RIO TINTO LTD Form 20-F April 02, 2009

#### SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

### **FORM 20-F**

(Mark One)

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Registration statement pursuant to Section 12 (b) or 12(g) of the Securities Exchange Act of 1934

or

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the financial year ended: 31 December 2008

or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the transition period from: to

or

Shell company report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 Date of event requiring this shell company report \_\_\_\_

Commission file number: 1-10533

### **Rio Tinto plc**

(Exact name of Registrant as specified in its charter)

**England and Wales** (Jurisdiction of incorporation or organisation)

**5 Aldermanbury Square** Level 33, 120 Collins Street London, EC2V 7HR, United Kingdom (Address of principal executive offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Commission file number: 0-20122

### **Rio Tinto Limited**

ABN 96 004 458 404 (Exact name of Registrant as specified in its charter)

Victoria, Australia (Jurisdiction of incorporation or organisation)

Melbourne, Victoria 3000, Australia (Address of principal executive offices) Roger Dowding, T: +44 (0)20 7781 1623, E: roger.dowding@riotinto.com (Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Title of each class	Name of each exchange on which registered	Name of each exchange on which registered	Title of each class
American Depositary Shares*	New York Stock Exchange	on when registered	
Ordinary Shares of 10p each**	New York Stock Exchange		
5.875% Notes due	New York Stock	New York Stock	5.875% Notes due 2013
2013	Exchange	Exchange	
6.500% Notes due	New York Stock	New York Stock	6.500% Notes due 2018
2018	Exchange	Exchange	
7.125% Notes due	New York Stock	New York Stock	7.125% Notes due 2028
2028	Exchange	Exchange	

\* Evidenced by American Depositary Receipts. Each American Depositary Share Represents four Rio Tinto plc Ordinary Shares of 10p each.

\*\* Not for trading, but only in connection with the listing of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission

Securities registered or to be regis	stered pursuant to Section 12(g) of the Act:			
Title of each class	Title of each class			
None	Shares			
Securities for which there is a rep	orting obligation pursuant to Section 15(d) of			
the Act:				
None	None			
Indicate the number of outstanding shares of each of the Issuer is classes of capital or common stock as				
of the close of the period covered by the annual report:				

**Title of each class** Title of each class Number Number Ordinary Shares of 10p each 1,004,103,375 456,815,943 Shares DLC Dividend Share of 10p 1 1 **DLC** Dividend Share 1 Special Voting Share of 10p 1 Special Voting Share

Indicate by check mark if the registrants are well-known seasoned issuers, as defined in rule 405 of the Securities Act.

Yes x No o

If this report is an annual or transition report, indicate by check mark if the registrants are not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes o No x

Note  $\Box$  Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrants: (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days:

Yes x No o

Indicate by check mark whether the registrants are large accelerated filers, accelerated filers, or non-accelerated filers. See definition of []accelerated filer and large accelerated filer] in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer x Accelerated filer Non-accelerated filer o

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Indicate by check mark which basis of accounting the registrants have used to prepare the financial statements included in this filing:

US GAAP o International Financial Reporting Standards as issued by the International Accounting Standards Board x Other o

If  $\Box$ Other $\Box$  has been checked in response to the previous question, indicate by check mark which financial statement item the registrants have elected to follow:

Item 17 o Item 18 o

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes o No x

#### **EXPLANATORY NOTE**

The Rio Tinto Group is a leading international mining group, combining Rio Tinto plc and Rio Tinto Limited in a dual listed companies (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. This annual report on Form 20-F, including the financial statements, is presented on a combined basis for the Rio Tinto Group.

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**Rio Tinto** 

PART I

Item 1. Identity of Directors, Senior Management and Advisers Not applicable.
Item 2. Offer Statistics and Expected Timetable Not applicable.
Item 3. Key Information SELECTED FINANCIAL DATA

The selected consolidated financial data below has been derived from the 2008 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 2008 Financial statements and notes thereto. The 2008 Financial statements were prepared in accordance with IFRS as issued by the IASB (IFRS).

**RIO TINTO GROUP** 

Income Statement Data For the years ending 31 December Amounts in accordance with IFRS	2008 US\$m	2007 US\$m	2006 US\$m	2005 US\$m	2004 US\$m
Consolidated revenue Group operating profit (a)	54,264 10,194	29,700 8,571	22,465 8,974	19,033 6,922	12,954 3,327
Profit for the year from continuing operations Loss after tax from discontinued operations	5,436 (827)	7,746	7,867	5,498	3,244
Profit for the year	4,609	7,746	7,867	5,498	3,244
Basic earnings per share Profit from continuing operations (US cents) Loss from discontinued operations (US cents)	350.8 (64.4)	568.7	557.8	382.3	239.1
Profit for the year per share (US cents)	286.4	568.7	557.8	382.3	239.1
Diluted earnings per share (US cents) Profit from continuing operations (US cents) Loss from discontinued operations (US cents)	349.2 (64.1)	566.3	555.6	381.1	238.7
Profit for the year per share (US cents)	285.1	566.3	555.6	381.1	238.7
			Rio T	Tinto 2008 For	m 20-F 4

Dividends per share	2008	2007	2006	2005	2004
Dividends declared during the year					
US cents					
interim	68.0	52.0	40.0	38.5	32.0
final and special	68.0	84.0	64.0	151.5	45.0
UK pence					
interim	36.25	25.59	21.42	21.75	17.54
final and special	46.29	43.13	32.63	85.24	23.94
Australian cents					
interim	77.35	60.69	52.48	50.56	45.53
final and special	101.48	93.02	82.84	200.28	58.29
Dividends paid during the year (US cents)					
ordinary and special	152.0	116.0	191.5	83.5	66.0
Weighted average number of shares basic					
(millions)	1,283.5	1,285.8	1,333.4	1,364.1	1,379.2
Weighted average number of shares					
diluted (millions)	1,289.3	1,291.3	1,338.8	1,368.5	1,381.4
Balance Sheet Data		Restated			
at 31 December	2008	2007	2006	2005	2004
Amounts in accordance with IFRS	US\$m	US\$m	US\$m	US\$m	US\$m
	USUM	COQIII	Öbyin	ÖĞ	e sym
Total assets	89,616	101,091	34,494	29,803	26,308
Share capital / premium	5,826	3,323	3,190	3,079	3,127
Total equity / Net assets	22,461	26,293	19,385	15,739	12,591
Equity attributable to Rio Tinto	-				-
shareholders	20,638	24,772	18,232	14,948	11,877

#### Notes

(a) Operating profit under IFRS includes the effects of charges and reversals resulting from impairments and profit and loss on disposals of interests in businesses. IFRS operating profit amounts shown above exclude equity accounted

operations.

(b) As a result of adopting IAS 32, IAS 39 and IFRS 5 on 1 January 2005, the Group changed its method of accounting for financial instruments and non-current assets held for sale. In line with the relevant transitional provisions, the prior period comparatives have not been restated.

#### **Risk factors**

The following describes some of the risks that could 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. They should also be considered in connection with any forward looking statements in this document and the cautionary statement on page 11.

The following highlight the Group s exposure to risk without explaining how these exposures are managed and mitigated or how some risks are both threats and potential opportunities.

# The recent significant reduction in commodity prices and global demand for the Group s products has had, and are expected to continue to have, a material adverse impact on the Group s business, financial condition and results of operations.

Commodity prices, and demand for the Group s products, are cyclical and influenced strongly by world economic growth, particularly in the US and Asia (notably China). The Group s normal policy is to sell its products at prevailing market prices and not to enter into hedging arrangements relating to changes or fluctuations in such prices. Commodity prices have significantly declined recently and prices can fluctuate widely. Such fluctuations have impacted the Group s recent trading and could have a material adverse impact on the Group s revenues, earnings, cash flows, asset values and growth in the future. As a result of difficult market and general economic conditions (which may be long lasting and continue to deepen), there has also been reduced direct and indirect demand for the Group s products and these declines have had, and are expected to continue to have, a material adverse impact on the Group s revenues, earnings, cash flows, asset values and growth.

# China is an important source of demand for the Group s products and a reduction in the imports of the Group s products by Chinese customers has had, and may continue to have, a material adverse effect on the Group s results of operations.

As a result of the increasing importance of China as a source of demand for its products, in particular iron ore, the Group has recently been, and may continue to be, adversely affected by a reduction in the importation of its products by Chinese customers. In part as a result of weak demand from the slowing global economy, China s economy grew at a slower rate in 2008 than in prior years. China remains the world s largest importer of iron ore but the reduction in the growth rate of the Chinese economy and the sharp decline in Chinese steel output since October 2008 has contributed to a contraction in Chinese demand. Although the Group s iron ore is predominantly sold to Chinese customers at fixed prices rather than at spot rates, these prices are subject to annual negotiations and the Group may not be able to negotiate favourable pricing when it renegotiates its annual iron ore contracts in the first half of 2009. In addition, if the Group s Chinese iron ore customers are successful in sourcing iron ore domestically or from the Group s competitors (particularly if volatility in the freight market impacts the competitiveness of the Group s supply of iron ore), the Group may experience further weakened demand for its iron ore.

The slowdown of China s economy has also contributed to a contraction in demand and lower pricing for copper and aluminium. If Chinese customers demand for external sources of the Group s products continues to weaken or does not recover, or Chinese customers source such products from the Group s competitors, the Group s business, results of operations, financial condition and prospects could continue to be materially adversely affected. Failure to progress the divestment programme, complete the strategic partnership with Chinalco or raise additional capital from alternative sources may lead to the renegotiation of the Group s US\$40 billion syndicated credit facilities on more onerous terms.

