for the asset in its current condition, value in use does not reflect future cash flows associated with improving or enhancing an asset's performance. Anticipated enhancements to assets are included in fair value calculations.

## 1 Principal accounting policies continued

Where the recoverable amount of a cash-generating unit is dependent on the life of its associated orebody, expected future cash flows reflect long term mine 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 is therefore the basis for forecasting production output in each future year and for forecasting production costs.

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 generally relate to 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. In the case of smelters, factors affecting the remaining service potential include smelter technology and electricity contracts when the power is not sourced from the company's own electricity generating capacity.

Forecast cash flows for ore reserve estimation for Joint Ore Reserves Committee (JORC) purposes and for impairment testing are generally based on Rio Tinto's long term price forecasts of commodity prices, which assume market prices will revert to the Group's assessment of the long term price, generally over a period of three to five years. These long term commodity prices, for most commodities, 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. For the long run, the Group does not believe that forward prices quoted in the metals markets provide a good indication of future price levels since forward prices tend to be strongly influenced by spot price levels.

In some cases, prices applying to some part of the future sales volumes of a cash-generating unit are predetermined by existing sales contracts. The effects of such contracts are taken into account in forecasting future cash flows.

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 are used which are generally higher than the weighted average cost of capital.

For operations with a functional currency other than the US dollar, the impairment review is undertaken in the relevant functional currency. 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 (and vice versa). However, such compensating changes are not synchronised and do not fully offset each other. In estimating fair value, a forecast of the long term exchange rates, for the Australian and Canadian dollars, is made having regard to spot exchange rates, historical data and external forecasts, and is linked to price assumptions.

When calculating value in use, IAS 36 requires that calculations should be based on exchange rates current at the time of the assessment.

Non financial assets other than goodwill that have suffered an impairment are tested for possible reversal of the impairment whenever events or changes in circumstances indicate that the impairment may have reversed.

All goodwill and intangible assets that are not yet ready for use or have an indefinite life are tested annually for impairment regardless of whether there has been any change in events or circumstances.

### (j) Determination of ore reserve 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 2004 ("the JORC code"). Reserves, and for certain mines, other mineral resources, determined in this way are used in the calculation of depreciation, amortisation and impairment charges, the assessment of life of mine stripping ratios and for forecasting the timing of the payment of close down and restoration costs and clean up costs.

In assessing the life of a mine for accounting purposes, mineral resources are only taken into account where there is a high degree of confidence of economic extraction.



### (k) Provisions and contingencies

The Group holds provisions for close down and restoration costs which include the dismantling and demolition of infrastructure and the removal of residual materials and remediation of disturbed areas. Close down and restoration costs are a normal consequence of mining, and the majority of close down and restoration expenditure is incurred at the end of the life of the mine. Although the ultimate cost to be incurred is uncertain, the Group's businesses estimate their respective costs based on feasibility and engineering studies using current restoration standards and techniques.

Estimated close down and restoration costs are provided for in the accounting period when the obligation arising from the related disturbance occurs, whether this occurs during the mine development or during the production phase, based on the net present value of estimated future costs. 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. The cost estimates are updated annually during the life of the operation to reflect known developments, eg revisions to cost estimates and to the estimated lives of operations, and are subject to formal review at regular intervals.

The initial closure provision together with other movements in the provisions for close down and restoration costs, including those resulting from new disturbance, updated cost estimates, changes to the estimated lives of operations and revisions to discount rates are capitalised within property, plant and equipment. These costs are then depreciated over the lives of the assets to which they relate.

The amortisation or "unwinding" of the discount applied in establishing the net present value of provisions is charged to the income statement in each accounting period. The amortisation of the discount is shown as a financing cost, rather than as an operating cost.

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 statement of financial position date and the cost is charged to the income statement.

Clean up costs result from environmental damage that was not a necessary consequence of mining, including remediation, compensation and penalties. Provision is made for the estimated present value of the costs of environmental clean up obligations outstanding at the statement of financial position date. These costs are charged to the income statement. Movements in the environmental clean up provisions are presented as an operating cost, except for the unwinding of the discount which is shown as a financing cost. 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.

Other provisions and liabilities are recognised in the period when it becomes probable that there will be a future outflow of funds resulting from past operations or events and the amount of cash outflow and timing can be reliably estimated. The timing of recognition and quantification of the liability requires the application of judgment to existing facts and circumstances, which can be subject to change. A change in estimate of a recognised provision or liability would result in a charge or credit to net income in the period in which the change occurs, with the exception of close down and restoration costs described above.

If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money. Where discounting is used, the increase in the provision due to the passage of time is recognised within finance costs.

Contingent liabilities are possible obligations whose existence will only be confirmed by future events not wholly within the control of the Group. Contingent liabilities are not recognised in the financial statements but are disclosed unless the possibility of an outflow of economic resources is considered remote.

### (l) Inventories

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 current month together with those in opening inventory. Cost for raw materials and stores is purchase price and for partly processed and saleable products is generally the cost of production. For this purpose the costs of production include:

- labour costs, materials and contractor expenses which are directly attributable to the extraction and processing of ore;
- the depreciation of mining properties and leases and of property, plant and equipment used in the extraction and processing of ore; and
- production overheads.

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 it is expensed as incurred. Where the future processing of this ore can be predicted with confidence, eg because it exceeds the mine's cut off grade, it is valued at the lower of cost and net realisable value. If the ore will not be processed within the 12 months after the statement of financial position date it is included within non-current assets and net realisable value is calculated on a discounted cash flow basis. Work in progress inventory includes ore stockpiles and other partly processed material. Quantities are assessed primarily through surveys and assays.

## 1 Principal accounting policies continued

### (m) Taxation

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 by the statement of financial position date. It includes adjustments for tax expected to be payable or recoverable in respect of previous periods.

Temporary differences are the difference between the carrying value of an asset or liability and its tax base. Full provision is made for deferred taxation on all temporary differences existing at the statement of financial position date with certain limited exceptions. The main exceptions to this principle are as follows:

- tax payable on the future remittance of the past earnings of subsidiaries, associates and jointly controlled entities is provided for except where the Group is able to control the remittance of profits and it is probable that there will be no remittance in the foreseeable future;
- deferred tax is not provided on the initial recognition of an asset or liability in a transaction that does not affect accounting profit or taxable profit and is not a business combination, such as on the recognition of a provision for close down and restoration costs and the related asset or on the recognition of new finance leases. Furthermore, with the exception of the unwinding of discount, deferred tax is not recognised on subsequent changes in the carrying value of such assets and liabilities, for example where the related assets are depreciated or finance leases are repaid; and
- deferred tax assets are recognised only to the extent that it is probable that they will be recovered. Probable is defined as "more likely than not". Recoverability is assessed having regard to the reasons why the deferred tax asset has arisen and projected future taxable profits for the relevant entity (or group of entities).

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. In such cases, the provision for deferred tax is based on the difference between the carrying value of the asset and its nil 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 relating to such mineral rights because it is expected that the carrying amount will be recovered primarily through use and not from the disposal of mineral rights. Also, the Group is only entitled to a deduction for capital gains tax purposes if the mineral rights are sold or formally relinquished.

Current and deferred tax relating to items recognised directly in equity are recognised in equity and not in the income statement.

### (n) Post employment benefits

For defined benefit post employment plans, the difference between the fair value of the plan assets (if any) and the present value of the plan liabilities is recognised as an asset or liability on the statement of financial position.

Any asset recognised is restricted, if appropriate, to the present value of any amounts the Group expects to recover by way of refunds from the plan or reductions in future contributions. Actuarial gains and losses arising in the year are taken to the statement of comprehensive income. For this purpose, actuarial gains and losses comprise both the effects of changes in actuarial assumptions and experience adjustments arising because of differences between the previous actuarial assumptions and what has actually occurred.

Other movements in the net surplus or deficit are recognised in the income statement, including the current service cost, any past service cost and the effect of any curtailment or settlements. The interest cost less the expected return on assets is also charged to the income statement. The amount charged to the income statement in respect of these plans is included within operating costs or in the Group's share of the results of equity accounted units as appropriate.

The most significant assumptions used in accounting for pension plans are the long term rate of return on plan assets, the discount rate and the mortality assumptions. The long term rate of return on plan assets is used to calculate interest income on pension assets, which is credited to the Group's income statement. The discount rate is used to determine the net present value of future liabilities. The discount rate used is the yield on high quality corporate bonds with maturity and terms that match those of the post employment obligations as closely as possible. Where there is no developed corporate bond market in a country, the rate on government bonds is used. Each year, the unwinding of the discount on those liabilities is charged to the Group's income statement as the interest cost. The mortality assumption is used to project the future stream of benefit payments, which is then discounted to arrive at a net present value of liabilities.

Valuations of liabilities are carried out using the projected unit method. The long term rate of return on pension plan assets is determined as management's best estimate of the long term return on the major asset classes, ie equity, debt, property and other, weighted by the actual allocation of assets among the categories at the measurement date. The expected rate of return is calculated using geometric averaging.

The values attributed to plan liabilities and the long term rate of return are assessed in accordance with the advice of independent qualified actuaries.

The Group's contributions to defined contribution pension plans are charged to the income statement in the period to which the contributions relate.

### (o) Cash and cash equivalents

For the purposes of the statement of financial position, 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. For the purposes of the cash flow statement, cash and cash equivalents are net of bank overdrafts that are repayable on demand which are shown as current liabilities on the statement of financial position.

### (p) Financial instruments

#### (i) Financial assets

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. Management determines the classification of financial assets at initial recognition.

##### (a) Financial assets at fair value through profit or loss

Derivatives are included in this category unless they are designated as hedges. Assets in this category are classified based on their maturity.

Generally, the Group does not acquire financial assets for the purpose of selling in the short term. Financial assets carried at fair value through profit or loss are initially recognised at fair value and transaction costs are expensed in the income statement.

##### (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, with the exception of items for which the Group may not recover substantially all of its investment for reasons other than credit deterioration, which are classified as available-for-sale. Loans and receivables are classified as current assets or non-current assets based on their maturity date. Loans and receivables are included within "other financial assets" in the statement of financial position. Loans and receivables are carried at amortised cost less any impairment.

##### (c) Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives 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 investment within 12 months of the statement of financial position date.

Changes in the fair value of available-for-sale financial assets denominated in a currency other than the functional currency of the holder other than equity investments, are analysed between translation differences and other changes in the carrying amount of the security. The translation differences are recognised in profit or loss. Any impairment charges are also recognised in profit or loss, while other changes in fair value are recognised in equity.

When financial assets classified as available-for-sale are sold, the accumulated fair value adjustments recognised in equity are included in the income statement within "net operating costs".

Dividends on available-for-sale equity instruments are also recognised in the income statement within "interest receivable and similar income" when the Group's right to receive payments is established.

Financial assets not carried at fair value through profit and loss are initially recognised on the trade date at fair value plus transaction costs.

Financial assets are derecognised when the investments mature or are sold, and substantially all the risks and rewards of ownership have been transferred.

#### (ii) Financial liabilities

Borrowings and other financial liabilities (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 (net of transaction costs) and the redemption value is recognised in the income statement over the period to maturity using the effective interest method.

Borrowings and other financial liabilities are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the statement of financial position date.

## 1 Principal accounting policies continued

### (iii) Derivative financial instruments and hedge accounting

The Group's policy with regard to "Financial risk management" is set out in note 33. When the Group enters into derivative contracts these transactions are designed to reduce exposures related to assets and liabilities, firm commitments or anticipated transactions.

Commodity based contracts that meet the definition of a derivative in IAS 39 but are entered into in accordance with the Group's expected purchase or sales requirements are recognised in earnings as described in note 1(c), Sales revenue.

All other 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 subject to IAS 39 at their fair value at each statement of financial position date. The method of recognising the resulting gain or loss depends on whether or not the derivative is designated as a hedging instrument and, if so, 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 highly probable forecast transactions (cash flow hedges).

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which the Group wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge. The documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how the entity will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk.

Hedges that are expected to be highly effective in achieving offsetting changes in fair value or cash flows are assessed on an ongoing basis to determine that they actually have been highly effective throughout the financial reporting periods for which they were designated.

*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. Where derivatives are held with different counterparties or with the same counterparty with no intention to settle net to the underlying asset or liability or firm commitment, the fair values of the derivative assets and liabilities are shown separately in the statement of financial position as there is no legal right of offset. The gain or loss relating to the effective portion of interest rate swaps hedging fixed rate borrowings is recognised in the income statement within "interest payable and similar charges".

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 where the hedged item is derecognised.

*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 equity. The gain or loss relating to the ineffective portion is recognised immediately in the income statement within "net operating costs". 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. The realised gain or loss relating to the effective portion of forward foreign exchange or commodity contracts hedging sales is recognised in the income statement within "sales revenue". When the forecast transaction that is being hedged results in the recognition of a non-financial asset 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 within "net operating costs" when the non-financial asset is amortised.

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 forecasted 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 when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement.

*Derivatives that do not qualify for hedge accounting:* Any derivative contracts that do not qualify for hedge accounting are marked to market at the statement of financial position date.

In respect of currency swaps, the gain or loss on the swap and offsetting gain or loss on the financial asset or liability against which the swap forms an economic hedge are shown in separate lines in the income statement within the lines "net gains/(losses) on derivatives not qualifying for hedge accounting" and "net exchange gains/(losses) on external debt and intragroup balances".

In respect of other derivatives, the mark to market may give rise to charges or credits to the income statement in periods before the transaction against which the derivative is held as an economic hedge is recognised. These charges or credits would be recognised in the line "net gains/(losses) on derivatives not qualifying for hedge accounting".

*Embedded derivatives:* Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts. In some cases, the embedded derivatives may be designated as hedges and will be accounted for as described above.

**(iv) Fair value**

Fair value is the amount at which a financial instrument could be exchanged in an arm's length transaction between informed and willing parties. Where relevant market prices are available, these have been used to determine fair values. In other cases, fair values have been calculated using quotations from independent financial institutions, or by using valuation techniques consistent with general market practice applicable to the instrument.

- (a) 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.
- (b) 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.
- (c) Derivative financial assets and liabilities are carried at fair value based on published price quotations for the period for which a liquid active market exists. Beyond this period, the Group's own assumptions are used.

The fair values of the various derivative instruments used for hedging purposes are disclosed in note 34. Movements on the hedging reserve are disclosed within note 30.

**(v) Impairment of financial assets***Available-for-sale financial assets*

The Group assesses at each statement of financial position date whether there is objective evidence that a financial asset or a group of financial assets is impaired. 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 an available-for-sale financial asset is impaired, an amount comprising the difference between its cost (net of any principal payment and amortisation) and its current fair value, less any impairment loss previously recognised in the income statement is transferred from equity to the income statement. Reversals in respect of equity instruments classified as available-for-sale are not recognised in the income statement. Reversals of impairment losses on debt instruments are reversed through the income statement, if the increase in fair value of the instrument can be objectively related to an event occurring after the impairment loss was recognised.

**(vi) Derecognition of financial assets and liabilities***Financial assets*

A financial asset is derecognised when the contractual rights to the cash flows that comprise the financial asset expire or substantially all the risks and rewards of the asset are transferred.

*Financial liabilities*

A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expired. Gains and losses on derecognition are recognised within finance income and finance costs respectively.

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 derecognition 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.

**(vii) Trade receivables**

Trade receivables are recognised initially at fair value and are subsequently measured at amortised cost reduced by any provision for impairment.

A provision for impairment of trade receivables is established when there is objective evidence that the Group will not be able to collect all amounts due. Indicators of impairment would include financial difficulties of the debtor, likelihood of the debtor's insolvency, default in payment or a significant deterioration in credit worthiness. Any impairment is recognised in the income statement within "net operating costs".

When a trade receivable is uncollectable, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against "net operating costs" in the income statement.

**(viii) Trade payables**

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.



## 1 Principal accounting policies continued

### (q) Share based payments

The fair value of cash-settled share plans is recognised as a liability over the vesting period of the awards. Movements in that liability between accounting dates are recognised as an expense. The grant date fair value of the awards is determined from the market value of the shares at the date of award and adjusted for any market based vesting conditions attached to the award eg relative Total Shareholder Return (TSR) performance. Fair values are subsequently re-measured at each accounting date to reflect the market value of shares at the measurement date and, where relevant, the number of awards expected to vest based on the current and anticipated TSR performance. If any awards are ultimately settled in shares, the liability is transferred directly to equity as part of the consideration for the equity instruments issued.

The Group's equity-settled share plans are settled either by the issue of shares by the relevant parent company, by the purchase of shares on market or by the use of shares previously acquired as part of a share buy back. The fair value of the 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.

If the cost of shares acquired to satisfy the plans exceeds the expense charged, the excess is taken to the appropriate reserve. 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 TSR).

The Group uses fair values provided by independent actuaries calculated using a lattice based option valuation model.

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 statement of financial position 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.

The terms of each plan are considered at the statement of financial position date. If a cash-settled plan changes to become equity-settled then the accumulated liability is transferred directly to equity at the date of change.

Further information about the treatment of individual share based payment plans is provided in note 49.

### (r) Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options 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) Contingent assets

Contingent assets are not recognised in the financial statements but they are disclosed by way of note if they are deemed probable.

## Critical accounting policies and estimates

### (i) Dual listed company reporting

As explained in detail in the "Outline of dual listed companies' structure and basis of financial statements" section on page 162, 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. In other words, 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 2010 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 22 December 2010. The 2010 financial statements disclose the effect of the adjustments to consolidated EU IFRS profit, consolidated total comprehensive income and consolidated shareholders' funds for the Group that would be required under the 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) Impairment review of asset carrying values

Events or changes in circumstances can give rise to significant impairment charges or reversals of impairment in a particular year.

Where the recoverable amounts of Group cash generating units are assessed by analyses of discounted cash flows, the resulting valuations are particularly sensitive to changes in estimates of long term commodity prices including the impact of carbon pricing on certain commodities, exchange rates, operating costs, the grouping of assets within cash-generating units and discount rates.

### (iii) Estimation of asset lives determination of ore reserve 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 determination 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 future investment intentions.

Rio Tinto 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 2004 ("the JORC code"). The amounts presented under EU IFRS and AAS are based on the reserves, and in some cases mineral resources, determined under the JORC code.

There are numerous uncertainties inherent in estimating ore reserves and assumptions that are valid at the time of estimation may change significantly when new information becomes available.

Changes in the forecast prices of commodities, exchange rates, production costs or recovery rates may change the economic status of reserves and may, ultimately, result in the reserves being restated. Such changes in reserves could impact on depreciation and amortisation rates, asset carrying values, deferred stripping calculations and provisions for close down and restoration costs.

### (iv) Close down, restoration and clean up obligations

Provision is made for environmental remediation costs when the related environmental disturbance occurs, based on the net present value of estimated future costs.

The ultimate cost of environmental disturbance is uncertain and cost estimates can vary in response to many factors including changes to the relevant legal requirements, the emergence of new restoration techniques or experience at other mine sites.

The expected timing of expenditure can also change, for example in response to changes in ore reserves or production rates or economic conditions. As a result there could be significant adjustments to the provision for close down and restoration, which would affect future financial results.

### (v) Deferral of stripping costs

Stripping of waste materials takes place throughout the production stage of the mine or pit. Some mining companies expense these production stage stripping costs as incurred, while others defer such stripping costs. In operations that experience material fluctuations in the ratio of waste materials to ore or contained minerals on a year to year basis over the life of the mine or pit, deferral of stripping costs reduces the volatility of the cost of stripping expensed in individual reporting periods. Those mining companies that expense stripping costs as incurred will therefore report greater volatility in the results of their operations from period to period.

The life of mine or pit waste-to-ore ratio is a function of an individual mine's pit design and therefore changes to that design will generally result in changes to the ratio. Changes in other technical or economic parameters that impact on reserves will also have an impact on the life of mine or pit ratio even if they do not affect the pit design. Changes to the life of mine or pit ratio are accounted for prospectively.

The Group's determination of whether multiple pit mines are considered separate or integrated operations depends on each mine's specific circumstances and the analysis requires judgment; another company could make the determination that a mine is separate or integrated differently than the Group, even if the fact pattern appears to be similar. To the extent the determination is different, the resulting accounting would also be different.

During 2010, production stage stripping costs incurred by subsidiaries and equity accounted operations were US\$123 million higher than the amounts charged against pre-tax profit (2009: production stage costs exceeded the amounts charged against pre tax profit by US\$174 million; 2008: production stage costs exceeded the amounts charged against pre-tax profit by US\$175 million).

There was no impairment of deferred stripping in 2010. In 2009, US\$59 million (2008: nil) of deferred stripping was written off as part of the Diamonds businesses impairment.

The net book value carried forward in property, plant and equipment and in investments in jointly controlled entities and associates at 31 December 2010 was US\$1,298 million (2009: US\$1,171 million; 2008: US\$1,026 million).

Information about the stripping ratios of the business units, including equity accounted units that account for the majority of the deferred stripping balance at 31 December 2010, along with the year in which deferred stripping is expected to be fully amortised, is set out in the following table:

	Actual stripping ratio for year			Life of mine stripping ratio		
	2010	2009	2008	2010	2009	2008
Kennecott Utah Copper (2019) <sup>(a)</sup>	2.09	2.13	1.98	1.48	1.21	1.24
Grasberg Joint Venture (2016) <sup>(a)</sup>	4.15	3.42	3.27	3.13	3.00	2.87
Diavik (2012) <sup>(b)</sup>	1.21	1.17	1.23	0.95	1.02	1.20
Escondida (2043) <sup>(c)</sup>	0.13	0.11	0.12	0.14	0.14	0.10

(a) Stripping ratios shown are waste to ore.

(b) Diavik's stripping ratio is disclosed as bench cubic metre per carat. The 2010 deferred stripping ratio is based on commercial production of the A418 open pit scheduled to end commercial production in the last quarter of 2012.

(c) Escondida's stripping ratio is based on waste tonnes to pounds of copper mined.

## 1 Principal accounting policies continued

Rio Tinto Borax capitalised stripping costs as part of a distinct period of new development during the production stage of the mine. Capitalisation stopped in 2004. The capitalised costs will be fully amortised in 2034.

### (vi) Recognition of deferred tax on mineral rights recognised in acquisitions

On transition to EU IFRS with effect from 1 January 2004, deferred tax was provided in respect of fair value adjustments on acquisitions in previous years. No other adjustments were made to the assets and liabilities recognised in such prior year acquisitions and, accordingly, shareholders' funds were reduced by US\$720 million on transition to EU IFRS primarily as a result of deferred tax on fair value adjustments to mining rights. In general, these mining rights are not eligible for income tax allowances. In such cases, the provision for deferred tax was based on the difference between their carrying value and their nil income tax base. The existence of a tax base for capital gains tax purposes was not taken into account in determining the deferred tax provision relating to such mineral rights because it is expected that the carrying amount will be recovered primarily through use and not from the disposal of the mineral rights. Also, the Group is only entitled to a deduction for capital gains tax purposes if the mineral rights are sold or formally relinquished.

For acquisitions after 1 January 2004, provision for such deferred tax on acquisition results in a corresponding increase in the amounts attributed to goodwill under EU IFRS.

### (vii) Capitalisation of exploration and evaluation costs

Under the Group's accounting policy, exploration and evaluation expenditure is not capitalised until the point is reached at which there is a high degree of confidence in the project's viability and it is considered probable that future economic benefits will flow to the Group.

Subsequent recovery of the resulting carrying value 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 written off.

### (viii) Identification of functional currencies

The functional currency for each entity in the Group, and for jointly controlled entities and associates, is the currency of the primary economic environment in which it operates. Determination of functional currency involves significant judgment and other mining companies may make different judgments based on similar facts. For many of Rio Tinto's entities, this is the currency of the country in which they operate. The Group reconsiders the functional currency of its entities 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 statement of financial position 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.

### (ix) The definition of Underlying earnings

The Group presents "Underlying earnings" as an additional measure to provide greater understanding of the underlying business performance of its operations. The adjustments made to net earnings to arrive at Underlying earnings are explained in note 2.

### (x) Estimation of liabilities for post retirement costs

The difference between the fair value of the plan assets (if any) of post retirement plans and the present value of the plan obligations is recognised as an asset or liability on the statement of financial position. The Group has adopted the option under IAS 19 to record actuarial gains and losses directly in the Group's statement of comprehensive income.

The sources used to determine management's best estimate of long term returns are numerous and include country specific bond yields, which may be derived from the market using local bond indices or by analysis of the local bond market, and country specific inflation and investment market expectations derived from market data and analysts' or governments' expectations as applicable.

In particular, the Group estimates long term expected returns on equity based on the economic outlook, analysts' views and those of other market commentators. This is the most subjective of the assumptions used and it is reviewed regularly to ensure that it remains consistent with best practice.

Details of the key assumptions are set out in note 50.

For 2010 the charge against income for post retirement benefits net of tax and non-controlling interests was US\$437 million. This charge included both pension and post retirement healthcare benefits. The charge is net of the expected return on assets which was US\$531 million after tax and non-controlling interests.

In calculating the 2010 expense, the average future increase in compensation levels was assumed to be 3.6 per cent and this will increase to 3.7 per cent for 2011. The average discount rate used was 5.8 per cent and the average discount rate used in 2011 will be 5.2 per cent reflecting the net impact of changes in corporate bond yields in the regions where the Group has pension obligations.

The weighted average expected long term rate of return on assets used to determine 2010 pension cost was 6.4 per cent. This will decrease to 5.9 per cent for 2011. This decrease results mainly from lower government bond yields in most territories which drives the assumed return on other asset classes.

Based on the known changes in assumptions noted above and other expected circumstances, the impact of post retirement costs on the Group's EU IFRS net earnings in 2011 would be an expected increase of US\$29 million to US\$466 million. The actual charge may be impacted by other factors that cannot be predicted, such as the effect of changes in benefits and exchange rates.

The table below sets out the potential change in the Group's 2010 net earnings (after tax and outside 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 below table only show the impact on underlying and net earnings. Changing the assumptions would also have an impact on the statement of financial position.

US\$m

Sensitivity of Group's 2010 net earnings to changes in:

**Expected return on assets**

increase of 1 percentage point	82
decrease of 1 percentage point	(82)

**Discount rate**

increase of 0.5 percentage points	7
decrease of 0.5 percentage points	(6)

**Salary increases**

increase of 0.5 percentage points	(9)
decrease of 0.5 percentage points	9

**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**

The Group has carried forward losses, mainly in the UK, French, Canadian and Australian tax groups, that have the potential to reduce tax payments in future years. Deferred tax assets have been recognised on these tax losses to the extent their recovery is probable, having regard to the projected future taxable profits of the relevant tax groups.

The "possible tax assets" on these losses totalled US\$2,013 million at 31 December 2010 (2009: US\$1,882 million). Of these, US\$1,452 million have been recognised as deferred tax assets (2009: US\$1,286 million), leaving US\$561 million (2009: US\$596 million) unrecognised, as recovery is not considered probable. These amounts exclude capital losses which can only be recovered against future capital gains.

Within the UK tax group, US\$75 million in tax losses have been recognised as deferred tax assets (2009: US\$303 million), with no amounts unrecognised. Within the French tax group, US\$485 million in tax losses have been recognised as deferred tax assets (2009: US\$419 million) with US\$467 million unrecognised. Within the Canadian tax group, US\$674 million in tax losses have been recognised as deferred tax assets (2009: US\$393 million), with no amounts unrecognised. In addition to the above, capital losses of US\$147 million have been recognised as deferred tax assets (2009: nil) which are recoverable against unrealised foreign exchange gains. Within the Australian tax group, US\$192 million in tax losses have been recognised as deferred tax assets (2009: US\$132 million), with no amounts unrecognised.

**(xii) Contingencies**

Disclosure is made of material contingent liabilities unless the possibility of any loss arising is considered remote. Contingencies are disclosed in note 35.

**(xiii) Basis of consolidation**

In determining whether the Group has control, joint control or significant influence, the Group considers whether other parties hold veto rights over significant operating and financial decisions. In some instances, the Group has control of an entity where other parties own more than one half, or in some cases all, of the voting rights of an entity but the Group can control those voting rights through a contractual arrangement. In such circumstances, the Group considers, in particular, whether it obtains non-financial benefits from its power to govern the financial and operating policies of the entity.

## 2 Reconciliation of net earnings to Underlying earnings

	Pre-tax <sup>(i)</sup> 2010 US\$m	Taxation 2010 US\$m	Non- controlling interests 2010 US\$m	Discontinued operations <sup>(i)</sup> 2010 US\$m	Net Amount 2010 US\$m	Net Amount 2009 US\$m	Net Amount 2008 US\$m
Exclusions from Underlying earnings							
Gain on consolidation of Oyu Tolgoi <sup>(a)</sup>	531	–	–	–	531	–	–
Profits on disposal of interests in businesses <sup>(b)</sup>	308	(134)	–	–	174	499	1,470
Impairment charges <sup>(c)</sup>	(982)	243	–	–	(739)	(1,103)	(7,579)
Loss after tax from discontinued operations <sup>(c)</sup>	–	–	–	(97)	(97)	(449)	(827)
Exchange and derivative gains/(losses):							
– Exchange gains/(losses) on US dollar net debt and intragroup balances <sup>(d)</sup>	530	(133)	37	–	434	(56)	960
– Gains/(losses) on currency and interest rate derivatives not qualifying for hedge accounting <sup>(e)</sup>	75	(16)	(3)	–	56	9	(22)
– (Losses)/gains on commodity derivatives not qualifying for hedge accounting <sup>(f)</sup>	(76)	15	–	–	(61)	75	(95)
Chinalco break fee	–	–	–	–	–	(182)	–
Restructuring costs from global headcount reduction <sup>(g)</sup>	–	–	–	–	–	(231)	(57)
Other exclusions <sup>(h)</sup>	(28)	67	–	–	39	12	(477)
<b>Total excluded from Underlying earnings</b>	<b>358</b>	<b>42</b>	<b>34</b>	<b>(97)</b>	<b>337</b>	<b>(1,426)</b>	<b>(6,627)</b>
<b>Net earnings</b>	<b>20,577</b>	<b>(5,296)</b>	<b>(860)</b>	<b>(97)</b>	<b>14,324</b>	<b>4,872</b>	<b>3,676</b>
<b>Underlying earnings</b>	<b>20,219</b>	<b>(5,338)</b>	<b>(894)</b>	<b>–</b>	<b>13,987</b>	<b>6,298</b>	<b>10,303</b>

"Underlying earnings" is an alternative measure of earnings which is reported by Rio Tinto to provide greater understanding of the underlying business performance of its operations. Underlying earnings and Net earnings both represent amounts attributable to owners of Rio Tinto.

Items (a) to (h) below are excluded from Net earnings in arriving at Underlying earnings.

(a) Rio Tinto consolidated Oyu Tolgoi LLC on 15 December 2010 following the signing of a new agreement with Ivanhoe Mines. The gain arising on consolidation represents the excess of the provisional fair value ascribed to the Group's indirect share of the assets and liabilities of Oyu Tolgoi over the historic cost of acquiring that share through its investment in Ivanhoe Mines Ltd.

(b) Profits arising on the disposal of interests in businesses for the year ended 31 December 2010 relate principally to the sale of the Group's 48 per cent interest in Cloud Peak Energy Inc. Refer to note 41.

Profits arising on the disposal of interests in businesses for the year ended 31 December 2009 related principally to sales of the Corumbá iron ore mine, the Jacobs Ranch coal mine and 52 per cent of Rio Tinto's interest in Cloud Peak Energy Resources LLC (CPER), and were partially offset by a loss from the sale of Alcan Composites.

Profits arising on the disposal of interests in businesses in 2008 related principally to the sales of the Cortez gold mine and the Greens Creek mine.

Profits arising on the disposal of interests in undeveloped projects which in 2010 included gains of US\$229 million on disposal of the Vickery and Maules Creek coal projects, and in 2009 included gains on disposal of undeveloped potash assets in Argentina and Canada amounting to US\$797 million, net of tax, were not excluded from Underlying earnings. 2008 profits on disposals of undeveloped projects, related principally to the sale of the undeveloped Kintyre uranium project in Western Australia and were not excluded from Underlying earnings.

(c) Charges relating to impairment of goodwill and other non-current assets other than undeveloped projects but including discontinued operations.

*Year ended 31 December 2010*

The impairment charges of US\$739 million for the year ended 31 December 2010 related mainly to Alcan Engineered Products businesses: US\$589 million, the Group's Diamond businesses: US\$115 million (net of reversals), and US\$35 million in other impairments. All impairments have been measured based upon assessment of fair value. Divestment of 61 per cent of Alcan Engineered Products, excluding the Cable Division, was completed on 4 January 2011. Refer to note 41.

Loss after tax from discontinued operations for the year ended 31 December 2010 of US\$97 million (inclusive of divestment costs) relates to the completion of the disposal of Alcan Packaging global pharmaceuticals, global tobacco, food Europe and food Asia divisions to Amcor on 1 February 2010, and the Alcan Packaging Food Americas division to Bemis Company Inc. on 1 March 2010.

The impairment to the Group's Diamond business was caused by changes in assumptions about future capital costs required to complete the Argyle underground project, offset by recovery in prices, which resulted in a reversal of impairment relating to Diavik of US\$158 million.

*Years ended 31 December 2009 and 2008*

The impairment charges of US\$1,103 million for the year ended 31 December 2009 related mainly to a write down on Alcan Engineered Products of US\$500 million, the Group's aluminium businesses of US\$212 million, US\$348 million on the Group's Diamond businesses and US\$43 million in other impairments. All impairments were measured based upon an assessment of fair value.

An impairment of US\$318 million (31 December 2008: US\$960 million) relating to the Alcan Packaging business was recognised during the year ended 31 December 2009, and was included in "Loss after tax from discontinued operations". This impairment was based on an estimate of fair value less costs to sell, being the Group's best estimate of expected proceeds to be realised on sale of Alcan Packaging, less an estimate of remaining costs to sell. "Loss after tax from discontinued operations" for the year ended 31 December 2009 of US\$449 million (31 December 2008: US\$827 million) also included a US\$131 million tax charge (31 December 2008: US\$133 million tax benefit) relating to an increase in the Group's estimate of the tax to be paid on sale of the Alcan Packaging business.

The impairment charge of US\$7,579 million for the year ended 31 December 2008 related mainly to the Group's aluminium businesses: US\$6,127 million and Alcan Engineered Products: US\$980 million. This includes amounts relating to equity accounted units (EAUs) of US\$15 million.

(d) Exchange gains and losses on US dollar debt and intragroup balances.

The 2010 and 2009 tax on exchange gains and losses on external debt and intragroup balances include tax charges on gains on US dollar denominated debt. However, in 2009 a significant proportion of the pre-tax losses on intragroup balances were not subject to tax.

The 2008 tax on exchange gains and losses on external debt and intragroup balances included a benefit of US\$254 million through recovery of tax relating to prior years. It also included tax relief for losses on US dollar denominated debt. The pre-tax gains on intragroup balances were largely not subject to tax.

(e) Valuation changes on currency and interest rate derivatives which are ineligible for hedge accounting, other than those embedded in commercial contracts, and the currency revaluation of embedded US dollar derivatives contained in contracts held by entities whose functional currency is not the US dollar.



- (f) Valuation changes on commodity derivatives, including those embedded in commercial contracts, that are ineligible for hedge accounting, but for which there will be an offsetting change in future Group earnings.
- (g) During 2009, the Group incurred restructuring costs relating to the cost saving measures announced in December 2008.
- (h) 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. During 2008, the Group incurred advisory and other costs related to the rejection by the board of the pre-conditional takeover proposal from BHP Billiton, which was withdrawn in November 2008. These costs totalled US\$270 million (net of tax) in 2008 and have been excluded from Underlying earnings. Other charges excluded from Underlying earnings in 2008, 2009 and 2010 comprise costs relating to acquisitions, disposals and similar corporate projects.
- (i) Exclusions from Underlying earnings relating to both EAUs and discontinued operations are stated net of tax. Exclusions from Underlying earnings relating to EAUs are included in the column "Pre-tax" and the results of discontinued operations are shown in the column "Discontinued operations".

### 3 Net operating costs

	Note	2010 US\$m	2009 US\$m	2008 US\$m
Raw materials and consumables		13,409	11,501	16,248
Amortisation of intangible assets	12	369	387	429
Depreciation of property, plant and equipment	13	3,068	3,040	3,046
Employment costs	4	6,406	6,198	6,603
Repairs and maintenance		1,946	1,771	1,960
Shipping costs		1,890	1,828	2,495
Other freight costs		838	756	815
(Increase)/decrease in finished goods and work in progress		(377)	517	(163)
Royalties		2,104	1,539	1,946
Amounts charged by jointly controlled entities <sup>(a)</sup>		2,934	2,420	2,473
Net foreign exchange (gains)/losses		(4)	123	(379)
Other external costs		3,304	3,127	2,230
Provisions (including exchange differences on provisions)	27	907	930	265
Research and development		187	193	307
Costs included above qualifying for capitalisation		(140)	(136)	(259)
Other operating income		(174)	(376)	(375)
<b>Net operating costs (excluding items shown separately)</b>		<b>36,667</b>	<b>33,818</b>	<b>37,641</b>

- (a) Amounts charged by jointly controlled entities mainly relate to toll processing but also include purchases from jointly controlled entities 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 jointly controlled entity but in 2010, US\$564 million (2009: US\$491 million; 2008: nil) related to purchases of the other venturer's share of production.  
Information on auditors' remuneration is included in note 43.

### 4 Employment costs

	Note	2010 US\$m	2009 US\$m	2008 US\$m
Employment costs				
– Wages and salaries		6,328	6,130	6,414
– Social security costs		98	101	113
– Net post retirement cost	50	573	524	502
– Share option charge/(credit)	49	124	177	(22)
		7,123	6,932	7,007
Less: charged within provisions		(717)	(734)	(404)
<b>Total employment costs</b>	<b>3</b>	<b>6,406</b>	<b>6,198</b>	<b>6,603</b>

## 5 Impairment charges

	Pre-tax <sup>(a)</sup> 2010 US\$m	Taxation 2010 US\$m	Outside interests 2010 US\$m	Net amount 2010 US\$m	Net amount 2009 US\$m	Net amount 2008 <sup>(f)</sup> US\$m
Aluminium <sup>(b)</sup>	–	–	–	–	(212)	(6,127)
Alcan Engineered Products <sup>(c)</sup>	(805)	216	–	(589)	(500)	(980)
Diamonds <sup>(d)</sup>	(135)	20	–	(115)	(348)	(107)
Hismelt <sup>(e)</sup>	(41)	7	–	(34)	–	(182)
Other	(1)	–	–	(1)	(43)	(168)
<b>Total <sup>(a)</sup></b>	<b>(982)</b>	<b>243</b>	<b>–</b>	<b>(739)</b>	<b>(1,103)</b>	<b>(7,564)</b>

(a) The majority of the 2010 pre-tax impairment charge related to property, plant and equipment (US\$773 million – net of US\$248 million of reversals) and provisions raised (US\$197 million). The majority of the 2009 impairment charge relates to property, plant and equipment (US\$1,290 million) and intangible assets (US\$179 million), with the remainder relating to investments in EAUs. The majority of the 2008 impairment charge related to goodwill (US\$6,621 million), property, plant and equipment (US\$1,222 million) and intangible assets (US\$129 million), with the remainder relating to investments in EAUs.