In July 2007, in connection with its acquisition of Alcan, the Group entered into syndicated credit facilities of up to US\$40 billion, which have principal repayments falling due in October 2009, October 2010 and October 2012. Following the acquisition, the Group announced its intention to reduce this debt by divesting some of its existing assets as well as the Packaging and Engineered Products units of Rio Tinto Alcan. In November 2007, the Group announced its intention to achieve at least US\$15 billion of divestments and divested US\$2.6 billion at favourable prices in the first half of 2008. Deteriorating market conditions in the second half of 2008 and continued severe dislocation in global markets, made it increasingly difficult for buyers to raise finance to purchase Group assets. In October 2008, the Group announced it would review its 2008 targeted divestments given market conditions and made

a further announcement about its targeted divestments on 12 December 2008.

On 12 February 2009 the Group announced that it had entered into a transaction with Chinalco to forge a strategic partnership through the creation of joint ventures and the issuance of convertible bonds. The transaction is subject to the approval by Rio Tinto shareholders, governments and regulators.

The timing and proceeds of divestments and the completion of the transaction with Chinalco are subject to uncertainty. The Group cannot anticipate when it will be able to reduce its borrowings through further asset divestments, if at all or be certain that the transaction with Chinalco will receive all requisite approvals or complete in a timely manner. If the Group is unable to access sufficient funds, to make the repayments under its credit facilities, it may not be able to fulfil its repayment obligations or may need to find an alternate source of financing, which may be Rio Tinto 2008 *Form 20-F* **6** 

on more onerous terms. The occurrence of any of these events may have a material adverse effect on the Group s business, results of operations, financial condition, prospects and share prices.

In addition, if the transaction with Chinalco does not complete it will result in the Group having to consider other strategic and financing options and under certain circumstances may result in the Group paying a break fee of US\$195 million to Chinalco.

Further details of the Group s existing credit facilities are set out on page 116. Further details of the strategic partnership with Chinalco are set out on page 59.

Adverse economic and credit market conditions have materially adversely affected, and may continue to materially adversely affect, the Group s ability to raise additional debt or equity.

At the time of the acquisition of Alcan, it was the Group s intention to repay a portion of the US\$40 billion Alcan credit facilities through the issuance of bonds. Accordingly, the Group issued a series of bonds in June 2008, and the aggregate net proceeds were applied in partial prepayment of the credit facilities maturing in October 2009. Deteriorating conditions in the credit markets since June 2008 have restricted the Group s ability to access the credit markets on a commercially acceptable basis.

The Group s ability to raise additional debt and/or equity financing will also continue to be significantly influenced by, among other things, general economic conditions, developments in the credit markets, volatility in the equity markets, investors desire to maintain cash and to assume additional levels of risk and the Group s credit rating. If economic and credit conditions do not improve, the Group may not be able to raise debt and/or equity finance on attractive terms, or at all, and it may need to seek further financing from alternative sources. Alternative financing may also be on unfavourable terms. As a result, the Group s business, results of operations, financial condition and prospects could be materially adversely affected.

## The Group s borrowing costs and its access to the debt capital markets depend both on its long term credit ratings, (which were recently downgraded), and on interest rate levels.

In December 2008, Moody s downgraded the long term ratings of the Group from A3 to Baa1 and S&P downgraded its long term ratings from BBB+ to BBB and its short term corporate credit ratings from A-2 to A-3. Both Moody s and S&P have retained a negative outlook in respect of its ratings and may downgrade the ratings of the Group again. Any current or future downgrades by credit rating agencies may increase the Group s financing costs and limit or eliminate its access to the debt capital markets. Following the announcement of the strategic alliance with Chinalco, Moody's placed the group under a review for possible downgrade at the same time affirming the Prime-2 short term ratings. S&P reaffirmed the BBB rating and upon successful completion of the transaction may revise the outlook to stable from negative.

Increases in interest rates are likely to increase the interest cost associated with the Group s debt, 73 per cent of which is floating rate debt, and will increase the cost of future borrowings, which could affect the Group s earnings and financial position. See also the risk factors relating to defined benefit pension plans on page 9.

## Failure of the Group to make successful acquisitions and to effectively integrate its acquisitions could have a material adverse impact on the Group s business and results of operations.

Business combinations entail a number of risks, including the ability of management to integrate effectively the businesses acquired with its existing operations (including the realisation of synergies), significant one time write offs or restructuring charges, difficulties in achieving optimal tax structures, and unanticipated costs. All of these may be exacerbated by the diversion of management s attention away from other ongoing business concerns. The Group may also be liable for the past acts, omissions or liabilities of companies or businesses it has acquired, which may be unforeseen or greater than anticipated at the time of the relevant acquisition. Deterioration or reduced demand for the Group s products could impact the Group s estimated post tax synergies for the Alcan acquisition and have a material adverse impact on the Group s results of operations.

### The Group s results of operations could be materially 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 estimates of expected cash flows generated from its assets. The Group was recently required and may again be required to recognise asset impairment charges, as a result of impairment indicators which could include a weak

economic environment, challenging market conditions, fluctuations in long term commodity prices, changes to long term mine plans, mining properties and to characteristics of orebody (including the expected life of the orebody). The deteriorating global economic outlook and declines in commodity prices are likely to reduce the recoverable amount of the Group s cash generating units and therefore may increase the Group s impairment charges in the future.

In accordance with IFRS, the Group does not amortise goodwill but rather tests it annually for impairment. Goodwill impairments cannot be reversed. The Group tested goodwill arising from the Alcan acquisition for impairment and recorded a goodwill impairment charge of US\$6.6 billion for the year ended 31 December 2008.

In November 2007, the Group initially determined goodwill based on provisional fair values, and finalised the fair value determinations within 12 months of the date it acquired Alcan. Following this determination, the Group adjusted the value of goodwill arising from the Alcan acquisition to US\$20.1 billion.

The Group will continue to test goodwill and may, in the future, record additional impairment charges. This could result in the recognition of impairment losses which could be significant and which could have a material adverse effect on the Group s results of operations. Further details on impairments are set out on page 125.

### Rio Tinto is exposed to fluctuations in exchange rates that could have a material adverse impact on the results of its operations.

The majority of the Group s sales are denominated in US dollars. The Group also finances its operations and holds surplus cash primarily in US dollars. Given the dominant role of the US dollar in the Group s operations it is the currency in which its results are presented both internally and externally. The Group also incurs costs in US dollars but significant costs are influenced by the local currencies of the territories in which its ore reserves and other assets are located. These currencies are principally the Australian dollar, Canadian dollar and Euro. The Group s normal policy is not to enter into hedging arrangements relating to changes or fluctuations in foreign exchange rates. As a result, if there is an appreciation in the value of these currencies against the US dollar or prolonged periods of exchange rate volatility these changes may have a material adverse impact on the Group s results of operations. If the Group does not significantly reduce its business and operating costs, its business and results of operations may suffer materially.

On 10 December 2008, the Group announced that it had undertaken a review of its controllable operating expenditure and intended to reduce operating and functional costs by at least US\$2.5 billion per annum by the end of 2010 based on 2008 production rates and constant exchange rates and oil prices. To achieve this targeted reduction, the Group intends to reduce global headcount by approximately 14,000 roles. However, as a result of continuing market conditions, the Group may need to reduce operating expenditure further. The Group also intends to consolidate some of its offices, accelerate the outsourcing and off-shoring of IT and procurement and defer certain exploration and evaluation expenditure. If the Group experiences delays in implementing these measures or if the Group does not realise the cost savings or operating efficiencies it anticipates, this could have a material adverse effect on the Group s results of operations.

In the event that demand subsequently increases and the Group seeks to raise production levels to respond, its ability to take advantage of the increased demand may be constrained and operating costs may increase significantly, which could have a material adverse effect on the Group s business and results of operations.

### The Group s business and growth prospects may be negatively impacted by reductions in its capital expenditure programme.

The Group requires substantial capital to invest in greenfield and brownfield projects and to maintain and prolong the life and capacity of its existing mines. The recently announced reductions in capital expenditure relate to the cancellation of, or slowing work on, certain projects and the deferral of others until at least the Group is satisfied that market conditions and commodity prices have sufficiently recovered and sufficient cash for investment is available. The Group may reduce its capital expenditure further in light of various considerations such as expected global demand for its products, the level of commodity pricing and the Group s resources, which may negatively impact the timing of the Group s growth and future prospects.

If commodity markets improve, the Group s ability to take advantage of that improvement may be constrained by earlier capital expenditure restrictions and the long term value of its business could be adversely impacted.

The Group s position in relation to its competitors may also deteriorate.

Competitors may have sufficient funds or access to capital and be better positioned to respond quickly to changes in commodity prices or market conditions generally.

The Group may also need to address commercial and political issues in relation to its reductions in capital expenditure in certain of the jurisdictions in which it operates. If the Group s interest in its joint ventures is diluted or it loses key concessions or if it is prevented from reducing capital expenditure commitments in the relevant jurisdiction, its growth could be constrained. Any of the foregoing could have a material adverse effect on the Group s business, results of operations, financial condition and prospects.

### 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 mining properties through its exploration programme. The Group has also undertaken the development or expansion of other major operations. There is no assurance, however, that such expenditure will be recouped or that depleted ore reserves will be replaced.

### Political, legal and commercial instability or community disputes in the countries and territories in which the Group operates could affect the viability of its operations.

The Group has operations in jurisdictions with varying degrees of political, legal and commercial stability. Administrative change, policy reform, changes in law or governmental regulations can result in civil unrest, expropriation, or nationalisation. Renegotiation or nullification of existing agreements, leases and permits, changes in fiscal policies (including increased tax or royalty rates) or currency restrictions are all possible consequences. Commercial instability caused by bribery and corruption in their various guises can lead to similar consequences. The consequences of such instability or changes could have a material adverse effect on the profitability, the ability to finance or, in extreme cases, the viability of an operation.

Some of the Group s current and potential operations are located in or near communities that may regard such an operation as having a detrimental effect on their environmental, economic or social circumstances. The consequences of community reaction could also have a material adverse impact on the cost, profitability, 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 material 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.

### The Group s land and resource tenure could be disputed resulting in disruption and/or impediment in 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, particularly in Australia and Canada) may be unclear and may lead to disputes over resource development. Such disputes could disrupt or delay relevant mining projects and/or impede the Group s ability to develop new mining properties and may have a material adverse effect on the Group s results of operations and/or prospects.