(b) The 2009 impairment charge related mainly to the planned closure of certain smelters, and was caused by a decrease in short term price assumptions at the date of the impairment review. The recoverable amount was based on fair value less costs to sell, and was assessed in line with the policy in note 1(i). The 2008 impairment charge related mainly to the write-down of goodwill resulting from the annual impairment review, due to the deferral of growth projects following significant weakening in economic and market circumstances, and increases in input costs.

(c) Impairment to the Alcan Engineered Products businesses during 2010 arose following finalisation of the proceeds and terms of the proposed sales transaction, which affected the assessment of fair value less costs to sell. The proceeds are assessed in line with the policy in note 1(i). Refer to note 19 for further details.

(d) The impairment to the Group's Diamonds business during 2010 was caused by changes in assumptions about future capital costs required to complete the Argyle underground project, offset by recovery in prices, which resulted in a reversal of impairment relating to Diavik of US\$158 million post-tax. The estimate of fair value less costs to sell was based on the policy in note 1(i). The impairment to the Group's Diamonds business during 2009 was caused by weak demand for luxury items and higher input costs. Impairment of property, plant and equipment was assessed by reference to the fair value less costs to sell of the cash generating units (CGUs).

(e) In December 2010, the Hismelt <sup>®</sup> joint venture partners agreed to permanently close the Kwinana site and terminate the joint venture. The majority of closure work is expected to be completed by 2014. In 2008, full provision was made against the carrying value of the Hismelt <sup>®</sup> operation, which is within the Iron Ore product group.

(f) Total impairment charges in the reconciliation of net earnings to Underlying earnings for 2008, included US\$15 million relating to EAUs, which is not included in the table above.

## 6 Share of profit after tax of equity accounted units

	2010 US\$m	2009 US\$m	2008 US\$m
Sales revenue <sup>(a)</sup>	4,722	3,020	3,801
Operating costs	(2,818)	(1,717)	(2,158)
Profit before finance items and taxation	1,904	1,303	1,643
Finance items	(87)	(49)	(44)
Share of profit after tax of equity accounted units	21	23	36
Profit before taxation	1,838	1,277	1,635
Taxation	(737)	(491)	(596)
<b>Profit for the year (Rio Tinto share)</b>	<b>1,101</b>	<b>786</b>	<b>1,039</b>

(a) Sales revenue of equity accounted units excludes charges by jointly controlled entities to Group subsidiaries.

## 7 Interest receivable and payable

	Note	2010 US\$m	2009 US\$m	2008 US\$m
Interest receivable and similar income from:				
– Equity accounted units		33	36	43
– Interest income from bank deposits		81	45	72
– Interest income from other financial assets		21	21	35
		135	102	150
Other interest receivable		28	18	54
<b>Total interest receivable and similar income</b>		<b>163</b>	<b>120</b>	<b>204</b>
Interest payable and similar charges <sup>(a)</sup>		(853)	(1,127)	(1,821)
Net refinancing charge <sup>(b)</sup>		(107)	–	–
Amounts capitalised	13	182	198	203
<b>Total interest payable and similar charges</b>		<b>(778)</b>	<b>(929)</b>	<b>(1,618)</b>

(a) Interest payable and similar charges relates to interest on bank loans and other borrowings. This includes a fair value gain on interest rate swaps designated as hedges of US\$186 million and an offsetting fair value loss on bank borrowings attributable to interest rate risk of US\$196 million (2009: fair value loss on the interest rate swaps of US\$59 million and an offsetting fair value gain on bank borrowings attributable to interest rate risk of US\$59 million; 2008: fair value gain on the interest rate swaps of US\$669 million and a US\$655 million fair value loss on bank borrowings attributable to interest rate risk).

(b) Net charge on the refinancing of bonds in October 2010 includes premium of US\$252 million, offset by mark to market hedge fair value adjustments of US\$167 million (note 33).

## 8 Taxation

	Note	2010 US\$m	2009 US\$m	2008 US\$m
<b>UK taxation</b>				
Corporation tax at 28%				
– Current		–	1	–
– Deferred		286	–	(46)
		286	1	(46)
<b>Australian taxation</b>				
Corporation tax at 30%				
– Current		3,785	1,829	3,005
– Deferred		398	391	(812)
		4,183	2,220	2,193
<b>Other countries taxation</b>				
– Current		1,241	763	1,711
– Deferred		(414)	(908)	(116)
		827	(145)	1,595
<b>Total taxation charge</b>				
– Current		5,026	2,593	4,716
– Deferred	18	270	(517)	(974)
		5,296	2,076	3,742

## 8 Taxation continued

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Prima facie tax reconciliation</b>			
Profit before taxation	20,577	7,860	9,178
Deduct: share of profit after tax of equity accounted units	(1,101)	(786)	(1,039)
Parent companies' and subsidiaries' profit before tax	19,476	7,074	8,139
Prima facie tax payable at UK rate of 28%	5,453	1,981	2,279
Higher rate of taxation on Australian earnings at 30%	295	136	226
Impact of items excluded in arriving at Underlying earnings <sup>(a)</sup>	(143)	347	919
Adjustments to deferred tax liabilities following changes in tax rates	(96)	(22)	(25)
Other tax rates applicable outside the UK and Australia	110	113	206
Resource depletion and other depreciation allowances	(163)	(132)	(129)
Research, development and other investment allowances	(74)	(55)	(72)
Utilisation of previously unrecognised deferred tax assets	(13)	(36)	(160)
Unrecognised current year operating losses	95	105	163
Foreign exchange differences	(63)	(167)	197
Withholding taxes	35	73	95
Non-taxable gains on asset disposals <sup>(b)</sup>	–	(208)	–
Other items	(140)	(59)	43
<b>Total taxation charge <sup>(c)</sup></b>	<b>5,296</b>	<b>2,076</b>	<b>3,742</b>

(a) An analysis of the impact on the tax reconciliation of items excluded in arriving at Underlying earnings is given below:

	2010 US\$m	2009 US\$m	2008 US\$m
Impairment charges	(23)	(5)	1,806
Gains on disposals of businesses and on newly consolidated operations	(101)	–	136
Exchange losses/(gains) on intragroup balances	46	332	(723)
Exchange gains on external debt	(61)	–	(332)
Exchange (gains)/losses on derivatives and others	(17)	25	(19)
Other exclusions	13	(5)	51
	<b>(143)</b>	<b>347</b>	<b>919</b>

(b) The non-taxable gains on asset disposals in 2009 relate to undeveloped potash assets in Argentina.

(c) This tax reconciliation relates to the Group's parent companies, subsidiaries and proportionally consolidated units. The Group's share of profit of equity accounted units is net of tax charges of US\$737 million (2009: US\$491 million; 2008: US\$596 million).

The tax credit/(charge) relating to components of other comprehensive income is as follows:

	2010 Attributable to:			2009 Attributable to:		
	Owners of Rio Tinto US\$m	Non- controlling interests US\$m	Total US\$m	Owners of Rio Tinto US\$m	Non- controlling interests US\$m	Total US\$m
Tax on exchange adjustments	27	–	27	–	–	–
Cash flow hedge fair value losses/(gains):						
– Cash flow hedge fair value losses	17	7	24	62	35	97
– Cash flow hedge losses transferred to the income statement	(18)	(16)	(34)	(10)	(10)	(20)
Gains on revaluation of available for sale securities	(24)	(1)	(25)	(1)	–	(1)
Gains on revaluation of available for sale securities transferred to the income statement	1	–	1	1	–	1
Actuarial losses on post retirement benefit plans	210	6	216	233	(1)	232
Deferred tax on share options	47	–	47	50	–	50
	260	(4)	256	335	24	359
Share of tax on other comprehensive expense of equity accounted units	(3)	–	(3)	(38)	–	(38)
<b>Tax relating to components of other comprehensive income/(expense) for the year <sup>(a)</sup></b>	<b>257</b>	<b>(4)</b>	<b>253</b>	<b>297</b>	<b>24</b>	<b>321</b>

	2008 Attributable to:		
	Owners of Rio Tinto US\$m	Non- controlling interests US\$m	Total US\$m
Tax on exchange adjustments	99	–	99
Cash flow hedge fair value losses/(gains):			
– Cash flow hedge fair value gains	(11)	(8)	(19)
– Cash flow hedge losses transferred to the income statement	(77)	(35)	(112)
Losses on revaluation of available for sale securities	10	–	10
Gains on revaluation of available for sale securities transferred to the income statement	–	–	–
Actuarial losses on post retirement benefit plans	457	7	464
Deferred tax on share options	(179)	–	(179)
	299	(36)	263
Share of tax on other comprehensive expense of equity accounted units	(19)	–	(19)
<b>Tax relating to components of other comprehensive income/(expense) for the year <sup>(a)</sup></b>	<b>280</b>	<b>(36)</b>	<b>244</b>

(a) This comprises US\$226 million (2009: US\$319 million; 2008: US\$205 million) of deferred tax and US\$27 million (2009: US\$2 million; 2008: US\$39 million) of current tax. See note 18.



## 9 Earnings/(loss) per ordinary share

	2010 Earnings US\$m	2010 Weighted average number of shares (millions)	2010 Per share amount (cents)	2009 Earnings US\$m	2009 Weighted average number of shares (millions)	2009 Per share amount (cents) <sup>(a)</sup>
Basic earnings per share attributable to ordinary shareholders of Rio Tinto – continuing operations	14,421	1,961.0	735.4	5,321	1,763.6	301.7
Basic loss per share attributable to ordinary shareholders of Rio Tinto – discontinued operations	(97)	1,961.0	(4.9)	(449)	1,763.6	(25.5)
Total basic earnings per share – profit for the year <sup>(b)</sup>	14,324	1,961.0	730.5	4,872	1,763.6	276.2
Diluted earnings per share attributable to ordinary shareholders of Rio Tinto – continuing operations	14,421	1,972.6	731.1	5,321	1,769.6	300.7
Diluted loss per share attributable to ordinary shareholders of Rio Tinto – discontinued operations	(97)	1,972.6	(4.9)	(449)	1,769.6	(25.4)
Total diluted earnings per share – profit for the year <sup>(c)</sup>	14,324	1,972.6	726.2	4,872	1,769.6	275.3
Underlying earnings per share attributable to ordinary shareholders <sup>(d)</sup>						
– Basic <sup>(b)</sup>	13,987	1,961.0	713.3	6,298	1,763.6	357.1
– Diluted <sup>(c)</sup>	13,987	1,972.6	709.1	6,298	1,769.6	355.9

	2008 Earnings US\$m	2008 Weighted average number of shares (millions)	2008 Per share amount (cents) <sup>(a)</sup>
Basic earnings per share attributable to ordinary shareholders of Rio Tinto – continuing operations	4,503	1,570.1	286.8
Basic loss per share attributable to ordinary shareholders of Rio Tinto – discontinued operations	(827)	1,570.1	(52.7)
Total basic earnings per share – profit for the year <sup>(b)</sup>	3,676	1,570.1	234.1
Diluted earnings per share attributable to ordinary shareholders of Rio Tinto – continuing operations	4,503	1,577.3	285.5
Diluted loss per share attributable to ordinary shareholders of Rio Tinto – discontinued operations	(827)	1,577.3	(52.4)
Total diluted earnings per share – profit for the year <sup>(c)</sup>	3,676	1,577.3	233.1
Underlying earnings per share attributable to ordinary shareholders <sup>(d)</sup>			
– Basic <sup>(b)</sup>	10,303	1,570.1	656.2
– Diluted <sup>(c)</sup>	10,303	1,577.3	653.2

(a) The 2009 rights issues were at a discount to the then market price. Accordingly, earnings per share for all periods up to the date on which the shares were issued have been adjusted for the bonus element of the issues. The bonus factor for Rio Tinto plc was 1.2105 and for Rio Tinto Limited was 1.2679. Other information relating to the rights issues is shown in note 46.

(b) The weighted average number of shares is calculated as the average number of Rio Tinto plc shares outstanding not held as treasury shares of 1,525.2 million (2009: 1,366.1 million; 2008: 1,207.8 million) plus the average number of Rio Tinto Limited shares outstanding not held by Rio Tinto plc of 435.8 million (2009: 397.5 million; 2008: 362.3 million).

(c) For the purposes of calculating diluted earnings per share, the effect of dilutive securities of 11.6 million shares in 2010 (2009: 6.0 million shares; 2008: 7.2 million shares) is added to the weighted average number of shares described in (b) 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 49.

(d) Underlying earnings per share is calculated from Underlying earnings, detailed information on which is given in note 2.

## 10 Dividends

	2010 US\$m	2009 US\$m	2008 US\$m
Rio Tinto plc previous year Final dividend paid	686	670	838
Rio Tinto plc Interim dividend paid	664	–	679
Rio Tinto Limited previous year Final dividend paid	206	206	228
Rio Tinto Limited Interim dividend paid	198	–	188
<b>Dividends paid during the year</b>	<b>1,754</b>	<b>876</b>	<b>1,933</b>
<b>Dividends per share: paid during the year</b>	<b>90.0c</b>	<b>55.6c</b>	<b>124.3c</b>
<b>Dividends per share: proposed in the announcement of the results for the year</b>	<b>63.0c</b>	<b>45.0c</b>	<b>55.6c</b>

	Dividends per share 2010	Dividends per share 2009	Dividends per share 2008
Rio Tinto plc previous year Final (pence)	28.84p	37.85p	35.27p
Rio Tinto plc Interim (pence)	28.21p	–	29.64p
Rio Tinto Limited previous year Final – fully franked at 30% (Australian cents)	51.56c	82.97c	76.08c
Rio Tinto Limited Interim – fully franked at 30% (Australian cents)	49.27c	–	63.25c

	Number of shares 2010 (millions)	Number of shares 2009 (millions)	Number of shares 2008 (millions)
Rio Tinto plc previous year Final	1,524.8	1,208.4	1,207.8
Rio Tinto plc Interim	1,526.0	–	1,208.2
Rio Tinto Limited previous year Final	435.8	362.3	362.3
Rio Tinto Limited Interim	435.8	–	362.3

The dividends paid in 2010 are based on the following US cents per share amounts: 2009 final – 45.0 cents, 2010 interim – 45.0 cents (2009 dividends paid: 2008 final – 55.6 cents, 2009 interim – nil; 2008 dividends paid: 2007 final – 68.7 cents, 2008 interim – 55.6 cents).

The number of shares on which the Rio Tinto Limited dividends are based excludes those shares held by Rio Tinto plc, in order that the dividends shown represent those paid to public shareholders. The number of shares on which Rio Tinto plc dividends are based excludes those held as treasury shares.

In addition, the directors of Rio Tinto announced a final dividend of 63.0 cents per share on 10 February 2011. This is expected to result in payments of US\$1,236 million (Rio Tinto plc: US\$962 million; Rio Tinto Limited: US\$274 million). The dividends will be paid on 31 March 2011 to Rio Tinto plc shareholders on the register at the close of business on 4 March 2011 and to Rio Tinto Limited shareholders on the register at the close of business on 8 March 2011.

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 2011.

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 2010 (after deducting franking credits expected to be utilised on the 2010 final dividend declared), is US\$7,380 million.

## 11 Goodwill

	2010 US\$m	2009 US\$m
<b>Net book value</b>		
At 1 January	14,268	14,296
Adjustment on currency translation	72	156
Newly consolidated operations	963	–
Disposals	(7)	(184)
At 31 December	15,296	14,268
– cost	21,886	20,854
– accumulated impairment	(6,590)	(6,586)
At 1 January		
– cost	20,854	21,123
– accumulated impairment	(6,586)	(6,827)

## 11 Goodwill continued

### Impairment tests for goodwill

At 31 December 2010, goodwill has been allocated as follows:

	2010 US\$m	2009 US\$m
<b>Net book value</b>		
Aluminium	13,678	13,691
Copper – Oyu Tolgoi (note 41)	963	–
Australian Iron Ore	507	446
Other	148	131
	<b>15,296</b>	<b>14,268</b>

### Aluminium

The majority of the Group's goodwill has been allocated to cash generating units within the Aluminium group of cash generating units ("Aluminium"). A large component of Aluminium's carrying value relates to the former Alcan businesses purchased in 2007.

Aluminium's annual impairment review resulted in no impairment charge for 2010 (2009: no impairment charge; 2008: US\$6,127 million after taxation). The recoverable amount has been assessed by reference to fair value less costs to sell, using discounted cash flows, in line with the policy in note 1(i).

In arriving at fair value less costs to sell, a post-tax discount rate of 6.5 per cent (2009: 6.8 per cent) has been applied to the post-tax cash flows expressed in real terms. Fair value less costs to sell was determined by estimating cash flows for a period of 11 years. The cash flow projections are based on long term production plans. These cash flows are then aggregated with a "terminal value". The terminal value represents the value of cash flows beyond the 11th year, incorporating an annual real-term growth rate of one and a half per cent, with a corresponding increase in capital expenditure to support the real term growth rate, resulting in a zero per cent growth in net cash flows. Aluminium benefits from a global marketplace with substantial barriers to entry and there are a limited number of competitors who are able to access effectively the key resources necessary to make aluminium. In addition, continued global industrialisation is expected to support demand for aluminium. The operating cost levels included in the fair value assessment are calculated based on Aluminium's long term production plans. Price assumptions for inputs into the aluminium smelting process are based on analysis of market fundamentals and are made consistent with related output price assumptions. Approximately 80 per cent of Aluminium's production is located in the first half of the industry cost curve. Aluminium's intention is to improve its relative position on the industry cash cost curve.

The key assumptions to which the calculation of fair value less costs to sell for Aluminium is most sensitive are the long term aluminium price; the Canadian dollar and Australian dollar exchange rates against the US dollar; operating costs; and discount rates. Future selling prices and operating costs have been estimated in line with the policy in note 1(i). Management believes that, currently, there are no reasonably possible changes in any of the key assumptions, that would lead to the recoverable amount being below the carrying amount, except for the long term aluminium price.

The long term aluminium price used in the terminal year of the fair value calculations includes a component to reflect the impact of carbon pricing. The Group's price without this carbon component is within the range published by market commentators of US\$2,010 to US\$2,566 per tonne, with an average of US\$2,329 per tonne, in real terms. The carbon element within the long term price used in the fair value calculations is based on a price per tonne of carbon dioxide equivalent emissions (tCO<sub>2</sub>e). This price is based on an assessment of future climate policy evolution and the range of carbon prices that could result from this process. It is comparable to the range published by market commentators, of between US\$10 and US\$40 per tCO<sub>2</sub>e in real terms. The relationship between the price per tCO<sub>2</sub>e and the price per tonne of aluminium is dependent on how many tonnes of carbon dioxide are emitted per tonne of aluminium produced by marginal cost smelters. Industry data show that emissions for all producers range from approximately two tonnes, to in excess of 20 tonnes, of CO<sub>2</sub> per tonne of aluminium produced, depending on the primary energy source used to generate the consumed electric power. The weighted industry average for all producers is approximately 10-12 tonnes of CO<sub>2</sub> per tonne of aluminium. The assumptions used in the Group's long term aluminium price used in the terminal year imply a carbon emission intensity for the marginal producers above the weighted industry average but below the top end of the industry range.

Based on the assessment of fair value less costs to sell, the recoverable amount exceeds the carrying value by approximately 16 per cent. The calculation is highly sensitive to changes in the key assumptions, and a seven per cent decrease in the long term aluminium price, in isolation, would lead to the fair value less costs to sell of Aluminium being equal to its carrying amount. However, management believe that a decrease in the long term aluminium price would have an associated beneficial impact on input costs which would, to a certain extent, offset the impact of the change in the long term aluminium price. In addition, the assumed relationship between the long term aluminium price and the Australian and Canadian currencies provides further natural protection in the long term (see also note 33 – Financial risk management).

### Oyu Tolgoi

Goodwill of US\$963 million arose following consolidation on 15 December 2010 of Oyu Tolgoi LLC, of which US\$834 million was calculated in accordance with the requirement in IFRS to recognise a deferred tax liability on the difference between the provisional fair value of newly consolidated assets and liabilities and their tax base.

Refer to note 41 for further information relating to the consolidation of Oyu Tolgoi LLC.

### Australian Iron Ore

The recoverable amount of the goodwill relating to Australian Iron Ore has been assessed by reference to fair value less costs to sell, which is estimated in line with the policy in note 1(i). In line with normal practice in the mining industry, the cash flow projections are based on long term mine plans covering the expected life of each operation. Therefore, the projections generally cover periods well in excess of five years.

Assumptions about selling prices, operating costs, exchange rates, and discount rates are particularly important in these valuations.

Future selling prices and operating costs have been estimated in line with the policy in note 1(i). Long term average selling prices are forecast taking account of estimates of the costs of producers of iron ore. Forecasts of operating costs are based on detailed mine plans which take account of all relevant characteristics of the orebody.

Goodwill relating to Australian Iron Ore has been reviewed applying a discount rate of 6.5 per cent (2009: 6.8 per cent) to the post-tax cash flows expressed in real terms.

There are no reasonably possible changes in key assumptions, which would cause the goodwill allocated to Australian Iron Ore to be impaired.

### Other

The recoverability of the remaining goodwill, which is included within Other in the table above, has been assessed by reference to fair value less costs to sell, using assumptions consistent with those described above. 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.

## 12 Intangible assets

Year ended 31 December 2010	Exploration and evaluation <sup>(a)</sup> US\$m	Trademarks, patented and non patented technology US\$m	Contract based intangible assets <sup>(b)</sup> US\$m	Other intangible assets US\$m	Total <sup>(c)</sup> US\$m
<b>Net book value</b>					
At 1 January 2010	145	289	4,802	494	5,730
Adjustment on currency translation	25	(5)	(1)	52	71
Expenditure during the year	143	–	–	186	329
Amortisation for the year	–	(25)	(167)	(177)	(369)
Newly consolidated operations (note 41)	–	–	–	38	38
Subsidiaries no longer consolidated	–	–	(7)	–	(7)
Disposals, transfers and other movements	(6)	–	(90)	4	(92)
At 31 December 2010	307	259	4,537	597	5,700
– cost	307	370	5,525	1,373	7,575
– accumulated amortisation and impairment	–	(111)	(988)	(776)	(1,875)

Refer to footnotes (a) to (c) on page 192.

## 12 Intangible assets continued

Year ended 31 December 2009	Exploration and evaluation US\$m	Trademarks, patented and non patented technology US\$m	Contract based intangible assets <sup>(b)</sup> US\$m	Other intangible assets US\$m	Total <sup>(c)</sup> US\$m
<b>Net book value</b>					
At 1 January 2009	133	444	5,208	500	6,285
Adjustment on currency translation	10	6	2	71	89
Expenditure during the year	2	–	–	53	55
Amortisation for the year	–	(25)	(188)	(174)	(387)
Impairment charges	–	(23)	(156)	–	(179)
Subsidiaries now equity accounted	–	–	–	(2)	(2)
Subsidiaries no longer consolidated	–	(113)	(54)	–	(167)
Disposals, transfers and other movements	–	–	(10)	46	36
At 31 December 2009	145	289	4,802	494	5,730
– cost	145	398	5,445	1,062	7,050
– accumulated amortisation and impairment	–	(109)	(643)	(568)	(1,320)

(a) Exploration and evaluation: useful life not determined until transferred to property, plant and equipment.

(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. These water rights constitute the majority of the amounts in the column of the above table entitled "Contract based intangible assets". The water rights have been allocated to cash generating units within Aluminium.

In 2010, the recoverable amount of these cash-generating units was determined based on fair value less costs to sell, using a methodology and assumptions consistent with those described in note 1(i) and note 11. No impairment of these indefinite-lived intangible assets was recognised during 2010 (2009: no impairment), as the fair value less costs to sell of the related cash-generating units was in excess of their carrying amounts.

(c) There are no intangible assets either pledged as security or held under restriction of title.

### Exploration and evaluation expenditure

The charge for the year and the net amount of intangible assets capitalised during the year are as follows:

	2010 US\$m	2009 US\$m	2008 US\$m
Net (expenditure)/proceeds in the year (net of proceeds of US\$568 million (2009: US\$932 million; 2008: US\$673 million) on disposal of undeveloped projects)	(135)	486	(440)
Changes in accruals (including impairment of undeveloped projects of nil (2009: nil; 2008: US\$156 million) and non-cash proceeds on disposal of undeveloped projects)	(80)	(104)	(205)
Amount capitalised during the year	143	(2)	–
Net (charge)/credit for the year	(72)	380	(645)
<b>Reconciliation to income statement</b>			
Exploration and evaluation costs	(594)	(514)	(1,134)
Profit on disposal of interests in undeveloped projects	522	894	489
Net (charge)/credit for the year	(72)	380	(645)

## 13 Property, plant and equipment

Year ended 31 December 2010	Mining properties and leases US\$m <sup>(a)</sup>	Land and buildings US\$m <sup>(b)</sup>	Plant and equipment US\$m	Capital works in progress US\$m	Total US\$m
<b>Net book value</b>					
At 1 January 2010	6,738	5,958	25,595	7,512	45,803
Adjustment on currency translation	785	214	1,810	541	3,350
Capitalisation of additional closure costs (note 27)	872	–	–	–	872
Interest capitalised <sup>(c)</sup> (note 7)	–	–	–	182	182
Additions	170	171	829	3,117	4,287
Depreciation for the year <sup>(a)</sup>	(432)	(320)	(2,316)	–	(3,068)
Impairment charges, net of reversals	66	(248)	(314)	(277)	(773)
Disposals	–	(17)	(77)	(6)	(100)
Newly consolidated operations (note 41)	4,881	–	–	874	5,755
Subsidiaries no longer consolidated	–	(18)	(11)	(1)	(28)
Transfers and other movements <sup>(d)</sup>	949	559	3,099	(4,861)	(256)
At 31 December 2010	14,029	6,299	28,615	7,081	56,024
– cost	19,173	9,289	47,374	7,955	83,791
– accumulated depreciation and impairment	(5,144)	(2,990)	(18,759)	(874)	(27,767)
Non-current assets held under finance leases <sup>(e)</sup>	–	19	33	–	52
Other non-current assets pledged as security <sup>(f)</sup>	4	15	1,742	37	1,798
Year ended 31 December 2009	Mining properties and leases US\$m <sup>(a)</sup>	Land and buildings US\$m <sup>(b)</sup>	Plant and equipment US\$m	Capital works in progress US\$m	Total US\$m
<b>Net book value</b>					
At 1 January 2009	6,118	5,706	22,112	7,817	41,753
Adjustment on currency translation	1,130	349	2,890	1,257	5,626
Capitalisation of additional closure costs (note 27)	268	–	–	–	268
Interest capitalised <sup>(c)</sup> (note 7)	8	–	9	181	198
Additions	242	115	1,346	3,108	4,811
Depreciation for the year <sup>(a)</sup>	(412)	(364)	(2,264)	–	(3,040)
Impairment charges, net of reversals	(170)	(308)	(473)	(321)	(1,272)
Disposals	4	(16)	(49)	(21)	(82)
Subsidiaries now equity accounted	(250)	(156)	(476)	(349)	(1,231)
Subsidiaries no longer consolidated	(319)	(184)	(503)	(6)	(1,012)
Transfers and other movements <sup>(d)</sup>	119	816	3,003	(4,154)	(216)
At 31 December 2009	6,738	5,958	25,595	7,512	45,803
– cost	11,028	8,973	41,990	8,154	70,145
– accumulated depreciation and impairment	(4,290)	(3,015)	(16,395)	(642)	(24,342)
Non-current assets held under finance leases <sup>(e)</sup>	–	21	67	–	88
Other non-current assets pledged as security <sup>(f)</sup>	6	15	1,703	27	1,751

(a) Mining properties include deferred stripping costs of US\$1,033 million (2009: US\$900 million). Amortisation of deferred stripping costs of US\$11 million (2009: US\$3 million; 2008: US\$35 million) is included within "Depreciation for the year". There is no impairment of deferred stripping costs charged to the income statement in 2010 (2009: US\$59 million; 2008: nil).

(b) At 31 December 2010, the net statement of financial position amount for land and buildings includes freehold US\$6,037 million (2009: US\$5,834 million); long leasehold US\$217 million (2009: US\$83 million); and short leasehold US\$45 million (2009: US\$41 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 5.0 per cent (2009: 4.2 per cent; 2008: 3.9 per cent).

(d) "Transfers and other movements" include reclassifications between categories.

(e) The finance leases under which these assets are held are disclosed in note 23.

(f) Excludes assets held under finance leases. Non-current assets pledged as security represent amounts pledged as collateral against US\$244 million (2009: US\$224 million) of loans, which are included in note 22.



## 14 Investments in equity accounted units

Summary statement of financial position (Rio Tinto share)	2010 US\$m	2009 US\$m
Rio Tinto's share of assets		
– Non-current assets	9,737	9,707
– Current assets	2,576	2,329
	12,313	12,036
Rio Tinto's share of liabilities		
– Current liabilities	(1,394)	(1,089)
– Non-current liabilities	(4,416)	(4,212)
	(5,810)	(5,301)
Rio Tinto's share of net assets <sup>(a)</sup>	6,503	6,735

(a) Further details of investments in jointly controlled entities and associates are set out in notes 38 and 39.

At 31 December 2010, the quoted value of the Group's share in associates having shares listed on recognised stock exchanges was US\$5,280 million (2009: US\$1,230 million).

## 15 Net debt of equity accounted units (excluding amounts due to Rio Tinto)

	Group interest 2010 %	Rio Tinto share of net debt 2010 US\$m	Group interest 2009 %	Rio Tinto share of net debt 2009 US\$m
<b>Jointly controlled entities</b>				
Sohar Aluminium Company LLC	20.0	330	20.0	343
Minera Escondida Limitada	30.0	163	30.0	226
Richards Bay Minerals	37.0	94	37.0	199
Halco Mining Inc.	45.0	27	45.0	37
Queensland Alumina Limited (QAL)	80.0	11	80.0	18
<b>Associates</b>				
Ivanhoe Mines Ltd. <sup>(a)</sup>	40.3	(404)	19.7	(58)
Port Waratah Coal Services	27.6	305	27.6	225
Mineração Rio do Norte S.A.	12.0	39	12.0	36
Cloud Peak Energy Resources LLC	–	–	48.3	170
Other equity accounted units	–	(86)	–	(99)
		479		1,097

(a) Ivanhoe Mines Ltd. owns 66 per cent of Oyu Tolgoi LLC, which is consolidated by Rio Tinto. Net debt of Ivanhoe Mines Ltd. excludes its share of the net debt of Oyu Tolgoi LLC. Refer to note 41 for further information relating to the consolidation of Oyu Tolgoi LLC.

In accordance with IAS 28 and IAS 31, the Group includes its net investment in equity accounted units in its consolidated statement of financial position. This investment is net of the Group's share of the net debt of such units, which is set out above. Further details of investments in jointly controlled entities and associates are set out in notes 38 and 39.

Some of the debt of equity accounted units is subject to financial and general covenants. US\$12 million of the debt shown above is with recourse to Rio Tinto at 31 December 2010 (2009: nil).

## 16 Inventories

	2010 US\$m	2009 US\$m
Raw materials and purchased components	1,162	1,120
Consumable stores	1,279	1,278
Work in progress	1,357	1,410
Finished goods and goods for resale	1,333	1,365
	5,131	5,173
Comprising:		
Expected to be used within one year	4,756	4,889
Expected to be used after more than one year	375	284
	5,131	5,173

Inventory write downs amounting to US\$115 million (2009: US\$99 million; 2008: US\$280 million) were recognised during the year.

## 17 Trade and other receivables

	Non-current 2010 US\$m	Current 2010 US\$m	Non-current 2009 US\$m	Current 2009 US\$m
Trade receivables	10	3,939	14	3,442
Provision for doubtful debts <sup>(a)</sup>	–	(37)	–	(62)
Trade receivables – net	10	3,902	14	3,380
Amounts due from equity accounted units	337	217	320	197
Other receivables	300	1,017	247	641
Pension surpluses (note 50)	110	–	15	2
Prepayment of tolling charges to jointly controlled entities <sup>(b)</sup>	787	–	424	–
Other prepayments	282	446	355	227
	1,826	5,582	1,375	4,447

(a) At 31 December 2010, trade and other receivables of US\$37 million (2009: US\$62 million) were impaired. The majority of these receivables were more than 90 days overdue.

(b) Rio Tinto Alcan has made certain prepayments to jointly controlled entities for toll processing of bauxite and 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.

Due to their short term maturities, the fair value of trade and other receivables approximates their carrying value.

As of 31 December 2010, trade and other receivables of US\$292 million (2009: US\$454 million) were past due but not impaired. The ageing of these receivables is as follows:

	2010 US\$m	2009 US\$m
less than 30 days overdue	162	262
between 30 and 60 days overdue	67	93
between 60 and 90 days overdue	17	18
more than 90 days overdue	46	81
	292	454

These relate to a number of customers for whom there is no recent history of default or other indicators of impairment.

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.

## 18 Deferred taxation

	2010 US\$m	2009 US\$m
At 1 January	2,073	2,687
Adjustment on currency translation	340	297
Charged/(credited) to the income statement	270	(517)
Credited to statement of comprehensive income <sup>(a)</sup>	(226)	(319)
Newly consolidated operations (note 41) <sup>(b)</sup>	834	–
Subsidiaries no longer consolidated	(2)	(82)
Subsidiaries now equity accounted	–	(14)
Transfer to asset held for sale	(3)	(190)
Other movements <sup>(c)</sup>	26	211
At 31 December	3,312	2,073
Comprising:		
– deferred tax liabilities <sup>(d)</sup>	5,175	4,304
– deferred tax assets <sup>(d)</sup>	(1,863)	(2,231)

Deferred tax balances for which there is a right of offset within the same jurisdiction are presented net on the face of the statement of financial position as permitted by IAS 12. The closing deferred tax liabilities and assets, prior to this offsetting of balances, are shown below.

	UK tax US\$m	Australian tax US\$m	Other countries' tax US\$m	Total 2010 US\$m	Total 2009 US\$m
<b>Deferred tax liabilities arising from:</b>					
Allowances for property, plant and equipment	80	2,231	5,113	7,424	5,982
Post retirement benefits	–	–	36	36	–
Unremitted earnings	–	–	437	437	616
Unrealised exchange gains	–	601	92	693	84
Other temporary differences	–	516	109	625	594
	80	3,348	5,787	9,215	7,276
<b>Deferred tax assets arising from:</b>					
Capital allowances	–	–	(71)	(71)	(63)
Provisions	(95)	(1,008)	(1,075)	(2,178)	(1,908)
Post retirement benefits	(67)	(28)	(1,206)	(1,301)	(1,556)
Tax losses	(75)	(192)	(1,332)	(1,599)	(1,286)
Unrealised exchange losses	–	(528)	(1)	(529)	(149)
Other temporary differences	–	(68)	(157)	(225)	(241)
	(237)	(1,824)	(3,842)	(5,903)	(5,203)
<b>Charged/(credited) to the income statement</b>					
Accelerated/(decelerated) capital allowances	(14)	76	(27)	35	(388)
Provisions	4	(75)	(173)	(244)	(228)
Post retirement benefits	38	11	210	259	6
Tax losses	257	(60)	(261)	(64)	(448)
Tax on unremitted earnings	–	–	(12)	(12)	(18)
Unrealised exchange losses	–	173	49	222	618
Other temporary differences	1	273	(200)	74	(59)
	286	398	(414)	270	(517)

(a) The amounts credited directly to the statement of comprehensive income relate to tax relief on share options, 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 post retirement healthcare plans.

(b) Deferred tax relating to newly consolidated operations arises on the difference between the provisional fair value and the tax base of the assets of Oyu Tolgoi LLC at the date of consolidation. Refer to note 41.

(c) "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. Other movements in 2010 also included amounts relating to the divestment of the Alcan Packaging businesses and Alcan Engineered Products, excluding Cable Division classified as assets held for sale at year end.

(d) The deferred tax liability of US\$5,175 million (2009: US\$4,304 million) includes US\$5,009 million (2009: US\$4,091 million) due in more than one year. The deferred tax asset of US\$1,863 million (2009: US\$2,231 million) includes US\$853 million (2009: US\$2,109 million) receivable in more than one year.

(e) US\$1,217 million (2009: US\$1,426 million) of potential deferred tax assets have not been recognised as assets in these accounts. There is a time limit for the recovery of US\$22 million of these potential assets (2009: US\$20 million). US\$449 million (2009: US\$620 million) of the potential assets relate to realised or unrealised capital losses, recovery of which depends on the existence of capital gains in future years. US\$467 million (2009: US\$503 million) of the potential assets relate to trading losses in France, which were acquired as part of the Alcan acquisition.

(f) Deferred tax is not recognised on the unremitted earnings of subsidiaries and jointly controlled entities 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\$146 million (2009: US\$888 million) would be payable.

(g) There is a limited time period for the recovery of US\$675 million (2009: US\$401 million) of tax losses which have been recognised as deferred tax assets in the financial statements.

## 19 Assets and liabilities held for sale

### At 31 December 2010

At 31 December 2010, assets and liabilities held for sale comprise Alcan's Engineered Products group (AEP), excluding the Cable Division following the receipt on 5 August 2010, of a binding offer from funds affiliated with Apollo Global Management, LLC. ("Apollo") and the Fonds Stratégique d'Investissement (FSI) to buy a 61 per cent stake in AEP, excluding the Cable Division. The divestment was completed on 4 January 2011. The terms of the transaction are confidential. Refer to note 48 – Events after the statement of financial position date.

### At 31 December 2009

At 31 December 2009, assets and liabilities held for sale mainly comprised Alcan's Packaging group ("Packaging"). An impairment of US\$318 million relating to the Packaging business was recognised during the year ended 31 December 2009, and included in "Loss after tax from discontinued operations". "Loss after tax from discontinued operations" of US\$449 million also included a US\$131 million tax charge relating to an increase in the Group's estimate of the tax to be paid on sale of the Packaging business.