### The Group s operations are resource intensive and changes in the cost and/or interruptions in the supply of energy, water, fuel or other key inputs could adversely affect their economic viability.

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 current downward trend in energy prices reverses, carbon trading schemes or carbon taxes begin to apply to the Group s operations or if the Group experiences interruptions in, or constraints on, its supply of energy, water, fuel or other key inputs, the Group s costs could increase and its results could be materially adversely affected.

#### Increased regulation of greenhouse gas emissions could adversely impact the Group s cost of operations. Rio Tinto s smelting and mineral processing operations are energy intensive and depend heavily on fossil fuels.

Increasing regulation of greenhouse gas emissions, including the progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets, in numerous jurisdictions in which the Group operates is likely to raise energy costs and costs of production to a material degree over the next decade. Regulation of greenhouse gas emissions in the jurisdictions of the Group s major customers and in relation to international shipping could also have an adverse effect on the demand for the Group s products.

### Estimates of ore reserves are based on certain assumptions and so changes in such 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, contracted and economic information) 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 result in the reserves ceasing to be economically viable. This may, ultimately, result in the reserves needing to be restated. Such changes in reserves could also impact depreciation and amortisation rates, asset carrying values, deferred stripping calculations and provisions for close down, restoration and environmental clean up costs.

### The Group s net earnings are sensitive to the assumptions used for valuing defined benefit pension plans and post retirement healthcare plans.

Certain of the Group s businesses sponsor defined benefit pension plans. The pension expense reported in respect of those plans is sensitive to the assumptions used to value the pension obligations and also to the underlying economic conditions that influence those assumptions. Changing economic conditions and in particular poor pension investment returns may require the Group to make substantial cash contributions to these pension plans. Actual investment returns achieved compared to the amounts assumed within the Group s reported pension expense was as follows:

	2008	2007	2006	2005	2004
	US\$m	US\$m	US\$m	US\$m	US\$m
Expected return on plan assets	1,000	550	326	306	263

Actual return on plan assets Difference between the expected and	(2,910)	442	664	529	650
actual return on plan assets:					
(loss)/gain	(3,910)	(108)	338	223	387
Difference as a percentage of plan assets	(37%)	(1%)	6%	4%	8%

As at 31 December 2008, the Group had recorded pension liabilities (on an IAS19 accounting basis) of US\$13.1 billion and assets of US\$10.5 billion. After excluding those pension arrangements deliberately operated as unfunded arrangements, representing liabilities of US\$0.9 billion, the global funding level for pension liabilities (on an IAS19 basis) was approximately 86 per cent. If the funding level materially deteriorates further cash contributions from the Group may be needed, subject to local requirements.

The long term credit ratings of the Group were downgraded in December 2008. See earlier risk factor relating to credit ratings. If the Group s long term credit ratings are downgraded by Moody s by another two levels to Baa3, Rio Tinto would be required to make a one off cash payment to the Rio Tinto Pension Fund (UK) to bring the funding level up to 100 per cent on the funding basis agreed with the trustees, or offer an alternative form of security. As at 31 December 2008, the funding deficit was estimated to be £108 million (US\$156 million). If the Group is required to make such substantial cash contributions to its pension plans, its financial position and results could be adversely affected.

#### Labour disputes could lead to lost production and/or increased costs.

Some of the Group s employees, including employees in non managed operations, are represented by labour unions under various collective labour agreements. The Group may not be able to satisfactorily renegotiate its collective labour agreements when they expire and may face tougher negotiations or higher wage demands than would be the case for non unionised labour. In addition, existing labour agreements may not prevent a strike or work stoppage at its facilities in the future, and any strike or other work stoppage could have a material adverse effect on the Group s earnings and financial condition.

#### The Group is dependent 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 its personnel, including key engineering, managerial, financial, commercial, marketing and processing personnel and the maintenance of good labour relations. The loss or diminution in the services of such key personnel, particularly as a result of a reduction in headcount, an inability to attract and retain additional staff, or if the Group does not have a competitive remuneration structure, could have a material adverse effect on the Group s business, financial condition, results of operations and prospects.

Competition for personnel with relevant expertise and experience of international best practice in certain of the jurisdictions in which the Group operates, especially for positions in engineering, mining, metallurgy and geological sciences, is intense due to the small pool of qualified individuals and strong demand for such individuals. This may affect the Group s ability to retain its existing senior management, marketing and technical personnel and attract additional qualified personnel on appropriate terms or at all.

**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. Some aspects of these technologies are unproven and the eventual operational outcome or viability cannot be assessed with certainty. Accordingly, the costs, productivity and other benefits from these initiatives and the consequent effects on the Group s future earnings and financial results may vary widely from present expectations. If the Group s technology system fails to realise the anticipated benefits, there is no assurance that this would not result in increased costs, interruptions to supply continuity, failure for the Group to realise its production or growth plans or some other adverse affect on operational performance.

## The Group s mining operations are vulnerable to natural disasters, operating difficulties and infrastructure constraints that could have a material impact on its productivity and not all of which are covered by insurance.

Mining operations are vulnerable to natural disasters, including earthquakes, drought, floods, fire, tropical storms and the physical effects of climate change. Operating difficulties, such as unexpected geological variations that could result in significant failure, could affect the costs and viability of its operations for indeterminate periods. Furthermore, downstream activities such as smelting and refining are dependent upon mine production. The Group s insurance coverage can provide protection from some, but not all, of the costs that may arise from unforeseen events.

The Group requires reliable roads, rail networks, ports, power sources and water supplies to access and conduct its operations. The availability and cost of this infrastructure affects capital and operating costs and the Group s ability to maintain expected levels of production and sales. In particular, the Group transports a large proportion of its products by sea. The Group competes with a number of other exporters for limited storage and berthing facilities at ports, which can result in delays in loading the Group s products and expose the Group to significant delivery interruptions.

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 a material adverse effect on the Group s business, results of operations, financial condition and prospects.

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 equipment failure or labour dispute. The occurrence of a significant adverse event not fully or partially covered by insurance, could have a material adverse effect on the Group s business, results of operations, financial condition and prospects.

The Group s costs of close down and restoration, and for environmental clean up, could be higher than expected due to unforeseen changes in legislation, standards and techniques. Underestimated or unidentified costs could have a material adverse impact on the Group s reputation and results of operations.

Close down and restoration costs include the dismantling and demolition of infrastructure and the remediation of land Rio Tinto 2008 *Form 20-F* **10** 

disturbed during the life of mining and operations. Estimated costs are provided for over the life of each operation based on the net present value of the close down and restoration costs. The estimated costs are 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 which might substantially curtail the life of an operation. The total provisions as at 31 December 2008 amounted to US\$6,011 million (2007 restated: US\$6,228 million) as set out in note 27 to the 2008 *Financial statements*. These provisions could, however, be insufficient in relation to the actual cost of restoration or the cost of remediating or compensating damage including to land or other elements of the environment outside the site boundary. Any underestimated or unidentified close down and restoration costs could have a material and adverse impact on the Group s reputation as well as its asset values, earnings and cash flows.

# Joint ventures and other strategic partnerships may not be successful and non managed projects and operations may not comply with the Group s standards and as a consequence 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 in the future. Although the Group has, in relation to its existing joint ventures, sought to protect its interests, joint ventures necessarily involve special 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 so as to block actions that the Group believes to be 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

as a result of financial or other difficulties, be unable or unwilling to fulfil their obligations under the joint venture or other agreements, such as contributing capital to expansion or maintenance projects.

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 the related non managed projects and operations and, by association, damage the Group s reputation and thereby harm the Group s other operations and access to new assets.

### Health, safety, environmental and other regulations, standards and expectations evolve over time and unforeseen changes could have an adverse effect on the Group s earnings and cash flows.

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. Evolving regulatory standards and expectations can result in increased litigation and/or increased costs, all of which can have a material and adverse effect on earnings and cash flows.

#### 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. The words intend, aim, project, anticipate, estimate, plan, the expects, may, should, will, or similar expressions, commonly identify such forward looking statements.

Examples of forward looking statements in this Annual report and financial statements 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 at 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.

#### Item 4. Information on the Company INTRODUCTION Rio Tinto

The Rio Tinto Group combines Rio Tinto plc, which is listed on the London Stock Exchange and headquartered in London, and Rio Tinto Limited, which is listed on the Australian Securities Exchange and has executive offices in Melbourne.

Businesses include open pit and underground mines, mills, refineries and smelters as well as a number of research and service facilities. The Group consists of wholly and partly owned subsidiaries, jointly controlled assets, jointly controlled entities and associated companies, the principal entities being listed in notes 37 to 40 of the *2008 Financial statements*.

On 31 December 2008, Rio Tinto plc had a market capitalisation of  $\pounds$ 14.87 billion (US\$21.72 billion) and Rio Tinto Limited had a market capitalisation of A\$10.86 billion (US\$7.66 billion). The Group s combined market capitalisation in publicly held shares at the end of 2008 was US\$29.38 billion.

#### **Operational structure**

Rio Tinto s operational structure is designed to facilitate a clear focus on the Group s objective. This structure, reflected in this report, is based on the following primary product and business support groups:

Aluminium

Copper & Diamonds

Energy & Minerals

Iron Ore

Exploration

Technology & Innovation

The chief executive of each product group and the global head of each business support group 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 compa names, except to distinguish between Rio Tinto plc and Rio Tinto Limited. Financial data in United States dollars (US\$) is derived from, and should be read in conjunction with, the 2008 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 2008 Financial statements.

Rio Tinto Group sales revenue, profit before finance items and tax, net earnings and operating assets for 2007 and 2008 attributable to the product groups and geographical areas are shown in notes 31 and 32 to the 2008 Financial statements. In the Performance section, operating assets and sales revenue for 2007 and 2008 are consistent with the financial information by business unit in the 2008 Financial statements.