### Proceeds from disposal

Rio Tinto completed the sale of Alcan Packaging global pharmaceuticals, global tobacco, food Europe and food Asia divisions to Amcor for a total consideration of US\$1,948 million on 1 February 2010. The consideration was adjusted to exclude Medical Flexibles operations and to reflect actual business performance over the six months preceding completion.

The sale of the Alcan Packaging Food Americas division to Bemis Company Inc. for a total consideration of US\$1.2 billion, was completed on 1 March 2010.

On 5 July 2010, Rio Tinto completed the divestment of the remainder of its Alcan Packaging business with the closing of the sale of the Medical Flexibles business acquired by Amcor for US\$66 million and of the sale of the Alcan Beauty Packaging business acquired by Sun European Partners LLP for an undisclosed sum.

## 20 Other financial assets

	Non-current 2010 US\$m	Current 2010 US\$m	Non-current 2009 US\$m	Current 2009 US\$m
Currency and commodity contracts: designated as hedges	–	–	–	8
Derivatives and embedded derivatives not related to net debt: not designated as hedges	19	124	65	226
Derivatives related to net debt	137	6	–	–
Equity shares and quoted funds	585	365	439	219
Other investments, including loans	593	26	337	168
Other liquid resources (non-cash equivalent)	–	–	–	73
	1,334	521	841	694

Detailed information relating to other financial assets is given in note 34.

## 21 Cash and cash equivalents

	2010 US\$m	2009 US\$m
Cash at bank and in hand	1,785	831
Short term bank deposits	8,163	3,402
<b>Balance per Group statement of financial position</b>	<b>9,948</b>	<b>4,233</b>
Bank overdrafts repayable on demand (unsecured)	(7)	(91)
Cash and cash equivalents included in Assets held for sale	18	–
<b>Balance per Group cash flow statement</b>	<b>9,959</b>	<b>4,142</b>

Cash and cash equivalents include US\$398 million (2009: US\$16 million) for which there are restrictions on remittances.

## 22 Borrowings

Borrowings at 31 December	Note	Non-current 2010 US\$m	Current 2010 US\$m	Non-current 2009 US\$m	Current 2009 US\$m
<b>Syndicated bank loans <sup>(a)</sup></b>		–	–	8,480	–
<b>Other loans</b>					
Finance leases	23	70	12	104	19
Rio Tinto Finance (USA) Limited Bonds 7.125% 2013 <sup>(b)</sup>		98	–	100	–
Rio Tinto Finance (USA) Limited Bonds 5.875% 2013 <sup>(b)(c)</sup>		621	–	2,622	–
Rio Tinto Finance (USA) Limited Bonds 8.95% 2014 <sup>(b)</sup>		1,922	–	1,967	–
Rio Tinto Finance (USA) Limited Bonds 1.875% 2015		500	–	–	–
Rio Tinto Finance (USA) Limited Bonds 6.5% 2018 <sup>(b)(c)</sup>		1,953	–	1,878	–
Rio Tinto Finance (USA) Limited Bonds 9.0% 2019 <sup>(b)</sup>		1,446	–	1,449	–
Rio Tinto Finance (USA) Limited Bonds 3.5% 2020		992	–	–	–
Rio Tinto Finance (USA) Limited Bonds 7.125% 2028 <sup>(b)(c)</sup>		906	–	871	–
Rio Tinto Finance (USA) Limited Bonds 5.20% 2040		500	–	–	–
Alcan Inc. Debentures 6.45% due 2011 <sup>(b)</sup>		–	401	406	–
Alcan Inc. Global Notes 4.875% due 2012 <sup>(b)</sup>		496	–	494	–
Alcan Inc. Global Notes 4.50% due 2013 <sup>(b)</sup>		486	–	486	–
Alcan Inc. Global Notes 5.20% due 2014 <sup>(b)</sup>		487	–	495	–
Alcan Inc. Global Notes 5.00% due 2015 <sup>(b)</sup>		470	–	485	–
Alcan Inc. Debentures 7.25% due 2028		108	–	109	–
Alcan Inc. Debentures 7.25% due 2031		436	–	437	–
Alcan Inc. Global Notes 6.125% due 2033		738	–	737	–
Alcan Inc. Global Notes 5.75% due 2035		282	–	281	–
Colowyo Coal Company L.P. Bonds 9.56% 2011		–	12	23	–
Colowyo Coal Company L.P. Bonds 10.19% 2016		35	–	69	5
European Medium Term Notes <sup>(d)</sup>		–	–	–	322
Other secured loans		356	41	325	63
Other unsecured loans		375	591	337	347
<b>Total borrowings <sup>(e)</sup></b>		<b>13,277</b>	<b>1,057</b>	<b>22,155</b>	<b>756</b>

(a) Syndicated bank loans related to revolving credit facilities arranged for the acquisition of Alcan Inc. in 2007, all of which had been fully repaid and cancelled at 31 December 2010 (2009: US\$8.5 billion). The US\$5 billion revolving syndicated bank Facility C was undrawn at 31 December 2009. In addition to the syndicated bank loan facilities shown above, there were US\$2.3 billion of unused committed bilateral banking facilities at 31 December 2009 consisting of US\$1.0 billion maturing December 2011 and US\$1.3 billion maturing December 2012. These facilities were cancelled in November 2010 when a US\$6 billion five year stand-by revolving credit facility was entered into by the Group. The US\$6 billion facility was undrawn at 31 December 2010. Any borrowings under this facility are at prevailing LIBOR rates plus an agreed margin dependent on the amount of drawdown and the credit rating of the Group. The facility is not subject to any financial covenants. Refer to note 33 (v) – Liquidity and Capital risk management for further details.

(b) As at 31 December 2010, US\$7.6 billion notional of the fixed rate borrowings shown were fully swapped to floating rates and US\$0.3 billion notional of the Rio Tinto Finance (USA) Limited 9.0 per cent 2019 fixed interest rate bond was swapped for the first two years to floating rates. Fair value hedge accounting has been applied to all borrowings except for Alcan Inc. Debentures 6.45 per cent due 2011 and Alcan Inc. Global Notes 4.875 per cent due 2012. The fair value of interest rate swap assets and liabilities at 31 December 2010 was US\$143 million and US\$34 million, respectively. These are included in "other financial assets" and "other financial liabilities" in the statement of financial position. Details of the major interest rate swaps are shown in note 34 – B(c).

(c) As at 31 December 2009, US\$5.0 billion notional of the fixed rate borrowings shown were fully swapped to floating rates. Fair value hedge accounting was applied to all borrowings. The fair value of interest rate swaps at 31 December 2009 was US\$97 million. These are included in "other financial liabilities" in the statement of financial position. Details of the major currency swaps are shown in note 34 – B(c).

(d) Rio Tinto has a US\$10 billion (2009: US\$10 billion) European Medium Term Note (EMTN) programme for the issuance of debt, of which nil was outstanding at 31 December 2010 (2009: US\$0.3 billion). The Group's EMTNs were swapped to US dollars; there were no fair value of currency swap liabilities at 31 December 2010 (2009: US\$68 million included in "other financial liabilities" in the statement of financial position). Details of the major currency swaps are shown in note 34 – B(c).

(e) The Group's borrowings of US\$14.3 billion (2009: US\$22.9 billion) include some US\$4.4 billion (2009: US\$4.6 billion) which relates to borrowings of subsidiaries that are without recourse to the Group, some of which are subject to various financial and general covenants with which the respective borrowers were in compliance as at 31 December 2010.

## 23 Capitalised finance leases

	2010 US\$m	2009 US\$m
<b>Present value of minimum lease payments</b>		
Total minimum lease payments	89	131
Effect of discounting	(7)	(8)
	<b>82</b>	<b>123</b>
<b>Payments under capitalised finance leases:</b>		
Due within one year	12	19
Between 1 and 3 years	21	40
Between 3 and 5 years	12	29
More than 5 years	37	35
	<b>82</b>	<b>123</b>

## 24 Consolidated net debt

	2010 US\$m	2009 US\$m
<b>Analysis of changes in consolidated net debt</b>		
At 1 January	(18,861)	(38,672)
Adjustment on currency translation	(1,269)	(2,265)
Exchange gains credited to the income statement <sup>(a)</sup>	1,130	2,222
Gains on derivatives related to net debt	–	20
Cash movements excluding exchange movements	15,244	19,909
Newly consolidated operations	(213)	–
Other movements	(315)	(75)
<b>At 31 December</b>	<b>(4,284)</b>	<b>(18,861)</b>
<b>Reconciliation to statement of financial position categories:</b>		
Borrowings (note 22)	(14,334)	(22,911)
Bank overdrafts repayable on demand (note 21)	(7)	(91)
Cash and cash equivalents (note 21)	9,948	4,233
Other liquid resources (note 20)	–	73
Derivatives related to net debt (note 34)	109	(165)
	<b>(4,284)</b>	<b>(18,861)</b>

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Exchange gains/(losses) on US dollar net debt and intragroup balances excluded from Underlying earnings</b>			
Exchange gains/(losses) on US dollar net debt	1,119	2,211	(1,675)
Exchange (losses)/gains on intragroup balances	(589)	(1,912)	1,523
Exchange gains/(losses) on loans from equity accounted units	20	36	(36)
Exchange (losses)/gains on settlement of dividend	(21)	30	12
<b>Credited/(charged) to income statement</b>	<b>529</b>	<b>365</b>	<b>(176)</b>

(a) Exchange gains taken to the income statement include amounts taken to Underlying earnings.

Further information relating to the currency and interest rate exposures arising from net debt and related derivatives is given in note 34 – B(c) on Financial instruments.



## 25 Trade and other payables

	Non-current 2010 US\$m	Current 2010 US\$m	Non-current 2009 US\$m	Current 2009 US\$m
Trade payables	–	2,068	–	1,959
Amounts owed to equity accounted units	505	222	197	205
Other payables <sup>(a)</sup>	138	865	128	512
Employee entitlements	–	681	–	856
Royalties and mining taxes	–	594	–	325
Accruals and deferred income	109	2,097	125	1,865
Government grants deferred	127	49	141	37
	879	6,576	591	5,759

(a) "Other payables" include deferred consideration of US\$108 million (2009: US\$119 million) relating to certain assets acquired. The deferred consideration is included at its net present value. The amortisation of the discount applied in establishing the net present value is treated as a finance cost. 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 Other financial liabilities

	Non-current 2010 US\$m	Current 2010 US\$m	Non-current 2009 US\$m	Current 2009 US\$m
Forward commodity contracts: designated as hedges	262	159	371	128
Derivatives related to net debt	34	–	97	68
Other derivatives and embedded derivatives: not designated as hedges	63	106	133	167
Other financial liabilities	57	–	–	49
	416	265	601	412

Detailed information relating to other financial liabilities is given in note 34.

## 27 Provisions (not including taxation)

	Pensions and post retirement healthcare <sup>(a)</sup>	Other employee entitlements <sup>(b)</sup>	Close down and restoration/ environmental <sup>(c) (d) (e)</sup>	Other	Total 2010	Total 2009
	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
At 1 January	5,150	795	6,916	833	13,694	10,933
Adjustment on currency translation	(68)	63	465	1	461	913
Amounts capitalised	–	–	872	–	872	268
Subsidiaries now equity accounted	–	–	–	–	–	(277)
Charged/(credited) to income statement:						
– new provisions	–	209	–	20	229	62
– increases to existing provisions	346	124	123	62	655	769
– unused amounts reversed	–	(25)	(48)	(1)	(74)	(82)
– exchange (gains)/losses on provisions	–	(4)	97	4	97	181
Amortisation of discount	–	4	293	2	299	255
Utilised in year	(1,110)	(272)	(102)	(133)	(1,617)	(833)
Actuarial losses recognised in equity	860	–	–	–	860	693
Transfers (to)/from assets held for sale	(718)	(21)	(19)	(71)	(829)	774
Transfers and other movements	12	(7)	5	(178)	(168)	38
At 31 December	4,472	866	8,602	539	14,479	13,694
<b>Statement of financial position analysis:</b>						
Current	133	508	267	209	1,117	1,182
Non-current	4,339	358	8,335	330	13,362	12,512
<b>Total</b>	<b>4,472</b>	<b>866</b>	<b>8,602</b>	<b>539</b>	<b>14,479</b>	<b>13,694</b>

(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 50.

(b) The provision for other employee entitlements includes a provision for long service leave of US\$267 million (2009: US\$205 million), based on the relevant entitlements in certain Group operations and includes US\$132 million (2009: US\$229 million) of provision for redundancy and severance payments. On 1 July 2010, the Performance Share Plan (formerly the Mining Companies Comparative Plan) was redesignated from cash-settled to equity-settled due to a change in settlement terms. This resulted in a provision balance of US\$57 million being reclassified to reserves, refer to note 30. Further details of the plan's treatment are provided in note 49.

(c) The Group's policy on close down and restoration costs is described in note 1(k). Close down and restoration costs are a normal consequence of mining, and the majority of close down and restoration expenditure is incurred at the end of the relevant operation. Remaining lives of mines and infrastructure range from one to over 50 years with an average, weighted by closure provision, of around 21 years (2009: 23 years). Although the ultimate cost to be incurred is uncertain, the Group's businesses estimate their respective costs based on feasibility and engineering studies using current restoration standards and techniques. Provisions of US\$8,602 million (2009: US\$6,916 million) for close down and restoration costs and environmental clean up obligations include estimates of the effect of future inflation and have been adjusted to reflect risk. These estimates have been discounted to their present value at an average rate of approximately four per cent per annum, being an estimate of the long term, risk free, pre-tax cost of borrowing. Excluding the effects of future inflation, and before discounting, this provision is equivalent to some US\$12.3 billion (2009: US\$10.1 billion).

(d) Some US\$687 million (2009: US\$505 million) of environmental clean up expenditure is expected to take place within the next five years. The remainder includes amounts for the operation and maintenance of remediation facilities in later years. The provision for environmental clean up expenditure includes the issue described in (e) below.

(e) Includes provision for remediation of contamination of ground water in the vicinity of the Bingham Canyon mine as a result of the agreement between Kennecott Utah Copper (KUC) with the US Environmental Protection Agency (EPA) and the State of Utah in 1995. In September 2008, the EPA withdrew its proposal to list the Kennecott South Zone Site on the Superfund National Priorities List. This action recognises that soil clean up work is complete and that groundwater clean up is adequately initiated and financial assurance is in place to assure completion of the work.

## 28 Share capital – Rio Tinto plc

	2010 Number (million)	2009 Number (million)	2008 Number (million)	2010 US\$m	2009 US\$m	2008 US\$m
<b>Issued and fully paid up share capital</b>						
At 1 January	1,529.00	1,004.10	1,071.80	246	160	172
Ordinary shares issued <sup>(a)(c)</sup>	–	524.90	0.18	–	86	–
Own shares purchased and cancelled <sup>(b)</sup>	–	–	(67.88)	–	–	(12)
At 31 December	1,529.00	1,529.00	1,004.10	246	246	160
– Special Voting Share of 10p <sup>(d)</sup>	1 only	1 only	1 only			
– DLC Dividend Share of 10p <sup>(d)</sup>	1 only	1 only	1 only			
– shares repurchased and held in treasury	2.69	5.03	5.91			
– shares held by public	1,526.31	1,523.97	998.19			
<b>Shares held by public</b>						
At 1 January	1,523.97	998.19	997.25			
Ordinary shares issued <sup>(a)(c)</sup>	–	524.90	0.18			
Shares reissued from treasury <sup>(a)(b)</sup>	2.34	0.88	0.76			
At 31 December	1,526.31	1,523.97	998.19			
<b>Unissued share capital</b>						
Ordinary shares of 10p each	171.00	171.00	417.13	27	27	63
Equalisation Share of 10p <sup>(d)</sup>	1 only	1 only	1 only	–	–	–
<b>Total authorised share capital</b>	<b>1,700.00</b>	<b>1,700.00</b>	<b>1,421.23</b>	<b>273</b>	<b>273</b>	<b>223</b>

(a) No new Ordinary shares were issued in 2010. 2,336,005 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 £7.98p and £40.07p per share (2009: 440,018 shares issued, and 874,925 shares reissued from treasury with exercise prices between £7.98p and £29.38p per share; 2008: 183,714 shares issued, and 763,919 shares reissued from treasury with exercise prices between £8.09p and £35.57p per share). 524,460,478 new Ordinary shares were issued in July 2009 as a result of the Rio Tinto plc rights issue. Further detail on rights issues is provided in note 46.

(b) The authority for the Company to buy back its Ordinary shares was renewed at the 2010 annual general meeting. No shares were bought back and held in treasury from 2008 to 2010. Refer to note 48 for details of the share buy-back programme announced after the statement of financial position date.

During 2008, as part of the Group's internal capital management programme, Rio Tinto undertook a series of transactions, whereby 67,880,000 shares held by Rio Tinto plc in treasury were sold to Rio Tinto Limited at market value, before being immediately repurchased by Rio Tinto plc for a nominal amount, pursuant to the share purchase approval granted by Rio Tinto plc shareholders at the 2008 Rio Tinto plc annual general meeting. The shares were then cancelled upon their repurchase by Rio Tinto plc.

(c) The aggregate consideration received for treasury shares reissued was US\$92 million (2009: US\$3 million; 2008: US\$25 million). No new shares were issued as a result of the exercise of options under Rio Tinto plc employee share based payment plans. The aggregate consideration for new shares issued resulting from the exercise of options under Rio Tinto plc employee share based payment plans was US\$32 million in 2009 and US\$6 million in 2008.

The aggregate gross consideration received for new shares issued arising from the rights issue during 2009 was US\$12.0 billion. The difference between the nominal value and issue price of the shares issued was credited to merger reserve and expenses associated with the rights issue were charged against the share premium account.

(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. Directors have the ability to issue an Equalisation Share if that is required under the terms of the DLC Merger Sharing Agreement. The "DLC Dividend Share" was issued to facilitate the efficient management of funds within the DLC structure.

During 2010, US\$39 million of shares (2009: US\$17 million of shares; 2008: nil) were purchased by the Employee Share Ownership Trust on behalf of Rio Tinto plc to satisfy future share options and awards as they vest.

Information relating to share options and other share based incentive schemes is given in note 49 on share based payments.

## 29 Share capital – Rio Tinto Limited

	2010 Number (million)	2009 Number (million)	2008 Number (million)	2010 US\$m	2009 US\$m	2008 US\$m
<b>Issued and fully paid up share capital</b>						
At 1 January	435.76	285.75	285.75	4,924	961	1,219
Adjustment on currency translation	–	–	–	677	710	(258)
Ordinary shares issued <sup>(a)</sup>	–	150.01	–	–	3,253	–
At 31 December	435.76	435.76	285.75	5,601	4,924	961
– Share capital held by Rio Tinto plc <sup>(c)</sup>	–	171.07	171.07			
– Special Voting Share of 10p <sup>(b)</sup>	1 only	1 only	1 only			
– DLC Dividend Share of 10p <sup>(b)</sup>	1 only	1 only	1 only			
<b>Total share capital <sup>(b)</sup></b>	<b>435.76</b>	<b>606.83</b>	<b>456.82</b>			

(a) No new Ordinary shares were issued during 2010. 150,015,297 Ordinary shares were issued during 2009 as a result of the Rio Tinto Limited rights issue. The aggregate gross consideration received for new shares issued during 2009 was US\$3.2 billion. Further detail on rights issues is provided in note 46.

(b) 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. Directors have the ability to issue an Equalisation Share if that is required under the terms of the DLC Merger Sharing Agreement. The "DLC Dividend Share" was issued to facilitate the efficient management of funds within the DLC structure.

(c) The authority for the Company to buy back shares was renewed at the 2010 annual general meeting. During the year ended 31 December 2010, Rio Tinto Limited purchased and cancelled 171,072,520 ordinary shares off-market, which were held by Tinto Holdings Australia Pty Limited (a wholly owned subsidiary of Rio Tinto plc). The selective buy-back and cancellation were approved by shareholders at the 2010 Rio Tinto Limited annual general meeting. As a result of these transactions, no ordinary shares in Rio Tinto Limited were held by the above subsidiary of Rio Tinto plc at 31 December 2010. No shares were bought back during 2009 and 2008. Refer to note 48 for details of the share buy-back programme announced after the statement of financial position date.

Share options exercised during the year to 31 December 2010 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 49 on share based payments.

## 30 Other reserves and retained earnings

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Capital redemption reserve <sup>(a)</sup></b>			
At 1 January	12	12	–
Own shares purchased and cancelled	–	–	12
At 31 December	12	12	12
<b>Hedging reserves <sup>(b)</sup></b>			
At 1 January	(128)	14	(174)
Parent and subsidiaries' net cash flow hedge fair value (losses)/gains	(72)	(206)	28
Parent and subsidiaries' net cash flow hedge losses transferred to the income statement	47	16	245
Net movement on equity accounted units' cash flow hedges	(1)	–	3
Cash flow hedge gains reclassified on disposal	–	(4)	–
Tax on the above	(1)	52	(88)
At 31 December	(155)	(128)	14
<b>Available for sale revaluation reserves <sup>(c)</sup></b>			
At 1 January	247	(107)	57
Gains/(losses) on available for sale securities	213	357	(173)
Gains on available for sale securities transferred to the income statement	(10)	(3)	(1)
Tax on the above	(23)	–	10
At 31 December	427	247	(107)
<b>Other reserves <sup>(d)</sup></b>			
At 1 January	11,776	(169)	19
Own shares purchased from Rio Tinto Limited shareholders to satisfy share options	(84)	(35)	(128)
Employee share options: value of services	48	30	27
Merger reserve arising from Rio Tinto plc's rights issue <sup>(d)</sup>	–	11,936	–
Deferred tax on share options	21	14	(87)
Cash settled share options reclassified as equity settled	24	–	–
At 31 December	11,785	11,776	(169)
<b>Foreign currency translation reserve <sup>(e)</sup></b>			
At 1 January	2,103	(2,072)	2,514
Parent and subsidiaries currency translation and exchange adjustments	1,230	3,732	(4,383)
Equity accounted units' currency translation adjustments	208	456	(300)
Currency translation reclassified on disposal	6	(13)	(2)
Tax on the above	27	–	99
At 31 December	3,574	2,103	(2,072)
<b>Total other reserves per statement of financial position</b>	<b>15,643</b>	<b>14,010</b>	<b>(2,322)</b>

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Retained earnings <sup>(f)</sup></b>			
At 1 January	20,477	17,134	19,033
Parent and subsidiaries' profit for the year	14,315	4,497	3,879
Equity accounted units' retained profit/(loss) for the year	9	375	(203)
Actuarial losses <sup>(g)</sup>	(769)	(973)	(1,299)
Tax relating to components of other comprehensive income	236	269	365
Total comprehensive income for the year	13,791	4,168	2,742
Dividends paid	(1,754)	(876)	(1,933)
Own shares purchased and cancelled	–	–	(2,767)
Own shares purchased from Rio Tinto plc shareholders to satisfy share options	(39)	(17)	–
Ordinary shares held in treasury, reissued to satisfy share options	8	3	25
Employee share options <sup>(h)</sup>	69	65	34
Cash settled share options reclassified as equity settled	33	–	–
At 31 December	32,585	20,477	17,134

(a) The capital redemption reserve was set up to comply with section 170 of the Companies Act 1985, when shares of a company are redeemed or purchased wholly out of the company's profits. The amount at 31 December 2010 reflects the amount by which the Company's issued share capital is diminished in accordance with section 733 of the Companies Act 2006.

(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) Other reserves record 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 includes 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 profit and movements in reserves of subsidiaries include those arising from the Group's share of proportionally consolidated units.

(g) This includes actuarial losses relating to equity accounted units of US\$4 million (2009: US\$126 million; 2008: US\$5 million).

(h) The movement during 2009 included IFRS 2 charges arising from a Broad Based Black Economic Empowerment (BBBEE) transaction. The discount to fair value arising from this transaction was treated as a share based payment in accordance with IFRIC 8 Scope of IFRS 2 (Share based Payments) and AC 503 Accounting for BEE Transactions.



## 31 Operating segments

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Gross sales revenue <sup>(a)</sup></b>			
Iron Ore	24,024	12,598	16,527
Aluminium	15,206	12,038	18,297
Copper	7,782	6,206	5,748
Energy	5,652	4,869	5,984
Diamonds & Minerals	3,035	2,618	3,820
Other Operations	5,734	6,563	9,405
<b>Reportable segments total</b>	<b>61,433</b>	<b>44,892</b>	<b>59,781</b>
Inter-segment transactions	(1,110)	(856)	(1,716)
<b>Gross sales revenue</b>	<b>60,323</b>	<b>44,036</b>	<b>58,065</b>
Share of equity accounted units and adjustments for intra-subsiary/equity accounted units sales	(3,747)	(2,211)	(3,801)
<b>Consolidated sales revenue per income statement</b>	<b>56,576</b>	<b>41,825</b>	<b>54,264</b>
<b>Underlying earnings <sup>(b)</sup></b>			
Iron Ore	10,189	4,126	6,017
Aluminium	773	(560)	1,281
Copper	2,534	1,878	1,615
Energy	1,187	1,167	2,432
Diamonds & Minerals	328	800	474
Other Operations	71	71	13
<b>Reportable segments total</b>	<b>15,082</b>	<b>7,482</b>	<b>11,832</b>
Inter-segment transactions	(15)	(28)	25
Other items	(554)	(577)	(391)
Exploration and evaluation not attributed to product groups	(52)	5	(133)
Net interest	(474)	(584)	(1,030)
<b>Underlying earnings</b>	<b>13,987</b>	<b>6,298</b>	<b>10,303</b>
Items excluded from Underlying earnings (note 2)	337	(1,426)	(6,627)
<b>Net earnings attributable to owners of Rio Tinto per income statement</b>	<b>14,324</b>	<b>4,872</b>	<b>3,676</b>
<b>Depreciation and amortisation <sup>(c)</sup></b>			
Iron Ore	993	763	705
Aluminium	1,563	1,551	1,543
Copper	565	541	442
Energy	367	296	415
Diamonds & Minerals	268	290	361
Other Operations	89	315	332
<b>Reportable segments total</b>	<b>3,845</b>	<b>3,756</b>	<b>3,798</b>
Other items	114	111	91
Less: depreciation and amortisation of equity accounted units	(522)	(440)	(414)
<b>Depreciation and amortisation per note 3</b>	<b>3,437</b>	<b>3,427</b>	<b>3,475</b>

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Tax charge <sup>(d)</sup></b>			
Iron Ore	4,602	1,868	2,869
Aluminium	(110)	(565)	875
Copper	705	582	261
Energy	537	521	944
Diamonds & Minerals	(39)	37	287
Other Operations	10	70	4
<b>Reportable segments total</b>	<b>5,705</b>	<b>2,513</b>	<b>5,240</b>
Other items	(216)	(270)	(99)
Exploration and evaluation not attributed to product groups	1	(30)	(31)
Net interest	(152)	(228)	(380)
	5,338	1,985	4,730
Tax charge excluded from Underlying earnings (note 2)	(42)	91	(988)
<b>Tax charge per income statement</b>	<b>5,296</b>	<b>2,076</b>	<b>3,742</b>
<b>Capital expenditure</b>			
Iron Ore	1,716	2,148	2,996
Aluminium	1,328	1,690	2,417
Copper	958	553	804
Energy	685	510	666
Diamonds & Minerals	300	519	1,283
Other Operations	237	404	662
<b>Reportable segments total</b>	<b>5,224</b>	<b>5,824</b>	<b>8,828</b>
Other items	75	54	151
Less: capital expenditure of equity accounted units	(746)	(522)	(491)
<b>Capital expenditure per Financial information by business units</b>	<b>4,553</b>	<b>5,356</b>	<b>8,488</b>
Add: Proceeds from disposal of property, plant and equipment	38	32	90
Less: Funding of equity accounted units for major capital expenditure	–	–	(4)
<b>Capital expenditure per cash flow statement</b>	<b>4,591</b>	<b>5,388</b>	<b>8,574</b>

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. Interest 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, talc and titanium dioxide feedstock together with diamonds operations. The Copper group includes certain gold operations in addition to copper. The Aluminium group excludes Alcan Engineered Products which is included in "Other Operations". Other Operations includes Rio Tinto's interests in its US coal operations formerly reported under Rio Tinto Energy America within the Energy product group. 2009 and 2008 comparatives have been restated accordingly.

The Financial information by business unit provided on page 250 of these financial statements provide additional voluntary disclosure which the Group considers is useful to the users of the financial statements.

#### (a) Gross sales revenue

Product group gross sales revenue includes the Group's share of the sales revenue of equity accounted units after adjusting for sales to subsidiaries. Rio Tinto's share of the sales revenue of equity accounted units is deducted in arriving at consolidated sales revenue as shown on the face of the income statement.

Inter-segment transactions relate to sales between Aluminium and Alcan Engineered Products which is included in Other Operations.

## 31 Operating segments continued

### (b) Underlying earnings

As discussed in note 2, "Underlying earnings" is an alternative measure of earnings which provides a greater understanding of the underlying business performance of the Group's operations. The measure of Underlying earnings is used by the chief executive of Rio Tinto to assess the performance of the product groups.

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 amounts to US\$1,202 million in 2010 (2009: US\$864 million; 2008: US\$1,047 million). This amount is attributable as follows: US\$1,016 million profit to the Copper group and US\$186 million profit to other product groups (2009: US\$750 million profit attributable to the Copper product group and US\$114 million profit to other product groups; 2008: US\$852 million profit attributable to the Copper product group and US\$195 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 bauxite and alumina. Tolling entities recharge the majority of their costs and would generally have minimal earnings.

The Energy product group's Underlying earnings in 2010 included US\$229 million profit after tax in relation to the divestment of Maules Creek and Vickery coal projects. The Diamonds & Minerals product group's Underlying earnings in 2009 included US\$797 million profit after tax in relation to the divestment of undeveloped potash assets in Argentina and Canada. In 2008, the Energy product group's Underlying earnings included a US\$483 million profit after tax in relation to divestment of the undeveloped Kintyre uranium project in Western Australia.

### (c) 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 3. These figures exclude impairment charges, which are excluded from Underlying earnings.

### (d) Tax charge

This relates to the tax charge on the product group's Underlying earnings. The reconciling item is the tax on amounts that are excluded in arriving at Underlying earnings. Within product groups, tax of subsidiaries is stated before tax on finance items but after tax on the amortisation of the discount related to provisions. The tax charge excludes tax on the earnings of equity accounted units of US\$737 million (2009: US\$491 million; 2008: US\$596 million) of which US\$677 million (2009: US\$498 million; 2008: US\$515 million) relates to the Copper product group.

## 32 Operating segments – additional information

Gross sales revenue by destination <sup>(a)</sup>	2010 %	2009 %	2008 %	2010 US\$m	2009 US\$m	2008 US\$m
China	27.8	24.3	18.8	16,743	10,691	10,934
Japan	15.6	13.5	15.2	9,410	5,921	8,825
United States of America	14.9	19.5	18.8	9,013	8,569	10,900
Other Europe (excluding United Kingdom)	14.4	14.4	20.7	8,682	6,337	12,015
Other Asia	14.4	13.2	11.1	8,665	5,822	6,453
Canada	3.6	3.6	3.6	2,174	1,621	2,084
United Kingdom	2.3	2.6	3.6	1,398	1,161	2,112
Australia	2.1	3.1	3.0	1,252	1,373	1,737
Other	4.9	5.8	5.2	2,986	2,541	3,005
<b>Gross sales revenue</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>60,323</b>	<b>44,036</b>	<b>58,065</b>
Share of equity accounted units sales and intra-subsiary equity accounted units sales				(3,747)	(2,211)	(3,801)
<b>Consolidated sales revenue</b>				<b>56,576</b>	<b>41,825</b>	<b>54,264</b>

(a) Sales by geographical destination are 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 passed. Rio Tinto is domiciled in both the United Kingdom and Australia.

### Gross sales revenue by product

Gross sales revenues of the Group are derived from the following products sold to external customers:

	2010 US\$m	2009 US\$m	2008 US\$m
Iron ore	23,834	12,096	15,975
Aluminium	13,808	11,126	16,542
Copper	5,716	4,775	4,495
Coal	5,360	5,683	7,011
Industrial minerals	2,955	2,677	3,388
Gold	1,086	972	379
Diamonds	682	450	840
Other	6,882	6,257	9,435
<b>Gross sales revenue</b>	<b>60,323</b>	<b>44,036</b>	<b>58,065</b>
Share of equity accounted units sales and intra-subsiary/equity accounted units sales	(3,747)	(2,211)	(3,801)
<b>Consolidated sales revenue</b>	<b>56,576</b>	<b>41,825</b>	<b>54,264</b>

### Non-current assets other than financial instruments and deferred tax assets

The total of non-current assets other than financial instruments, deferred tax assets, post-employment benefit assets and assets held for sale by location is shown below. This is allocated based on the location of the business units holding the assets.

<b>Non-current assets other than financial instruments and deferred tax assets <sup>(a)</sup></b>	2010 US\$m	2009 US\$m
Australia	36,460	31,543
Canada	25,349	24,766
United States	4,398	4,720
South America	2,404	2,419
France	1,890	2,298
Africa	1,642	1,665
United Kingdom	1,433	928
Europe (excluding France)	1,322	2,041
Indonesia	646	587
Other countries	8,266	1,212
	<b>83,810</b>	<b>72,179</b>
<b>Non-current assets excluded from analysis above:</b>		
Deferred tax assets	1,863	2,231
Tax recoverable	89	85
Derivatives and other financial assets	1,334	841
Loans to equity accounted units <sup>(b)</sup>	1,363	1,593
Accounts receivable	778	593
<b>Total non-current assets per statement of financial position</b>	<b>89,237</b>	<b>77,522</b>

(a) Includes investments in equity accounted units totalling US\$5,367 million (2009: US\$5,312 million) which represents the Group's share of net assets excluding quasi-equity loans shown separately within "Loans to equity accounted units" above.

(b) Loans to equity accounted units comprise quasi-equity loans of US\$1,136 million (2009: US\$1,423 million) included in "Investments in equity accounted units" on the face of the statement of financial position and non-quasi equity loans of US\$227 million (2009: US\$170 million) shown separately.

### 33 Financial risk management

The Group's policies with regard to 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.

Generally, the Group only sells commodities it has produced but also enters into third party direct transactions and physical swaps on alumina to balance the regional positions and to balance the loading on production facilities. In the long term, natural hedges operate in a number of ways to help protect and stabilise earnings and cash flow.

The Group has a diverse portfolio of commodities and 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 further natural protection in the long term. Production of minerals 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, the Group's policy of borrowing primarily at floating US dollar interest rates, after the impact of hedging, helps to counteract the effect of economic and commodity price cycles. 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 operates as a service to the business of the Rio Tinto Group and not as a profit centre. Strict limits on the size and type of transaction permitted are laid down by the Rio Tinto board and are subject to rigorous internal controls. Senior management is advised of corporate debt and currency, commodity and interest rate derivatives through a monthly reporting framework.

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 joint ventures and associates. Derivatives are used to separate funding and cash management decisions from currency exposure and interest rate management. The Group uses interest rate and cross currency interest rate swaps in conjunction with longer term funds raised in the capital markets to achieve a predominantly floating rate obligation which is consistent with the Group's interest and exchange rate policies, ie primarily US dollar LIBOR. However, the Group reserves the right to realise swap positions to take advantage of favourable market conditions and to manage counterparty credit risk. No material exposure to financial instruments held by the Group is considered to exist by virtue of the possible non performance of the counterparties.

Derivative contracts are carried at fair value based on published quotations for the period for which a liquid active market exists. Beyond this period, Rio Tinto's own assumptions are used.

#### (i) Foreign exchange risk

Rio Tinto'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 great 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 imported equipment and services are determined. The Australian and Canadian dollars and the Euro 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 denominated 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 borrowing and holding surplus cash, although a portion of surplus cash may also be held in other currencies, most notably Australian dollars, Canadian dollars and the Euro. This cash is held in order to meet short term operational and capital commitments and, for the Australian dollar, dividend payments. The Group finances its operations primarily in US dollars, either directly or using cross currency interest rate swaps.

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 accounts for 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 intragroup balances are excluded from Underlying earnings. Other exchange gains and losses are included in Underlying earnings.

As noted above, Rio Tinto hedges interest rate and currency risk on most of its foreign currency borrowings by entering into cross currency interest rate swaps. These have the economic effect of converting fixed rate foreign currency borrowings to floating rate US dollar borrowings. See note 34 – B(c), Financial instruments for the details of currency and interest rate contracts relating to borrowings.

After taking into account relevant swap instruments, almost all of the Group's net debt is either denominated in US dollars or in the functional currency of the entity holding the debt. The table below summarises the net debt by currency.

Net (debt)/funds by currency	2010 US\$m	2009 US\$m
United States dollar	(4,182)	(18,466)
Australian dollar	(201)	(232)
South African rand	62	60
UK sterling	24	(35)
Euro	(9)	(140)
Canadian dollar	(123)	(137)
Other	145	89
<b>Total</b>	<b>(4,284)</b>	<b>(18,861)</b>

### Currency hedging

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 on a regular basis its exposure and reserves the right to enter into hedges to maintain financial stability. Currency protection measures may be deemed appropriate in specific commercial circumstances and are subject to strict limits laid down by the Rio Tinto board, typically hedging of capital expenditures and other significant financial items such as tax and dividends. There was a legacy of currency forward contracts used to hedge operating cash flow exposures which were acquired with the North companies; these matured in 2010. Refer to note 34-B(a to c), Financial instruments for the currency forward and option contracts used to manage the currency risk exposures of the Group at 31 December 2010.

### Foreign exchange sensitivity: Risks associated with exposure to financial instruments

The sensitivities below give the estimated effect of a ten per cent weakening in the full year closing exchange rate of significant currencies against the US dollar on the value of financial instruments. 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 liabilities held at year end, where balances are not denominated in the functional currency of the subsidiary and exclude financial assets and liabilities held by equity accounted units. They also exclude exchange movements on local currency deferred tax balances and provisions. These balances will not remain constant throughout 2011, and therefore these numbers should be used with care.

#### At 31 December 2010

Gains/(losses) associated with 10% weakening of the currency

	Closing exchange rate US cents	Effect on net earnings US\$m	Of which amount impacting Underlying earnings US\$m	Impact directly on equity US\$m
Currency exposure				
Australian dollar <sup>(a)</sup>	102	209	75	2
Canadian dollar	100	35	56	–
South African rand	15	(5)	–	8
Euro	133	276	2	–
New Zealand dollar	77	19	3	–



### 33 Financial risk management continued

At 31 December 2009

Gains/(losses) associated with 10% weakening of the currency

Currency exposure	Closing exchange rate US cents	Effect on net earnings US\$m	Of which amount impacting Underlying earnings US\$m	Impact directly on equity US\$m
Australian dollar <sup>(a)</sup>	89	225	79	(1)
Canadian dollar	95	(1)	64	–
South African rand	14	2	–	(6)
Euro	144	251	13	–
New Zealand dollar	73	2	–	–

(a) The sensitivities show the net sensitivity of US\$ exposures in A\$ functional currency companies, for example, and A\$ exposures in US\$ functional currency companies. The sensitivity associated with a ten per cent strengthening of the particular currency would be equal and opposite to the figures presented.

(b) The sensitivities presented are on financial assets and liabilities of subsidiaries and proportionally consolidated units, and do not include non-financial instruments such as provisions or post retirement benefits, or sensitivities arising from financial assets and liabilities within equity accounted units. The impact of reflecting these items primarily impacts the Canadian dollar sensitivity, with a US\$87 million reduction in net earnings (2009: US\$69 million reduction), a US\$85 million reduction in Underlying earnings (2009: US\$67 million reduction), and a US\$167 million increase recorded directly in equity (2009: US\$114 million increase).

(c) Rio Tinto Alcan Inc. which has a US functional currency for accounting purposes, has a significant amount of US dollar denominated external and intragroup debt held in Canada and is taxed on a Canadian currency basis. The above sensitivities as at 31 December 2010 for a ten per cent weakening of the Canadian dollar do not include the tax benefit related to this debt. If the Canadian dollar weakened below 1.01 US dollars, capital losses would be generated and not recognised. If the Canadian dollar had strengthened then tax charges would have begun to be recognised at 13 per cent. Similarly at 31 December 2009, the above sensitivities for a ten per cent weakening of the Canadian dollar did not include any tax benefit related to this debt because the capital losses generated would not have been recognised. If the Canadian dollar had strengthened above 1.03 US dollars then tax charges would have begun to be recognised at 15 per cent.

#### (ii) Interest rate risk

Interest rate risk refers to the risk that the value of a financial instrument or cash flows associated with the instruments will fluctuate due to changes in market interest rates. Rio Tinto's interest rate management policy is generally to borrow and invest at floating interest rates. This approach is based on historical correlation between interest rates and commodity prices. In some circumstances, an element of fixed rate funding may be considered appropriate. Rio Tinto hedges interest rate risk on most of its borrowings by entering into interest rate swaps in order to convert fixed rate foreign currency borrowings to floating rate US dollar borrowings. The market value of these interest rate and cross currency interest rate swaps moves in alignment with the market and at times can act as alternative sources of funding. The Group reviews the positions on a regular basis and may act to either monetise in-the-money value or achieve lower costs of funding. See note 34-B(c), Financial instruments for the details of currency and interest rate contracts relating to borrowings. At the end of 2010, US\$5.8 billion (2009: US\$8.3 billion) of the Group's gross debt was at fixed rates after taking into account interest rate swaps and finance leases, making the fixed to floating debt ratio 40 per cent fixed to 60 per cent floating (2009: 36 per cent fixed to 64 per cent floating). On a net debt basis, the fixed to floating debt ratio was 114 per cent fixed to (14) per cent floating (2009: 58 per cent to 42 per cent). The net debt ratio at the end of 2010 reflects the high level of cash, cash equivalents and other liquid resources held by the Group, which offset floating rate liabilities in 2010.

A monthly Treasury report is provided to senior management which summarises corporate debt exposed to currency risks and, where applicable, the offsetting derivatives. See note 34-B(c), Financial instruments for the details of currency and interest rate contracts relating to borrowings. See note 22 – Borrowings for the details of debt outstanding at 31 December 2010.

Based on the Group's net debt (refer to note 24) and other floating rate financial instruments outstanding as at 31 December 2010, 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\$2 million (2009: US\$37 million) reflecting the high level of cash at period end. These balances will not remain constant throughout 2011, however, and therefore these numbers should be used with care.

#### (iii) Commodity price risk

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 Rio Tinto board and to rigid internal controls. 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 long term benefit to shareholders. However, commodity price protection measures may be deemed appropriate in specific commercial circumstances, typically to obtain certainty over specific site sales where the cost base is relatively fixed and medium term margin achieved is deemed beneficial to shareholders. The Group may hedge certain commitments with some of its customers or suppliers. Details of commodity derivatives held at 31 December 2010 are set out in note 34 – B (a to c), Financial instruments.

Metals such as copper and aluminium are generally sold under contract, often long term, at prices determined by reference to prevailing market prices on terminal markets, such as the London Metal Exchange (LME) and COMEX in New York, usually at the time of delivery. 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. Contract prices for many other natural resource products including iron ore and coal are generally agreed quarterly or for longer periods with customers, although volume commitments vary by product.

Certain products, predominantly copper concentrate, 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, based on the market price at the relevant quotation point stipulated in the contract. Revenue on provisionally priced sales is recognised based on estimates of fair value of the consideration receivable based on forward market prices. At each reporting date, provisionally priced metal is 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, for which there exists an active and freely traded commodity market such as the London Metal 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.

At the end of 2010, the Group had 270 million pounds of copper sales (2009: 267 million pounds) that were provisionally priced at US 428 cents per pound (2009: US 335 cents per pound). The final price of these sales will be determined during the first half of 2011. A ten per cent change in the price of copper realised on the provisionally priced sales would increase or reduce net earnings by US\$72 million (2009: US\$55 million).

Approximately 24 per cent of Rio Tinto's 2010 Underlying earnings from operating businesses came from products whose prices were terminal market related and the remainder came from products priced by direct negotiation.

#### Commodity price sensitivity: Risks associated with derivatives

The table below summarises the impact of changes in the market price on the following commodity derivatives including those aluminium forward and option contracts embedded in electricity purchase contracts outstanding at 31 December 2010, but excluding the impact of commodity and embedded derivatives held by equity accounted units (see footnote (a) below). The impact is expressed in terms of the resulting change in the Group's net earnings for the year or, where applicable, the change in equity. The sensitivities are based on the assumption that the market price increases by ten per cent with all other variables held constant. The Group's "own use contracts" are excluded from the sensitivity analysis below 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.

These sensitivities should be used with care. The relationship between currencies and commodity prices is a complex one; changes in exchange rates can influence commodity prices and vice versa.

#### At 31 December 2010

Gains/(losses) associated with 10% increase from year end price

Products	Effect on net earnings US\$m	Effect directly on equity attributable to Rio Tinto US\$m
Copper	-	(21)
Aluminium	10	(15)
Oil	4	-
<b>Total</b>	<b>14</b>	<b>(36)</b>

#### At 31 December 2009

Gains/(losses) associated with 10% increase from year end price

Products	Effect on net earnings US\$m	Effect directly on equity attributable to Rio Tinto US\$m
Copper	(1)	(18)
Aluminium	(19)	(24)
Oil	3	-
<b>Total</b>	<b>(17)</b>	<b>(42)</b>

(a) The sensitivities presented do not include those arising from balances within equity accounted units. The impact of reflecting equity accounted units primarily relates to the aluminium sensitivity, with a US\$100 million reduction in net earnings (2009: US\$55 million reduction).

#### (iv) Credit risk

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 deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

### 33 Financial risk management continued

#### Credit risks related to receivables

Customer credit risk is managed by each business unit subject to Rio Tinto's established policies, 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 2010, the Group had approximately 138 customers (2009: 70 customers) that owed the Group more than US\$5 million each and these balances accounted for approximately 70 per cent (2009: 52 per cent) of all receivables owing. There were 57 customers (2009: 17 customers) with balances greater than US\$20 million accounting for just over 53 per cent (2009: just over 30 per cent) of total amounts receivable.

The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets mentioned on page 216. The Group does not hold collateral as security for any trade receivables.

#### Credit risk related to financial instruments and cash deposits

Credit risk from 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. Counterparty credit limits are reviewed by the Rio Tinto board on an annual basis, and may be updated throughout the year subject to approval of the Rio Tinto Finance committee. The limits are set to minimise the concentration of risks and therefore mitigate the potential for financial loss through counterparty failure.

No material exposure is considered to exist by virtue of the possible non-performance of the counterparties to financial instruments.

#### (v) Liquidity and Capital risk management

The Group's total capital is defined as equity attributable to owners of Rio Tinto plus equity attributable to non-controlling interests plus net debt, and amounted to US\$70 billion at 31 December 2010 (2009: US\$65 billion).

	2010 US\$m	2009 US\$m
<b>Total capital</b>		
Equity attributable to owners of Rio Tinto	58,333	43,831
Equity attributable to non-controlling interests	6,941	2,094
Net debt (note 24)	4,284	18,861
<b>Total capital</b>	<b>69,558</b>	<b>64,786</b>

The Group's overriding objectives when managing capital are to safeguard the business as a going concern; to maximise returns for shareholders and benefits for other stakeholders; and to maintain an optimal capital structure in order to provide a high degree of financial flexibility at the lowest cost of capital. The board and senior management regularly review the capital structure of the Group taking account of strategic priorities and economic conditions within which the Group operates.

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. During the 2010 financial year, in recognition of the Group's improved balance sheet, Moody's improved the Group's long term credit rating from Baa1 to A3 and the short term credit rating was P-2 with a stable outlook. Standard & Poor's (S&P) retained the Group's long term rating at BBB+ and the short term rating at A-2 with an improvement in outlook from stable to positive. In 2009, following the successful US\$15.2 billion rights issues, both Moody's and S&P improved the Group's credit rating. S&P upgraded the long term rating to BBB+ from BBB and its short term credit ratings to A-2 from A-3, the outlook improved from negative to stable. Moody's affirmed the long term rating of Baa1 and short term corporate credit rating of P-2 also with a stable outlook.

In October 2010, the Group tendered US\$1.9 billion of its Rio Tinto Finance (USA) Limited 5.875% bond due in 2013 and refinanced this with the issue of three fixed rate Rio Tinto Finance (USA) Limited bonds amounting to US\$500 million 1.875% bond due 2015, US\$1,000 million 3.5 per cent bond due 2020 and US\$500 million 5.2 per cent bond due 2040.

In November 2010, the Group entered into a US\$6 billion five year multi-currency committed revolving credit facility with its relationship banks. At 31 December 2010, the facility was undrawn. Any borrowings under this facility are at prevailing LIBOR rates plus an agreed margin dependent on the amount of drawdown and the credit rating of the Group. The facility is not subject to any financial covenants. The overall agreement also enables same day access to a US\$ swing-line facility. The funds available under the facility agreement may be used for general corporate purposes of the Group.

Prior to the new US\$6 billion facility, the Group's back-up facilities consisted of the US\$5 billion revolving syndicated bank facility C from the Alcan acquisition facility and a series of standby bi-lateral bank facilities totalling US\$2.3 billion. These bi-lateral bank facilities contained no covenants. At 31 December 2009, the bi-lateral facilities were not drawn.

In 2007, Rio Tinto acquired Alcan which was financed using a US\$40 billion syndicated bank facility, comprising two term facilities (Facilities A and D) and two revolving facilities (Facilities B and C). This facility contained a financial covenant requiring the maintenance of a ratio of no greater than 4.5 times of net borrowings to EBITDA. Advances under each facility generally bore interest at rates per annum equal to the margin for that facility plus LIBOR and any mandatory costs.

Facility A was fully repaid during 2009. US\$8.5 billion was drawn under Facility D at 31 December 2009 but this was fully repaid during 2010. At 31 December 2009, US\$2.1 billion of Facility B remained available but undrawn. In February 2010, in accordance with the acquisition facility agreement, proceeds from the sale of the majority of Alcan Packaging to Amcor were used to cancel US\$2 billion of the outstanding capacity. At the same time, the Group voluntarily surrendered the remaining US\$0.1 billion of this facility. At 31 December 2009, US\$5 billion of Facility C was available but undrawn. This facility was cancelled in November 2010.

The Group's net debt as a percentage of total capital was six per cent at 31 December 2010 (2009: 29 per cent).

The Group has a progressive dividend policy which aims to increase the US dollar value of ordinary dividends over time, taking into account the results for the past year and the outlook. In February 2011, as part of the Group's capital management programme, a share buy-back of US\$5 billion was announced which, subject to market conditions, is planned to be completed by the end of 2012.

The table below analyses the Group's financial liabilities into relevant maturity groupings based on the remaining period from the statement of financial position 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 statement of financial position.

At 31 December 2010	Trade and other payables US\$m	Borrowings before swaps US\$m	Expected future interest payments <sup>(a)</sup> US\$m	Derivatives related to net debt US\$m	Other financial liabilities US\$m	Total financial liabilities US\$m
<b>Financial liabilities</b>						
Within 1 year, or on demand	(4,985)	(1,066)	(705)	15	(312)	(7,053)
Between 1 and 2 years	(575)	(557)	(742)	17	(276)	(2,133)
Between 2 and 3 years	–	(1,232)	(730)	18	(159)	(2,103)
Between 3 and 4 years	–	(2,605)	(606)	15	(30)	(3,226)
Between 4 and 5 years	–	(965)	(530)	11	(30)	(1,514)
After 5 years	–	(7,783)	(4,166)	(26)	(22)	(11,997)
	(5,560)	(14,208)	(7,479)	50	(829)	(28,026)

At 31 December 2009	Trade and other payables US\$m	Borrowings before swaps US\$m	Expected future interest payments <sup>(a)</sup> US\$m	Derivatives related to net debt US\$m	Other financial liabilities US\$m	Total financial liabilities US\$m
<b>Financial liabilities</b>						
Within 1 year, or on demand	(4,416)	(878)	(942)	(52)	(365)	(6,653)
Between 1 and 2 years	–	(463)	(884)	–	(203)	(1,550)
Between 2 and 3 years	–	(9,087)	(910)	2	(204)	(10,199)
Between 3 and 4 years	–	(3,269)	(840)	–	(177)	(4,286)
Between 4 and 5 years	–	(2,767)	(591)	–	(58)	(3,416)
After 5 years	–	(6,725)	(3,857)	(162)	(54)	(10,798)
	(4,416)	(23,189)	(8,024)	(212)	(1,061)	(36,902)

(a) Interest payments have been projected using spot interest rates applicable at 31 December, including the impact of interest rate swap agreements, where appropriate. Much of the debt is subject to variable interest rates. Future interest payments are therefore subject to change in line with market rates.

## 34 Financial instruments

Except where stated, the information given below relates to the financial instruments of the parent companies and their subsidiaries and proportionally consolidated units, and exclude 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) Financial assets and liabilities by categories

	Total US\$m	Loans and receivables US\$m	Available for sale securities US\$m	Held at fair value US\$m	Other financial assets and liabilities US\$m
<b>At 31 December 2010</b>					
<b>Financial assets</b>					
Cash and cash equivalents (note 21)	9,948	9,948	–	–	–
Trade and other receivables <sup>(a)</sup>	5,708	5,708	–	–	–
Equity shares and quoted funds (note 20)	950	–	950	–	–
Other investments, including loans (note 20) <sup>(b)</sup>	619	185	64	289	81
Derivatives and embedded derivatives not related to net debt: not designated as hedges (note 20)	143	–	–	143	–
Derivatives related to net debt (note 20)	143	–	–	143	–
Loans to equity accounted units including quasi-equity loans	1,473	1,473	–	–	–
<b>Total financial assets</b>	<b>18,984</b>	<b>17,314</b>	<b>1,014</b>	<b>575</b>	<b>81</b>
<b>Financial liabilities</b>					
Trade and other payables <sup>(c)</sup>	(5,560)	–	–	–	(5,560)
Short term borrowings and bank overdrafts (notes 21 and 22)	(1,064)	–	–	–	(1,064)
Medium and long term borrowings (note 22)	(13,277)	–	–	–	(13,277)
Deferred consideration (note 25) <sup>(a)</sup>	(108)	–	–	–	(108)
Forward commodity contracts: designated as hedges (note 26)	(421)	–	–	(421)	–
Derivatives related to net debt (note 26)	(34)	–	–	(34)	–
Other derivatives and embedded derivatives not designated as hedges (note 26)	(169)	–	–	(169)	–
Other financial liabilities (note 26)	(57)	–	–	–	(57)
<b>Total financial liabilities</b>	<b>(20,690)</b>	<b>–</b>	<b>–</b>	<b>(624)</b>	<b>(20,066)</b>

At 31 December 2009	Total US\$m	Loans and receivables US\$m	Available for sale securities US\$m	Held at fair value US\$m	Other financial assets and liabilities US\$m
<b>Financial assets</b>					
Cash and cash equivalents (note 21)	4,233	4,233	–	–	–
Trade and other receivables <sup>(a)</sup>	4,739	4,739	–	–	–
Equity shares and quoted funds (note 20)	658	–	658	–	–
Other investments, including loans (note 20) <sup>(b)</sup>	505	270	77	158	–
Other liquid resources (note 20)	73	73	–	–	–
Currency and commodity contracts: designated as hedges (note 20)	8	–	–	8	–
Derivatives and embedded derivatives not related to net debt: not designated as hedges (note 20)	291	–	–	291	–
Loans to equity accounted units including quasi-equity loans	1,761	1,761	–	–	–
<b>Total financial assets</b>	<b>12,268</b>	<b>11,076</b>	<b>735</b>	<b>457</b>	<b>–</b>

#### Financial liabilities

Trade and other payables <sup>(c)</sup>	(4,416)	–	–	–	(4,416)
Short term borrowings and bank overdrafts (notes 21 and 22)	(847)	–	–	–	(847)
Medium and long term borrowings (note 22)	(22,155)	–	–	–	(22,155)
Deferred consideration (note 25) <sup>(a)</sup>	(119)	–	–	–	(119)
Forward commodity contracts: designated as hedges (note 26)	(499)	–	–	(499)	–
Derivatives related to net debt (note 26)	(165)	–	–	(165)	–
Other derivatives and embedded derivatives not designated as hedges (note 26)	(300)	–	–	(300)	–
Other financial liabilities (note 26)	(49)	–	–	–	(49)
<b>Total financial liabilities</b>	<b>(28,550)</b>	<b>–</b>	<b>–</b>	<b>(964)</b>	<b>(27,586)</b>

(a) This excludes pension surpluses, prepayment of tolling charges to jointly controlled entities and other prepayments and accrued income.

(b) This includes US\$81 million of held to maturity investments within "Other financial assets and liabilities".

(c) Trade and other payables includes trade creditors, amounts owed to equity accounted units, other creditors, excluding deferred consideration shown separately, and accruals.

#### (B) Derivative financial instruments

The Group's derivatives, including embedded derivatives, as at 31 December 2010, are summarised below:

##### (a) Forward contracts relating to operating transactions: designated as hedges

	Total fair value			
	2010 Asset US\$m	2010 Liability US\$m	2009 Asset US\$m	2009 Liability US\$m
Currency forward contracts	–	–	8	–
Copper forward contracts	–	(409)	–	(435)
Aluminium forward contracts embedded in electricity purchase contracts	–	(12)	–	(4)
Aluminium options embedded in electricity purchase contracts	–	–	–	(56)
Coal forward contracts	–	–	–	(4)
<b>Total</b>	<b>–</b>	<b>(421)</b>	<b>8</b>	<b>(499)</b>
Less than 1 year	–	(159)	8	(128)
Between 1 and 5 years	–	(262)	–	(371)
<b>Total</b>	<b>–</b>	<b>(421)</b>	<b>8</b>	<b>(499)</b>



### 34 Financial instruments continued

#### Reconciliation to statement of financial position categories for derivatives designated as hedges

	2010 US\$m	2009 US\$m
– current assets (note 20)	–	8
– current liabilities (note 26)	(159)	(128)
– non-current liabilities (note 26)	(262)	(371)
<b>Total derivatives designated as hedges, detailed above</b>	<b>(421)</b>	<b>(491)</b>

The above copper forward contracts were entered into as a condition of the refinancing of Palabora in 2005, and reduce the Group's exposure to movements in the copper price. Coal forward contracts have been entered into in order to reduce exposure to movements in the coal price.

The above currency forward contracts were acquired with companies purchased in 2000 and were entered into by those companies in order to reduce their exposure to the US dollar through forecast sales.

Aluminium price exposures are embedded within certain aluminium smelter electricity purchase contracts. These contracts reduce the Group's exposure to movements in the aluminium price.

The hedged forecast transactions denominated in foreign currencies and the hedged commodity purchase or sales contracts are expected to occur in line with the maturity dates of the derivatives hedging these particular exposures. Gains and losses recognised in equity for these cash flow hedges will be recycled into the income statement in the period during which the hedged transaction affects the income statement. Where the hedged transaction relates to capital expenditures, the gain or loss on the derivative will be recognised in the income statement within "depreciation" as the fixed asset is amortised.

Gains and losses recognised in the hedging reserve in equity, net of tax and non-controlling interests, for the year to 31 December 2010, comprised cash flow hedge fair value losses of US\$56 million including equity accounted units (2009: losses of US\$151 million) and net cash flow hedge losses reclassified from equity and included in the income statement for the year amounted to US\$29 million (2009: US\$13 million; 2008: US\$168 million).

The ineffective portion arising from cash flow hedges recognised in the income statement was US\$1 million (2009: US\$2 million; 2008: US\$6 million).

#### (b) Forward and option contracts relating to operating transactions: not designated as hedges

	Total fair value			
	2010 Asset US\$m	2010 Liability US\$m	2009 Asset US\$m	2009 Liability US\$m
Currency forward contracts and swaps	5	(4)	61	–
Aluminium forward contracts	131	(17)	216	(47)
Aluminium options embedded in electricity purchase contracts	–	(43)	–	(146)
Aluminium forward contracts embedded in electricity purchase contracts	–	(4)	–	–
Other embedded derivatives	–	(101)	–	(100)
Other commodity contracts	7	–	14	(7)
<b>Total</b>	<b>143</b>	<b>(169)</b>	<b>291</b>	<b>(300)</b>
Less than 1 year	124	(106)	226	(167)
Between 1 and 5 years	18	(47)	65	(119)
More than 5 years	1	(16)	–	(14)
<b>Total</b>	<b>143</b>	<b>(169)</b>	<b>291</b>	<b>(300)</b>

### Reconciliation to statement of financial position categories for derivatives not designated as hedges

	2010 US\$m	2009 US\$m
– non current assets (note 20)	19	65
– current assets (note 20)	124	226
– current liabilities (note 26)	(106)	(167)
– non current liabilities (note 26)	(63)	(133)
<b>Total derivatives not designated as hedges, detailed above</b>	<b>(26)</b>	<b>(9)</b>

Embedded options exist within electricity purchase contracts for certain smelters. These derivatives reduce the Group's exposure to movements in the aluminium price. A number of put and call options were combined to form synthetic forward contracts that were designated as hedges of variable priced aluminium sales.

The above aluminium forward contracts were taken out to manage exposure to movements in the aluminium price. These contracts are not designated as hedges as they are predominantly offset by other aluminium forward contracts.

### (c) Currency and interest contracts relating to borrowings

	Total fair value			
	2010 Asset US\$m	2010 Liability US\$m	2009 Asset US\$m	2009 Liability US\$m
Currency and interest rate swap contracts	–	–	–	(68)
Interest rate swap contracts (designated as hedges)	132	(34)	–	(97)
Interest rate swap contracts (not designated as hedges)	11	–	–	–
<b>Total</b>	<b>143</b>	<b>(34)</b>	<b>–</b>	<b>(165)</b>
Less than 1 year	6	–	–	(68)
Between 1 and 5 years	137	(34)	–	(8)
More than 5 years	–	–	–	(89)
<b>Total</b>	<b>143</b>	<b>(34)</b>	<b>–</b>	<b>(165)</b>

### Reconciliation to statement of financial position categories for currency and interest derivatives

	2010 US\$m	2009 US\$m
– non current assets (note 20)	137	–
– current assets (note 20)	6	–
– current liabilities (note 26)	–	(68)
– non current liabilities (note 26)	(34)	(97)
<b>Total currency and interest rate contracts, detailed above</b>	<b>109</b>	<b>(165)</b>

The currency contracts are used to swap non-US dollar denominated external debt to US dollar floating. The interest rate contracts are used to convert certain fixed rate obligations to a floating rate. Refer to note 22 – Borrowings for further details.

The ineffective portion arising from fair value hedges recognised in the income statement was US\$10 million (2009: nil; 2008: US\$91 million).

### (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 to their fair value at 31 December are shown in the following table. The fair values of the Group's cash, short term borrowings and loans to jointly controlled entities and associates approximate their carrying values, as a result of their short maturity or because they carry floating rates of interest.

	31 December 2010		31 December 2009	
	Carrying value US\$m	Fair value US\$m	Carrying value US\$m	Fair value US\$m
Primary financial instruments held or issued to finance the Group's operations				
Medium and long term borrowings (note 22)	(13,277)	(15,875)	(22,155)	(23,318)

## 34 Financial instruments continued

### Valuation hierarchy

The table below includes financial instruments carried at fair value in note 34 (A) by valuation method at 31 December 2010.

	Total	Level 1 <sup>(a)</sup>	Level 2 <sup>(b)</sup>	Level 3 <sup>(c)</sup>	Not held at fair value
<b>Assets</b>					
Equity shares and quoted funds (note 20)	950	897	16	37	–
Other investments, including loans (note 20)	619	150	–	203	266
	1,569	1,047	16	240	266
<b>Derivatives</b>					
Forward contracts: designated as hedges (Section B <sup>(a)</sup> of note 34)	(421)	–	(409)	(12)	–
Forward contracts and option contracts not designated as hedges (Section B <sup>(b)</sup> of note 34)	(26)	–	16	(42)	–
Currency swaps hedging borrowings (Section B <sup>(c)</sup> of note 34)	–	–	–	–	–
Interest rate swap agreements (Section B <sup>(c)</sup> of note 34)	109	–	110	(1)	–
	1,231	1,047	(267)	185	266

The table below includes financial instruments carried at fair value in note 34 (A) by valuation method at 31 December 2009.

	Total	Level 1 <sup>(a)</sup>	Level 2 <sup>(b)</sup>	Level 3 <sup>(c)</sup>	Not held at fair value
<b>Assets</b>					
Equity shares and quoted funds (note 20)	658	644	14	–	–
Other investments, including loans (note 20)	505	129	–	106	270
	1,163	773	14	106	270
<b>Derivatives</b>					
Forward contracts: designated as hedges (Section B <sup>(a)</sup> of note 34)	(491)	–	(430)	(61)	–
Forward contracts and option contracts not designated as hedges (Section B <sup>(b)</sup> of note 34)	(9)	–	132	(141)	–
Currency swaps hedging borrowings (Section B <sup>(c)</sup> of note 34)	(68)	–	(68)	–	–
Interest rate swap agreements (Section B <sup>(c)</sup> of note 34)	(97)	–	(97)	–	–
	498	773	(449)	(96)	270

(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 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).

### 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 2010 and 31 December 2009.

	31 December 2010 Level 3 financial assets and financial liabilities	31 December 2009 Level 3 financial assets and financial liabilities
Opening balance	(96)	(50)
Currency translation adjustments	(2)	(1)
Realised gains to income statement	91	24
Unrealised gains/(losses) to income statement	147	(35)
Unrealised losses to comprehensive income	–	(66)
Additions	27	38
Disposals	18	(6)
Closing balance	185	(96)
<b>Total losses for the year included in the income statement for assets and liabilities held at year end</b>	<b>97</b>	<b>(31)</b>

## 35 Contingent liabilities and commitments

	2010 US\$m	2009 US\$m
<b>Capital commitments (including those related to joint ventures and associates) <sup>(a)</sup></b>		
Within 1 year	5,219	2,439
Between 1 and 3 years	2,264	1,050
Between 3 and 5 years	90	308
After 5 years	–	78
<b>Total</b>	<b>7,573</b>	<b>3,875</b>

(a) Included in the above table are other commitments of US\$25 million (2009: US\$117 million). Capital commitments incurred by the Group relating to joint ventures and associates amount to US\$1,421 million (2009: US\$261 million). Capital commitments incurred jointly with other venturers (Rio Tinto share) relating to joint ventures amount to US\$695 million (2009: US\$539 million).

In addition to the above, the Group has agreed to provide Ivanhoe Mines Ltd. with an interim loan facility of US\$1,800 million while Rio Tinto and Ivanhoe work together to complete project financing for the development of the Oyu Tolgoi copper-gold project. Refer to note 41 for further details relating to the Group's interest in Ivanhoe Mines Ltd. and Oyu Tolgoi.

### Operating leases

The aggregate amount of minimum lease payments under non-cancellable operating leases are as follows:

	2010 US\$m	2009 US\$m
Within 1 year	507	484
Between 1 and 3 years	854	628
Between 3 and 5 years	561	287
After 5 years	1,107	451
	<b>3,029</b>	<b>1,850</b>

## 35 Contingent liabilities and commitments continued

### Unconditional purchase obligations

The aggregate amount of future payment commitments for the next five years under unconditional purchase obligations outstanding at 31 December was:

	2010 US\$m	2009 US\$m
Within 1 year	2,295	1,339
Between 1 and 2 years	1,466	1,054
Between 2 and 3 years	1,468	1,113
Between 3 and 4 years	1,305	1,006
Between 4 and 5 years	1,210	891
After 5 years	10,156	7,404
	17,900	12,807

Unconditional purchase obligations relate to commitments to make payments in the future for fixed or minimum quantities of goods or services at fixed or minimum prices. The future payment commitments set out above have not been discounted and mainly relate to commitments under "take or pay" power and freight contracts. They exclude unconditional purchase obligations of jointly controlled entities apart from those relating to the Group's tolling arrangements.

	2010 US\$m	2009 US\$m
<b>Contingent liabilities (excluding those relating to joint ventures and associates)</b>		
Indemnities and other performance guarantees	557	316
<b>Contingent liabilities relating to joint ventures and associates<sup>(a)</sup></b>		
Incurred in relation to interests in joint ventures	214	233
Incurred in relation to other venturers' contingent liabilities	79	73

(a) Amounts disclosed include those arising as a result of the Group's investments in both jointly controlled assets and jointly controlled entities.

(b) 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.

## 36 Average number of employees

	Subsidiaries and proportionally consolidated units <sup>(a)</sup>			Equity accounted units (Rio Tinto share) <sup>(a)</sup>			Group total		
	2010	2009	2008	2010	2009	2008	2010	2009	2008
<b>The principal locations of employment were:</b>									
Australia and New Zealand	18,772	17,537	17,875	2,428	2,355	2,471	21,200	19,892	20,346
Europe	15,205	16,965	16,909	223	274	520	15,428	17,239	17,429
Canada	13,418	12,957	12,948	295	500	265	13,713	13,457	12,948
United States	6,416	8,830	10,219	721	80	105	7,137	8,910	10,589
Africa	5,451	6,539	6,329	2,204	1,673	1,980	7,655	8,212	8,309
Indonesia	2,261	2,165	2,206	13	–	–	2,274	2,165	2,206
South America	430	2,039	2,909	1,175	1,148	1,116	1,605	3,187	4,025
Other countries	869	844	942	833	356	605	1,702	1,200	1,547
Discontinued operations	6,180	27,732	28,386	–	–	–	6,180	27,732	28,386
	69,002	95,608	98,723	7,892	6,386	7,062	76,894	101,994	105,785

(a) Employee numbers, which represent the average for the year, include 100 per cent of employees of subsidiary companies. Employee numbers for proportionally consolidated and equity accounted units are proportional to the Group's interest. 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.

## 37 Principal subsidiaries and consolidated operations

At 31 December 2010

Company and country of incorporation/operation	Principal activities	Class of shares held	Proportion of class held (%)	Group interest (%)
Australia				
Argyle Diamonds Limited	Mining and processing of diamonds	Ordinary	100	100
Coal & Allied Industries Limited	Coal mining	Ordinary	75.71	75.71
Dampier Salt Limited	Salt production	Ordinary	68.40	68.40
Energy Resources of Australia Limited	Uranium mining	Class A	68.39	68.39
Hamersley Iron Pty Limited	Iron ore mining	Ordinary	100	100
Queensland Coal Pty Limited <sup>(a)</sup>	Coal mining	Ordinary	100	100
Rio Tinto Aluminium (Holdings) Limited	Bauxite mining; alumina production; primary aluminium smelting	Ordinary	100	100
Canada				
Iron Ore Company of Canada Inc. <sup>(b)</sup>	Iron ore mining; iron ore pellets	Common shares	58.72	58.72
QIT-Fer et Titane Inc.	Titanium dioxide feedstock; high purity iron and steel	Common shares	100	100
Rio Tinto Alcan Inc.	Bauxite mining; alumina refining; production of specialty alumina; aluminium smelting; engineered products	Class B preference shares	100	100
		Common shares	100	100
France				
Talc de Luzenac France SA	Mining, refining and marketing of talc	Ordinary	15.25	100
Madagascar				
QIT Madagascar Minerals SA	Ilmenite mining	Common shares	80	80
Mongolia				
Oyu Tolgoi LLC	Copper and gold mining (in development)	(c)	–	–
Namibia				
Rössing Uranium Limited <sup>(d)</sup>	Uranium mining	B N\$1 C N10c	71.16 70.59 } }	68.58
Papua New Guinea				
Bougainville Copper Limited <sup>(e)</sup>	Copper and gold mining	Ordinary 1 Kina	53.58	53.58
South Africa				
Palabora Mining Company Limited	Copper mining, smelting and refining	Ordinary R1	72.03	57.67
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

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 held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

With the exception of Iron Ore Company of Canada, which is incorporated in the US companies operate mainly in the countries in which they are incorporated.

(a) Queensland Coal Pty Limited is the main legal entity that owns the shares shown in note 40 of Hail Creek, Blair Athol, Clermont and Kestrel.

(b) This entity is incorporated in the United States of America but operates in Canada.

(c) The Group holds no direct equity interest in Oyu Tolgoi LLC; this entity is consolidated by virtue of contractual rights which permit the exercise of control over certain policies and activities of Oyu Tolgoi LLC. Refer to note 41 for further details relating to the consolidation of Oyu Tolgoi LLC from 15 December 2010.

(d) The Group's shareholding in Rössing Uranium Limited carries 35.54 per cent of the total voting rights. Rössing is consolidated by virtue of board control.

(e) The results of Bougainville Copper Limited are not consolidated. See note 47.



## 38 Principal jointly controlled entities

At 31 December 2010

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 <sup>(a)</sup>	Aluminium smelting	153,679,560	Ordinary	59.4	59.4
Leichhardt Coal Pty Limited <sup>(b)</sup>	Coal mining	20,115,000	Ordinary	44.7	44.7
Queensland Alumina Limited <sup>(a)</sup>	Alumina production	1,769,600	Ordinary	80	80
Chile					
Minera Escondida Limitada <sup>(c)</sup>	Copper mining and refining			30	30
New Zealand					
New Zealand Aluminium Smelters Limited <sup>(a)</sup>	Aluminium smelting	24,998,400	Ordinary	79.4	79.4
Norway					
Sor-Norge Aluminium A.S.	Aluminium smelting	500,000	Ordinary	50	50
Oman					
Sohar Aluminium Company L.L.C.	Aluminium smelting/power generation	37,500	Ordinary	20	20
South Africa					
Richards Bay Titanium (Pty) Ltd	Titanium dioxide/high purity iron production	-	Preferred Ordinary	-	37.7
		-	A Ordinary	-	
		150,960	B Ordinary	51	38.5
		-	A Preference	-	
	Ilmenite, rutile and zircon mining	140,046	B Preference	51	36.3
		-	Preferred Ordinary	-	
		-	A Ordinary	-	37.0
		36,260	B Ordinary	49	
Richards Bay Mining (Pty) Ltd	-	A Preference	-	37.0	
	31,335	B Preference	49		
United States of America					
Halco (Mining) Inc.	(d)	4,500	Common	45	45
Pechiney Reynolds Quebec Inc.	(e)	100	Common	50	50.3
		1	Preferred	100	

The Group has joint control of the above operations which, except as disclosed in note (d) below, are independent legal entities. It therefore includes them in its accounts using the equity accounting method.

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 jointly controlled entities that have a more significant impact on the profit or operating assets of the Group.

The Group's principal jointly controlled entities are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

With the exception of footnote (d) and (e), all jointly controlled entities operate mainly in the countries in which they are incorporated.

- (a) While the Group holds more than a 50 per cent interest in these entities, other participants have veto rights over operating, financing and strategic decision making. Accordingly, the Group does not have the ability to unilaterally control, and therefore does not consolidate these entities.
- (b) Leichhardt has a 31.4 per cent interest in the Blair Athol Coal joint venture. As a result, the Group has a further beneficial interest of 14 per cent in addition to its direct interest of 57.2 per cent, which is owned via a subsidiary of Rio Tinto Limited. The Blair Athol Coal joint venture is disclosed as a jointly controlled asset in note 40.
- (c) The year end of Minera Escondida Limitada is 30 June. However, the amounts included in the consolidated financial statements of Rio Tinto are based on accounts of Minera Escondida Limitada that are coterminous with those of the Group.
- (d) 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.
- (e) Pechiney Reynolds Quebec has a 50.1 per cent interest in the Aluminerie de Becancour aluminium smelter, which is located in Canada.

## 39 Principal associates

At 31 December 2010

Company and country of incorporation/operation	Principal activities	Number of shares held	Class of shares held	Proportion of class held (%)	Group interest (%)
Brazil					
Mineração Rio do Norte SA <sup>(a)</sup>	Bauxite mining	25,000,000	Ordinary	12.5	} 12
		47,000,000	Preferred	11.8	
Cameroon					
Compagnie Camerounaise de l'Aluminium	Aluminium smelting	1,623,127	Ordinary	46.7	46.7
Canada					
Ivanhoe Mines Ltd <sup>(b)</sup>	Copper and gold mining	229,251,843	Common	40.3	40.3

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.

With the exception of Ivanhoe Mines Ltd, the core assets of which are located in Mongolia, all associates operate mainly in the countries in which they are incorporated.

(a) Mineração Rio do Norte SA is accounted for as an associated company because the Group has significant influence through representation on its board of directors.

(b) Ivanhoe Mines Ltd. owns 66 per cent of Oyu Tolgoi LLC, which the Group consolidates (refer to note 37). The Group only equity accounts for its interest in the net assets of Ivanhoe Mines Ltd. that does not relate to Oyu Tolgoi LLC. Refer to note 41 for further details of additions to the Group's investment in Ivanhoe Mines Ltd. during 2010.