The tables on pages 29 to 32 show production for 2006, 2007 and 2008 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 Glossary on pages 197 to 198. The weights and measures used are mainly metric units; conversions into other units are shown on page 199.

#### 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 the Group, with its common board of directors, is 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.

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 leading role in the production of the three key metals associated with the growth and urbanisation of China and other developing countries.

#### **Contact details**

Rio Tinto plc is registered in England and Wales under company number 719885 with its registered office at 5 Aldermanbury Square, London, EC2V 7HR (telephone: +44 20 7781 2000). Rio Tinto Limited is registered in Victoria, Australia under ABN 96 004 458 404 with its registered office at Level 33, 120 Collins Street, Melbourne, Victoria 3000 (telephone: +61 3 9283 3333).

#### **Public takeover offers**

In November 2007 Rio Tinto received an unsolicited approach from BHP Billiton proposing a combination of the two companies. This was followed in February 2008 by pre-conditional takeover offers which BHP Billiton finally withdrew in November 2008, before the conditions had been satisfied, citing deterioration of near term global economic conditions.

The board of Rio Tinto gave careful consideration to BHP Billiton s pre-conditional offers to acquire the whole of the issued share capital of Rio Tinto plc and Rio Tinto Limited. Under this proposal each Rio Tinto share would have been exchanged for 3.4 BHP Billiton shares.

The board concluded that the pre-conditional offers significantly undervalued Rio Tinto. Accordingly the board unanimously rejected BHP Billiton s pre-conditional offers as not being in the best interests of shareholders.

During the term of the offer, the board monitored the situation closely and nothing changed its view that the BHP Billiton bid significantly undervalued Rio Tinto s assets and future prospects. The board also believed the great majority of synergies that would have resulted would have come from the Rio Tinto assets, and Rio Tinto shareholders would not have been adequately rewarded. Those synergies would, in any event, have been highly dependent on any remedies required by competition regulators and on delivery risk.

#### Core objective and strategy

Rio Tinto s core objective is to maximize the long term return to shareholders by finding, mining and processing metal and mineral resources across the globe.

To deliver this objective the Group follows a long term strategy that concentrates on:

The discovery of Tier 1 (large, low cost) orebodies that will safeguard our future cash flow.

The development of Group assets into safe and efficient large scale, long life and low cost operations to ensure the Group can operate profitably at every stage of the commodity cycle.

Operating in an ethical and socially responsible manner that maintains Rio Tinto s reputation and ensures ongoing access to people, capital and mineral resources.

Putting long term sustainable development at the heart of everything the Group does.

#### **RIO TINTO S STRATEGIC PILLARS**

To support and deliver its long term strategy, Rio Tinto structures its activities around the six core strategic pillars below. These pillars are used by each product group and business support group to develop their medium and short term strategic and operational plans. Using this consistent framework ensures that the Group is aligned in the delivery of the long term strategy.

#### Health and safety

We believe that all incidents and injuries are preventable. Rio Tinto s aim is to create an environment where all employees and contractors have the knowledge, skills and desires to work safely, so that everyone goes home safe and healthy at the end of each day. In 2009 there will be a renewed focus on implementing the safety programmes

currently being rolled out across the Group, with a particular focus on contractor management.

#### **Operational and financial delivery**

The mineral and metal extraction industry is cyclical, but to deliver the maximum value to shareholders the Group must earn positive financial returns at the lowest points of the economic cycle with exceptional returns delivered at times of strong commodity prices. The majority of Rio Tinto s assets aim to operate in the lower half of the cost curve for their respective industries. Rio Tinto attempts to achieve this through the promotion of management excellence, the application of the latest mining technologies, the constant delivery of business improvement programmes and investment in the asset throughout its lifecycle.

#### Growth and innovation

The Group s ability to maintain production growth over long periods in line with demand is underpinned by its reserve position in its key commodities. Rio Tinto believes that a consistent commitment to greenfield and brownfield exploration activity ensures that the Group s mineral inventory is replenished, and creates a strong pipeline of future development opportunities. The current weak global market has had a significant impact both on commodity prices and customer demand, leading the Group to re-evaluate and cut back on its near term capital expenditure on growth projects. The near term focus is to reduce capital spending yet maintain strategic growth options.

#### People

Rio Tinto s workforce consists of both staff and contractors and their safety is the organisation s first priority. Rio Tinto believes that attracting, developing and retaining a skilled and engaged workforce is critical to business performance. Strategic workforce planning, an integrated talent sourcing and development model, the total rewards architecture and efficient, effective development are examples of the Group wide initiatives that Rio Tinto uses to optimise the value of its workforce. As the Company strives to deliver shareholder value under challenging market conditions, Rio Tinto intends to continue to strive to engage its employees, support the development of critical leadership competencies during periods of change and extend the overall agility of the workforce while helping to sustain business performance.

#### **Communities and environment**

Rio Tinto has a strong commitment to all aspects of sustainable development. This is an integral part of the way Rio Tinto conducts its business activities. By focusing on delivering economic prosperity, social wellbeing and environmental stewardship, within strong governance systems, we ensure sustainable development remains at the forefront. While this approach helps us to manage risk, our strong reputation as a socially responsible miner has helped us to win customer preference, giving us improved access to land, people and capital -the three critical resources upon which our business success is built.

#### **Customers and markets**

By understanding what our customers value, we develop offerings to help meet their needs and generate superior returns for Rio Tinto. Competitively positioning our businesses in their markets is based on a robust, fact based five year marketing strategy supported by rigorous tactical execution. Effective supply chain integration with our operations and Rio Tinto Marine helps meet customer needs and create value for ourselves by supplying the right products and services at the right time to the right place. While market conditions in 2009 are some of the most challenging we have seen, we intend our investment in sales and marketing capability to help meet the revenue challenge of the down-cycle while retaining the flexibility to take advantage of future growth.

#### **Key performance indicators**

Rio Tinto s core objective and long term strategy dictate key performance indicators (KPIs) that the Group monitors, targets and measures. These KPIs fulfil three roles:

To give senior management a means to evaluate the Group s overall performance from an operational, growth and sustainable development perspective.

To provide managers and their teams with clarity and focus on the areas that are critical for the successful achievement of the Group s goals.

To give guidance to the *Remuneration committee* for short term incentive plan calculation purposes.

#### **KPI trend data**

The Group s performance against each KPI is covered in detail in this annual report on Form 20-F on the pages referenced below. Supporting the data is an explanation of the actions taken by management to maintain and improve the performance of each KPI.

#### **THE GROUP KPIs**

#### All injury frequency rate (AIFR)

Rio Tinto s continuous focus on safety in the workplace means that the AIFR is one of the Group s most important non financial KPIs.

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

#### **Total shareholder return (TSR)**

TSR measures the Group s performance against its peers in terms of shareholder wealth generation through dividends and the share price. Rio Tinto s TSR is calculated by an independent third party. The Group s TSR performance compared to the FTSE 100 index, the ASX All Ordinaries index and the HSBC Global Mining index, as well as the relationship between TSR and executive remuneration, are shown on page 145 of the Remuneration report. See page 63

#### **Employee engagement**

The employee engagement score measures how connected and committed our employees are to Rio Tinto. The first global employee engagement survey was completed in 2008 and this is the first year that the engagement score appears as a KPI. Employee responses to six questions in the survey combine to become the engagement score. **Total greenhouse gas emissions efficiency** 

Rio Tinto accepts the urgent need for climate change action. Broadly consistent with the Greenhouse Gas Protocol of the World Business Council for Sustainable Development and the World Resources Institute, we calculate total greenhouse gas emissions as direct emissions (Scope 1) plus emissions from imports of electricity (Scope 2), minus electricity and steam exports. Efficiency is a measure of changes in emissions per tonne of product resulting from operational performance improvement.

#### **Underlying earnings**

Underlying earnings is the key financial performance indicator used across the Group. It is a measure of earnings that provides insight into the underlying business performance of the Group s operations. Items excluded from net earnings to arrive at underlying earnings are explained in note 2 of the *2008 Financial statements*. See page 63. **Net debt** 

In December 2008, Rio Tinto announced its commitment to reduce net debt by US\$10 billion in 2009, including US\$8.9 billion in October 2009.

Net debt is calculated as: the net total of borrowings, cash and cash equivalents, other liquid resources and derivatives related to net debt. See page 118

#### **Capital expenditure**

Capital expenditure tracks new and continuing investment in value added sustaining and growth projects. The Group s capital projects are listed on pages 26 and 27 in the Capital projects section.

#### **Group overview**

Rio Tinto s organisational structure is designed to facilitate a clear focus on the Group s objective. The structure comprises, primarily, four product groups and two business support groups.

#### **Product groups**

Aluminium Products Bauxite alumina aluminium metal	The Aluminium product group, Rio Tinto Alcan, is one of the world's largest producers of bauxite, alumina and aluminium, benefiting from a sustainable, low cost energy supply. It operates mainly in Canada and Australia, with interests in Europe, New Zealand, Africa, South America and the US. The group is organised into four business units, Bauxite & Alumina, Primary Metal, Engineered Products and Packaging, the latter two of which are to be divested.	Underlying earnings contribution * 12%	Number of employees 39,326 Operating assets US\$35,730 million Gross sales revenue US\$23,839 million Underlying earnings US\$1,184 million
Copper & Diamonds Products: Copper in concentrate refined copper gold silver molybdenum magnetite, vermiculite diamonds	The Copper group is a world leader in copper production, comprising Kennecott Utah Copper in the US, and interests in some of the world s largest copper mines and development projects, including Escondida in Chile, Grasberg in Indonesia, the Resolution and Pebble projects in the US, the Oyu Tolgoi project in Mongolia and the La Granja project in Peru. The Diamonds group is a leading supplier of rough diamonds, comprising interests in the Diavik mine in Canada, the Argyle mine in Australia, and the Murowa mine in Zimbabwe, served by a diamond sales office in Belgium.	Underlying earnings contribution * 17%	Number of employees 8,976 Operating assets U\$\$5,536 million Gross sales revenue U\$\$6,669 million Underlying earnings U\$\$1,758 million
Energy & Minerals Products: Coking and thermal coal uranium titanium dioxide feedstock borates talc	The Energy group is one of the biggest suppliers in its markets, represented in coal by Rio Tinto Coal Australia and Coal & Allied in Australia, and by Rio Tinto Energy America in the US. It also includes uranium interests in Energy Resources of Australia and the Rössing Uranium mine in Namibia, both among the world s largest uranium operations. The industrial minerals businesses are global leaders in the supply and science of their products, comprising Rio Tinto Minerals, made up of borates and talc operations in the	Underlying earnings contribution * 28%	Number of employees 14,278 Operating assets US\$5,639 million Gross sales revenue US\$10,998 million Underlying earnings US\$2,887 million

US, South America, Europe and Australia, as well as Rio Tinto Iron & Titanium which has

interests in North America, South Africa and Madagascar.