## 40 Principal jointly controlled assets and other proportionally consolidated units

At 31 December 2010

Name and country of operation	Principal activities	Group interest (%)
<b>Australia</b>		
Tomago Aluminium Joint Venture	Aluminium smelting	51.6
Bengalla <sup>(a)</sup>	Coal mining	30.3
Blair Athol Coal <sup>(b)</sup>	Coal mining	71.2
Clermont Coal	Coal mining	50.1
Hail Creek	Coal mining	82
Kestrel	Coal mining	80
Mount Thorley <sup>(c)</sup>	Coal mining	60.6
Warkworth	Coal mining	42.1
Northparkes Mine	Copper/gold mining and processing	80
Gladstone Power Station	Power generation	42.1
Robe River Iron Associates <sup>(d)</sup>	Iron ore mining	53
Hope Downs Joint Venture	Iron ore mining	50
HiSmelt <sup>®</sup>	Iron technology	60
<b>Brazil</b>		
Consórcio de Alumínio Maranhão	Alumina production	10
<b>Canada</b>		
Alouette	Aluminium production	40
Diavik	Mining and processing of diamonds	60
<b>Indonesia</b>		
Grasberg expansion	Copper and gold mining	40

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 proportionally consolidated units that have a more significant impact on the profit or operating assets of the Group.

The Group's proportionally consolidated units are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

(a) The Group owns a 40 per cent interest in Bengalla through its 75.71 per cent investment in Coal and Allied, giving a beneficial interest to the Group of 30.3 per cent.

(b) The Group has a direct interest of 57.2 per cent in Blair Athol Coal, and an additional 14 per cent interest through its investment in Leichhardt Coal Pty Limited, which is disclosed as a jointly controlled entity in note 38.

(c) The Group owns an 80 per cent interest in Mount Thorley through its 75.71 per cent investment in Coal and Allied, giving a beneficial interest to the Group of 60.6 per cent.

(d) The Group holds 65 per cent of Robe River Iron Associates, of which 30 per cent is held through a 60 per cent owned subsidiary. The Group's net beneficial interest is, therefore, 53 per cent, net of amounts attributable to outside equity shareholders.

## 41 Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses

### 2010 acquisitions

#### Consolidation of Oyu Tolgoi LLC

On 15 December 2010, Rio Tinto gained control of Oyu Tolgoi LLC, following the signing of a new agreement with Ivanhoe Mines Ltd ("Ivanhoe"). Oyu Tolgoi LLC is consolidated by virtue of Rio Tinto's contractual rights which permit it to exercise control over certain policies and activities of Oyu Tolgoi LLC. No direct equity interest was acquired under the agreement and the existing equity arrangements were not changed as a result of the agreement. Oyu Tolgoi LLC is owned 66 per cent by Ivanhoe and 34 per cent by the Government of Mongolia. The signing of the agreement did not affect the Government of Mongolia's economic interest in Oyu Tolgoi LLC.

As part of the agreement by which Rio Tinto obtained its contractual rights, Rio Tinto agreed to exercise its remaining warrants for common shares in Ivanhoe, participate fully in Ivanhoe's US\$1.2 billion rights offering, and to provide Ivanhoe with a US\$1.8 billion interim loan facility to fund the Oyu Tolgoi project.

The agreement secured for Rio Tinto the right to increase its ownership in Ivanhoe to 49 per cent by, in addition to exercising its remaining warrants for common shares, acquiring a total of 20 million shares at current market prices, evenly from Citibank and Ivanhoe executive chairman and chief executive officer, Robert Friedland, purchasing shares in the market, and exercising its right to subscribe for Ivanhoe common shares from treasury at market prices until January 2012.

On 15 December 2010, Rio Tinto exercised 33,783,784 Series B warrants for common shares at an exercise price of US\$8.88 per share, paying a total of US\$300 million, and acquired ten million shares in Ivanhoe from Robert Friedland at a market price of US\$25.34 per share, paying a total of US\$253 million. These transactions increased Rio Tinto's ownership in Ivanhoe to 40.5 per cent.

100 per cent of Oyu Tolgoi LLC's identifiable assets and liabilities have been recognised in the statement of financial position at fair values estimated with the assistance of an independent third party valuer, together with goodwill. The historic cost of acquiring the Group's indirect share of Oyu Tolgoi LLC through its investment in Ivanhoe was deducted from investments in equity accounted units. The Group's remaining interest in the assets of Ivanhoe that does not relate to Oyu Tolgoi LLC continues to be equity accounted. The transaction generated a non-cash gain of US\$531 million.

Due to the complexity of the valuation process, and the proximity of the date on which the agreement was effective to the reporting date, fair values on consolidation are provisional and will be subject to further review during the 12 months from the date on which the agreement was effective.

Oyu Tolgoi LLC owns and manages the Oyu Tolgoi copper-gold complex in Mongolia, where full scale mine construction and development of a copper concentrator and related infrastructure are under way.

The fair values of the identifiable assets and liabilities of Oyu Tolgoi LLC were provisionally estimated as follows:

	Provisional fair value US\$m
Intangible assets	38
Property, plant & equipment	5,755
Inventories	6
Cash	90
Other assets	171
Loans and borrowings	(213)
Deferred tax liabilities	(834)
Provisions for liabilities and charges	(2)
Other liabilities	(218)
Non-controlling interests	(3,912)
Goodwill	963
<b>Net attributable assets including goodwill</b>	<b>1,844</b>
<b>Total consideration</b>	
Provisional fair value of indirect equity interest in Oyu Tolgoi	1,476
Series B warrants exercised	300
Shares acquired from Robert Friedland	253
Non-Oyu Tolgoi share of Ivanhoe assets acquired	(185)
<b>Total consideration</b>	<b>1,844</b>
<b>Reconciliation of gain recognised on acquisition</b>	
Amount allocated from investments in EAUs	(1,313)
Attributable assets recognised per above	1,844
<b>Amount included within gain on consolidation per the income statement</b>	<b>531</b>

A non-controlling interest arises from the Government of Mongolia's 34 per cent direct interest in Oyu Tolgoi LLC, and from the portion of Ivanhoe's 66 per cent direct interest not attributable to Rio Tinto's 40.5 per cent equity holding in Ivanhoe Mines Ltd. as at 15 December 2010. In arriving at the non-controlling interest figure, an adjustment is made to reflect the fact that repayment of funding made by Ivanhoe is required before Oyu Tolgoi LLC can begin to pay dividends.

Goodwill arising on consolidation of US\$963 million mostly comprises US\$834 million calculated in accordance with the requirement in IFRS to recognise a deferred tax liability on the difference between the provisional fair value of newly consolidated assets and liabilities and their tax base.

There was no impact on Group sales revenue or profit after tax attributable to continuing operations for the period since Oyu Tolgoi LLC's consolidation in the Group income statement.

Had Oyu Tolgoi been consolidated from 1 January 2010, the consolidated income statement would have reduced by US\$118 million to show profit after tax (before attributing amounts to non-controlling interests) of US\$15,066 million. Consolidated sales revenue would have been unaffected.

#### Ivanhoe Mines Limited

In addition to the agreement described above, during the year ended 31 December 2010 Rio Tinto also entered into the transactions described below in relation to its investment in Ivanhoe Mines Limited ("Ivanhoe").

On 1 March 2010, Rio Tinto announced that it had agreed to acquire 15 million shares in Ivanhoe at a subscription price of C\$16.31 per share, increasing its ownership in Ivanhoe by 2.7 per cent to 22.4 per cent. The total consideration for this acquisition was C\$244.7 million (US\$241 million). The shares were issued to Rio Tinto in satisfaction of an agreement with Ivanhoe in 2008 to finance equipment for the Oyu Tolgoi copper-gold complex in Mongolia's South Gobi region. After the completion of the acquisition, Rio Tinto owned 98.6 million shares in Ivanhoe.

## 41 Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses continued

On 30 June 2010, Rio Tinto increased its ownership in Ivanhoe to 29.6 per cent following the exercising of all its Series A warrants for a total consideration of US\$393 million. After the completion of the exercise of the Series A warrants, Rio Tinto owned 144.66 million shares in Ivanhoe.

On 13 September 2010, Rio Tinto increased its ownership to 34.9 per cent following automatic conversion of the US\$350 million convertible debt facility Rio Tinto made available to Ivanhoe in 2007, which was fully drawn down by mid-2008. After the completion of the conversion of the debt facility, Rio Tinto owned 184.75 million shares in Ivanhoe.

The progressive issue of share options and a share purchase plan at Ivanhoe which occurred after the date on which Oyu Tolgoi LLC was initially consolidated impacted Rio Tinto's effective share, reducing it to 40.3 per cent at 31 December 2010.

The cash flow statement includes US\$907 million in "Acquisitions of subsidiaries, joint ventures & associates". In accordance with IAS 7, this is stated net of US\$90 million cash held in newly consolidated operations at the date of consolidation.

### 2009 acquisitions

On 28 October 2009, Rio Tinto completed the second tranche of its private placement investment in Ivanhoe Mines Ltd., increasing its ownership by 9.8 per cent to 19.7 per cent of Ivanhoe's common shares. The second tranche consisted of 46,304,473 common shares at a subscription price of US\$8.38 per share for a total consideration of US\$388 million.

There were no other significant acquisitions for the year ended 31 December 2009.

### 2008 acquisitions

There were no significant acquisitions for the year ended 31 December 2008.

### 2010 disposals

Disposals in 2010 relate mainly to the divestment on 21 December 2010 of the Group's remaining 48 per cent interest in Cloud Peak Energy Inc., through a secondary offering, for gross proceeds of US\$573 million.

### Proposed Simandou transaction with Chalco

On 29 July 2010, Rio Tinto and Chalco signed a binding agreement to establish a joint venture (JV) covering the development and operation of the Simandou iron ore project in Guinea. The binding agreement followed the signing of a memorandum of understanding between Rio Tinto and Chalco's parent Chinalco announced on 19 March 2010. The agreement covers all aspects of how the JV and the project itself will operate and be governed, including planning, construction and management of the mine and associated rail and port infrastructure. Under the terms of the agreement, Rio Tinto's 95 per cent interest in the Simandou project will be held in the new JV. Chalco will acquire a 47 per cent interest in the new JV by providing US\$1.35 billion on an earn-in basis through sole funding of ongoing development work over the next two to three years.

Once Chalco has paid its US\$1.35 billion, the effective interests of Rio Tinto and Chalco in the Simandou project would be 50.35 per cent and 44.65 per cent respectively. The remaining five per cent is owned by the International Finance Corporation (IFC), the financing arm of the World Bank. Rio Tinto will retain control of the entity established to own the project.

The Government of Guinea holds an option to acquire up to a 20 per cent interest in the project, and has indicated an intention to exercise this option. Upon the exercise taking effect, the effective interests in the project of each of Rio Tinto, Chalco and IFC would be reduced proportionately; however control would be retained by Rio Tinto.

The formation of the Rio Tinto/Chalco JV remains subject to the satisfaction of certain regulatory requirements.

Once the JV takes effect, a wholly owned subsidiary of Rio Tinto will be appointed manager of the project, providing management services to the JV and being responsible for the day-to-day operations of the project. Rio Tinto and Chalco will also establish a joint marketing company to market and distribute Simandou product to customers under an agency agreement with a wholly owned subsidiary of Rio Tinto.

Chinalco and Rio Tinto have entered into an agreement under which Chinalco guarantees the performance of Chalco's obligations under the Agreement.

Rio Tinto will continue to account for its interest in the Simandou project as a subsidiary. The contributions to funding made by Chalco to acquire an interest in the project will be credited to equity.

### 2009 disposals

On 1 December 2009, Rio Tinto completed the sale of Alcan Composites, part of Alcan Engineered Products, to Schweiter Technologies for a total consideration of US\$349 million.

On 20 November 2009, Rio Tinto received US\$741 million in connection with Cloud Peak Energy Inc's initial public offering (IPO) and related transactions, comprising US\$434 million net proceeds from the sale of part of Rio Tinto's interest in Cloud Peak Energy Resources LLC (CPER), in connection with Cloud Peak Energy Inc's IPO of common stock, and a cash distribution by CPER of US\$307 million from the proceeds of its debt offering of US\$600 million. An additional US\$7 million was received as part of a working capital adjustment at 31 December 2009. Rio Tinto retained an interest in CPER of 48 per cent, which was treated as an equity accounted unit (EAU) until its disposal on 21 December 2010.

US\$660 million of sales proceeds arose from these transactions and US\$151 million was received as dividends from an EAU. The sales proceeds comprised the gross IPO proceeds of US\$459 million, 52 per cent of the cash distribution by CPER (representing the percentage not retained by the Group) and US\$38 million of deferred consideration.

On 1 October 2009, Rio Tinto completed the sale of its Jacobs Ranch coal mine to Arch Coal Inc. for a final cash consideration of US\$764 million.

On 18 September 2009, Rio Tinto completed the sale of its Corumbá iron ore mine and associated river logistics operations to Vale SA for a cash consideration of US\$750 million.

On 26 January 2009, Rio Tinto completed the sale of its 50 per cent equity share of the Alcan Ningxia aluminium joint venture in China to Qingtongxia Aluminium Group Co Ltd (QTX) for gross cash consideration of US\$125 million.

The aggregated carrying value of the Group's share of the major classes of assets and liabilities at the dates of sale were:

	2009 US\$m
Goodwill	184
Intangible assets	169
Property, plant & equipment	2,021
Investments in equity accounted units	11
Inventories	288
Other financial assets	251
Borrowings	(12)
Deferred tax liabilities	(82)
Provisions	(796)
Non-controlling interests	(1)
<b>Net assets</b>	<b>2,033</b>
Add: Divestment of investment in associate	80
Less: Retained investment in associates	(359)
Less: Recycled gains and losses and movements in other comprehensive income	(18)
<b>Net assets and investments in associates disposed of</b>	<b>1,736</b>
<b>Consideration</b>	
Cash proceeds (net of transactions costs) <sup>(a)</sup>	2,424
Deferred consideration	46
Accrued disposal costs	(42)
<b>Net consideration</b>	<b>2,428</b>
<b>Gain on disposal</b>	<b>692</b>
Net cash inflow from disposals	2,424
Acquisitions of subsidiaries, joint ventures and associates	(396)
<b>Cash flow from disposals/acquisitions of subsidiaries, joint ventures and associates</b>	<b>2,028</b>

(a) Cash proceeds were stated net of US\$20 million cash and cash equivalents transferred on sale of subsidiaries.

## 2008 Disposals

On 5 March 2008, the Group completed the sale of its interest (Rio Tinto share 40 per cent) in the Cortez gold mine (previously in the Copper product group) for a sales price which included cash consideration of US\$1,695 million. The Group benefits from a deferred bonus payment in the event of a significant discovery of additional reserves and resources at the Cortez mine and also retains a contingent royalty interest in the future production of the property.



## 41 Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses continued

On 16 April 2008, the Group completed the sale of its joint venture interest (Rio Tinto share 70.3 per cent) in the Greens Creek mine to Hecla Mining Company. Greens Creek, which mines silver, gold, zinc and lead, was previously part of the Copper product group. The sale price was US\$750 million, comprising a cash component of US\$700 million with the balance in the common stock of Hecla Mining Company.

The aggregate profit on disposal of interests in businesses (including investments) in 2008 was US\$2,231 million (US\$1,470 million net of tax). These gains were excluded from Underlying earnings, as shown in note 2.

The cash flow statement includes US\$2,572 million in "Disposals of subsidiaries, joint ventures & associates" and US\$9 million paid for acquisitions in 2008. In accordance with IAS 7, these proceeds were stated net of US\$5 million cash and cash equivalents transferred on sale of subsidiaries.

Non-cash disposal proceeds of US\$88 million were received during the year.

## 42 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:

	2010 US\$'000	2009 US\$'000	2008 US\$'000
Emoluments	11,384	18,021	10,620
Long term incentive plans	3,334	3,092	2,647
	14,718	21,113	13,267
Pension contributions: defined contribution plans	54	389	338
Gains made on exercise of share options	17,265	20	–

The aggregate remuneration incurred by Rio Tinto plc in respect of its directors was US\$10,510,000 (2009: US\$17,784,000; 2008: US\$13,214,000). The aggregate pension contribution to defined contribution plans was nil (2009: US\$342,000; 2008: US\$338,000). The aggregate remuneration, including pension contributions and other retirement benefits, incurred by Rio Tinto Limited in respect of its directors was US\$4,262,000 (2009: US\$3,718,000; 2008: US\$391,000). The aggregate pension contribution to defined contribution plans was US\$54,000 (2009: US\$47,000; 2008: US\$43,000).

During 2010, three directors (2009: three; 2008: two) accrued retirement benefits under defined benefit arrangements, and one director (2009: two; 2008: 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 5, on pages 144 to 155 of the 2010 Annual report.

Aggregate compensation, representing the expense recognised under EU IFRS, of the Group's key management, including directors, was as follows:

	2010 US\$'000	2009 US\$'000	2008 US\$'000
Short term employee benefits and costs	28,487	35,881	21,086
Post employment benefits	3,984	3,692	3,664
Termination benefits	–	1,357	–
Share based payments	20,822	34,476	(5,360)
	53,293	75,406	19,390

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\$2,020,000 (2009: US\$2,269,000; 2008: US\$1,389,000) and although disclosed here, are not included in Table 1 of the Remuneration report.

In 2005, prior to being appointed a member of key management personnel, Andrew Harding relocated to the United States (US). As an expatriate in the US, Mr Harding was unable to access car leasing arrangements and so was loaned a sum of US\$30,000 by the Group for the purposes of purchasing a car. The loan repayable over 60 months attracted interest of US\$3,235 during the term of the loan. The balance as at 1 January 2010 was US\$4,531 and the loan was repaid in full on 21 December 2010.

More detailed information concerning the remuneration of key management is shown in the Remuneration report, including Tables 1 to 5 on pages 144 to 155 of the 2010 Annual report.

## 43 Auditors' remuneration

	2010 US\$m	2009 US\$m	2008 US\$m
<b>Group auditors' remuneration <sup>(a)</sup></b>			
Audit services pursuant to legislation			
– audit of the Group's annual accounts	2.9	2.3	3.2
– audit of the accounts of the Group's subsidiaries	13.8	20.9	26.5
Audit services in connection with divestment programme <sup>(b)</sup>	9.1	22.0	24.4
	25.8	45.2	54.1
Other services			
– services in connection with bond issues/capital raising	0.3	4.2	–
– services in connection with bid defence	–	–	9.4
– services in connection with divestment programme	5.0	8.4	25.8
– taxation services <sup>(c)</sup>	0.4	2.1	3.3
– other services	1.8	2.2	2.6
Total other services	7.5	16.9	41.1
	33.3	62.1	95.2
<b>Remuneration payable to other accounting firms <sup>(d)</sup></b>			
Audit services pursuant to legislation			
– audit of accounts of the Group's subsidiaries	2.6	0.5	0.2
Non audit services			
– taxation services <sup>(c)</sup>	6.6	9.1	15.8
– financial systems design and implementation	–	–	0.2
– internal audit	6.5	8.4	7.1
– litigation services	0.4	0.1	–
– other services <sup>(e)</sup>	15.9	12.2	42.0
	32.0	30.3	65.3
Fees in respect of pension scheme audits	–	0.1	0.3
	32.0	30.4	65.6
	65.3	92.5	160.8

(a) The remuneration payable to PricewaterhouseCoopers, 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 PricewaterhouseCoopers by the Companies and their subsidiaries, together with the Group's share of the payments made by proportionally consolidated units. Non-audit services arise largely from assurance and/or regulation related work.

(b) Audit services represent assurance provided in respect of carve-out financial statements.

(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.

(d) 'Remuneration payable to other accounting firms' does not include fees for similar services payable to suppliers of consultancy services other than accountancy firms.

(e) 'Other services' in 2010, 2009 and 2008 in respect of other accounting firms includes costs relating to capital raising, divestments and similar corporate services, pension fund and payroll administration, advice on accounting matters, secondments of accounting firms' staff, forensic audit and other consultancy.

'Other services' in 2008 in respect of other accounting firms includes one off costs related to the rejection by the board of the pre-conditional takeover proposal from BHP Billiton which was withdrawn in November 2008.

## 44 Related party transactions

Information about material related party transactions of the Rio Tinto Group is set out below:

### Subsidiary companies and proportionally consolidated units

Details of investments in principal subsidiary companies are disclosed in note 37.

Information relating to proportionally consolidated units can be found in note 40.

### Equity accounted units

Transactions and balances with equity accounted units are summarised below. Purchases relate largely to amounts charged by jointly controlled entities for toll processing of bauxite and alumina. Sales relate largely to charges for supply of coal to jointly controlled marketing entities for onward sale to third party customers.

Income statement items	2010 US\$m	2009 US\$m	2008 US\$m
Purchases from equity accounted units	(3,009)	(2,558)	(2,770)
Sales to equity accounted units	3,038	2,088	3,011

Cash flow statement items	US\$m	US\$m	US\$m
Net funding of equity accounted units	(154)	(265)	(334)

Statement of financial position items	US\$m	US\$m
Investments in equity accounted units (note 14) <sup>(a)</sup>	6,503	6,735
Loans to equity accounted units	337	338
Loans from equity accounted units	(278)	(157)
Trade and other receivables: amounts due from equity accounted units (note 17)	1,341	941
Trade and other payables: amounts due to equity accounted units (note 25)	(727)	(402)

(a) Further information about investments in equity accounted units is set out in notes 38 and 39.

In November 2009, as part of the disposal process of Cloud Peak, Rio Tinto Energy America Inc. and Cloud Peak Energy Resources LLC (CPER) agreed for existing Rio Tinto plc guaranteed surety bonds and letters of credit, principally securing the reclamation obligations for the Cloud Peak business, to continue for a transition period. All of these guaranteed surety bonds and letters of credit had been replaced by CPER credit enhancements as at 31 December 2010 and Rio Tinto plc has therefore been released from these obligations.

### Pension funds

Rio Tinto plc guarantees to pay the Rio Tinto Pension Fund (UK) any contributions due from Group companies participating in that fund, pro rata to its ownership of those companies, in the event that the companies fail to meet their contribution requirements. Furthermore, Rio Tinto plc agreed to put in place a guarantee for the Rio Tinto Pension Fund, in the standard form required by the Pension Protection Fund (PPF), to cover 105 per cent of the Fund's liabilities measured on the PPF's prescribed assumptions. Other similar guarantees in place include a Rio Tinto plc guarantee to the Rio Tinto 2009 Pension fund, with no limit on liabilities, and a guarantee from British Alcan Aluminium plc to the British Alcan Pension Plan, covering the contributions due from participating employers up to a PPF funding level of 105 per cent.

Detailed information relating to pension fund arrangements is disclosed in note 50.

### Directors and key management

Details of directors' and key management remuneration are set out in note 42 and in the Remuneration report on pages 128 to 155.

## 45 Exchange rates in US\$

The principal exchange rates used in the preparation of the 2010 financial statements are:

	Annual average			Year end		
	2010	2009	2008	2010	2009	2008
Sterling	1.55	1.57	1.86	1.55	1.61	1.44
Australian dollar	0.92	0.79	0.86	1.02	0.89	0.69
Canadian dollar	0.97	0.88	0.94	1.00	0.95	0.82
South African rand	0.14	0.12	0.12	0.15	0.14	0.11
Euro	1.33	1.39	1.47	1.33	1.44	1.41

## 46 Rights issues

The terms of the rights issues in 2009 were: 21 New Rio Tinto plc Shares offered for every 40 existing shares at 1,400 pence per share and 21 New Rio Tinto Limited Shares offered for every 40 existing shares at A\$28.29 per share, completed on 2 July 2009 and 3 July 2009 respectively.

Both Rio Tinto plc and Rio Tinto Limited entered into a series of forward US dollar derivative exchange contracts to minimise exposure to foreign exchange rates and provide confidence in absolute US dollar rights issue proceeds. The forward contracts taken out by both companies were accounted for as derivatives, for which different accounting treatments were applied in accordance with IFRS hedge accounting rules. This was due to the different functional currencies of Rio Tinto plc and Rio Tinto Limited (US dollar and Australian dollar respectively). Losses on contracts entered into by Rio Tinto plc were charged against share premium as share issue costs, while losses on the contracts entered into by Rio Tinto Limited were recognised in the income statement and excluded from Underlying earnings. Settlement of losses on all contracts were included within "Other investing cash flows" in the cash flow statement.

The rights issues were at a discount to the then market price. Accordingly, the earnings per share for all periods up to the date on which the shares were issued have been adjusted for the bonus element of the rights issues. The bonus factor for Rio Tinto plc was 1.2105 and for Rio Tinto Limited was 1.2679. 2008 comparatives for both earnings per share and ordinary dividends per share were adjusted accordingly.

## 47 Bougainville Copper Limited (BCL)

Mining has been suspended at the Panguna mine since 1989. Safe mine 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 undertaken in 2008 indicates that costs in a range of US\$2 billion to US\$4 billion would be required to re-open the mine assuming all site infrastructure is replaced. The directors consider that the Group does not currently realise a benefit from its interest in BCL and therefore BCL information continues to be excluded from the financial statements.

BCL reported a net profit of US\$1 million for the financial year (2009: net profit of US\$3 million). This is based upon actual transactions for the financial year. The aggregate amount of capital and reserves reported by BCL as at 31 December 2010 was US\$142 million (2009: US\$138 million). The Group owns 214,887,966 shares in BCL, representing 53.6 per cent of the issued share capital. The investment of US\$195 million was fully provided against in 1991. At 31 December 2010, the number of shares in BCL held by the Group, multiplied by the share price as quoted in the Australian Stock Exchange, resulted in an amount of US\$354 million (2009: US\$114 million).

## 48 Events after the statement of financial position date

On 4 January 2011, Rio Tinto completed the divestment of 61 per cent of Alcan Engineered Products (AEP) to certain investment funds affiliated with Apollo Global Management, LLC (Apollo) and the Fonds Stratégique d'Investissement (FSI). The terms of the transaction are confidential.

Apollo is now the majority shareholder in AEP with a 51 per cent stake in a new holding company for AEP, with the FSI holding 10 per cent. Rio Tinto holds a 39 per cent stake and will treat its interest in AEP as an equity accounted unit.

On 3 February, Rio Tinto acquired an additional 34,387,776 additional shares in Ivanhoe Mines Ltd. ("Ivanhoe"), by participating fully in Ivanhoe's strategic rights offering, paying a total of US\$477 million and maintaining the Group's interest in Ivanhoe. On 3 February, Rio Tinto also completed the purchase of ten million shares in Ivanhoe, together with the rights (1.5 million shares) associated with these shares from Citibank, in accordance with the announcement made on 15 December 2010, paying a total of US\$274 million. The transaction increased Rio Tinto's ownership of Ivanhoe to 42.1 per cent.

On 10 February 2011, as part of its capital management programme, the Group announced a share buy back of US\$5 billion which, subject to market conditions, is planned for completion by the end of 2012. At 21 February 2011, 1.725 million Rio Tinto plc shares had been repurchased and held in treasury at an average price of £45.02 per share, resulting in total consideration paid of US\$125.5 million. No Rio Tinto Limited shares had been repurchased at 21 February 2011.

On 23 February 2011, Rio Tinto has received a binding offer from Imerys to acquire its talc business for an enterprise value of US\$340 million. A period of exclusivity with Imerys has been agreed, and Rio Tinto will respond to this binding offer following consultation with the relevant European works councils.

## 49 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", which means that IFRS 2 has been applied to all grants of employee share based payments that had not vested as at 1 January 2004.

The charge/(credit) 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	
	2010 US\$m	2009 US\$m	2008 US\$m	2010 US\$m	2009 US\$m
Equity-settled plans	119	76	61	–	–
Cash-settled plans <sup>(a)</sup>	5	101	(83)	5	111
<b>Total</b>	<b>124</b>	<b>177</b>	<b>(22)</b>	<b>5</b>	<b>111</b>

(a) From 1 July 2010, the accounting treatment for the Performance Share Plan (formerly called the Mining Companies Comparative Plan) changed from cash settled to equity settled. This resulted in six months of expense being classified as "cash-settled" and the remaining six months as "equity-settled". For further detail, refer to the Performance Share Plan section in this note.

### Effect of the 2009 rights issues

All options and awards outstanding when the rights issues took place were adjusted to nullify any impact on the economic position of the participant at exercise. For Rio Tinto plc options the fair values and exercise prices were reduced by the bonus element and the number of options and awards were increased by the same proportion.

For the Rio Tinto Limited awards, but not options, "top-up" awards were granted to increase the number held with a corresponding decrease in the associated fair value. For Rio Tinto Limited options the exercise price was reduced so that their intrinsic value measured at June 2009 remained unchanged as a result of the rights issue.

### Lattice-based option valuation model

The fair value of share options is estimated as at the date of grant using a lattice-based option valuation model. The significant assumptions used in the valuation model are disclosed below. Expected volatilities are based on the historical volatility of Rio Tinto's share returns under the UK and Australian listings. Historical data was used to estimate employee forfeiture and cancellation rates within the valuation model. Under the Share Option Plans, it is assumed that after options have vested, 20 per cent per annum of participants will exercise their options when the market price is at least 20 per cent above the exercise price of the option. Participants in the Share Savings Plans are assumed to exercise their options immediately after vesting.

The implied lifetime of options granted is derived from the output of the option valuation model and represents the period of time that options granted are expected to be outstanding. The risk-free rate used in the valuation model is equal to the yield available on UK and Australian zero-coupon government bonds (for Rio Tinto plc and Limited options respectively) at the date of grant with a term equal to the expected term of the options.

### Summary of options outstanding

A summary of the status of the Companies' equity-settled share option plans at 31 December 2010, and changes during the year ended 31 December 2010, is presented below.

	Number	Weighted average exercise price per option £/A\$	Weighted average remaining contractual life Years	Aggregate intrinsic value 2010 US\$m
Options outstanding at 31 December 2010				
Rio Tinto plc Share Savings Plan (£13 – £32)	1,359,798	23.85	2.3	44
Rio Tinto Limited Share Savings Plan (A\$24 – A\$67)	2,152,181	52.15	3.0	73
Rio Tinto plc Share Option Plan (£10 – £48)	3,771,818	21.15	6.1	140
Rio Tinto Limited Share Option Plan (A\$16 – A\$119)	1,397,053	43.86	6.2	60
	<b>8,680,850</b>			<b>317</b>

As at 31 December 2009, there were 11,955,880 options outstanding with an aggregate intrinsic value of US\$316 million.

	Number	Weighted average exercise price per option £/A\$	Weighted average remaining contractual life Years	Aggregate intrinsic value 2010 US\$m
<b>Options exercisable at 31 December 2010</b>				
Rio Tinto plc Share Option Plan (£10 – £23)	1,757,255	14.83	3.5	82
Rio Tinto Limited Share Option Plan (A\$16 – A\$55)	685,440	38.14	3.9	33
	<b>2,442,695</b>			<b>115</b>

As at 31 December 2010, there were no options exercisable under either the Rio Tinto plc or the Rio Tinto Limited Share Savings Plans.

### 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. The key assumptions used in the valuation are noted in the following table.

	Risk-free interest rate %	Expected volatility %	Dividend yield %	Forfeiture rates %	Cancellation rates <sup>(a)</sup> %	Implied lifetime Years
<b>Awards made in 2010</b>						
– Rio Tinto plc	0.8-2.0	46.0	1.9	5.0	5.0	2.2-5.2
– Rio Tinto Limited	4.8-4.9	37.0	1.5	5.0	5.0	3.2-5.2

(a) In addition to the regular cancellation rates above it is assumed that on the anniversary of date of grant a proportion of employees will cancel their awards in favour of new awards if the then share price is less than the exercise price. The proportion assumed is a sliding scale from 20 per cent cancelling if the then share price equals the exercise price to 100 per cent cancelling if the then share price is 75 per cent of the exercise price or less.

### Rio Tinto plc – Share Savings Plan

	2010 Number	Weighted average exercise price 2010 £	2009 Number	Weighted average exercise price 2009 £
Options outstanding at 1 January	1,474,390	20.90	1,661,006	18.88
Granted	370,184	28.49	453,616	22.20
Forfeited on failure to meet service condition	(73,396)	19.57	(57,375)	20.32
Exercised	(300,793)	15.76	(269,227)	12.02
Cancellations	(51,495)	22.98	(160,546)	23.93
Expired	(59,092)	26.60	(153,084)	15.53
Options outstanding at 31 December	1,359,798	23.85	1,474,390	20.90
Weighted average fair value, at date of grant, of options granted during the year (£)		10.76		9.27
Share price, at date of grant, of options granted during the year (£)		36.97		29.72
Weighted average share price at the time the options were exercised during the year (£)		34.47		18.29



## 49 Share based payments continued

### Rio Tinto Limited – Share Savings Plan

	2010 Number	Weighted average exercise price 2010 A\$	2009 Number	Weighted average exercise price 2009 A\$
Options outstanding at 1 January	2,139,259	48.17	1,901,417	43.40
Granted	467,076	59.26	1,183,090	48.73
Forfeited on failure to meet service condition	(67,913)	55.43	(95,677)	51.17
Exercised	(245,613)	31.54	(340,646)	20.96
Cancellations	(100,533)	55.04	(374,471)	58.39
Expired	(40,095)	36.22	(134,454)	23.94
Options outstanding at 31 December	2,152,181	52.15	2,139,259	48.17
Weighted average fair value, at date of grant, of options granted during the year (A\$)		24.31		20.89
Share price, at date of grant, of options granted during the year (A\$)		78.08		64.68
Weighted average share price at the time the options were exercised during the year (A\$)		71.79		46.43

### Share Option Plans

The Group has a policy of settling these awards 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 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.

The key assumptions are noted in the following table.

	Risk-free interest rate %	Expected volatility %	Dividend yield %	Forfeiture rates %	Implied lifetime Years
<b>Awards made in 2010</b>					
– Rio Tinto plc	2.9	46.0	2.0	–	5.2
– Rio Tinto Limited	5.6	37.0	1.6	–	6.2

A summary of the status of the Companies' performance-based share option plans at 31 December 2010, and changes during the year ended 31 December 2010, is presented below.

### Rio Tinto plc – Share Option Plan

	2010 Number	Weighted average exercise price 2010 £	2009 Number	Weighted average exercise price 2009 £
Options outstanding at 1 January	5,902,934	17.60	5,647,992	17.25
Granted	539,212	37.05	1,284,749	16.53
Forfeited on failure to meet service condition	(46,253)	17.37	(112,917)	17.30
Exercised	(1,561,451)	13.56	(916,890)	14.03
Failed performance conditions	(854,883)	22.56	–	–
Expired	(207,741)	13.72	–	–
Options outstanding at 31 December	3,771,818	21.15	5,902,934	17.60
Weighted average fair value, at date of grant, of options granted during the year (£)		13.91		5.49
Weighted average share price, at date of grant, of options granted during the year (£)		36.70		17.44
Weighted average share price at the time the options were exercised during the year (£)		36.94		26.89

In addition to the equity-settled options shown above, there were 52,925 cash-settled options outstanding at 31 December 2010. The total liability for these awards at 31 December 2010 was US\$2 million (2009: US\$4 million).

## Rio Tinto Limited – Share Option Plan

	2010 Number	Weighted average exercise price 2010 A\$	2009 Number	Weighted average exercise price 2009 A\$
Options outstanding at 1 January	2,439,297	42.05	2,711,678	38.82
Granted	178,630	76.15	540,422	33.45
Forfeited on failure to meet service condition	(25,140)	37.66	(43,559)	40.24
Exercised	(652,443)	35.21	(769,244)	24.73
Failed performance conditions	(497,884)	59.01	–	–
Expired	(45,407)	35.17	–	–
Options outstanding at 31 December	1,397,053	43.86	2,439,297	42.04
Weighted average fair value, at date of grant, of options granted during the year (A\$)		26.97		13.35
Weighted average share price, at date of grant, for options granted during the year (A\$)		76.19		40.03
Weighted average share price at the time the options were exercised during the year (A\$)		75.32		54.35

In addition to the equity-settled options shown above there were 19,915 cash-settled options outstanding at 31 December 2010. The total liability for these awards at 31 December 2010 was US\$1 million (2009: US\$2 million).

### Share Ownership Plan

The fair values of awards 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. The total fair value of shares awarded during the year was US\$2 million (2009: US\$1 million).

### Performance Share Plan (formerly the Mining Companies Comparative Plan)

Prior to 2010, the Remuneration committee gave the Plan's participants the option to receive their awards in cash or as shares. This option resulted in the Plan being classified as a cash-settled share-based payment transaction and it was accounted for accordingly.

In 2010, the Group's policy for settling these awards changed. For settlement of all future awards under this Plan, participants will be assigned shares with no option to receive a cash alternative. As a result of this, and with effect from 1 July 2010, the Plan has been accounted for in accordance with the requirements applying to equity-settled share-based payment transactions. As required by IFRS 2 the provision balance of US\$57 million was transferred directly to equity with no impact on the income statement.

The change in settlement policy has been accounted for under IFRS 2 as a modification. Accordingly, the fair values of the awards granted prior to this change were re-measured at 1 July 2010 and from that date treated as equity-settled awards. The incremental fair value as a result of this modification was nil. This re-measurement was calculated using a Monte Carlo simulation model. The fair value of awards granted after July 2010 are measured at date of grant.

For the purpose of the disclosures below, the grant date fair values of the awards made prior to 2008 were calculated as the market value of the shares at the date of award reduced by 50 per cent for anticipated relative TSR performance. The grant date fair value of the awards made since 2008 were calculated using a Monte Carlo simulation model. In each case fair values were adjusted for non-receipt of dividends between measurement date and date of vesting (excluding awards for executive directors and product group CEOs). Forfeitures are assumed prior to vesting at three per cent per annum of outstanding awards (except for the 2009 awards which applied to senior executives only with no allowance for forfeitures).

## 49 Share based payments continued

### Rio Tinto plc – Performance Share Plan

	2010 Number	Weighted average fair value at grant date 2010 £	2009 Number	Weighted average fair value at grant date 2009 £
Non-vested shares at 1 January	2,324,181	14.98	3,148,648	12.21
Reclassification of phantom awards	(19,624)	12.81	–	–
Awarded	1,127,414	36.35	191,887	13.56
Forfeited on failure to meet service condition	(51,313)	20.33	(31,116)	16.19
Failed performance conditions	(416,765)	7.49	(145,215)	5.81
Vested	(488,544)	7.41	(840,023)	5.81
Non-vested shares at 31 December	2,475,349	27.37	2,324,181	14.98
Weighted average share price at date of vesting (£)		32.06		16.13

	2010 Number	Total fair value 2010 £'000	2009 Number	Total fair value 2009 £'000
Shares issued in settlement of vested awards	488,544	15,867	292,719	4,801
Total cash payments made in settlement of vested awards		–		9,236

In addition to the equity-settled options shown above there were 19,624 cash-settled awards outstanding at 31 December 2010. The total liability for these awards at 31 December 2010 was US\$1 million.