The Iron Ore group is the second largest contributor to the world s seaborne iron ore trade with interests that comprise Hamersley Iron and Robe River in Australia, Iron Ore Company of Canada, Corumbá in Brazil, and the Simandou, Guinea, and Orissa, India, projects. The group includes the HIsmelt® direct iron making plant in Australia, employing a new, cleaner iron making process developed largely by Rio Tinto. It also includes the Dampier Salt operations at three sites in Western Australia.

The Exploration group is organised into five

America, Australia, Asia and Africa/Europe and a sixth project generation team that

teams based in North America, South

#### **Business support groups**

#### Exploration

**Technology &** 

Innovation

**Iron Ore** 

Products:

gypsum

salt

Iron ore pig iron

searches the world for new opportunities and provides specialized geological, geophysical and commercial expertise to the regional teams. Technology & Innovation has bases in

Australia, Canada, the UK and the US. Its role is to identify and promote operational technology best practice across the Group and to pursue step change innovation of strategic importance to the development of orebodies of the future. Number of employees 11,109 Operating assets US\$7,632 million Gross sales revenue US\$16,527 million Underlying earnings US\$6,017 million

Underlying

contribution

earnings

58%

Number of employees 694

Number of employees 351

\* A reconciliation of the net earnings with underlying earnings as determined under IFRS is set out on page 63. All amounts presented by the product groups exclude net interest and other centrally reported items. The aggregate

product group underlying earnings contribution of 115 per cent is reduced to 100 per cent by these centrally reported items.

#### **Product overview**

No one can spend a day without using a metal or mineral. In the production and supply of metals and minerals, Rio Tinto is one of the world s most diversified companies. Major products are aluminium, iron ore, copper, molybdenum, coal, uranium, diamonds, gold and industrial minerals (borates, titanium dioxide, salt and talc).

Segmental analyses of sales revenue by product and by geographic source and destination have been included in Notes 31 and 32 to the 2008 *Financial statements*.

Gross revenue by commodity 2008	US\$bn	%
Aluminium	23.8	41.0
Coal	7.0	12.0
Copper	4.5	7.7
Diamonds	0.8	1.4
Gold	0.4	0.7
Industrial minerals	3.0	5.2
Iron ore	16.2	27.9
Molybdenum	0.7	1.2
Uranium	1.0	1.7
Other	0.7	1.2
	58.1	100.0

#### Bauxite, alumina, aluminium

The mineral bauxite is refined into alumina which is smelted into aluminium metal. Aluminium is one of the most widely used metals from tennis racquets to aircraft. Rio Tinto is a leading global supplier of bauxite, alumina and primary aluminium, with an annual production capacity of 35 million tonnes of bauxite, nine million tones of alumina and 4.1 million tonnes of aluminum.

#### Silver

Silver is a good conductor of electricity and does not corrode. It is used in many electrical and electronic applications and is the principal ingredient of photographic and 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.

#### 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.

#### Coal

Coal is plentiful, relatively inexpensive, and safe and easy to transport. We are one of the world s largest producers of thermal coal, 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.

#### Iron ore

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

#### 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. Rio Tinto produces about five per cent of world mined copper.

#### **Borates**

Mineral borates are used in hundreds of products and processes. They are a vital ingredient of many home, garden and beauty care products, and have many automotive applications. They are commonly used in vitreous applications such as fibreglass products and high temperature glasses and enamels. About half of the world s borates come from Rio Tinto s Boron mine in California.

#### **Diamonds**

Gem diamonds share the role with gold as a luxury commodity in jewellery. Rio Tinto offers diamond products across a wide range, from the pink, champagne and cognac stones from Argyle in Australia, to the spectacular whites of Diavik in Canada and Murowa in Zimbabwe.

#### Salt

Dampier Salt is the world s largest salt exporter. 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.

#### 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. Our talc subsidiary Rio Tinto Minerals serves more than 1,000 customers in more than 100 countries.

#### Gypsum

Gypsum is a key ingredient in wallboard, plaster, cement and is used in agriculture markets. Rio Tinto s Dampier Salt operations at Lake MacLeod, Australia, provide high quality natural gypsum to the markets in Africa, Asia and Australia.

#### **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 lightweight, chemical inertness and high strength make it ideal for use in medical applications and in the aerospace industry.

#### Sulphuric acid

Sulphuric acid is one of the most important industrial chemicals with a wide range of uses. It is produced as a by-product of Rio Tinto s copper smelting operations at Kennecott Utah Copper.

#### **Market review**

#### **Competitive environment**

Rio Tinto is a major producer in all the metals and minerals markets in which it operates. It is generally among the top five global producers by volume in each such market. It has market shares for different commodities ranging from five per cent to 40 per cent.

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. Metal and mineral markets are highly competitive particularly since commodity prices are subject to price declines in real terms as a result of productivity gains, increasing technical sophistication, better management and advances in information technology.

High quality, long life mineral resources, the basis of attractive financial returns, are relatively scarce. Nevertheless, Rio Tinto holds interests in some of the world s largest deposits.

#### **Economic overview**

Between 2004 and 2007 the world economy grew at an average rate of around five per cent a year on a purchasing power parity basis (source: IMF). This favourable economic environment generated strong year on year growth in demand for commodities. Although the mining industry responded by raising levels of investment, there were significant lags in bringing on new capacity. Consequently, growth in demand for certain commodities outpaced growth in supply, causing prices for those commodities to increase.

A significant portion of the growth in demand during this period was attributable to China, which experienced rapid economic growth as it entered a phase of mass urbanisation and industrialisation. China s GDP expanded by 13 per cent in 2007 (source: Chinese National Statistics) and its consumption of copper and aluminium increased by 35 per cent and 43 per cent, respectively, according to the World Bureau of Metal Statistics.

Spot commodity prices eased slightly in the latter part of 2007 but during the first half of 2008 the global economy continued to grow at a rate above the long term average. At the same time, metal and mineral production levels were limited by a series of disruptions and constraints on the supply of certain inputs. In part as a consequence of these factors, Australian iron ore benchmark prices for the 2008-9 marketing year were increased by 80 to 98 per cent compared to previous levels, coking coal benchmark prices increased by 211 per cent and thermal coal benchmark prices increased by 99 per cent. The West Texas Intermediate oil benchmark price peaked at US\$147 per barrel in mid July 2008 and during the same month, copper prices reached a record level of almost US\$9,000 per tonne.

During the third quarter of 2008, however, global economic conditions began to deteriorate, in part as a result of turbulence in the financial markets stemming from the sub-prime mortgage crisis in the US. In particular, the bankruptcy of Lehman Brothers, the US investment bank, in September 2008, contributed to an acceleration of economic deterioration. Following the bankruptcy, risk premiums expanded significantly and lending and general access to financing contracted. Governments around the world took action to restore confidence in financial markets and improve liquidity, including purchasing distressed assets, providing loan guarantees and through direct capital injections.

Despite these measures, financial turbulence continued during 2008 and contributed to a decline in global economic growth and the emergence of recessionary conditions in certain countries. In particular, the US, UK, Eurozone and Japan all experienced declines in GDP during the second half of 2008 and China s economy grew at a slower rate in 2008 than in prior years. Slowing growth in China and certain other developing countries reflected the fact that those economies were much more dependent on external demand than was previously expected and is a result of the absolute fall in exports relative to expectations. In the case of China the lagged impact of previous policy tightening, declines in equity markets and a correction in a slightly overheating property market have also contributed to the deceleration in growth. Activity in the housing and automotive sectors has fallen alongside a fall in consumer confidence.

The deterioration in global economic conditions since the third quarter of 2008 has had a significant impact on demand for, and prices of, metals and minerals. Previous conditions of market shortages have been transformed into excess supply. Combined primary base metals stocks on the LME doubled during the second half of 2008, to their highest level since the mid-1990s. This trend has been most notable in the case of aluminium. For metals such as

copper, where supply growth has been more limited, there has been a much lower rise in visible stocks.

Prior to the economic downturn, metals prices were well in excess of the marginal costs of production, reflecting strong demand and constraints in supply. As a result of declining demand stemming from the deterioration in global economic conditions, the LMEX base metals price index (a basket of the main LME traded base metals) finished the year 60 per cent below its March 2008 peak. Spot aluminium and nickel prices finished 2008 at around US\$1,500 per tonne and US\$11,000 per tonne, respectively, their lowest since 2003. Spot copper prices ended 2008 at approximately half of their level at the beginning of the year and their lowest since 2005.

The majority of Rio Tinto s iron ore and coal production is sold at annual contracted prices rather than on the spot market. Accordingly, Rio Tinto is experiencing significant deterioration in the pricing environment for these commodities. However, it reduced production of iron ore towards the end of the year as a result of declining demand associated with lower steel production in Europe and Asia.

The impact of the deterioration in economic conditions on industrial minerals prices has been less significant.

Gold prices have increased, reflecting weak growth in supply as well as gold s attractiveness to some investors in times of increased financial uncertainty.

Adverse economic developments during 2008 have led to a shift in focus from maximising output to capital management and cost saving. Despite this, Rio Tinto also believes that recent developments have highlighted the value of pursuing a strategy of investing in Tier 1 mining assets, which are generally able to generate positive margins over the whole of the economic cycle.