### Rio Tinto Limited – Performance Share Plan

	2010 Number	Weighted average fair value at grant date 2010 A\$	2009 Number	Weighted average fair value at grant date 2009 A\$
Non-vested shares at 1 January	1,515,643	31.97	2,162,867	26.97
Reclassification of phantom awards	(9,563)	28.28	–	–
Awarded	576,767	75.81	32,284	32.74
Forfeited on failure to meet service condition	(156,918)	37.49	(36,541)	35.13
Failed performance conditions	(302,218)	19.61	(87,442)	15.03
Vested	(334,135)	19.42	(555,525)	15.03
Non-vested shares at 31 December	1,289,576	57.09	1,515,643	31.97
Weighted average share price at date of vesting (A\$)		71.94		39.80

	2010 Number	Total fair value 2010 A\$'000	2009 Number	Total fair value 2009 A\$'000
Shares issued in settlement of vested awards	334,135	24,466	175,916	7,261
Total cash payments made in settlement of shares vested during the year		–		17,088

In addition to the equity-settled options shown above there were 9,563 cash-settled awards outstanding at 31 December 2010. The total liability for these awards at 31 December 2010 was less than US\$1 million.

### 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 and/or performance based conditions being met. 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. Forfeitures are assumed prior to vesting at five per cent per annum of outstanding awards.

A summary of the status of the Companies' share plans at 31 December 2010, and changes during the year, is presented below.

### Rio Tinto plc – Management Share Plan

	2010 Number	Weighted average fair value at grant date 2010 £	2009 Number	Weighted average fair value at grant date 2009 £
Non-vested awards at 1 January	2,131,808	24.00	862,850	36.89
Awarded	999,569	36.34	1,593,271	17.84
Forfeited on failure to meet service condition	(202,063)	25.36	(196,816)	25.77
Vested	(423,163)	25.20	(127,497)	31.50
Non-vested awards at 31 December	2,506,151	28.61	2,131,808	24.00

	2010 Number	Weighted average share price 2010 £	2009 Number	Weighted average share price 2009 £
Shares issued in respect of vested awards (including dividend shares applied on vesting)	374,609	34.69	127,497	22.77

In addition to the equity-settled awards shown above, there were 11,545 cash-settled awards outstanding at 31 December 2010. The total liability for these awards at 31 December 2010 was US\$1 million (2009: US\$6 million).

### Rio Tinto Limited – Management Share Plan

	2010 Number	Weighted average fair value at grant date 2010 A\$	2009 Number	Weighted average fair value at grant date 2009 A\$
Non-vested awards at 1 January	1,090,803	59.06	511,643	84.06
Awarded	569,125	75.71	735,282	43.30
Forfeited on failure to meet service condition	(67,484)	60.72	(119,565)	65.25
Vested	(248,325)	67.38	(36,557)	71.77
Non-vested awards at 31 December	1,344,119	64.49	1,090,803	59.06

	2010 Number	Weighted average share price 2010 A\$	2009 Number	Weighted average share price 2009 A\$
Shares issued in respect of vested awards (including dividend shares applied on vesting)	282,117	73.59	36,557	50.42

In addition to the equity-settled awards shown above there were 2,056 cash-settled awards outstanding at 31 December 2010. The total liability for these awards at 31 December 2010 was less than US\$1 million (2009: less than US\$1 million).

### Bonus Deferral Plan

The Bonus Deferral Plan was introduced during 2009 and is made up of two parts: the Bonus Deferral Award and the Company Contributed Award. The Bonus Deferral Award was established for the mandatory deferral of 100 per cent of the 2008 Bonus for executive directors and product group executives and 50 per cent of the 2008 Bonus for other executives. In addition, in order to enhance retention of key employees the Company Contributed Award was made in respect of 25 per cent of the gross annual basic salary for other executives. The vesting of these awards is dependent only on service conditions being met. 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.

A summary of the status of the Companies' share plans at 31 December 2010, and changes during the year, is presented on page 240.

## 49 Share based payments continued

### Rio Tinto plc – Bonus Deferral Plan

	2010 Number	Weighted average fair value at grant date 2010 £	2009 Number	Weighted average fair value at grant date 2009 £
Non-vested awards at 1 January	487,913	17.32		
Awarded	–	–	536,149	17.32
Forfeited on failure to meet service condition	(30,889)	17.32	(4,907)	17.32
Vested	(204,412)	17.32	(43,329)	17.32
Non-vested awards at 31 December	252,612	17.32	487,913	17.32

	2010 Number	Weighted average share price 2010 £	2009 Number	Weighted average share price 2009 £
Shares issued in respect of vested awards (including dividend shares applied on vesting)	213,786	42.74	9,171	29.75

### Rio Tinto Limited – Bonus Deferral Plan

	2010 Number	Weighted average fair value at grant date 2010 A\$	2009 Number	Weighted average fair value at grant date 2009 A\$
Non-vested awards at 1 January	251,939	41.75		
Awarded	–	–	278,405	41.75
Forfeited on failure to meet service condition	(12,210)	41.75	(13,460)	41.75
Vested	(108,304)	41.75	(13,006)	41.75
Non-vested awards at 31 December	131,425	41.75	251,939	41.75

	2010 Number	Weighted average share price 2010 A\$	2009 Number	Weighted average share price 2009 A\$
Shares issued in respect of vested awards (including dividend shares applied on vesting)	109,512	86.37	9,714	53.13

## 50 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. Valuations of these plans are produced and updated annually to 31 December by qualified actuaries.

For plans that are within the perimeter of the Engineered Products business which was divested early in 2011, the asset and obligation amounts as at 31 December 2010 have been transferred to "Assets and liabilities held for sale" and are therefore excluded from the closing balances shown in this note. The expense, cash flow and actuarial gains/losses for these plans during 2010 are reflected in full in this note.

### Pension plans

The majority of the Group's pension obligations are in Canada, the UK, the US, Switzerland and the Eurozone. There are some defined benefit obligations in Australia but the retirement arrangements there are predominantly defined contribution. In general the Group has a policy of moving towards defined contribution provision.

There are a number of pension arrangements in the UK. The defined benefit sections of these arrangements are linked to final pay and are closed to new members, with new employees being admitted to defined contribution sections. During 2010, the UK Government announced changes to the index that must be used for increasing certain pensions. This change automatically affects some benefits, and has resulted in actuarial gains of approximately US\$35 million which are reflected in the figures disclosed below. No amendments were made to plan rules in relation to this change.

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.

A number of defined benefit pension plans are sponsored by the US and Canadian entities. The main plans are two Canadian plans for salaried and bargaining employees. Benefits for salaried staff are generally linked to final average pay, while benefits for bargaining employees are reviewed in negotiation with unions.

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 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 proportions of the total fair value of assets in the pension plans for each asset class at the statement of financial position date were:

	2010	2009
Equities	53.6%	54.9%
Bonds	34.8%	33.6%
Property	7.1%	5.5%
Other	4.5%	6.0%
	100.0%	100.0%

The assets of the plans are generally 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\$24 million (2009: US\$19 million).



## 50 Post retirement benefits continued

### Main assumptions (rates per annum)

The main assumptions for the valuations of the plans under IAS 19 are set out below. Information on the sensitivity of the results to the main assumptions is set out in the sensitivity section on page 245.

	UK	Australia <sup>(a)</sup>	US	Canada	Eurozone	Switzerland	Other (mainly Africa) <sup>(b)</sup>
At 31 December 2010							
Rate of increase in salaries	4.9%	4.3%	3.8%	3.5%	2.5%	2.6%	4.3%
Rate of increase in pensions	3.2%	2.6%	–	0.9%	1.9%	–	2.3%
Discount rate	5.4%	4.7%	5.3%	5.5%	4.9%	2.6%	5.0%
Inflation <sup>(c)</sup>	3.4%	2.6%	2.3%	2.3%	2.1%	1.6%	2.3%
At 31 December 2009							
Rate of increase in salaries	5.0%	4.1%	4.0%	3.5%	2.4%	2.7%	7.7%
Rate of increase in pensions	3.4%	2.4%	–	0.8%	1.5%	–	5.7%
Discount rate	5.5%	4.8%	5.9%	6.5%	5.2%	2.9%	8.9%
Inflation	3.5%	2.4%	2.5%	2.3%	2.1%	1.5%	5.7%

(a) The discount rate shown for Australia is after tax.

(b) The assumptions vary by location for the 'Other' plans. Assumptions shown are for Southern Africa.

(c) The inflation assumption shown for the UK is for the Retail Price Index. The assumption for the Consumer Price Index at 31 December 2010 was 2.7 per cent.

The main financial assumptions used for the healthcare plans, which are predominantly in the US and Canada, were: discount rate: 5.3 per cent (2009: 6.0 per cent), medical trend rate: 7.4 per cent reducing to 4.9 per cent by the year 2017 broadly on a straight line basis (2009: 7.5 per cent, reducing to 5.1 per cent by the year 2015), 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 statement of financial position date has a weighted average expected future lifetime of 24 years (2009: 24 years) and that a man aged 60 in 2030 would have a weighted average expected future lifetime of 26 years (2009: 26 years).

	UK	Australia	US	Canada	Eurozone	Switzerland	Other (mainly Africa) <sup>(a)</sup>
Long term rate of return expected at 1 January 2010							
Equities	8.0%	8.7%	8.4%	7.7%	7.8%	6.4%	12.7%
Bonds	4.5%	4.8%	5.0%	4.8%	4.8%	2.8%	8.7%
Property	6.1%	6.6%	6.4%	5.8%	6.1%	4.4%	10.7%
Other	4.2%	2.5%	3.2%	3.1%	2.9%	2.4%	6.5%
Long term rate of return expected at 1 January 2009							
Equities	7.4%	7.0%	7.6%	7.2%	7.4%	6.5%	11.1%
Bonds	4.5%	3.9%	4.0%	5.2%	3.8%	3.1%	7.1%
Property	5.5%	5.0%	5.1%	5.2%	5.4%	4.5%	9.1%
Other	3.6%	2.4%	2.3%	2.2%	2.5%	2.4%	5.0%

(a) The assumptions vary by location for the "Other" plans. Assumptions shown are for Southern Africa.

The expected rate of return on pension plan assets is determined as management's best estimate of the long term returns of the major asset classes – equities, bonds, property and other – weighted by the allocation of assets among the categories at the measurement date. The expected rate of return is calculated using geometric averaging. The expected rates of return shown have been reduced to allow for plan expenses including, where appropriate, taxes incurred within pension plans on investment returns. Based on the assumptions made and the distribution of assets the weighted average expected return on assets as at 1 January 2010 was 6.4 per cent (2009: 5.9 per cent) and is expected to be 5.9 per cent as at 1 January 2011.

The sources used to determine management's best estimate of long term returns are numerous and include country-specific bond yields, which may be derived from the market using local bond indices or by analysis of the local bond market, and country-specific inflation and investment market expectations derived from market data and analysts' or governments' expectations as applicable.

### Total expense recognised in the income statement

	Pension benefits	Other benefits	2010 Total US\$m	2009 Total US\$m	2008 Total US\$m
Current employer service cost for defined benefit plans	(218)	(15)	(233)	(193)	(285)
Interest cost	(897)	(77)	(974)	(826)	(882)
Expected return on assets	776	1	777	581	857
Past service cost	(15)	(14)	(29)	(11)	(3)
Gains on curtailment and settlement	69	42	111	124	5
Total defined benefit expense	(285)	(63)	(348)	(325)	(308)
Current employer service cost for defined contribution and industry-wide plans	(224)	(1)	(225)	(199)	(194)
<b>Total expense recognised in the income statement</b>	<b>(509)</b>	<b>(64)</b>	<b>(573)</b>	<b>(524)</b>	<b>(502)</b>

The above expense amounts are included as an employee cost within net operating costs. In 2010, US\$88 million (pre-tax) of curtailment and settlement gains relating to the sale of businesses have been excluded from Underlying earnings (2009: US\$61 million, 2008: nil).

### Total amount recognised in other comprehensive income before tax

	2010 US\$m	2009 US\$m	2008 US\$m
Actuarial losses	(719)	(919)	(1,666)
(Loss)/gain on currency translation on plans using US dollar functional currency	(67)	(70)	321
Gain on application of asset limit	–	19	26
Total loss recognised in other comprehensive income <sup>(a)</sup>	(786)	(970)	(1,319)
<b>Cumulative amount recognised in Other comprehensive income at 31 December</b>	<b>(2,586)</b>	<b>(1,800)</b>	<b>(830)</b>

(a) Actuarial loss includes US\$4 million loss related to equity accounted units (2009: US\$126 million loss; 2008: US\$5 million loss).

### (Deficits)/surpluses in the plans

The following amounts were measured in accordance with IAS 19 at 31 December:

	Pension benefits	Other benefits	2010 Total US\$m	2009 Total US\$m	2008 Total US\$m	2007 Total US\$m	2006 Total US\$m
Total fair value of plan assets	13,144	–	13,144	12,407	9,306	14,350	4,656
Present value of obligations – funded	(15,499)	(8)	(15,507)	(15,148)	(11,044)	(14,822)	(4,472)
Present value of obligations – unfunded	(892)	(1,110)	(2,002)	(2,385)	(1,784)	(2,089)	(597)
Present value of obligations – total	(16,391)	(1,118)	(17,509)	(17,533)	(12,828)	(16,911)	(5,069)
Unrecognised past service cost	9	(6)	3	(7)	(12)	(2)	3
Effect of asset limit	–	–	–	–	(19)	(45)	–
Aggregate deficit to be shown in the statement of financial position	(3,238)	(1,124)	(4,362)	(5,133)	(3,553)	(2,608)	(410)
Comprising:							
– Deficits	(3,348)	(1,124)	(4,472)	(5,150)	(3,713)	(3,313)	(770)
– Surpluses	110	–	110	17	160	705	360
<b>Net (deficits)/surpluses on pension plans</b>	<b>(3,238)</b>	<b>–</b>	<b>(3,238)</b>	<b>(3,803)</b>	<b>(2,648)</b>	<b>(1,519)</b>	<b>48</b>
<b>Unfunded post retirement healthcare obligation</b>	<b>–</b>	<b>(1,124)</b>	<b>(1,124)</b>	<b>(1,330)</b>	<b>(905)</b>	<b>(1,089)</b>	<b>(458)</b>

The surplus amounts shown above are included in the statement of financial position as Trade and other receivables. See note 17.

Deficits are shown in the statement of financial position as Post retirement benefits. See note 27.

## 50 Post retirement benefits continued

### Contributions to plans

Contributions to defined benefit pension plans during 2010 totalled US\$1,036 million (2009: US\$560 million; 2008: US\$421 million). The increase compared to 2009 results from a combination of special contributions as a result of the sale of the Packaging business and the acceleration of some contributions from 2011 into 2010. Contributions of US\$212 million (2009: US\$190 million; 2008: US\$184 million) were made to defined contribution arrangements and US\$12 million (2009: US\$9 million; 2008: US\$10 million) to industry-wide plans; these are charged against profits and are included in the figures for defined contribution current employer service costs shown in the previous page.

Contributions for other benefits totalled US\$79 million (2009: US\$46 million; 2008: US\$53 million).

Contributions to defined benefit pension plans for 2011 are estimated to be around US\$375 million less than for 2010. This is kept under regular review and actual contributions will be determined in line with the Group's wider financing strategy. Healthcare plans are generally unfunded and contributions for future years will be equal to benefit payments and therefore cannot be predetermined.

### Movements in the present value of the defined benefit obligation and in the fair value of assets

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 operations that are proportionally consolidated or equity accounted. 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	2010 Total US\$m	2009 Total US\$m
<b>Change in present value of obligation:</b>				
Present value of obligation at start of the year	(16,209)	(1,324)	(17,533)	(12,828)
Current employer service cost	(218)	(15)	(233)	(204)
Interest cost	(897)	(77)	(974)	(826)
Contributions by plan participants	(50)	(3)	(53)	(121)
Experience gain/(loss)	124	22	146	(139)
Changes in actuarial assumptions loss	(1,088)	(119)	(1,207)	(1,671)
Benefits paid	962	83	1,045	951
Transfers to/(from) Assets held for sale <sup>(a)</sup>	808	311	1,119	(1,656)
Inclusion of arrangements	(15)	–	(15)	(3)
No longer consolidated	–	–	–	21
Past service cost	(24)	(15)	(39)	(11)
Curtailments	62	42	104	80
Settlements	428	–	428	181
Currency exchange rate loss	(274)	(23)	(297)	(1,307)
Present value of obligation at end of the year	(16,391)	(1,118)	(17,509)	(17,533)

### Gains and losses on obligations

	2010	2009	2008	2007	2006
Experience gains/(losses): (ie variances between the estimate of obligations and the subsequent outcome)	146	(139)	(37)	(41)	(7)
As a percentage of the present value of the year end obligations	1%	(1%)	0%	0%	0%
Change in assumptions (loss)/gain (US\$m)	(1,207)	(1,671)	1,684	315	124

(a) In 2010, plans within the perimeter of the Engineered Products divestment have been transferred to "Assets and liabilities held for sale". In 2009, any plans sponsored by the Rio Tinto Alcan Packaging business that were not expected to be sold were transferred out of 'Assets held for sale' and reflected in this note.

	Pension benefits	Other benefits	2010 Total US\$m	2009 Total US\$m	
Change in plan assets:					
Fair value of plan assets at the start of the year	12,406	1	12,407	9,306	
Expected return on plan assets	776	1	777	581	
Actuarial gain on plan assets	346	–	346	891	
Contributions by plan participants	50	3	53	121	
Contributions by employer	1,038	78	1,116	627	
Benefits paid	(962)	(83)	(1,045)	(951)	
Transfers (to)/from Assets held for sale <sup>(a)</sup>	(401)	–	(401)	882	
Inclusion of arrangements	15	–	15	–	
Refunds of contributions	–	–	–	(27)	
Settlements	(421)	–	(421)	(137)	
Currency exchange rate gain	297	–	297	1,114	
Fair value of plan assets at the end of the year	13,144	–	13,144	12,407	
Actual return on plan assets			1,123	1,472	
	2010	2009	2008	2007	2006
Difference between the expected and actual return on plan assets:					
Gain/(loss) (US\$m)	346	891	(3,308)	(129)	256
As a percentage of year end plan assets	3%	7%	(36%)	(1%)	5%

(a) In 2010, plans within the perimeter of the Engineered Products divestment have been transferred to "Assets and liabilities held for sale". In 2009, any plans sponsored by the Rio Tinto Alcan Packaging business that were not expected to be sold were transferred out of 'Assets held for sale' and reflected in this note.

### Sensitivity

The values reported for the defined benefit pension obligations are sensitive to the actuarial assumptions used for projecting future benefit payments and discounting those payments. The approximate sensitivities to the principal assumptions used to measure the obligations are:

Assumption	Change in assumption	Approximate (increase)/decrease in obligations	
		Pensions US\$m	Other US\$m
Discount rate	increase of 0.5 percentage points	1,012	64
	decrease of 0.5 percentage points	(1,081)	(68)
Inflation	increase of 0.5 percentage points	(609)	(37)
	decrease of 0.5 percentage points	578	32
Salary increases	increase of 0.5 percentage points	(131)	(3)
	decrease of 0.5 percentage points	127	3
Demographic – allowance for future improvements in longevity	participants assumed to have the mortality rates of individuals who are one year older	390	19
	participants assumed to have the mortality rates of individuals who are one year younger	(390)	(19)

### Post retirement healthcare sensitivity to changes in assumptions

An increase of one per cent in the assumed medical cost trend rates would increase the aggregate of the current service cost and interest cost components of the post retirement healthcare expense by US\$7 million (2009: US\$6 million; 2008: US\$8 million), and increase the benefit obligation for these plans by US\$72 million (2009: US\$98 million; 2008: US\$85 million). A decrease of one per cent in the assumed medical cost trend rates would decrease the aggregate of the current service cost and interest cost components of the post retirement healthcare expense by US\$6 million (2009: US\$5 million; 2008: US\$7 million), and decrease the benefit obligation for these plans by US\$62 million (2009: US\$83 million; 2008: US\$75 million).

## 51 Rio Tinto Limited parent company disclosures<sup>(a)</sup>

As at 31 December	2010 A\$m	2009 A\$m
<b>Assets</b>		
Current assets	7,642	11,384
Non-current assets	11,525	11,372
<b>Total assets</b>	<b>19,167</b>	<b>22,756</b>
<b>Liabilities</b>		
Current liabilities	(2,852)	(1,903)
Non-current liabilities	(101)	(1,040)
<b>Total liabilities</b>	<b>(2,953)</b>	<b>(2,943)</b>
<b>Net assets</b>	<b>16,214</b>	<b>19,813</b>
<b>Shareholders' equity</b>		
Share capital	4,113	5,728
Available-for-sale investment revaluation reserve	–	1
Share based payments reserves	(137)	(143)
Capital reserves	536	536
Retained earnings	11,702	13,691
<b>Total equity</b>	<b>16,214</b>	<b>19,813</b>
<b>Profit of the parent company</b>	<b>10,329</b>	<b>13,051</b>
<b>Total comprehensive income of the parent company</b>	<b>10,328</b>	<b>13,051</b>
<b>Contingent liabilities</b>		
<b>Bank and other performance guarantees<sup>(b)</sup></b>	<b>15,149</b>	<b>10,596</b>

(a) Prepared under Australian Accounting Standards (AAS). In relation to Rio Tinto Limited there are no significant measurement differences between AAS and EU IFRS.

(b) Bank and other performance guarantees relate principally to the obligations of subsidiary companies.

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 or guaranteed by the other. These guarantees are excluded from the figures above.

## Company balance sheet

At 31 December

	Note	2010 US\$m	2009 US\$m
<b>Fixed assets</b>			
Investments	B	35,940	22,458
		35,940	22,458
<b>Current assets</b>			
Amounts owed by subsidiaries		3,578	5,778
Other debtors and prepayments		–	1
Cash at bank and in hand		2	2
		3,580	5,781
<b>Creditors amounts falling due within one year</b>			
Amounts owed to subsidiaries		(11,684)	(435)
Dividends payable		(8)	(8)
		(11,692)	(443)
<b>Net current (liabilities)/assets</b>		(8,112)	5,338
<b>Total assets less current liabilities</b>		27,828	27,796
<b>Creditors – amounts falling due after more than one year</b>		(46)	(96)
<b>Net assets</b>		27,782	27,700
<b>Capital and reserves</b>			
Called up share capital	C	246	246
Share premium account	D	4,258	4,174
Other reserves	D	11,965	11,965
Profit and loss account	D	11,313	11,315
<b>Equity shareholders' funds</b>		27,782	27,700

(a) The Rio Tinto plc company balance sheet has been prepared in accordance with applicable UK accounting standards. Note A explains the principal accounting policies.

(b) Profit after tax for the year amounted to US\$1,290 million (2009: US\$5,164 million). 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 2011 and the balance sheet is signed on their behalf by



Jan du Plessis Chairman



Tom Albanese Chief executive



Guy Elliott 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 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. 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". The financial statements have been prepared on a going concern basis.

The directors have reviewed the Company's existing accounting policies and consider that they are consistent with last year.

The principal accounting policies 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.

### 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 45). 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 credit 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. 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 Rio Tinto's shareholders.

## B Rio Tinto plc fixed assets

	2010 US\$m	2009 US\$m
<b>Fixed asset investments <sup>(a)</sup></b>		
Shares in Group companies:		
At 1 January	22,458	2,287
Additions	13,482	20,171
At 31 December	35,940	22,458

(a) US\$13.4 billion (2009: US\$20.1 billion) of the increase in investments is attributable to the recapitalisation of Rio Tinto International Holdings, which holds the Group's investment in Rio Tinto Alcan Inc.

## C Rio Tinto plc called up share capital

	2010 US\$m	2009 US\$m
<b>Issued and fully paid up share capital</b>		
At 1 January	246	160
Ordinary shares purchased and cancelled	–	86
At 31 December	246	246

(a) During the year, no new shares were issued (2009: 524,460,478 shares issued as a result of Rio Tinto plc rights issue). No shares (2009: 440,018 shares) were issued pursuant to share plans and 2,336,005 shares (2009: 874,925 shares) were reissued from treasury pursuant to share plans.

## D Rio Tinto plc share premium and reserves

At 31 December 2010

	Share premium account US\$m	Other reserves US\$m	Profit and loss account US\$m
At 1 January	4,174	11,965	11,315
Adjustment for share based payments	84	–	58
Profit for the financial year	–	–	1,290
Dividends paid	–	–	(1,350)
At 31 December	4,258	11,965	11,313

At 31 December 2009

	Share premium account US\$m	Other reserves US\$m	Profit and loss account US\$m
At 1 January	4,705	29	6,769
Adjustment for share based payments	28	–	52
Premium on issue of shares	4	–	–
Rights issue expenses including mark to market losses on forward contracts	(563)	–	–
Merger reserve arising from Rio Tinto plc's rights issue	–	11,936	–
Profit for the financial year	–	–	5,164
Dividends paid	–	–	(670)
At 31 December	4,174	11,965	11,315

## E Rio Tinto plc contingent liabilities

	2010 US\$m	2009 US\$m
<b>Bank and other performance guarantees in respect of subsidiaries <sup>(a)</sup></b>	<b>9,559</b>	<b>18,706</b>

(a) In 2010, the above amount guaranteed by the Company includes US\$8.7 billion (2009: US\$8.6 billion) Rio Tinto Finance (USA) Limited Bonds with maturity dates ranging from 2013 to 2028, and US\$703 million (2009: US\$1.2 billion) Letters of Credits guaranteed on behalf of Rio Tinto Group entities. The amount guaranteed by the Company to finance the acquisition of Alcan Inc was repaid during 2010 (2009: US\$8.5 billion).

(b) Rio Tinto plc has provided a number of guarantees in relation to various pension funds including the Rio Tinto Pension Fund and the Rio Tinto 2009 Pension Fund. Rio Tinto plc will pay any contributions due from Group companies participating in the various funds, pro-rata to its ownership of those companies, in the event that the companies fail to meet their contribution requirements.

# Rio Tinto financial information by business unit

Years ended 31 December

US\$ millions	Rio Tinto interest %	Gross sales revenue <sup>(a)</sup>			EBITDA <sup>(b)</sup>			Net earnings <sup>(c)</sup>		
		2010	2009	2008	2010	2009	2008	2010	2009	2008
<b>Iron Ore</b>										
Hamersley <sup>(d)</sup>	100.0	16,757	8,874	11,006	11,819	5,190	7,038	7,911	3,283	4,642
Robe River <sup>(e)</sup>	53.0	4,322	2,186	2,728	3,328	1,422	1,983	1,771	718	1,062
Iron Ore Company of Canada	58.7	2,447	1,006	2,065	1,379	344	1,251	491	112	443
Rio Tinto Brasil	(f)	–	30	176	–	(15)	73	–	(19)	44
Dampier Salt	68.4	442	453	377	79	203	95	29	88	40
Product group operations		23,968	12,549	16,352	16,605	7,144	10,440	10,202	4,182	6,231
Evaluation projects/other		56	49	175	–	(32)	(228)	(13)	(56)	(214)
		24,024	12,598	16,527	16,605	7,112	10,212	10,189	4,126	6,017
<b>Aluminium</b>										
Bauxite & Alumina		4,959	3,854	6,660	269	(89)	805	1	(332)	220
Primary Metal		11,828	9,188	14,627	1,976	591	3,010	665	(291)	1,041
Other product group items		517	556	512	120	77	185	42	52	75
Upstream intersegment		(2,290)	(1,606)	(3,546)	(8)	3	23	(6)	2	16
Product group operations		15,014	11,992	18,253	2,357	582	4,023	702	(569)	1,352
Evaluation projects/other		192	46	44	61	12	(87)	71	9	(71)
		15,206	12,038	18,297	2,418	594	3,936	773	(560)	1,281
<b>Copper</b>										
Kennecott Utah Copper	100.0	3,327	2,368	2,609	2,178	1,449	1,587	1,342	818	998
Escondida	30.0	2,699	2,039	2,402	1,806	1,327	1,464	1,013	760	854
Grasberg joint venture	(g)	611	991	53	403	706	38	206	385	4
Palabora	57.7	837	635	560	205	123	167	52	17	49
Northparkes	80.0	308	173	124	193	98	(1)	112	53	(12)
Product group operations		7,782	6,206	5,748	4,785	3,703	3,255	2,725	2,033	1,893
Evaluation projects/other		–	–	–	(282)	(229)	(395)	(191)	(155)	(278)
		7,782	6,206	5,748	4,503	3,474	2,860	2,534	1,878	1,615
<b>Energy</b>										
Rio Tinto Coal Australia	(h)	4,603	3,870	5,142	1,731	1,799	2,900	940	1,017	1,719
Rössing	68.6	493	376	383	23	83	260	(3)	24	101
Energy Resources of Australia	68.4	533	620	418	118	358	352	22	138	141
Product group operations		5,629	4,866	5,943	1,872	2,240	3,512	959	1,179	1,961
Evaluation projects/other		23	3	41	427	(15)	461	228	(12)	471
		5,652	4,869	5,984	2,299	2,225	3,973	1,187	1,167	2,432
<b>Diamonds &amp; Minerals</b>										
Diamonds	(i)	682	450	840	158	(7)	395	70	(68)	137
Rio Tinto Iron and Titanium	(j)	1,331	1,284	1,919	255	209	755	74	(9)	295
Rio Tinto Minerals	(k)	1,015	882	1,061	209	187	183	199	78	86
Product group operations		3,028	2,616	3,820	622	389	1,333	343	1	518
Evaluation projects/other		7	2	–	(16)	820	(41)	(15)	799	(44)
		3,035	2,618	3,820	606	1,209	1,292	328	800	474

Refer to notes a) to l) on page 253.

	Rio Tinto interest %	Gross sales revenue <sup>(a)</sup>			EBITDA <sup>(b)</sup>			Net earnings <sup>(c)</sup>		
		2010	2009	2008	2010	2009	2008	2010	2009	2008
<b>Other Operations</b>	(l)	<b>5,734</b>	6,563	9,405	<b>211</b>	467	524	<b>71</b>	71	13
Inter-segment transactions		(1,110)	(856)	(1,716)	(22)	(28)	58	(15)	(28)	25
Other items					(594)	(719)	(378)	(554)	(577)	(391)
Central exploration and evaluation					(48)	(22)	(160)	(52)	5	(133)
Net interest								(474)	(584)	(1,030)
<b>Underlying earnings</b>					<b>25,978</b>	14,312	22,317	<b>13,987</b>	6,298	10,303
Items excluded from Underlying earnings					661	159	1,553	337	(1,426)	(6,627)
<b>Total</b>		<b>60,323</b>	44,036	58,065	<b>26,639</b>	14,471	23,870	<b>14,324</b>	4,872	3,676
Depreciation and amortisation in subsidiaries					(3,437)	(3,427)	(3,475)			
Impairment charges					(982)	(1,573)	(8,030)			
Depreciation and amortisation in equity accounted units					(522)	(440)	(414)			
Taxation and finance items in equity accounted units					(903)	(739)	(718)			
<b>Profit before finance items and taxation</b>					<b>20,795</b>	8,292	11,233			

Refer to notes a) to l) on page 253.

# Rio Tinto financial information by business unit continued

	Rio Tinto interest %	Capital expenditure <sup>(m)</sup>			Depreciation & amortisation			Operating assets <sup>(n)</sup>		Employees		
		2010 US\$m	2009 US\$m	2008 US\$m	2010 US\$m	2009 US\$m	2008 US\$m	2010 US\$m	2009 US\$m	2010 Number	2009 Number	2008 Number
Iron Ore												
Hamersley <sup>(d)</sup>	100.0	1,227	1,337	1,860	630	506	466	8,010	7,530	7,525	6,556	6,321
Robe River <sup>(e)</sup>	53.0	222	599	683	222	140	111	2,612	2,751	1,489	1,114	1,011
Iron Ore Company of Canada	58.7	253	180	256	108	86	83	847	808	2,179	2,027	2,094
Rio Tinto Brasil (f)		–	11	146	–	3	14	–	5	–	666	841
Dampier Salt	68.4	14	21	27	23	18	21	196	179	439	405	394
Other		–	–	24	10	10	10	(37)	(10)	767	607	448
		1,716	2,148	2,996	993	763	705	11,628	11,263	12,399	11,375	11,109
Aluminium												
Bauxite & Alumina		484	840	1,183	411	379	381	11,318	10,401	4,975	5,533	5,630
Primary Metal		848	866	1,218	1,108	1,133	1,104	25,380	25,483	15,011	15,389	16,405
Other product group items		(4)	(16)	16	44	39	58	1,628	456	1,998	1,997	2,599
		1,328	1,690	2,417	1,563	1,551	1,543	38,326	36,340	21,984	22,919	24,634
Copper												
Kennecott Utah Copper	100.0	227	176	316	293	296	246	1,476	1,533	1,977	1,878	1,915
Escondida	30.0	206	213	120	119	104	98	1,468	1,625	1,033	997	960
Grasberg joint venture (g)		102	79	32	49	47	25	540	378	2,258	2,162	2,185
Palabora	57.7	33	16	40	69	67	57	–	(11)	2,158	2,030	2,116
Northparkes	80.0	53	17	105	32	25	15	403	301	226	186	210
Other (o)		337	52	191	3	2	1	2,776	1,361	879	359	169
		958	553	804	565	541	442	6,663	5,187	8,531	7,612	7,555
Energy												
Rio Tinto Coal Australia (h)		609	456	449	266	205	194	3,145	2,222	3,186	3,289	3,206
Rössing	68.6	35	24	73	31	27	20	201	324	1,592	1,415	1,307
Energy Resources of Australia	68.4	41	30	144	70	64	51	348	263	523	521	448
		685	510	666	367	296	265	3,694	2,809	5,301	5,225	4,961
Diamonds & Minerals												
Diamonds (i)		186	250	652	70	104	175	1,185	1,293	1,064	1,040	1,401
Rio Tinto Iron & Titanium (j)		91	247	563	145	129	118	2,708	2,626	3,528	4,121	4,105
Rio Tinto Minerals (k)		23	22	63	53	57	68	682	693	2,340	2,214	2,580
Other		–	–	5	–	–	–	5	–	30	–	103
		300	519	1,283	268	290	361	4,580	4,612	6,962	7,375	8,189
Other Operations												
Net (liabilities)/assets held for sale (l)		237	404	662	89	315	482	264	1,925	11,898	16,369	17,315
Other items (p)		–	–	–	–	–	–	(101)	3,462	6,180	27,732	28,386
Less: equity accounted units		75	54	151	114	111	91	(2,437)	(2,906)	3,639	3,387	3,636
		(746)	(522)	(491)	(522)	(440)	(414)					
Total		4,553	5,356	8,488	3,437	3,427	3,475	62,617	62,692	76,894	101,994	105,785
Less: Net debt								(4,284)	(18,861)			
Total Rio Tinto shareholders' equity								58,333	43,831			

Refer to notes d) to p) on page 253.

Business units have been classified according to the Group's management structure. Generally, business units are allocated to product groups based on their primary product. The Energy group includes both coal and uranium businesses. The Diamonds & Minerals product group includes businesses with products such as borates, talc and titanium dioxide feedstock together with diamonds operations. The Copper group includes certain gold operations in addition to copper. The Aluminium group excludes Alcan Engineered Products which is included in "Other Operations" and Alcan Packaging which is included in "Net assets held for sale".

Aluminium is now presented based on commercial activities splitting it between Bauxite & Alumina, Primary Metal and Other product group items. 2009 comparative information has been restated accordingly.

- (a) Gross sales revenue 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 represent profit before: tax, net finance items, depreciation and amortisation. Underlying EBITDA excludes the same items that are excluded from Underlying earnings.
- (c) Net earnings represent profit after tax for the year attributable to the owners of the Rio Tinto Group. Earnings of subsidiaries and equity accounted units 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) Includes Rio Tinto's interests in Hamersley (100 per cent) and Hismelt® (60 per cent).
- (e) The Group holds 65 per cent of Robe River Iron Associates, of which 30 per cent is held through a 60 per cent owned subsidiary. The Group's net interest is, therefore, 53 per cent, net of amounts attributable to outside equity shareholders.
- (f) Rio Tinto completed the sale of its 100 per cent interest in the Corumbá mine, effective 18 September 2009.
- (g) Under the terms of a joint venture 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.
- (h) Includes Rio Tinto's 75.7 per cent interest in Coal and Allied, which is managed by Rio Tinto Coal Australia, a 100 per cent subsidiary of Rio Tinto. Coal and Allied owns a 40 per cent interest in Bengalla and an 80 per cent interest in Mount Thorley, giving the Group a beneficial interest in those companies of 30.3 per cent and 60.6 per cent, respectively.
- (i) Diamonds includes Rio Tinto's interests in Argyle (100 per cent), Diavik (60 per cent) and Murowa (77.8 per cent).
- (j) Includes Rio Tinto's interests in Rio Tinto Fer et Titane (RTFT) (100 per cent), QMM (80 per cent) and RBM (attributable interest of 37 per cent).
- (k) Includes Rio Tinto's interests in Rio Tinto Borax (100 per cent) and Luzenac Talc (100 per cent).
- (l) Includes Rio Tinto's interests in its US coal operations formerly reported under Rio Tinto Energy America.
- (m) 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. Amounts relating to equity accounted units not specifically funded by Rio Tinto are deducted before arriving at total capital expenditure for the Group.
- (n) 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 less non-controlling interests, which are calculated by reference to the net assets of the relevant companies (ie net of such companies' debt).
- (o) Includes Rio Tinto's interests in Oyu Tolgoi LLC which are held indirectly through its investment in Ivanhoe and were recognised at a provisional fair value on 15 December 2010. The Group's remaining interest in the assets of Ivanhoe Mines that does not relate to Oyu Tolgoi LLC continues to be recognised at historic cost.
- (p) Net (liabilities)/assets held for sale at 31 December 2010 relate to Alcan Engineered Products (AEP) excluding the Cable Division; at 31 December 2009 these comprised Alcan Packaging and other assets held for sale. In 2009 and 2008, AEP was included within Other Operations.



# Australian Corporations Act – summary of ASIC relief

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Pursuant to section 340 of the Corporations Act 2001 ("Corporations Act"), the Australian Securities and Investments Commission issued an order dated 22 December 2010 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 applied to Rio Tinto Limited's financial reporting obligations for financial years and half-years ending between 31 December 2010 and 30 June 2014 (inclusive).

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 162).