#### **Marketing channels**

Rio Tinto s marketing channels are described under Marketing on page 113.

#### **Governmental regulation**

Rio Tinto is subject to extensive governmental regulation 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 that could have a material effect on the Group s business. Rio Tinto s operations in Australia, New Zealand, and Indonesia are subject to state, provincial 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 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 hydro-electric power generation in Canada, water rentals and royalties, as well as surplus power sales, are regulated by the Quebec and British Columbia provincial governments.

The South African Mineral and Petroleum Resources Development Act 2002 read in conjunction with the Empowerment Charter for the South African Mining Industry, targets the transfer (for fair value) of 26 per cent ownership of existing South African mining assets to historically disadvantaged South Africans (HDSAs) within ten years. Attached to the Empowerment Charter is a scorecard by which companies will be judged on their progress towards empowerment and the attainment of the target transfer of 26 per cent ownership. The scorecard also provides that in relation to existing mining assets, 15 per cent ownership should vest in HDSAs within five years of 1 May 2004. Rio Tinto anticipates that the government of South Africa will continue working towards the introduction of new royalty payments in respect of mining tenements, expected to become effective during 2009.

## **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 committee 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 2008, there were 17 high or critical environment incidents at Rio Tinto managed operations compared with nine in 2007. Of the 17 incidents, 11 occurred at former Alcan Inc. operations acquired in October 2007. These incidents were of a nature to impact the environment or may have concerned local communities. Of these, one affected air quality, nine resulted from water discharge and seven were spills. Examples of these include:

Discharges of bauxite residue and also acid into the local river at Vaudreuil, Canada

Loss of transformer oil into groundwater following a fire at Anglesey, Wales

Discharge of mine water off site following the failure of a pipeline flange at Bengalla, Australia

Slow leakage of water from a drain point following failure of a valve that resulted in unlicensed discharge from a dam at Mount Thorley Warkworth, Australia

Oil leakage from a sump into surrounding soil at Richards Bay, South Africa

Acid spray from a storage tank onto surrounding soil as a result of mechanical failure of an inlet supply pipe at Rössing, Namibia

Oil overflow from a truck onto soil during maintenance activities at an electrical substation at Chute des Passes, Canada

Processing liquor releases to a sea water channel from holding ponds at Gove, Australia

Oily stormwater release from a light fuel tank farm which exceeded waste discharge license limits at Gove, Australia

Overflow of residue mud into a natural channel from holding ponds during a high rainfall event at Gove, Australia

Air emission concentrations of fluoride and particulates that exceeded monthly permit limits at Kitimat, Canada

Hydrocarbon leakage from an underground pipe at NZAS, New Zealand.

#### **Trend information**

Demand for the Group s products is closely aligned with global GDP. Changes in the GDP of developing countries will generally have a greater impact on demand for commodities such as iron ore and coal, which are significant inputs in the development and improvement of infrastructure. Conversely, changes in the GDP of developed countries will have a greater impact on industrial minerals, which have many applications in consumer products. Copper is used in a wide range of applications and demand for it has tended to grow in line with or slightly faster than global GDP. Trends in production of the Group s minerals and metals, gross sales revenue and underlying earnings are set out in the Performance section of this 2008 Annual report.

#### **Outlook for 2009**

Following the sharp decline in industrial output during the second half of 2008, many metals markets have entered 2009 with prices at their lowest level in several years. Whilst the precise shape and length of the current downturn is uncertain, economic activity continues to decline and forward indicators suggest any recovery is unlikely to begin until the second half of the year. The current pace of contraction is such that a large body of commentators expect the world economy in 2009 to record its first year on year fall since the Second World War.

This poor macroeconomic outlook prevails despite government attempts to bolster economic activity through fiscal spending and tax reductions as well as reducing interest rates and injecting cash into lending markets. However, lower equity and housing prices are putting downward pressure on indebted consumers and expectations of a prolonged downturn and tighter access to finance are holding back investment and trade.

Even when a recovery does take place the strength of the upturn may be muted. Recessions associated with reduced credit and declines in house and equity values are typically deeper and are longer than other downturns. Deleveraging of balance sheets, the need to rebuild savings and for governments to eventually rein in ballooning fiscal deficits will restrict future rates of growth.

In the case of the Chinese economy, which now accounts for one third of commodity consumption and to which metals markets are therefore particularly exposed, growth came to a standstill towards the end of 2008. Projections for 2009 have fallen alongside this observed slowdown and greater recognition of trade and investment linkages to other parts of the world. The central government has responded aggressively, announcing a four trillion renminbi (US\$585 billion) stimulus package last November.

This has a particular focus on metals intensive public infrastructure spending. Reductions in interest rates and easing in bank reserve ratios will also allow for greater lending whilst cuts in taxes will be additional contributions to the direct spending stimulus. But whilst these measures will be supportive there are significant headwinds from weaker export demand. An inventory overhang is expected to hold back any immediate recovery in housing activity.

Chinese metals demand is expected to rise at a single digit rate in 2009. This is much slower than the over 20 per cent rates of growth realised in recent years and will not be enough to offset a much bigger decline in consumption in other markets. These headline annual changes mask a quarterly pattern of improvement in metals demand over the course of the year but given the development of a large stock and capacity overhang, even with this profile, prices seem unlikely to be able to stage much of a rebound during 2009.

More positively, despite reductions in costs, many metals prices are now below the operating costs of marginal industry producers and the supply side of the industry is responding. This suggests that further downside risk to prices is becoming limited.

Spot prices in bulk commodity markets are currently below benchmark price levels set in the first half of 2008. However, the outcome of price negotiations for the 2009/10 marketing year will depend on the extent and timing of any recovery in spot markets as destocking cycles end and economic growth bottoms out.

#### Locations

#### Note

Rio Tinto has announced its intention to divest both the Packaging and Engineered Products business units. Sites relating to these business units are not shown.

# Locations (continued)

North America activities

We produce aluminium, diamonds, iron ore and titanium dioxide feedstock in Canada and thermal coal, copper, borates and talc in the US.

Aluminium group

#### Aluminium

Operating sites

- 1 Alma
- **2** Alouette (40%)
- **3** Alucam (Edéa) (47%)
- 4 Anglesey Aluminium (51%)
- 1 Arvida
- 5 Awaso (80%)
- 1 Beauharnois
- **1** Bécancour (25%)
- 6 Bell Bay
- 7 Boyne Island (59%)
- 8 CBG Sangaredi (23%)
- 9 Dunkerque
- 10 Gardanne
- **11** Gove alumina refinery
- **12** Gove bauxite mine
- 1 Grande-Baie
- 13 ISAL
- **1** Jonquière (Vaudreuil)
- 14 Kitimat
- 1 Laterrière
- 15 Lochaber
- 16 Lynemouth
- 17 Porto Trombetas (MRN) (12%)
- 7 Queensland Alumina Limited (80%)
- **18** São Luis (Alumar) (10%)
- 19 Sebree
- 1 Shawinigan
- **20** Sohar (20%)
- 21 SORAL (50%)
- 22 St-Jean-de-Maurienne
- **23** Tiwai Point (79%)
- **24** Tomago (52%)
- 25 Weipa
- 7 Yarwun

#### **South America activities**

We own 30 per cent of the world s largest copper mine, Escondida, in Chile and we are developing the wholly owned La Granja copper project in Peru.

**Copper & diamonds group** 

#### **Copper and Gold**

Operating sites

- **26** Bougainville (not operating) (54%)
- **27** Escondida (30%)
- **28** Grasberg joint venture (40%)
- 29 Kennecott Utah Copper
- **30** Northparkes (80%)
- **31** Palabora (58%)
- 32 Rawhide

#### Projects

- 33 La Granja
- **34** Oyu Tolgoi (10%)
- **35** Pebble (10%)
- **36** Resolution (55%)

#### Nickel

- 12 Projects
- 52 Eagle
- 53 Sulawesi

#### **Diamonds**

Operating sites

- 37 Argyle
- **38** Diavik (60%)
- **39** Murowa (78%)

Projects

40 Bunder

#### Locations (continued) Australia and Asia activities

Australia is home to our core iron ore and metallurgical coal businesses as well producing bauxite, alumina, uranium, copper, talc and salt.

**Energy & Minerals group** 

## Coal

Operating sites

- 41 Antelope
- **42** Bengalla (30%)
- **43** Blair Athol (71%)
- 44 Colowyo
- 41 Cordero Rojo
- 45 Decker (50%)
- **43** Hail Creek (82%)
- 46 Hunter Valley Operations (76%)
- 41 Jacobs Ranch
- 47 Kestrel (80%)
- 46 Mt Thorley Operations (61%)
- 45 Spring Creek
- **48** Warkworth (42%)

#### Projects

**43** Clermont (50%)

**42** Mt Pleasant (76%)

## Uranium

Operating sites

**49** ERA (68%)

**50** Rössing (69%)

Projects

51 Sweetwater

#### **Borates**

Operating sites

- 54 Boron
- 55 Coudekerque Plant
- 56 Tincalayu
- **57** Wilmington Plant

#### Talc

Operating sites (only major sites are shown)

- 58 Ludlow
- **59** Talc de Luzenac
- **60** Three Springs
- 61 Yellowstone

#### **Titanium dioxide feedstock**

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Operating sites

- 62 QIT-Fer et Titane Lac Allard
- **63** QIT-Fer et Titane Sorel Plant
- 64 QIT Madagascar Minerals (80%)
- **65** Richards Bay Minerals (50%)

## Lithium

Projects

66 Jadar

#### Locations (continued)

#### **Europe, Africa and Middle East activities**

In Europe and the Middle East we have aluminium production, copper, in Namibia, uranium, and in Madagascar, ilmenite.

**Iron Ore group** 

#### Iron ore

Operating	sites
-----------	-------

- 67 Corumbá
- 68 Hamersley Iron mines: Brockman Channar (60%) Eastern Range (54%) Hope Downs (50% joint venture) Marandoo Mt Tom Price Nammuldi Paraburdoo Yandicoogina
  69 HIsmelt<sup>®</sup> (60%) Iron Ore Company of Canada (59%)
- 68 Robe River mines: (53%) Pannawonica West Angelas

#### Projects

- **73** Orissa (51%)
- **74** Simandou (95%)

#### Salt

Operating sites

- **71** Dampier (68%)
- **72** Lake MacLeod (68%)
- 71 Port Hedland (68%)

#### **Capital Projects**

### Rio Tinto has committed to reduce net debt by US\$10 billion in 2009

On 10 December 2008, Rio Tinto announced the following key initiatives and commitments to reduce net debt by US\$10 billion in 2009, including US\$8.9 billion due in October 2009:

Reduction of capital expenditure for 2009 from US\$8.5 billion in 2008 to US\$4 billion, while retaining future growth options.

Capital expenditure to be reduced to sustaining levels in 2010 in the absence of an improvement in commodity market conditions.

Reduction of controllable operating costs by at least US\$2.5 billion per annum in 2010.

Reduction in global employment levels of 14,000 roles (8,500 contractor and 5,500 employees).

Expanded scope of assets targeted for divestment including significant assets not previously highlighted for sale.

Rio Tinto continued to invest heavily in its capital projects during 2008 with financing provided by internally

generated funds. The focus for 2009 is expected to be on the ongoing capital projects set out below.

Rio Tinto share 100% unless stated	Estimated cost	Status/milestones
	<b>100%</b> basis	
	US\$m	

#### Ongoing

<b>Iron ore</b> Expansion of Pilbara iron ore mines and infrastructure to 220 mtpa and beyond.	3,600 * 900	Expansion of Hope Downs from 22 mtpa to 30 mtpa (US\$350 million on 100% basis Rio Tinto share is 50%) is expected to be completed during the first quarter of 2009. Further capital expenditure is required to maintain the capacity of the Pilbara mines at 220 mtpa.
Alumina Expansion of Yarwun alumina refinery from 1.4 to 3.4 mtpa.	1,800 * 650	The expansion of Yarwun will be reviewed in light of the proposed strategic partnership with Chinalco. Subject to a commercial agreement with Chinalco (50% share), Yarwun is expected to complete the project and make its first shipment in the second half of 2011.
<b>Alumina</b> Expansion of the Gove alumina refinery from 2.0 to 3.0 mtpa	2,300 * 100	Gove is expected to reach a 3.0 mtpa operating rate in 2009.
<b>Diamonds</b> Argyle underground development and open pit cutback.	1,500 * 78	In January 2009 Rio Tinto announced that the Argyle underground mining project will be slowed to critical development activities. Full production is expected to take place in 2013.
<b>Diamonds</b> Diavik (Rio Tinto: 60%) underground development.	787 * 88	The project has been slowed with first underground production expected to commence in the fourth quarter of 2009.

**Coking coal** Kestrel (Rio Tinto: 80%) extension and expansion.

**Thermal coal** Clermont (Rio Tinto: 50.1%) replacement of Blair Athol.

**Molybdenum** Construction of a new Molybdenum Autoclave Process (MAP) facility at Kennecott Utah Copper.

Aluminium Modernisation of the Kitimat aluminium smelter in British Columbia, Canada.

Aluminium Construction of a new 225MW turbine at the Shipshaw power station in Saguenay, Quebec, Canada.

**Aluminium** Arvida pilot plant using groundbreaking AP50 smelting technology.

**Nickel** Development of Eagle mine in Michigan, US.

#### Note

 Estimated capital spend in 2009 (100% basis)

- 991 The project has been slowed to critical
- 30 development activities. Coking coal production at Kestrel is forecast to reduce by 15 per cent in 2009 in response to the slowdown in the global steel industry.
- 1,290 The project remains on track with first coal
- \* 300 expected in the first quarter of 2010, ramping up to full capacity of 12.2 mtpa by 2013.
  - 270 The project has been delayed but the option
- \* 20 to re-start development has been retained.
- 300 Further approval was given in October 2008
- \* 100 bringing the current project funding total to over US\$500 million. The overall project timing has been prolonged.
  - 228 Approved in October 2008, the project
- \* 100 remains on track and is expected to be completed in December 2012
- 444 The overall project timing has been\* 100 prolonged.
  - 297 The project has been deferred until market\* 9 conditions recover and local permitting is completed.

#### **Capital projects**

The previously announced iron ore expansion at Iron Ore Company of Canada (US\$768 million for phases one and two) has been suspended until market conditions recover.

In January 2009 Rio Tinto announced the postponement of the US\$371 million Automated Train Operations programme in Western Australia and the suspension of the Northparkes US\$229 million E48 block cave project.

Sustaining capital expenditure in 2009 for the Group is estimated to be approximately US\$2.0 billion.

Capital expenditure plans for 2010 will be reviewed throughout the year, assessing current and future market conditions. Capital expenditure levels will be reduced towards sustaining capital levels, if current demand and pricing weakness continues. Evaluation work at many of the advanced projects, notably Simandou, La Granja and Resolution has been considerably scaled back in light of current economic conditions.

The central exploration budget for 2009 has been cut by approximately 60 per cent to US\$100 million.

#### **Completed in 2008**

<b>Aluminium</b> Development of the 360,000 tonne per annum greenfield Sohar smelter in Oman (Rio Tinto: 20%).	1,700	Approved in February 2005, first hot metal was produced in June 2008.
Aluminium Aluminium Spent potlining recycling plant in Quebec	225	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 QIT in Canada.	1,000	Construction is substantially complete. 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 80 million tones per annum and additional rolling stock and infrastructure.	952	Approved in January 2007, the project was completed at the end of 2008, ahead of time and within budget. Progressive capacity will ramp up in the first half of 2009.
Completed in 2007		
<b>Iron ore</b> Expansion of Hamersley s Mount Tom Price mine to 28 million tonnes per annum capacity.	226	Project completed in March 2007.
<b>Iron ore</b> Brownfields mine expansion of Hamersley s (Rio Tinto 100%) Yandicoogina mine from 36 million tonnes per annum to 52 million tonnes per annum.	530	First ore was produced in May 2007, with the project completed at the end of the third quarter of 2007 on time and on budget.
<b>Iron ore</b> Expansion of Hamersley's Dampier port (Phase B) from 116 million tonnes per annum to 140 million tonnes per annum capacity and additional rolling stock and infrastructure.	803	This project was completed at the end of 2007 on schedule and on budget.
	980	

<b>Iron ore</b> Hope Downs development (Rio Tinto share: 50% of mine and 100% of infrastructure). Construction of 22 million tonnes per annum mine and related infrastructure.		First production occurred in November 2007, three months ahead of schedule. The first train load took place in December 2007.
Completed in 2006		
<b>Iron ore</b> Expansion of Hamersley Iron s Tom Price and Marandoo mines and construction of new mine capacity at Nammuldi.	290	The Marandoo and Nammuldi components are complete and Tom Price was completed during first quarter of 2007.
<b>Iron ore</b> Expansion by Robe River (Rio Tinto: 53%) of rail capacity including completion of dual tracking of 100 km mainline section.	200	The project was completed on budget and ahead of schedule.
<b>Copper</b> Escondida sulphide leach (Rio Tinto: 30%). The project is expected to produce 180,000 tonnes per annum of copper cathode for more than 25 years.	925	The first cathode production from the sulphide leach plant occurred in June 2006.
<b>Titanium dioxide</b> expansion of annual capacity at UGS plant from 325,000 tonnes to 375,000 tonnes.	79	The project was completed in October three months ahead of schedule and under budget.
<b>Boric acid</b> Phase 2 of Rio Tinto Minerals boric acid expansion	50	The project was completed on schedule and under budget.
<b>Coking coal</b> Hail Creek (Rio Tinto: 82%) Expansion of annual capacity from 6 million tonnes to nameplate 8 million tonnes per annum, with washing plant increased to 12 million tonnes per annum.	223	The new dragline was commissioned early in the third quarter of 2006.
		Rio Tinto 2008 <i>Form 20-F</i> <b>27</b>

## Acquisitions

Asset	Cost US\$m	Status
Acquired in 2008		
None		
Acquired in 2007		
Aluminium Alcan Inc	38,652	Acquisition of Alcan Inc announced in July 2007 and completed in October 2007
<b>Energy</b> Hydrogen Energy (Rio Tinto: 50%)	35	Joint venture with BP
<b>Diamonds &amp; Industrial Minerals</b> Dampier Salt (Rio Tinto: 3%)	19	The purchase of a 3% interest in Dampier Salt from a minority shareholder that increased the Group s total interest to 68.4%.
Acquired in 2006		
<b>Copper</b> Ivanhoe Mines (Rio Tinto: 9.9%)	303	Agreement to acquire a strategic stake including, upon completion of satisfactory a long term investment agreement with the Mongolian government, a second tranche of 9.9% for US\$338m.
<b>Copper</b> Northern Dynasty Minerals (Rio Tinto: 9.9%)		Increased stake to 19.8% during February 2007
Divestitures		
Asset	Proceeds US\$m	Status
Divested in 2009		
Energy Jacobs Ranch	761	Sale, subject to completion, to Arch Coal, Inc
Iron ore Corumbá mine	750	Sale, subject to completion, to Vale
Potash Projects in Argentina and Canada	850	Sold to Vale
Aluminium Ningxia smelter (Rio Tinto: 50%)	125	Sold to Qingtongxia Aluminium Group
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## Divested in 2008