Those consolidated financial statements must also be audited in relation to their compliance with relevant United Kingdom and Australian requirements. Rio Tinto Limited must also prepare a Directors' report which satisfies the content requirements of the Corporations Act (applied on the basis that the consolidated entity for those purposes is the Group), except that the order allows Rio Tinto Limited to prepare a separate Remuneration report that is merely cross-referenced in the Directors' report, instead of including in the Directors' report the Remuneration report otherwise required by the Corporations Act. The separate Remuneration report (see pages 128 to 155) must include all the information required to be included in a Remuneration report under 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 separate Remuneration report is also required to be lodged with the Australian Securities and Investments Commission at the same time as the consolidated financial statements, and Rio Tinto Limited must not distribute or make available the Remuneration report without the consolidated financial statements and Directors' report. At the Company's AGM, it is required to allow shareholders to vote on a non binding resolution to adopt the Remuneration report, on the same basis as would otherwise be required for a Remuneration report under the Corporations Act.

Rio Tinto Limited is not required to prepare separate consolidated financial statements solely for it and its controlled entities. Rio Tinto Limited is also no longer required to prepare and lodge parent entity financial statements for itself in respect of each relevant financial year consistent with recent changes made to the Corporations Act.

However, consistent with those changes, 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, shareholder's equity, profit and loss, income, guarantees, contingent liabilities, and contractual commitments) prepared in accordance with AAS (see page 246).

# 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 these 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). The directors are also required to prepare certain Rio Tinto Limited parent company disclosures in accordance with Australian Accounting Standards (AASs). 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 and of the profit or loss of the companies and Group for that 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 applicable AAS have been followed, subject to any material departures disclosed and explained in the Group and parent company financial statements respectively;
- 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 Companies Act 2006, the Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 22 December 2010 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 22 December 2010 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 22 December 2010.

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 102 to 105 in the Governance section confirm that, to the best of their knowledge and in their opinion:

- the Rio Tinto Group financial statements and notes 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 22 December 2010 (including, to the extent required, in accordance with AASs and the Corporations Regulations 2001), Companies Act 2006 and Article 4 of the IAS Regulation, and give a true and fair view of the assets, liabilities, and financial position of the Group and Rio Tinto Limited as at 31 December 2010, and of the profit and performance of the Group and Rio Tinto Limited for the year ended as at that date;
- the Rio Tinto plc financial statements and notes, which have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice and the Companies Act 2006 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 officer and chief financial officer required by section 295A of the Corporations Act 2001 (as amended by the Australian Securities and Investments Commission Order dated 22 December 2010).

### 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 2011



**Tom Albanese** Chief executive  
4 March 2011



**Guy Elliott** Chief financial officer  
4 March 2011

## Auditors' independence declaration

As lead auditor for the audit of Rio Tinto Limited for the year ended 31 December 2010, 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.

**Robert Hubbard**  
Partner

**PricewaterhouseCoopers**  
Brisbane

4 March 2011

# 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.

We have audited the financial statements of Rio Tinto (the 'Group financial statements') for the year ended 31 December 2010 which comprise the Group income statement, the Group statement of comprehensive income, the Group cash flow statement, the Group statement of financial position, the Group statement of changes in equity and notes 1 to 51, the outline of dual listed companies structure and basis of financial statements and the Rio Tinto financial information by business unit.

PricewaterhouseCoopers LLP has audited the Rio Tinto plc company financial statements for the year ended 31 December 2010 which comprise the Rio Tinto plc company balance sheet and the related notes. PricewaterhouseCoopers has audited the Reconciliation with Australian Accounting Standards.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law in the United Kingdom and applicable law in Australia as amended by the Australian Securities and Investments Commission Order dated 22 December 2010 (the "ASIC Order" described in the Australian Corporations Act – Summary of ASIC relief) and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

The financial reporting framework that has been applied in the preparation of the Rio Tinto plc company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

## Respective responsibilities of directors and auditors

As explained more fully in the Directors' declaration set out on page 255, 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 statements that are 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, International Standards on Auditing (UK and Ireland) and Australian Auditing Standards. Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors and the Independence requirements of the Australian Corporations Act 2001.

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 Section 308 of the Australian Corporations Act 2001 (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.

## Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the circumstances of the Group, of Rio Tinto plc and of Rio Tinto Limited 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 auditor's 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 auditor considers 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 believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In conducting its audit, PricewaterhouseCoopers has complied with the independence requirements of the Australian Corporations' Act 2001.

### Opinion of PricewaterhouseCoopers LLP on the financial statements to the members of Rio Tinto plc

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of Rio Tinto plc's affairs as at 31 December 2010 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 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 in relation to IFRSs as issued by the IASB

As explained in note 1 to the Group financial statements, the Group in addition to complying with its legal obligation to apply 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 on other matters prescribed by the Companies Act 2006

In our opinion:

- the part of the Remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006;
- the information given in the Corporate Governance Statement set out on pages 114 to 127 in the *Annual report* with respect to internal control and risk management systems and about share capital structures is consistent with the financial statements; and
- the information given in the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

### Matters on which we are required to report by exception

We have nothing to report in respect of the following:

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- 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 company financial statements and the part of the Directors' remuneration report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit; or
- a corporate governance statement has not been prepared by Rio Tinto plc.

Under the Listing Rules we are required to review:

- the Directors' report, set out on page 113, in relation to going concern;
- part of the Corporate governance section of the *Annual report* relating to the Rio Tinto plc's compliance with the nine provisions of the June 2008 Combined Code specified for our review; and
- certain elements of the report to shareholders by the Board on directors' remuneration.

**Ross Hunter**

**Senior Statutory Auditor**

for and on behalf of **PricewaterhouseCoopers LLP**  
Chartered Accountants and Statutory Auditors  
London

4 March 2011

### Opinion of PricewaterhouseCoopers on the financial statements to the members of Rio Tinto Limited

In our opinion:

- the financial statements give a true and fair view of the state of the Group's affairs 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 IFRSs as adopted by the European Union, and
- the Group financial statements have been properly prepared in accordance with the ASIC Order.

### Separate opinion in relation to IFRSs as issued by the IASB

As explained in note 1 to the Group financial statements, the Group in addition to complying with its legal obligation to comply with IFRSs as adopted by the European Union, has also complied with the 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 on other matters

In our opinion:

- the Remuneration report included in the accompanying *Annual report* complies with the requirements of the Section 300A as amended by the ASIC Order; and
- the information given in the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

**Robert Hubbard**

**Partner**

**PricewaterhouseCoopers**

Brisbane

4 March 2011

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# Financial summary 2001 – 2010

US\$m	2001	2002	2003	2004	2005	2006	2007 <sup>(i)</sup>	2008	2009	2010
Gross sales revenue <sup>(d)</sup>	10,438	11,119	12,119	14,530	20,742	25,440	33,518	58,065	44,036	60,323
Share of equity accounted units' sales revenue <sup>(e)</sup>	(2,286)	(2,404)	(2,551)	(1,576)	(1,709)	(2,975)	(3,818)	(3,801)	(2,211)	(3,747)
<b>Consolidated sales revenue</b>	<b>8,152</b>	<b>8,715</b>	<b>9,568</b>	<b>12,954</b>	<b>19,033</b>	<b>22,465</b>	<b>29,700</b>	<b>54,264</b>	<b>41,825</b>	<b>56,576</b>
Underlying/Adjusted PBIT <sup>(f)</sup>	3,102	2,696	2,266	3,224	7,301	9,912	10,517	17,683	9,843	21,128
Finance costs <sup>(g)</sup>	(404)	(291)	(298)	(207)	(207)	(193)	(570)	(1,706)	(1,058)	(909)
Exchange differences and derivatives <sup>(h)</sup>				224	(191)	83	253	(322)	528	529
Other exclusions from Underlying/Adjusted earnings <sup>(f)</sup>	(715)	(1,094)	126	622	409	438	(364)	(6,477)	(1,453)	(171)
<b>Profit before tax (PBT)</b>	<b>1,983</b>	<b>1,311</b>	<b>2,094</b>	<b>3,863</b>	<b>7,312</b>	<b>10,240</b>	<b>9,836</b>	<b>9,178</b>	<b>7,860</b>	<b>20,577</b>
Tax on Exclusions	132	42	–	57	33	(357)	60	988	(91)	42
Tax on Underlying/Adjusted PBT	(850)	(750)	(567)	(676)	(1,847)	(2,016)	(2,150)	(4,730)	(1,985)	(5,338)
Loss after tax from discontinued operations	–	–	–	–	–	–	–	(827)	(449)	(97)
Attributable to outside shareholders	(186)	48	(19)	53	(283)	(429)	(434)	(933)	(463)	(860)
<b>Net earnings</b>	<b>1,079</b>	<b>651</b>	<b>1,508</b>	<b>3,297</b>	<b>5,215</b>	<b>7,438</b>	<b>7,312</b>	<b>3,676</b>	<b>4,872</b>	<b>14,324</b>
<b>Underlying/Adjusted earnings <sup>(f)</sup></b>	<b>1,662</b>	<b>1,530</b>	<b>1,382</b>	<b>2,272</b>	<b>4,955</b>	<b>7,338</b>	<b>7,443</b>	<b>10,303</b>	<b>6,298</b>	<b>13,987</b>
<b>Earnings per share (basic) – continuing operations <sup>(s)</sup></b>	<b>64.1c</b>	<b>38.7c</b>	<b>89.4c</b>	<b>195.4c</b>	<b>312.6c</b>	<b>456.2c</b>	<b>464.9c</b>	<b>286.8c</b>	<b>301.7c</b>	<b>735.4c</b>
<b>Underlying/Adjusted earnings per share (basic) – continuing operations <sup>(s)</sup></b>	<b>98.8c</b>	<b>90.9c</b>	<b>82.0c</b>	<b>134.6c</b>	<b>297.0c</b>	<b>450.1c</b>	<b>473.2c</b>	<b>656.2c</b>	<b>357.1c</b>	<b>713.3c</b>
Dividends per share: declared for year <sup>(i)</sup>										
Rio Tinto shareholders (US cents)	48.24c	49.06c	52.33c	62.95c	65.46c	85.07c	111.23c	111.22c	45.00c	108.00c
Rio Tinto plc (pence)	34.08p	30.64p	30.36p	33.91p	36.91p	44.22p	56.20p	67.49p	28.84p	67.35p
Rio Tinto Limited (Aus. cents)	94.24c	86.61c	73.34c	84.88c	86.26c	110.69c	125.72c	146.22c	51.56c	111.21c
<b>Net assets</b>										
Fixed assets <sup>(i)</sup>	14,879	16,136	19,418	20,131	20,848	25,803	75,888	67,651	72,706	83,750
Other assets less liabilities	1,896	1,463	1,804	2,356	2,587	3,026	11,609	8,469	10,078	5,462
Provisions (including deferred tax)	(3,194)	(3,612)	(4,536)	(6,087)	(6,383)	(7,007)	(16,013)	(14,987)	(17,998)	(19,654)
Net debt	(5,711)	(5,747)	(5,646)	(3,809)	(1,313)	(2,437)	(45,191)	(38,672)	(18,861)	(4,284)
Non-controlling interests	(827)	(778)	(1,003)	(714)	(791)	(1,153)	(1,521)	(1,823)	(2,094)	(6,941)
<b>Rio Tinto shareholders' funds</b>	<b>7,043</b>	<b>7,462</b>	<b>10,037</b>	<b>11,877</b>	<b>14,948</b>	<b>18,232</b>	<b>24,772</b>	<b>20,638</b>	<b>43,831</b>	<b>58,333</b>
<b>Capital expenditure <sup>(k)</sup></b>	<b>(1,407)</b>	<b>(1,417)</b>	<b>(1,611)</b>	<b>(2,218)</b>	<b>(2,554)</b>	<b>(3,988)</b>	<b>(4,968)</b>	<b>(8,488)</b>	<b>(5,356)</b>	<b>(4,553)</b>
<b>Acquisitions</b>	<b>(958)</b>	<b>(106)</b>	<b>–</b>	<b>(3)</b>	<b>(2)</b>	<b>(303)</b>	<b>(37,539)</b>	<b>(9)</b>	<b>(396)</b>	<b>(907)</b>
<b>Disposals</b>	<b>299</b>	<b>233</b>	<b>405</b>	<b>1,510</b>	<b>323</b>	<b>24</b>	<b>13</b>	<b>2,572</b>	<b>2,424</b>	<b>604</b>
<b>Cash flows from operations <sup>(l)</sup></b>	<b>3,285</b>	<b>3,619</b>	<b>3,359</b>	<b>4,265</b>	<b>8,031</b>	<b>10,923</b>	<b>12,569</b>	<b>20,668</b>	<b>13,834</b>	<b>23,530</b>
<b>Cash flows before financing activities <sup>(m)</sup></b>	<b>213</b>	<b>977</b>	<b>1,024</b>	<b>2,799</b>	<b>4,460</b>	<b>3,714</b>	<b>(34,251)</b>	<b>8,702</b>	<b>5,855</b>	<b>16,566</b>
<b>Ratios</b>										
Operating margin <sup>(n)</sup>	30%	24%	19%	24%	37%	42%	34%	32%	24%	37%
Net debt to total capital <sup>(o)</sup>	42%	41%	34%	23%	8%	11%	63%	63%	29%	6%
Underlying/Adjusted earnings: shareholders' funds <sup>(p)</sup>	23%	21%	16%	22%	37%	44%	35%	45%	20%	27%
Interest cover <sup>(q)</sup>	11	13	11	20	59	89	20	10	9	27



# Financial summary 2001 – 2010 continued

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- (a) Information for the years 2001 to 2003 is stated under UK GAAP and has not been restated except where indicated below.
- (b) Shareholders' funds for 2001 and prior years were restated following the implementation of FRS 19 in 2002.
- (c) Information for the years 2004 to 2009 is stated under EU IFRS. The Group implemented IAS 39 on 1 January 2005 without restatement of comparatives.
- (d) Adjustments have been made for 2002 and subsequent years to include in sales revenue, certain amounts charged to customers for freight and handling costs, which previously were deducted from operating costs.
- (e) Certain units that were equity accounted under UK GAAP are proportionally consolidated under EU IFRS and vice-versa. Gross sales revenue includes the sales revenue of equity accounted units in addition to Consolidated sales revenue (after adjusting for intra-subsidiary/equity accounted units sales). Consolidated sales revenue includes subsidiaries sales to equity accounted units which are not included in gross sales revenue.
- (f) Underlying earnings is an additional measure of earnings, which is reported by Rio Tinto with its EU IFRS results to provide greater understanding of the underlying business performance of its operations. It is defined in note 2 to the financial statements. Underlying earnings is similar but not identical to the Adjusted earnings measure that Rio Tinto reported with its UK GAAP results. Adjusted earnings was defined as excluding exceptional items of such magnitude that their exclusion was necessary in order that adjusted earnings fulfilled their purpose of reflecting the underlying performance of the Group. Underlying profit before interest and tax (PBIT) and Adjusted PBIT are similar to Underlying earnings and Adjusted earnings except that they are stated before tax and interest.
- (g) Finance costs include net interest and amortisation of discount.
- (h) Under EU IFRS, certain gains and losses on exchange and on revaluation of derivatives are included in the Group's Net earnings. Under UK GAAP, these did not have an impact on the income statement. These items are excluded from Underlying earnings.
- (i) 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. 2001 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").
- (j) Fixed assets include property, plant and equipment, intangible assets, goodwill, and investments in and long term loans to equity accounted units.
- (k) Capital expenditure comprises purchases less disposals of property, plant and equipment, capitalised evaluation costs and purchases less disposals of other intangible assets plus direct funding provided to equity accounted units for Rio Tinto's share of their capital expenditure. The figures include 100 per cent of subsidiaries' capital expenditure, but exclude that of equity accounted units except where directly funded by Rio Tinto.
- (l) Total cash flow from operations comprises Cash flow from consolidated operations together with Dividends from equity accounted units. Exploration and evaluation costs charged against income were previously included in Cash used in investing activities but are now included within Cash flow from operating activities. As a result, exploration and evaluation costs expensed have been reclassified in the comparative periods within the cash flow statement.
- (m) Cash flow before financing activities is stated before deducting dividends payable to Rio Tinto shareholders, which involved restatement of 2003 and prior years.
- (n) Operating margin is the percentage of Underlying/Adjusted PBIT, after excluding tax on equity accounted units, to Gross sales revenue.
- (o) Total capital comprises year end shareholders' funds plus net debt and outside shareholders' interests.
- (p) Underlying/Adjusted earnings: shareholders' funds represent Underlying or Adjusted earnings expressed as a percentage of the mean of opening and closing equity attributable to Rio Tinto shareholders.
- (q) 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.
- (r) The 31 December 2007 statement of financial position was restated for the revisions to Alcan's fair value accounting which was finalised in 2008.
- (s) 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). 2001 to 2008 comparatives have been restated accordingly.

# Summary financial data in Australian dollars, Sterling and US dollars

2010 A\$m	2009 A\$m	2010 £m	2009 £m		2010 US\$m	2009 US\$m
65,568	55,742	38,918	28,048	Gross sales revenue	60,323	44,036
61,496	52,943	36,501	26,640	Consolidated sales revenue	56,576	41,825
22,366	9,949	13,275	5,006	Profit before tax from continuing operations	20,577	7,860
16,610	7,322	9,859	3,684	Profit for the year from continuing operations	15,281	5,784
(105)	(568)	(63)	(286)	Loss for the year from discontinued operations	(97)	(449)
15,570	6,167	9,241	3,103	Net earnings attributable to owners of Rio Tinto	14,324	4,872
15,203	7,972	9,024	4,011	Underlying earnings <sup>(a)</sup>	13,987	6,298
799.3c	381.9c	474.4p	192.2p	Basic earnings per ordinary share from continuing operations <sup>(c)</sup>	735.4c	301.7c
775.3c	452.0c	460.2p	227.5p	Basic Underlying earnings per ordinary share <sup>(a)(c)</sup>	713.3c	357.1c
				Dividends per share to owners of Rio Tinto		
100.83c	82.97c	57.05p	37.85p	– paid	90.0c	55.6c
61.94c	51.56c	39.14p	28.84p	– proposed final dividend	63.0c	45.0c
18,007	7,411	10,688	3,729	Cash flow before financing activities	16,566	5,855
(4,200)	(21,192)	(2,764)	(11,715)	Net debt	(4,284)	(18,861)
57,189	49,248	37,634	27,224	Equity attributable to owners of Rio Tinto	58,333	43,831

(a) "Underlying earnings" is an alternative measure of earnings which is reported by Rio Tinto to provide greater understanding of the underlying business performance of its operations. Further details on Underlying earnings are provided in note 2.

(b) The financial data above have been extracted from the financial statements. 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. For further information on these exchange rates, see note 45.

(c) Basic earnings per ordinary share and basic Underlying earnings per ordinary share do not recognise the dilution resulting from share options in issue. 2009 earnings per share from continuing operations reflect the bonus element of the rights issues completed in July 2009.

# Shareholder information

The Rio Tinto Group combines 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 adopted new Articles of Association by special resolution passed on 20 April 2009 which were amended further by special resolution on 20 April 2009 effective 1 October 2009. Rio Tinto Limited adopted a new Constitution by special resolution passed on 24 May 2000 and amended by special resolution on 18 April 2002, 29 April 2005, 27 April 2007, 24 April 2008 and 20 April 2009 (effective 20 April 2009 and 1 October 2009). Further information on the Group's constitutional documents is set out in pages 271 to 272.

## Operational structure

The Group consists of a number of wholly and partly owned subsidiaries, joint ventures and associated companies. Rio Tinto's management structure is designed to facilitate a clear focus on business performance and is structured into five product groups and four global business support groups:

- Aluminium
- Copper
- Diamonds & Minerals
- Energy
- Iron Ore
- Business Support & Operations which includes Exploration
- Technology & Innovation
- People & Organisation
- Legal & External Affairs

The chief executive of each product group and the global head of each business support group are members of the Executive committee and report to the chief executive of Rio Tinto.

## Nomenclature and financial data

Rio Tinto plc and Rio Tinto Limited operate as one business organisation, 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 2010 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 2010 financial statements.

Rio Tinto Group sales revenue, profit before finance items and tax, net earnings and operating assets for 2009 and 2010 attributable to the product groups and geographical areas are shown in notes 31 and 32 to the 2010 financial statements. In the Performance section, operating assets and sales revenue for 2008 and 2009 are consistent with the financial information by business unit in the 2010 financial statements.

The tables on pages 78 to 93 show production for 2008, 2009 and 2010 and include estimates of proven and probable ore reserves. Words and phrases, often technical, have been used which have particular

meanings; definitions of these terms are in the Definitions section on pages 276 to 277. The weights and measures used are mainly metric units; conversions into other units are shown on page 274.

## History

Rio Tinto's predecessor companies were formed in 1873 and 1905. The Rio Tinto Company was formed by investors in 1873 to mine ancient copper workings at Rio Tinto, near Seville in southern Spain. The Consolidated Zinc Corporation was incorporated in 1905 to treat zinc bearing mine waste at Broken Hill, New South Wales, Australia.

The RTZ Corporation (formerly The Rio Tinto-Zinc Corporation) was formed in 1962 by the merger of The Rio Tinto Company and The Consolidated Zinc Corporation.

CRA Limited (formerly Conzinc Riotinto of Australia Limited) was formed at the same time by a merger of the Australian interests of The Consolidated Zinc Corporation and The Rio Tinto Company.

Between 1962 and 1995, both RTZ and CRA discovered important mineral deposits, developed major mining projects and also grew through acquisition.

RTZ and CRA were unified in 1995 through a dual listed companies structure. This means that each Company has an identical board of directors and the shareholders of both Companies are in substantially the same position in terms of votes, dividends and capital returns as if they held shares in a single enterprise owning all the assets of both Companies.

In 1997, the RTZ Corporation became Rio Tinto plc and CRA Limited became Rio Tinto Limited, together known as the Rio Tinto Group. Over the past decade, the Group has continued to invest in developments and acquisitions in keeping with its strategy.

In 2007, Rio Tinto completed an agreed takeover of the Canadian aluminium producer Alcan Inc. in a US\$38 billion transaction that transformed the Group's aluminium product group into a global leader in aluminium. With copper and iron ore, this gave the Group a major role in the production of the three key metals associated with the growth and urbanisation of China and other developing countries.

## Dividends

Both Companies have paid dividends on their 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 269.

### Dividend policy

The aim of Rio Tinto's progressive dividend policy is to increase the US dollar value of ordinary dividends over time. The rate of the total annual dividend, in US dollars, is determined taking into account the results for the past year and the outlook. Under Rio Tinto's dividend policy, the interim dividend is set at one half of the total ordinary dividend for the previous year and the final ordinary dividend is expected to be at least equal to the previous interim dividend.

### Dividend determination

The majority of the Group's sales are transacted in US dollars, making this the most reliable measure for the Group's global business performance. It is Rio Tinto's 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 announcement and are then declared 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 shareholders of Rio Tinto Limited can elect to receive dividends in sterling.

These dividend amounts are calculated by converting the declared dividend using currency exchange rates applicable five business 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.

### 2010 dividends

The 2010 interim and final dividends were determined at 45 US cents and at 63 US cents per share respectively and the applicable translation rates for the interim and final dividend were US\$1.59525 and US\$1.60960 to the pound sterling and US\$0.9133 and US\$1.01715 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\$1.69060 and for Rio Tinto Limited shareholders who elected to receive their dividend in Sterling the applicable conversion rate was £0.59151.

Final dividends of 39.14 pence or 61.94 Australian cents per share and 63 US cents per Rio Tinto plc ADR (each representing one share) will be paid on 31 March 2011. For those Rio Tinto plc shareholders requesting the 2010 final dividend be paid in Australian dollars and those Rio Tinto Limited shareholders requesting the 2010 final dividend be paid in pounds sterling, the applicable conversion rates will be set on 24 March 2011.

On 12 April 2010, Rio Tinto announced a ratio change for the Rio Tinto plc American Depositary Receipt (ADR) programme. From 22 April 2010, the ADR record date, the ratio changed from one ADR representing four ordinary shares to one ADR representing one ordinary share. To effect this change, ADR holders received three additional ADRs for every one ADR they held at the record date.

The charts below set out the amounts of interim, final and special cash dividends paid or payable on each share or ADR in respect of each financial year, but before deduction of any withholding tax.

These have been restated for the impact of the 2009 rights issues and the ADR ratio change.

	2010	2009	2008 restated	2007 restated	2006 restated
<b>Rio Tinto Group – US cents per share</b>					
Interim	45.00	–	55.61	42.53	32.73
Final	63.00	45.00	55.61	68.70	52.34
Special	–	–	–	–	–
<b>Total</b>	<b>108.00</b>	<b>45.00</b>	<b>111.22</b>	<b>111.23</b>	<b>85.07</b>
<b>Rio Tinto plc – UK pence per share</b>					
Interim	28.21	–	29.64	20.93	17.53
Final	39.14	28.84	37.85	35.27	26.69
Special	–	–	–	–	–
<b>Total</b>	<b>67.35</b>	<b>28.84</b>	<b>67.49</b>	<b>56.20</b>	<b>44.22</b>
<b>Rio Tinto Limited – Australian cents per share</b>					
Interim	49.27	–	63.25	49.64	42.94
Final	61.94	51.56	82.97	76.08	67.75
Special	–	–	–	–	–
<b>Total</b>	<b>111.21</b>	<b>51.56</b>	<b>146.22</b>	<b>125.72</b>	<b>110.69</b>
<b>Rio Tinto plc – US cents per ADR</b>					
Interim	45.00	–	55.61	42.53	32.73
Final	63.00	45.00	55.61	68.7	52.34
Special	–	–	–	–	–
<b>Total</b>	<b>108.00</b>	<b>45.00</b>	<b>111.22</b>	<b>111.23</b>	<b>85.07</b>

### 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 free of commission. Due to local legislation the DRP cannot be extended to shareholders in the US, Canada and certain other countries.

### Market listings and share prices

The prices of Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs are available during the day on the Rio Tinto and other websites.

### Rio Tinto plc

The principal market for Rio Tinto plc shares is the London Stock Exchange (LSE), the shares trade through the Stock Exchange Electronic Trading Service (SETS) system.

Central to the SETS system is the electronic order book on which an LSE member firm can post buy and sell orders, either on its own behalf or for its clients. Buy and sell orders are executed against each other automatically in strict price, then size, priority. The order book operates from 8:00 am to 4:30 pm daily. From 7:50 am to 8:00 am orders may be added to, or deleted from the book, but execution does not occur. At 8:00 am the market opens by means of an uncrossing algorithm which calculates the greatest volume of trades on the book which can be executed, then matches the orders, leaving unexecuted orders on the book at the start of trading.

All orders placed on the order book are firm and are for standard three day settlement. While the order book is vital to all market participants, orders are anonymous, with the counterparties being revealed to each other only after execution of the trade.

Transactions in Rio Tinto plc shares are subject to the post-trade transparency rules and requirements imposed by the Markets in Financial Instruments Directive (MiFID), as implemented by the UK Financial Services Authority. All transactions in equities that are admitted to trading on a regulated market (irrespective of whether such transactions are concluded on a regulated market), a multilateral trading facility (an MTF), or by an investment firm trading outside a regulated market or an MTF must be disclosed as close to real time as possible but no later than three minutes from completion, unless the transaction qualifies for deferred publication.

Rio Tinto plc shares are also listed on Euronext.

Rio Tinto plc has a sponsored ADR facility with JPMorgan Chase Bank NA (JPMorgan) under a Deposit Agreement, dated 13 July 1988, as amended on 11 June 1990, as further amended and restated on 15 February 1999, 18 February 2005 when JPMorgan became Rio Tinto plc's depository and on 29 April 2010. The ADRs evidence Rio Tinto plc American Depositary Shares (ADS), each representing one ordinary share following a ratio change on 30 April 2010. The shares are registered with the US Securities and Exchange Commission (SEC), are listed on the New York Stock Exchange (NYSE) and are traded under the symbol RIO. Rio Tinto plc changed its NYSE ticker symbol on 12 October 2010 to align with the Companies' ticker symbols on the London Stock Exchange and the Australian Securities Exchange.

### Fees and charges payable by a holder of ADSs

In accordance with the terms of the Deposit Agreement, JPMorgan may charge holders of Rio Tinto ADSs, either directly or indirectly, fees or charges up to the amounts described below.

Category	Depository actions	Associated fee
Depositing or substituting the underlying shares	Issuance of ADSs against the deposit of shares, including deposits and issuance in respect of: <ul style="list-style-type: none"> <li>• Share distributions, stock split, rights, merger</li> <li>• Exchange of securities or other transactions</li> <li>• Other events or distributions affecting the ADSs or the deposited securities</li> </ul>	US\$5.00 per 100 ADSs (or portion thereof) evidenced by the new ADSs delivered
Selling or exercising rights	Distribution or sale of securities, the fee being in an amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities	US\$5.00 for each 100 ADSs (or portion thereof)
Withdrawing an underlying share	Acceptance of ADSs surrendered for withdrawal of deposited securities	US\$5.00 for each 100 ADSs (or portion thereof) evidenced by the ADSs surrendered
Transferring, splitting or grouping receipts	Transfers, combining or grouping of depository receipts	US\$2.50 per ADS
General depository services, particularly those charged on an annual basis	Other services performed by the depository in administering the ADRs	Provide information about the depository's right, if any, to collect fees and charges by offsetting them against dividends received on deposited securities US\$0.02 per ADS (or portion thereof) not more than once each calendar year and payable at the sole discretion of the depository by billing holders or deducting such charge from one or more cash dividends or other cash distributions
Expenses of the depository	Expenses incurred on behalf of holders in connection with: <ul style="list-style-type: none"> <li>• Compliance with foreign exchange control regulations or any law or regulation relating to foreign investment</li> <li>• The depository's or its custodian's compliance with applicable law, rule or regulation</li> <li>• Stock transfer or other taxes and other governmental charges</li> <li>• Cable, telex, facsimile and electronic transmission/delivery</li> <li>• Expenses of the depository in connection with the conversion of foreign currency into US dollars (which are paid out of such foreign currency)</li> <li>• Any other charge payable by depository or its agents</li> </ul>	Expenses payable at the sole discretion of the depository by billing holders or by deducting charges from one or more cash dividends or other cash distributions

### Fees and payments made by the depository to the issuer

JPMorgan has agreed to reimburse certain company expenses related to the Rio Tinto plc ADR programme and incurred by the Group in connection with the programme. For the year ended 31 December 2010, JPMorgan reimbursed US\$2,050,000 in respect of expenses incurred by the Group in connection with the ADR programme. JPMorgan did not pay any amount on the Group's behalf to third parties. JPMorgan also waived certain of its standard fees and expenses associated with the administration of the programme relating to routine programme maintenance, reporting, distribution of cash dividends, annual meeting services and report mailing services.

In the year ended 31 December 2009, JPMorgan did not reimburse Rio Tinto with any fees or expenses nor did JPMorgan pay any amount on the Group's behalf to third parties.

Under certain circumstances, including removal of JPMorgan as depository or termination of the ADR programme by the Company, the Company is required to repay JPMorgan any amounts of administrative fees and expenses waived during the 12 month period prior to notice of removal or termination.

As at 21 February 2011, there were 47,587 holders of record of Rio Tinto plc's shares. Of these holders, 331 had registered addresses in the US and held a total of 326,262 Rio Tinto plc shares, representing 0.02 per cent of the total number of Rio Tinto plc shares issued and outstanding as at such date. In addition, 95,340,352 Rio Tinto plc shares were registered in the name of a custodian account in London which represented 6.24 per cent of Rio Tinto plc shares issued and outstanding. These shares were represented by 94,996,313 Rio Tinto plc ADRs held of record by 387 ADR holders. In addition, certain accounts of record with registered addresses other than in the US hold shares, in whole or in part, beneficially for US persons.

ADR holders may instruct JPMorgan as to how the shares represented by their ADRs should be voted.

ADR holders can receive the *Annual report* free of charge on request.

Rio Tinto is subject to the SEC reporting requirements for foreign companies. A Form 20-F, which corresponds with the Form 10-K in US public companies, will be filed with the SEC. Rio Tinto's Form 20-F and other filings can be viewed on the Rio Tinto website as well as the SEC website at [www.sec.gov](http://www.sec.gov). ADR holders may also read without charge and copy at prescribed rates any document filed at the public reference facilities of the SEC's principal office at 100 F Street NE, Washington, DC 20549, US. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

### 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.

As at 21 February 2011, there were 192,956 holders of record of Rio Tinto Limited shares. Of these holders, 325 had registered addresses in the US, representing approximately 0.039 per cent

of the total number of Rio Tinto Limited shares issued and outstanding as of such date. In addition, nominee accounts of record with registered addresses other than in the US may hold Rio Tinto Limited shares, in whole or in part, beneficially for US persons.

### Investment warning

The following table shows share prices for the period indicated, the reported high and low middle market quotations, which represent an average of bid and asked prices, for Rio Tinto plc's shares on the LSE based on the LSE Daily Official List, the highest and lowest sale prices of the Rio Tinto plc ADRs as reported on the NYSE composite tape and the high and low closing sale prices of Rio Tinto Limited shares based upon information provided by the ASX. There is no established trading market in the US for Rio Tinto Limited's shares.

Past performance of shares is not necessarily a guide to future performance. The value of shares and investments and the income derived from them can go down as well as up, and investors may not get back the amount they invested.

	Pence per Rio Tinto plc share		US\$ per Rio Tinto plc ADR <sup>(a)</sup>		A\$ per Rio Tinto Limited share	
	High	Low	High	Low	High	Low
2006	3,322	2,352	53.52	37.21	87.97	65.38
2007	5,784	2,505	102.30	40.74	146.90	69.50
2008	7,078	1,049	118.03	12.50	156.10	32.00
2009	3,420	1,140	55.93	16.58	74.89	29.38
2010						
Aug 2010	3,455	3,105	55.78	47.10	74.00	69.30
Sep 2010	3,762	3,447	60.28	52.32	77.26	72.24
Oct 2010	4,208	3,697	66.86	58.36	84.1	77.00
Nov 2010	4,454	4,043	72.35	62.73	87.4	82.21
Dec 2010	4,584	4,207	72.65	65.74	87.94	83.1
Jan 2011	4,543	4,237	73	67.65	87.62	84.05
2009						
First quarter	2,047	1,140	30.27	16.58	45.11	29.38
Second quarter	2,608	1,784	45.73	26.55	60.89	41.65
Third quarter	2,740	1,885	45.84	30.00	62.88	46.63
Fourth quarter	3,420	2,505	55.93	39.33	74.89	56.85
2010						
First quarter	3,910	3,036	60.11	46.39	80.00	66.60
Second quarter	4,062	2,812	62.24	39.30	80.86	61.70
Third quarter	3,762	2,880	60.28	43.27	77.26	65.03
Fourth quarter	4,584	3,697	72.65	58.36	87.94	77

(a) On 12 April 2010, Rio Tinto announced a ratio change for the Rio Tinto plc ADR programme. With effect from 30 April 2010, one ADR represents one ordinary share of 10p in Rio Tinto plc. Prior to this date one ADR represented four ordinary shares. To effect this change ADR holders received three additional ADRs for every one ADR held as of 22 April 2010, the ADR record date. Prior year comparatives have been restated for the impact of the ratio change.

(b) None of these prices have been restated to take account of the rights issues undertaken in 2009.



### Taxation

#### UK resident individuals shareholdings in Rio Tinto plc

##### *Taxation of dividends*

— Final dividend 2009 (payment date – 1 April 2010)

Dividends carry a tax credit equal to one ninth of the dividend. Individuals who are liable to income tax at the basic rate will have no further tax to pay. Higher rate tax payers are liable to tax on UK dividends at 32.5 per cent, which after taking account of the tax credit, produces an effective tax liability of 25 per cent of the dividend received.

— Interim Dividend 2010 (payment date – 9 September 2010)

The position for basic rate tax payers and higher rate tax payers is as described above. However, as of 6 April 2010, additional rate tax payers are liable to tax on UK dividends at 42.5 per cent, which after taking account of the tax credit, produces an effective tax liability of 26.1 per cent of the dividend received.

##### *Dividend reinvestment plan (DRP)*

The taxation effect of participation in the DRP will depend on individual circumstances. Shareholders will generally be liable to tax on dividends reinvested in the DRP on the same basis as if they had received the cash and arranged the investment. The dividend should, therefore, be included in the annual tax return.

The shares acquired should be added to shareholdings at the date and at the net cost shown on the share purchase advice. The actual cost of the shares for Rio Tinto plc shareholders including the stamp duty/stamp duty reserve tax, will form the base cost for capital gains tax purposes.

##### *Capital gains tax*

Shareholders who have any queries on capital gains tax issues are advised to consult their financial adviser.

Details of relevant events since 31 March 1982 and adjusted values for Rio Tinto plc securities as at that date are available from the company secretary.

#### Australian resident individuals shareholdings in Rio Tinto Limited

##### *Taxation of dividends*

The basis of the Australian dividend imputation system is that when Australian resident shareholders receive dividends from Rio Tinto Limited, they may be entitled to a credit for the Australian tax paid by the Group in respect of that income, depending on the tax status of the shareholder.

The application of the system results in the Australian tax paid by the Group being allocated to shareholders by way of franking credits attaching to the dividends they receive. Such dividends are known as franked dividends. A dividend may be partly or fully franked. The current Rio Tinto Limited dividend is fully franked and the franking credits attached to the dividend are shown in the distribution statement provided to shareholders.

The extent to which a company can frank a dividend depends on the credit balance in its franking account. Credits to this account can arise in a number of ways, including when a company pays company tax or receives a franked dividend from another company. The dividend is required to be included in a resident individual shareholder's assessable income. In addition, an amount equal to the franking credit attached to the franked dividend is also included in the assessable income of the resident individual, who may then be

entitled to a rebate of tax equal to the franking credit amount included in their income. Should the franking credits exceed the tax due, the excess is refunded to the resident individual.

The effect of the dividend imputation system on non resident shareholders is that, to the extent that the dividend is franked, no Australian tax will be payable and there is an exemption from dividend withholding tax.

A withholding tax is normally levied at the rate of 15 per cent when unfranked dividends are paid to residents of countries with which Australia has a taxation treaty. Most Western countries have a taxation treaty with Australia. A rate of 30 per cent applies to countries where there is no taxation treaty.

Since 1988, all dividends paid by Rio Tinto Limited have been fully franked. It is the Group's policy to pay fully franked dividends whenever possible. The boards expect Rio Tinto Limited to be able to pay fully franked dividends for the foreseeable future.

##### *Dividend reinvestment plan (DRP)*

Shareholders will generally be liable for tax on dividends reinvested in the DRP on the same basis as if they had received the cash and arranged the investment. The dividend should therefore be included in the annual tax return as assessable income.

The shares acquired should be added to the shareholding at the date of acquisition at the actual cost of the shares, which is the amount of the dividend applied by the shareholder to acquire shares and any incidental costs associated with the acquisition will form part of the cost base or reduced cost base of the shares for capital gains tax purposes.

##### *Capital gains tax*

The Australian capital gains tax legislation is complex. If shareholders have acquired shares after 19 September 1985 they may be subject to capital gains tax on the disposal of those shares.

Generally, disposal of shares held on capital account would give rise to a capital gain or loss. A capital gain arises when the proceeds on disposal are greater than the cost base of shares. A capital loss arises when the proceeds on sale are less than the cost base or reduced cost base. Where a capital gain arises on shares held for at least 12 months, individual, trust and superannuation fund shareholders may be eligible for a capital gains tax discount.

Shareholders are advised to seek the advice of an independent taxation consultant on any possible capital gains tax exposure.

#### US residents

The following is a summary of the principal UK tax, Australian tax and US Federal income tax consequences of the ownership of Rio Tinto plc ADSs, Rio Tinto plc shares and Rio Tinto Limited shares, "the Group's DSs and shares" by a US holder as defined below. It is not intended to be a comprehensive description of all the tax considerations that are relevant to all classes of taxpayer. Future changes in legislation may affect the tax consequences of the ownership of the Group's ADSs and shares.

It is based in part on representations by the Group's depositary bank as depositary for the ADRs evidencing the ADSs and assumes that each obligation in the deposit agreements will be performed in accordance with its terms.

You are a US holder if you are a beneficial owner of the Group's ADSs and shares and you are: a citizen or resident of the US, a domestic corporation, an estate whose income is subject to US federal income tax regardless of its source, or a trust if a US court can exercise primary

supervision over the trust's administration and one or more US persons are authorised to control all substantial decisions of the trust.

This section applies to US holders only if shares or ADSs are held as capital assets for tax purposes. This section does not apply to shareholders who are members of a special class of holders subject to special rules, including a dealer in securities, a trader in securities who elects to use a mark-to-market method of accounting for securities holdings, a tax exempt organisation, a life insurance company, a person liable for alternative minimum tax, a person that actually or constructively owns ten per cent or more of Rio Tinto's voting stock, a person that holds shares or ADSs as part of a straddle or a hedging or conversion transaction, or a person whose functional currency is not the US dollar.

This section is based on the Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations, published rulings and court decisions, and on the convention between the US and UK, and the convention between the US and Australia which may affect the tax consequences of the ownership of the Group's ADSs and shares. These laws and conventions are subject to change, possibly on a retroactive basis.

For the purposes of the Conventions and of the US Internal Revenue Code of 1986, as amended (the Code), US holders of ADSs are treated as the owners of the underlying shares.

The summary describes the treatment applicable under the conventions in force at the date of this report.

#### **UK taxation of shareholdings in Rio Tinto plc**

##### *Taxation of dividends*

US holders are not liable to UK withholding tax on dividends paid by Rio Tinto plc. Dividends carry a tax credit equal to one ninth of the net dividend, or ten per cent of the net dividend plus the tax credit. The tax credit is not repayable to US holders.

##### *Capital gains*

A US holder will not normally be liable to UK tax on capital gains realised on the disposition of Rio Tinto plc ADSs or shares unless the holder carries on a trade, profession or vocation in the UK through a permanent establishment in the UK and the ADSs or shares have been used for the purposes of the trade, profession or vocation or are acquired, held or used for the purposes of such a permanent establishment.

##### *Inheritance tax*

Under the UK Estate Tax Treaty, a US holder, who is domiciled in the US and is not a national of the UK, will not be subject to UK inheritance tax upon the holder's death or on a transfer during the holder's lifetime unless the ADSs and shares form part of the business property of a permanent establishment in the UK or pertain to a fixed base situated in the UK used in the performance of independent personal services. In the exceptional case where ADSs or shares are subject both to UK inheritance tax and to US Federal gift or estate tax, the UK Estate Tax Treaty generally provides for tax payments to be relieved in accordance with the priority rules set out in the Treaty.

##### *Stamp duty and stamp duty reserve tax*

Transfers of Rio Tinto plc ADSs will not be subject to UK stamp duty provided that the transfer instrument is not executed in, and at all times remains outside, the UK.

Purchases of Rio Tinto plc shares are subject either to stamp duty at a rate of 50 pence per £100 or to stamp duty reserve tax (SDRT) at a rate of 0.5 per cent. Conversions of Rio Tinto plc shares into Rio Tinto plc

ADSs will be subject to additional SDRT at a rate of 1.5 per cent on all transfers to the depositary or its nominee.

#### **Australian taxation of shareholdings in Rio Tinto Limited**

##### *Taxation of dividends*

US holders are not normally liable to Australian withholding tax on dividends paid by Rio Tinto Limited because such dividends are normally fully franked under the Australian dividend imputation system, meaning that they are paid out of income that has borne Australian income tax. Any unfranked dividends would suffer Australian withholding tax which under the Australian income tax convention is limited to 15 per cent of the gross dividend.

##### *Capital gains*

US holders are not normally subject to any Australian tax on the disposal of Rio Tinto Limited ADSs or shares unless they have been used in carrying on a trade or business wholly or partly through a permanent establishment in Australia, or the gain is in the nature of income sourced in Australia.

##### *Gift, estate and inheritance tax*

Australia does not impose any gift, estate or inheritance taxes in relation to gifts of shares or upon the death of a shareholder.

##### *Stamp duty*

An issue or transfer of Rio Tinto Limited shares does not require the payment of Australian stamp duty.

#### **US federal income tax**

In general, taking into account the earlier assumptions that each obligation of the Deposit Agreement and any related agreement will be performed according to its terms, for US federal income tax purposes, if you hold ADRs evidencing ADSs, you will be treated as the owner of the shares represented by those ADRs. Exchanges of shares for ADRs, and ADRs for shares, generally will not be subject to US federal income tax.

##### *Taxation of dividends*

Under the US federal income tax laws, and subject to the passive foreign investment company, or PFIC, rules discussed below, if you are a US holder, the gross amount of any dividend the Group pays out of its current or accumulated earnings and profits (as determined for US federal income tax purposes) is subject to US federal income taxation. If you are a non corporate US holder, dividends paid to you in taxable years beginning before 1 January 2011 that constitute qualified dividend income will be taxable to you at a maximum tax rate of 15 per cent provided that, in the case of shares or ADSs, you hold the shares or ADSs for more than 60 days during the 121 day period beginning 60 days before the ex-dividend date. Dividends we pay with respect to the shares or ADSs will generally be qualified dividend income.

You must include any Australian tax withheld from the dividend payment in this gross amount even though you do not in fact receive it. The dividend is taxable to you when you, in the case of shares, or the depositary, in the case of ADSs, receive the dividend, actually or constructively. The dividend will not be eligible for the dividends-received deduction generally allowed to US corporations in respect of dividends received from other US corporations. The amount of the dividend distribution that you must include in your income as a US holder will be the US dollar value of the non US dollar payments made, determined at the spot UK pound/US dollar rate (in the case of Rio Tinto plc) or the spot Australian dollar/US dollar (in the case of Rio Tinto Limited) on the date the dividend distribution is includible in your income, regardless of whether the payment is in fact

converted into US dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date you include the dividend payment in income to the date you convert the payment into US dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the US for foreign tax credit limitation purposes. Distributions in excess of current and accumulated earnings and profits, as determined for US federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the shares or ADSs and thereafter as capital gain.

Subject to certain limitations, any Australian tax withheld in accordance with the Australia-United States Tax Treaty and paid over to Australia will be creditable or deductible against your US federal income tax liability. Special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the maximum 15 per cent tax rate.

For foreign tax credit purposes, dividends will generally be income from sources outside the US and will, depending on your circumstances, generally be either “passive” or “general” income which, in either case, is treated separately from other types of income for purposes of computing the foreign tax credit allowable to you.

### *Taxation of capital gains*

Subject to the PFIC rules discussed below, if you are a US holder and you sell or otherwise dispose of the Group's ADSs or shares, you will recognise capital gain or loss for US federal income tax purposes equal to the difference between the US dollar value of the amount that you realise and your tax basis, determined in US dollars, in your shares or ADSs. Capital gain of a non corporate US holder is generally taxed at preferential rates where the holder has a holding period greater than one year. The gain or loss will generally be income or loss from sources within the US for foreign tax credit limitation purposes.

### **Passive Foreign Investment Company (PFIC) Rules**

We believe that the Group's shares or ADSs should not be treated as stock of PFIC for US federal income tax purposes, but this conclusion is a factual determination that is made annually and thus may be subject to change. If we were to be treated as a PFIC, unless the shares or ADSs are “marketable stock” and a US holder elects to be taxed annually on a mark-to-market basis with respect to the shares or ADSs, gain realised on the sale or other disposition of the shares or ADSs would in general not be treated as capital gain. Instead, if you are a US holder, you would be treated as if you had realised such gain and certain “excess distributions” ratably over your holding period for the shares or ADSs and would be taxed at the highest tax rate in effect for each such year to which the gain was allocated, together with an interest charge in respect of the tax attributable to each such year. In addition, dividends that you receive from us will not be eligible for the special tax rates applicable to qualified dividend income if we are a PFIC either in the taxable year of the distribution or the preceding taxable year, but instead will be taxable at rates applicable to ordinary income.

## **Exchange controls and foreign investment**

### **Rio Tinto plc**

There are no UK foreign exchange controls or other 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 affect the conduct of Rio Tinto plc's operations. The Bank of England, however, administers financial sanctions against specified targets related to certain regimes. 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, the Reserve Bank of Australia does not restrict the import and export of funds and no permission is required for the movement of funds into or out of Australia, except that restrictions apply to certain financial transactions relating to specified individuals and entities associated with certain regimes. The Department of Foreign Affairs and Trade has responsibility for the administration of restrictions relating to terrorists and their sponsors, and the former Iraqi regime.

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. There are no restrictions under the Constitution of Rio Tinto Limited that limit the right of non residents to hold or vote Rio Tinto Limited shares.

However 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 any acquisition of 15 per cent or more of the outstanding shares of, or voting power in, an Australian company or to any transaction that results in one non resident, or a group of associated non residents, controlling 15 per cent or more of the shares of or voting power in, an Australian company. The Takeovers Act also applies to any transaction which results in a group of non associated non residents controlling 40 per cent or more of the shares of, or voting power in, an Australian company. 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.

## **Material contracts**

### **Dual listed companies structure**

In 1995, Rio Tinto shareholders approved the terms of the dual listed companies merger (the DLC merger) which was designed to place the shareholders of both Companies in substantially the same position as if they held shares in a single enterprise owning all of the assets of both Companies. As a condition of its approval of the DLC merger, the Australian Government required Rio Tinto plc to reduce its shareholding in Rio Tinto Limited to 39 per cent by the end of 2005. Consistent with the commitments made to the Australian Government in 1995, the Rio Tinto plc shareholding in Rio Tinto Limited has been reduced over time. Following the completion in September 2010 of the buy-back of shares held by Tinto Holdings Australia Pty Limited, Rio Tinto plc's interest in the ordinary shares of Rio Tinto Limited has reduced to nil.

Following the approval of the DLC merger, 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 combined enterprise.

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. In addition, any adjustments are required to be confirmed by the auditors.

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.

Consistent with the creation of a single combined enterprise under the DLC merger, directors of each Company 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 as a joint electorate as Joint Decisions as described under Voting rights, and it is a requirement 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.

#### *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 public 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 annual financial statements. Joint Decisions are voted on a poll.

The Sharing Agreement also provides for the protection of the public shareholders of each Company by treating the shares issued by each Company as if they were separate classes of shares issued by a single company. So decisions that do not affect the shareholders of both Companies equally require the separate approval of the shareholders of both Companies. Matters requiring this approval procedure are referred to as Class Rights Actions and are voted on a poll.

Thus, the interests of the shareholders of each Company are protected against decisions which affect them and the shareholders in the other Company differently, by requiring their separate approval. For example, fundamental elements of the DLC merger cannot be changed unless approved by shareholders 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 where 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 public 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 public 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 on Joint Decisions and the results of voting on Class Rights Actions and on separate decisions will be announced to the stock exchanges, published on the Rio Tinto website and announced to the media in the UK and Australia.



At a Rio Tinto plc shareholders' meeting at which a Joint Decision will be considered, each Rio Tinto plc share will carry 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 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 will be considered, each Rio Tinto Limited share will carry one vote and the holder of its Special Voting Share will carry 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 public shareholders exceed the surplus assets available for distribution by the other Company on each of the shares held by its public 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 public shareholders of each Company conforms to the Equalisation Ratio. The objective is to ensure that the public 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 public quoted 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 stand alone 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 will 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 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 cooperate to enforce the 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 provision of the Deed Poll Guarantees.

### **Facility agreement**

Rio Tinto Finance plc and Rio Tinto Finance Limited entered into a facility agreement on 12 November 2010 as borrowers with a syndicate of banks. The facility is guaranteed by Rio Tinto plc and Rio Tinto Limited. The facility comprises a US\$6 billion multi-currency five year revolving credit facility (including a US\$ denominated same day access swingline facility). The funds made available under the Facility Agreement may be used for the general corporate purposes of the Group.

Advances under the revolving facility bear an interest rate per annum equal to the margin (which is dependent on the Group's long term credit rating as determined by Moody's and Standard & Poors and the level of drawdown) plus LIBOR or EURIBOR (in relation to any euro loan) plus any mandatory cost.

The Facility Agreement contains no financial covenants.

At 31 December 2010, the facility was undrawn. Further details of the Group's credit facilities are set out in note 22 of the 2010 financial statements.

### Articles of Association and Constitution

As explained on pages 268 to 269, under the terms of the DLC merger 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 enterprise 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. Unless stated otherwise the Articles of Association and Constitution are identical. The summaries below include descriptions of material rights of the shareholders of both Rio Tinto plc and Rio Tinto Limited.

No holder of shares, which may be held in either certificated or uncertificated form, will be required to make any additional contributions of capital.

### Objects

The objects of Rio Tinto plc were previously set out in the fourth clause of its Memorandum of Association and the objects of Rio Tinto Limited were set out in the second clause of its Memorandum of Association. Included in these objects was the right for each Company to enter into, with one another, operate and carry into effect an Agreement known as the DLC Merger Sharing Agreement (the Sharing Agreement) and a Deed Poll Guarantee (see page 268).

At the 2009 annual general meetings, shareholders of Rio Tinto plc and Rio Tinto Limited approved amendments to the constitutional documents whereby the objects clauses were removed to allow the Companies to have the widest possible scope of activities, save that the relevant parts of Clause 4(A) of the Rio Tinto plc Memorandum, which relate to the powers to operate and carry into effect the Dual Listed Company Structure, be preserved by their inclusion in article 105 (Powers and obligations in relation to the Sharing Agreement).

Similarly and for consistency with Rio Tinto plc's Articles of Association, Rio Tinto Limited's Memorandum of Association was also deleted from the Rio Tinto Limited Constitution save for clauses 2(1), 5 and 6, which relate to the powers to operate and carry into effect the Dual Listed Company Structure, and preserve the integrity of the Dual Listed Company voting arrangements. These provisions were incorporated into rules 7 and 111 of the Rio Tinto Limited Constitution.

### 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 Company's 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, but a director is nevertheless entitled to attend and speak at shareholders' meetings. Nevertheless, as disclosed in the Remuneration report on pages 128 to 155 the Remuneration committee has informed the executive directors that they would be expected to build up a shareholding equal in value to two times salary over five years. As set out on page 141 of the Remuneration report, non executive directors are encouraged to build up a shareholding within three years of their appointment equal in value to one year of the base fee.

The directors may appoint additional members to join the boards during the year. Directors appointed in this way will hold office until the first annual general meeting after their appointment and are eligible for election at that meeting. In subsequent years, and in accordance with the principle introduced by the UK Corporate Governance Code, directors offer themselves for re-election every year. Non executive directors are normally expected to serve at least six years and, except in special circumstances, would not normally serve more than nine years.

### 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 made use of by the board for the benefit of the Company until claimed or otherwise disposed of according to Australian law.



### Voting rights

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 at a general meeting and 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 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 public shareholders at the parallel meeting of 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 twentieth (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 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:

- an ordinary resolution, which includes resolutions for the election of directors, the receiving of financial statements, the cumulative annual payment of dividends, the appointment of auditors, the increase of authorised share capital or the grant of authority to allot shares;
- a special resolution, which includes resolutions amending the Company's Articles of Association of Rio Tinto plc or the Constitution of Rio Tinto Limited, disapplying statutory pre-emption rights or changing the Company's name or the modification of the rights of any class of the Group's shares at a meeting of the holders of such class of shares or relating to certain matters concerning the winding up of either Company.

An ordinary resolution requires the affirmative vote of a majority of the votes of those persons voting at a meeting at which there is a quorum. Special resolutions require the affirmative vote of not less than three fourths of the persons voting at a meeting at which there is a quorum. In the case of an equality of votes, whether on a show of hands or on a poll, the chairman of the meeting is not entitled to cast the deciding vote in addition to any other vote he may have and the resolution is not deemed to be passed.

The DLC Merger Sharing Agreement further classifies these three kinds of resolutions into "Joint Decisions" and "Class Rights Actions" as explained under voting rights on pages 269 to 270.

Annual general meetings must be convened with 21 days' advance written notice for Rio Tinto plc and with 28 days for Rio Tinto Limited. Other meetings of Rio Tinto plc must be convened with 21 days' advance written notice for the passing of a special resolution and with 14 days' for any other resolution, depending on the nature of the business to be transacted. Other meetings of Rio Tinto Limited require 28 days' notice. The days of delivery or receipt of the notice and the date of the meeting are not included. The notice must specify the nature of the business to be transacted. The board of directors may, if they choose, make arrangements for shareholders who are unable to attend the place of the meeting to participate at other places.

### *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 in 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 an extraordinary 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 270.

### *Limitations on voting and shareholding*

Except for the provisions of the Foreign Acquisitions and Takeovers Act 1975 which impose certain conditions on the foreign ownership of Australian companies, 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.

## Supplementary information

### General shareholder enquiries

Computershare Investor Services PLC and Computershare Investor Services Pty Limited are the share registrars for Rio Tinto plc and Rio Tinto Limited, respectively. All enquiries and correspondence concerning shareholdings, other than shares held in ADR form, should be directed to the respective registrar. Their addresses and

telephone numbers are given under Useful information and contacts on the back page. Shareholders should notify Computershare promptly of any change of address.

Enquiries concerning Rio Tinto plc ADRs should be directed to JPMorgan Chase Bank NA whose address and telephone number are also given under Useful information and contacts.

### **Warning to shareholders**

Many companies have become aware that their shareholders have received unsolicited phone calls or correspondence concerning investment matters. These are typically from overseas based "brokers" who target shareholders, offering to sell them what often turn out to be worthless or high risk shares. The "brokers" can be very persistent and extremely persuasive, and the UK Financial Services Authority (FSA) has reported that the average amount lost by investors is around £20,000.

Shareholders are also warned to carefully consider any unsolicited offers they receive to buy their Rio Tinto shares. Some companies make offers to shareholders for their shareholdings at prices significantly below what they could expect on the market. Although it is not against the law to make an unsolicited offer to buy someone's shares, it is illegal to mislead or deceive shareholders into accepting an offer. The offer must also comply with strict legal requirements, including prominent details of the current market value of the shares if they were to be sold on the market.

Shareholders are urged to seek independent professional advice to protect themselves against a poor deal.

### **Investor Centre**

Investor Centre is a 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  
[www.investorcentre.co.uk/riotinto](http://www.investorcentre.co.uk/riotinto)

Rio Tinto Limited shareholders  
[www.investorcentre.com](http://www.investorcentre.com)

### **Consolidation of share certificates**

If a certificated shareholding in Rio Tinto plc is represented by several individual share certificates, they can be replaced by one consolidated certificate. There is no charge for this service. Share certificates should be sent to Computershare together with a letter of instruction.

### **Share warrants to bearer**

All outstanding share warrants to bearer of Rio Tinto plc have been converted into registered ordinary shares under the terms of a Scheme of Arrangement sanctioned by the Court in 2001. Holders of any outstanding share warrants to bearer should contact the company secretary of Rio Tinto plc for an application form in order to obtain their rights to registered ordinary shares.

### **Former Alcan Inc. shareholders**

Former Alcan Inc. shareholders who have not tendered their Alcan shares to the Rio Tinto offer of US\$101.00 per common share are entitled to claim their funds by sending a letter of transmittal together with their stock certificate to Computershare Investor Services Inc., whose details are given under Useful information and contacts.

### **Corporate nominee service**

Computershare in conjunction with Rio Tinto plc, operate a corporate nominee service for private individuals. Further information can be obtained from Computershare.

## Rio Tinto on the web

Rio Tinto maintains a substantial amount of information on its website, including this and previous annual reports, many other publications and links to Group company websites.

It is the responsibility of the directors to ensure that processes are in place to maintain information and preserve the integrity of the Rio Tinto website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

## Publications

The following publications are on the website but hard copies can be obtained free of charge on request from the company secretaries:

*2010 Annual report*

*2010 Annual review*

*The way we work* – Rio Tinto's code of business conduct

## 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 Companies with notice. The shareholders who have provided such, or an equivalent, notice are:

Rio Tinto plc	Date of notice	Number of shares	Percentage of issued share capital
The Capital Group Companies, Inc	13 Jun 2006	41,031,494	3.90
Capital Research and Management Company	16 July 2009	75,461,183	4.95
AXA S.A.	29 Jan 2008	48,493,873	4.86
Shining Prospect Pte. Ltd	2 Feb 2008	119,705,134	12.00
BlackRock Inc.	1 Dec 2009	127,744,871	8.38
Legal & General plc	1 Oct 2010	60,698,133	3.97
Rio Tinto Limited			
Shining Prospect Pte. Ltd <sup>(a)</sup>	4 Feb 2008	–	–
BlackRock Investment Management (Australia) Limited	8 Nov 2010	25,357,003	5.81

(a) Shining Prospect Pte. Ltd, a Singapore based entity owned by Chinalco (Aluminum Corporation of China) acquired 119,705,134 Rio Tinto plc shares on 1 February 2008. Through the operation of Corporations Act as modified, this gives these entities and their associates voting power of 9.32 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.

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.

As of 21 February 2011, the total amount of the Group's voting securities owned by the directors in Rio Tinto plc was 411,355 ordinary shares of 10p each and in Rio Tinto Limited was 53,202 ordinary shares, in aggregate representing less than one per cent of the Group's total number of shares in issue.

Except as provided under the DLC Merger Sharing Agreement, as explained on page 269, the Group's major shareholders have the same voting and other rights as other shareholders.

## Conversion of weights and measures

1 troy ounce = 31.1 grams  
 1 kilogram = 32.15 troy ounces  
 1 kilogram = 2.2046 pounds  
 1 metric tonne = 2,204.6 pounds  
 1 metric tonne = 1.1023 short tons  
 1 metric tonne = 1,000 kilograms  
 1 short ton = 2,000 pounds  
 1 long ton = 2,240 pounds  
 1 gram per metric tonne = 0.02917 troy ounces per short ton  
 1 gram per metric tonne = 0.03215 troy ounces per metric tonne  
 1 kilometre = 0.6214 miles

## Exchange rates

The following tables show, for the periods and dates indicated, certain information regarding the exchange rates for the pound sterling and Australian dollar, based on the Noon Buying Rates for pounds sterling and Australian dollars expressed in US dollars per £1.00 and per A\$1.00.

### Pounds sterling

Year ended 31 December*	Period end	Average rate	High	Low
2010		1.56	1.55	1.64
2009		1.62	1.57	1.70
2008		1.44	1.86	2.03
2007		1.99	2.00	2.11
2006		1.96	1.84	1.98

### Australian dollars

Year ended 31 December*	Period end	Average rate	High	Low
2010		1.02	0.92	1.02
2009		0.890	0.790	0.940
2008		0.698	0.852	0.983
2007		0.878	0.839	0.937
2006		0.788	0.753	0.791

\* The Noon Buying Rate on such dates differed slightly from the rates used in the preparation of Rio Tinto's financial statements as of such date. No representation is made that pound sterling and Australian dollar amounts have been, could have been or could be converted into dollars at the Noon Buying Rate on such dates or at any other dates.

## Analysis of ordinary shareholders

As at 21 February 2011	Rio Tinto plc				Rio Tinto Limited			
	No of accounts	%	Shares	%	No of accounts	%	Shares	%
1 to 1,000 shares	34,596	72.70	11,977,286	0.78	160,643	83.25	47,536,022	10.91
1,001 to 5,000 shares	10,256	21.55	20,535,127	1.34	28,858	14.96	57,167,901	13.12
5,001 to 10,000 shares	925	1.94	6,371,231	0.41	2,277	1.18	15,741,400	3.61
10,001 to 25,000 shares	529	1.11	8,320,292	0.55	864	0.45	12,720,963	2.92
25,001 to 125,000 shares	613	1.29	37,081,824	2.43	230	0.12	10,608,459	2.43
125,001 to 250,000 shares	209	0.44	37,379,248	2.44	35	0.02	6,204,948	1.42
250,001 to 1,250,000 shares	302	0.64	172,115,678	11.32	34	0.02	17,220,446	3.95
1,250,001 to 2,500,000 shares	67	0.14	118,955,495	7.79	5	0.00	9,049,891	2.08
2,500,001 shares and over	88	0.19	1,016,857,880	66.50	10	0.01	259,508,690	59.55
ADRs	1	0.00	95,340,352	6.24	–	–	–	–
Publicly held shares	47,586	100.00	1,524,934,413	99.80	192,956	100	435,758,720	100
Shares held in treasury	1		4,069,458	0.20				
			1,529,003,871	100		100	435,758,720	100
Number of holdings less than marketable parcel of A\$500					2,533			

## Twenty largest registered shareholders

In accordance with the ASX Listing Rules, below are the names of the twenty largest registered holders of Rio Tinto Limited shares and the number of shares and the percentage of issued capital each holds:

Rio Tinto Limited	Number of shares	Percentage of issued share capital
1. HSBC Custody Nominees (Australia) Limited	88,809,632	20.38
2. JP Morgan Nominees Australia Limited	60,609,606	13.91
3. National Nominees Limited	58,701,943	13.47
4. Citicorp Nominees Pty Limited	19,127,129	4.39
5. Cogent Nominees Pty Limited	11,019,596	2.53
6. JP Morgan Nominees Australia Limited	7,317,079	1.68
7. UBS Wealth Management Australia Nominees Pty Ltd	3,701,986	0.85
8. Citicorp Nominees Pty Limited	3,585,707	0.82
9. Australian Foundation Investment Company Limited	3,573,706	0.82
10. AMP Life Limited	3,062,306	0.70
11. Argo Investments Limited	2,393,539	0.55
12. Perpetual Trustee Company Limited	2,085,788	0.48
13. Queensland Investment Corporation	1,778,101	0.41
14. Australian Reward Investment Alliance	1,481,201	0.34
15. Tasman Asset Management Ltd	1,311,262	0.30
16. UBS Nominees Pty Ltd	1,244,345	0.29
17. RBC Dexia Investor Services Australia Nominees Pty Limited	1,136,633	0.26
18. Citicorp Nominees Pty Limited	1,017,557	0.23
19. Cogent Nominees Pty Limited	870,383	0.20
20. Australian United Investment Company Limited	762,500	0.17
	273,589,999	62.78

Large registered shareholders are nominees who hold securities on behalf of beneficial shareholders.

# Definitions

## Non mining definitions

Throughout this document, the collective expressions Rio Tinto, Rio Tinto Group and Group are used for convenience only. Depending on the context in which they are used, they mean Rio Tinto plc and/or Rio Tinto Limited and/or one or more of the individual companies in which Rio Tinto plc and/or Rio Tinto Limited directly or indirectly own investments, all of which are separate and distinct legal entities.

Unless the context indicates otherwise, the following terms have the meanings shown below:

ADR	American Depositary Receipt evidencing American Depositary Shares (ADS).
Australian dollars	Australian currency. Abbreviates to A\$.
AIFRS	International Financial Reporting Standards as adopted in Australia.
Billion	One thousand million.
Canadian dollars	Canadian currency. Abbreviates to C\$.
Company/Companies	Rio Tinto plc and/or Rio Tinto Limited, as the context so requires.
DLC merger	Dual listed companies merger (1995).
EU IFRS	International Financial Reporting Standards as adopted by the European Union.
IASB	International Accounting Standards Board.
IFRS	International Financial Reporting Standards.
LBMA	London Bullion Market Association.
LME	London Metal Exchange.
OECD	Organisation for Economic Co-operation and Development.
Pounds sterling	UK currency. Abbreviates to £, pence or p.
Public shareholders	The holders of Rio Tinto plc shares that are not companies in the Rio Tinto Limited Group and the holders of Rio Tinto Limited shares that are not companies in the Rio Tinto plc Group.
Rand	South African currency. Abbreviates to R.
Rio Tinto Limited	Rio Tinto Limited, and, where the context permits, its subsidiaries and associated companies.
Rio Tinto Limited Group	Rio Tinto Limited and its subsidiaries and associated companies.
Rio Tinto Limited shareholders	The holders of Rio Tinto Limited shares.
Rio Tinto Limited share	The shares in Rio Tinto Limited.
Rio Tinto Limited/RTL DLC Dividend Share	The DLC Dividend Share in Rio Tinto Limited.
Rio Tinto Limited/RTL Special Voting Share	The Special Voting Share in Rio Tinto Limited.
Rio Tinto plc	Rio Tinto plc and its subsidiaries and associated companies.
Rio Tinto plc ADS	An American Depositary Share representing the right to receive one Rio Tinto plc ordinary share.
Rio Tinto plc Group	Rio Tinto plc and its subsidiaries and associated companies.
Rio Tinto plc ordinary shares	The shares of 10p each in Rio Tinto plc.
Rio Tinto plc shareholders	The holders of Rio Tinto plc shares.
Rio Tinto plc shares	Rio Tinto plc ordinary shares.
Rio Tinto plc/RTP DLC Dividend Share	The DLC Dividend Share of 10p in Rio Tinto plc.
Rio Tinto plc/RTP Special Voting Share	The Special Voting Share of 10p in Rio Tinto plc
Share/shares	Rio Tinto Limited shares or Rio Tinto plc ordinary shares, as the context requires.
Sharing Agreement	The agreement, dated 21 December 1995, as amended between Rio Tinto Limited and Rio Tinto plc relating to the regulation of the relationship between Rio Tinto Limited and Rio Tinto plc following the DLC merger.
US dollars	United States currency. Abbreviates to dollars, \$ or US\$ and US cents or USc.

## Mining and technical definitions

Alumina	Aluminium oxide. It is extracted from bauxite in a chemical refining process and is subsequently the principal raw material in the electrochemical process by which aluminium is produced.
Anode and cathode copper	At the final stage of the smelting of copper concentrates, the copper is cast into specially shaped slabs called anodes for subsequent refining to produce refined cathode copper.
Bauxite	Mainly hydrated aluminium oxides ( $\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$ ). Principal ore of alumina, the raw material from which aluminium is made.
Bioleaching	The deliberate use of bacteria to speed the chemical release of metals from ores.
Block caving	An underground bulk mining method. It involves undercutting the orebody to induce ore fracture and collapse by gravity. The broken ore is recovered through draw points below.
Borates	A generic term for mineral compounds which contain boron and oxygen.
Cathode copper	Refined copper produced by electrolytic refining of impure copper or by electrowinning.
Classification	Separating crushed and ground ore into portions of different size particles.
Coking coal	By virtue of its carbonisation properties, it is used in the manufacture of coke, which is used in the steel making process. Also known as metallurgical coal.
Concentrate	The product of a physical concentration process, such as flotation or gravity concentration, which involves separating ore minerals from unwanted waste rock. Concentrates require subsequent processing (such as smelting or leaching) to break down or dissolve the ore minerals and obtain the desired elements, usually metals.
Cutoff grade	The lowest grade of mineralised material considered economic to process. It is used in the calculation of the quantity of ore present in a given deposit.
Flotation	A method of separating finely ground minerals using a froth created in water by specific reagents. In the flotation process certain mineral particles are induced to float by becoming attached to bubbles of froth whereas others, usually unwanted, sink.
Grade	The proportion of metal or mineral present in ore, or any other host material, expressed in this document as per cent, grams per tonne or ounces per ton.
Head grade	The average grade of ore delivered to the mill.
Ilmenite	Mineral composed of iron, titanium and oxygen.
Metallurgical coal	By virtue of its carbonisation properties, it is used in the manufacture of coke, which is used in the steel making process. Also known as coking coal.
Mineral resource	A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are subdivided in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Ore	A rock from which a metal(s) or mineral(s) can be economically and legally extracted.
Ore milled	The quantity of ore processed.
Ore reserve	The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses which may occur when the materials are mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are subdivided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.
Rock mined	The quantity of ore and waste rock excavated from the mine. In this document, the term is only applied to surface mining operations.
Rutile	A mineral composed of titanium and oxygen ( $\text{TiO}_2$ ).
Stripping ratio	The tonnes of waste material which must be removed to allow the mining of one tonne of ore.
Solvent extraction and electrowinning (SX-EW)	Processes for extracting metal from an ore and producing pure metal. First the metal is leached into solution; the resulting solution is then purified in the solvent extraction process; the solution is then treated in an electrochemical process (electrowinning) to recover cathode copper.
Tailing	The rock wastes which are rejected from a concentrating process after the recoverable valuable minerals have been extracted.
Titanium dioxide feedstock	A feedstock rich in titanium dioxide, produced, in Rio Tinto's case, by smelting ores containing titanium minerals.
Zircon	Zirconium mineral ( $\text{ZrSiO}_4$ ).



# Financial calendar

## 2011

18 January	Fourth quarter 2010 operations review
10 February	Announcement of results for 2010
2 March	Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs quoted "ex-dividend" for 2010 final dividend
4 March	Record date for 2010 final dividend for Rio Tinto plc shares and ADRs
8 March	Record date for 2010 final dividend for Rio Tinto Limited shares
9 March	Plan notice date for election under the dividend reinvestment plan for the 2010 final dividend for Rio Tinto Limited shares and dividend currency conversion date (Rio Tinto Limited shareholders electing to receive pounds sterling)
10 March	Plan notice date for election under the dividend reinvestment plan for the 2010 final dividend for Rio Tinto plc shares and dividend currency conversion date (Rio Tinto plc shareholders electing to receive Australian dollars)
24 March	Dividend currency conversion date (Rio Tinto plc holders electing to receive Australian dollars and Rio Tinto Limited holders electing to receive pounds sterling)
31 March	Payment date for 2010 final dividend to holders of ordinary shares and ADRs
13 April	First quarter 2011 operations review
14 April	Annual general meeting for Rio Tinto plc
5 May	Annual general meeting for Rio Tinto Limited
14 July	Second quarter 2011 operations review
4 August	Announcement of half year results for 2011
10 August	Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs quoted "ex-dividend" for 2011 interim dividend
12 August	Record date for 2011 interim dividend for Rio Tinto plc shares and ADRs
16 August	Record date for 2011 interim dividend for Rio Tinto Limited shares
17 August	Plan notice date for election under the dividend reinvestment plan for the 2011 interim dividend
1 September	Dividend currency conversion date (Rio Tinto plc holders electing to receive Australian dollars and Rio Tinto Limited holders electing to receive pounds sterling)
8 September	Payment date for 2011 interim dividend to holders of ordinary shares
9 September	Payment date for 2011 interim dividend to holders of Rio Tinto plc ADRs
13 October	Third quarter 2011 operations review

## 2012

January	Fourth quarter 2011 operations review
February	Announcement of results for 2011

## Registered offices

### Rio Tinto plc

2 Eastbourne Terrace  
London  
W2 6LG  
Registered in England No. 719885  
Telephone: +44 (0) 20 7781 2000  
Facsimile: +44 (0) 20 7781 1800  
Website: [www.riotinto.com](http://www.riotinto.com)

### Rio Tinto Limited

Level 33  
120 Collins Street  
Melbourne  
Victoria 3000  
ACN 96 004 458 404  
Telephone: +61 (0) 3 9283 3333  
Facsimile: +61 (0) 3 9283 3707  
Website: [www.riotinto.com](http://www.riotinto.com)

Rio Tinto's agent in the US is Shannon Crompton,  
who may be contacted at  
Rio Tinto Services Inc.  
80 State Street  
Albany  
New York, 12207-2543

## Shareholders

Please contact the respective registrar if you have any queries about your shareholding.

## Rio Tinto plc

### Computershare Investor Services PLC

The Pavilions  
Bridgwater Road  
Bristol BS99 6ZY  
Telephone: +44 (0) 870 703 6364  
Facsimile: +44 (0) 870 703 6119  
UK residents only, Freephone: 0800 435021  
Website: [www.computershare.com](http://www.computershare.com)

### Investor Centre

To find out more about Investor Centre, go to  
[www.investorcentre.co.uk/riotinto](http://www.investorcentre.co.uk/riotinto)

### Holders of Rio Tinto American Depositary Receipts (ADRs)

Please contact the ADR administrator if you have any queries about your ADRs.

ADR administrator  
JPMorgan Chase & Co  
PO Box 64504  
St. Paul, MN 55164-0504  
Telephone: +1 (651) 453 2128  
US residents only, toll free general:  
(800) 990 1135  
US residents only, toll free Global invest direct:  
(800) 428 4237  
Website: [www.adr.com/shareholder](http://www.adr.com/shareholder)  
Email: [jpmorgan.adr@wellsfargo.com](mailto:jpmorgan.adr@wellsfargo.com)

## Rio Tinto Limited

### Computershare Investor Services Pty Limited

GPO Box 2975  
Melbourne  
Victoria 3001  
Telephone: +61 (0) 3 9415 4030  
Facsimile: +61 (0) 3 9473 2500  
Australian residents only, toll free:  
1800 813 292  
New Zealand residents only, toll free:  
0800 450 740  
Website: [www.computershare.com](http://www.computershare.com)

### Investor Centre

To find out more about Investor Centre go  
to [www.investorcentre.com](http://www.investorcentre.com)

## Former Alcan Inc. Shareholders

### Computershare Investor Services Inc.

9th Floor  
100 University Avenue  
Toronto  
Ontario  
M5J 2Y1  
Canada  
Telephone: +1 514 982 7555  
North American residents only, toll free  
+1 (866) 624 1341  
Website: [www.computershare.com](http://www.computershare.com)





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# RioTinto

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