<b>Titanium dioxide</b> Richards Bay Minerals (Rio Tinto: 12%)	228	Sale by Rio Tinto and BHP, subject to completion, of a combined 24% stake to a Black Economic Empowerment consortium
Uranium Kintyre project	495	Sold to a joint venture
Silver, Zinc Greens Creek mine (Rio Tinto: 70%)	750	Sale completed to Hecla Mining, the Group s minority partner.
<b>Gold</b> Cortez Joint Venture (Rio Tinto: 40%)	1,695	Sold to Barrick Gold, the Group s partner, for cash plus a deferred bonus payment and contingent royalty interest.
Divested in 2007		
<b>Diamonds and Industrial Minerals</b> Lassing and Ennsdorf	6	Rio Tinto Minerals disposed of its operations at Lassing and Ennsdorf for consideration of \$6m.
Divested in 2006		
Aluminium Eurallumina SpA (Rio Tinto: 56.2%)	n/a	Sold to RUSAL
<b>Diamonds</b> Ashton Mining of Canada Inc (Rio Tinto: 51.7%)	n/a	Sold to Stornaway Diamond Corporation for US\$26m plus shares representing an interest of 17.7%.
		Rio Tinto 2008 <i>Form 20-F</i> <b>28</b>

## Metals and minerals production

Rio Tinto share 100% unless stated

		2008 Production (a)		2007 Production (a)			
	Rio Tinto %	Total	Rio Tinto	Total	Rio Tinto	Total	Rio Tinto
	share (b)		share		share		share
ALUMINA (000 tonnes)							
Eurallumina (Italy) (c)	100.0	•••	•			914	513
Gardanne (France) (d)	100.0	38	38	21	21		
Gove (Australia) (d)	100.0	2,325	2,325	405	405		
Jonquiere (Canada) (d)	100.0	1,370	1,370	252	252		
Queensland Alumina (Australia) (d) (e)	80.0	3,842	3,074	3,816	1,766	3,871	1,494
Sao Luis (Alumar) (Brazil) (d)	10.0	1,504	150	288	29		
Yarwun (Australia) (d)	100.0	1,293	1,293	1,260	1,260	1,240	1,240
Speciality Plants							
(Canada/France/Germany) (d)	100.0	759	759	144	144		
Rio Tinto total			9,009		3,877		3,247
ALUMINIUM (refined) ( 000 tonnes)							
Alma (Canada) (d)	100.0	424.1	424.1	80.1	80.1		
Alouette (Sept-Iles) (Canada) (d)	40.0	572.1	228.8	108.9	43.5		
Alucam (Edea) (Cameroon) (d)	46.7	91.1	42.5	18.8	8.8		
Anglesey (UK) (f)	51.0	118.0	60.2	146.6	74.7	144.3	73.6
Arvida (Canada) (d)	100.0	172.2	172.2	31.8	31.8		
Beauharnois (Canada) (d)	100.0	49.6	49.6	9.8	9.8		
Becancour (Canada) (d)	25.1	414.5	103.8	80.1	20.1		
Bell Bay (Australia) (f)	100.0	178.5	178.5	176.9	176.9	176.2	176.2
Boyne Island (Australia) (f)	59.4	556.4	330.5	547.6	325.3	546.5	324.5
Dunkerque (France) (d)	100.0	254.1	254.1	49.5	49.5		
Grande-Baie (Canada) (d)	100.0	212.1	212.1	39.7	39.7		
ISAL (Reykjavik) (Iceland) (d)	100.0	187.4	187.4	35.0	35.0		
Kitimat (Canada) (d)	100.0	247.3	247.3	46.8	46.8		
Lannemezan (France) (d)	100.0	5.2	5.2	5.0	5.0		
Laterriere (Canada) (d)	100.0	234.2	234.2	44.0	44.0		
Lochaber (UK) (d)	100.0	42.9	42.9	8.3	8.3		
Lynemouth (UK) (d)	100.0	164.6	164.6	33.3	33.3		
Ningxia (Qingtongxia) (China) (d) (g)	50.0	162.9	81.5	30.9	15.5		
Sebree (USA) (d)	100.0	102.9	197.4	36.8	36.8		
Shawinigan (Canada) (d)	100.0	100.1	100.1	18.3	18.3		
Sohar (Oman) (h)	20.0	48.8	9.8	10.0	10.5		
SORAL (Husnes) (Norway) (d)	50.0	171.3	85.7	32.0	16.0		
St-Jean-de Maurienne (France) (d)	100.0	129.8	129.8	25.2	25.2		
St-sean-ue maurienne (France) (u)	100.0	147.0	147.0	23.2	23.2		

Edgar Fi	Edgar Filing: RIO TINTO LTD - Form 20-F									
Tiwai Point (New Zealand) (f) Tomago (Australia) (d)	79.4 51.6	315.5 523.3	250.4 269.8	351.1 97.4	278.7 50.2	335.3	266.1			
Tomago (Austrana) (u)	51.0	525.5	207.0	<i>у</i> л. <del>т</del>	50.2					
Rio Tinto total			4,062.4		1,473.2		840.4			
BAUXITE ( 000 tonnes)										
Awaso (Ghana) (d) (i)	80.0	796	637	216	173					
Gove (Australia) (d)	100.0	6,245	6,245	985	985					
Porto Trombetas (MRN) (Brazil) (d)	12.0	18,063	2,168	3,392	407					
Sangaredi (Guinea) (d)	(j)	13,181	5,932	2,502	1,126	16 210	16 210			
Weipa (Australia)	100.0	20,006	20,006	18,209	18,209	16,319	16,319			
Rio Tinto total			34,987		20,900		16,319			
BORATES (000 tonnes) (k)										
Rio Tinto Minerals Boron (US)	100.0	591	591	541	541	538	538			
Rio Tinto Minerals Argentina (Argentina)	100.0	19	19	19	19	15	15			
Rio Tinto total			610		560		553			
COAL HARD COKING (000 tonnes) Rio Tinto Coal Australia										
Hail Creek Coal (Australia)	82.0	6,049	4,960	5,012	4,110	4,544	3,726			
Kestrel Coal (Australia)	80.0	3,089	2,471	2,586	2,069	2,729	2,183			
		- ,	_,	_,_ 30	_,	_,>	_,,			
Rio Tinto total hard coking coal			7,431		6,179		5,909			
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## Metals and minerals production (continued)

		2008 Production (a)		Pro	2007 oduction (a)	Pro	2006 oduction (a)
	Rio Tinto % share	Total	Rio Tinto	Total	Rio Tinto	Total	Rio Tinto
	(b)		share		share		share
COAL OTHER* ( 000 tonnes) Rio Tinto Coal Australia							
Bengalla (Australia)	30.3	5,357	1,622	5,155	1,561	5,544	1,679
Blair Athol (Australia) Hunter Valley	71.2	10,194	7,262	7,924	5,645	10,190	7,259
Operations (Australia)	75.7	10,751	8,139	10,094	7,642	12,024	9,104
Kestrel Coal (Australia)	80.0	929	744	1,035	828	863	691
Mount Thorley Operations (Australia) Tarong Coal (Australia)	60.6	2,949	1,786	2,924	1,771	3,895	2,359
(l)		262	262	4,510	4,510	6,979	6,979
Warkworth (Australia)	42.1	6,039	2,540	5,775	2,430	7,342	3,089
Total Australian other							
coal			22,356		24,388		31,159
Rio Tinto Energy America							
Antelope (US)	100.0	32,474	32,474	31,267	31,267	30,749	30,749
Colowyo (US)	(m)	4,446	4,446	5,077	5,077	5,754	5,754
Cordero Rojo (US)	100.0	36,318	36,318	36,712	36,712	36,094	36,094
Decker (US) Jacobs Ranch (US)	50.0 100.0	5,939 38,206	2,970 38,206	6,340 34,565	3,170 34,565	6,449 36,258	3,225 36,258
Spring Creek (US)	100.0	16,341	38,200 16,341	14,291	14,291	13,181	13,181
Total US coal			130,755		125,083		125,260
Rio Tinto total other							
coal			153,111		149,471		156,419
COPPER (mined) ( 000 tonnes)							
Bingham Canyon (US) Escondida (Chile)	100.0 30.0	238.0 1,281.7	238.0 384.5	212.2 1,405.5	212.2 421.6	265.6 1,313.4	265.6 394.0
Grasberg Joint Venture	40.0	521.2	71	560 /	20 1	1155	16 0
(Indonesia) (n) Northparkes (Australia)	40.0 80.0	521.2 24.8	7.1 19.8	569.4 43.1	28.4 34.5	115.5 83.3	46.2 66.6

Palabora (South Africa) (o)	57.7	85.1	49.1	71.4	41.2	61.5	31.1
Rio Tinto total			698.5		737.9		803.5
			0,0,0		13119		000.0
COPPER (refined) ( 000 tonnes)							
Escondida (Chile) Kennecott Utah Copper	30.0	257.5	77.3	238.4	71.5	134.4	40.3
(US) Palabora (South Africa)	100.0	200.6	200.6	265.6	265.6	217.9	217.9
(0)	57.7	75.9	43.8	91.7	52.9	81.2	40.9
Rio Tinto total			321.6		390.0		299.2
DIAMONDS ( 000							
<mark>carats)</mark> Argyle (Australia)	100.0	15,076	15,076	18,744	18,744	29,078	29,078
Diavik (Canada)	60.0	9,225	5,535	11,943	7,166	9,829	5,897
Murowa (Zimbabwe)	77.8	264	205	145	113	240	187
Rio Tinto total			20,816		26,023		35,162
GOLD (mined) ( 000							
ounces) Barneys Canyon (US)	100.0	5	5	11	11	15	15
Bingham Canyon (US)	100.0	368	368	397	397	523	523
Cortez/Pipeline (US) (p)		72	29	538	215	444	178
Escondida (Chile)	30.0	144	43	187	56	170	51
Grasberg Joint Venture	40.0			2,689	423	238	95
(Indonesia) (n) Greens Creek (US) (q)	40.0	18	12	2,089	423	238 63	93 44
Northparkes (Australia)	80.0	32	26	79	63	95	76
Rawhide (US) (r)	100.0	18	2° 9	19	10	26	13
Others	10000	14	8	19	11	18	9
Rio Tinto total			501		1,233		1,003
GOLD (refined) ( 000							
ounces)							
Kennecott Utah Copper (US)	100.0	303	303	523	523	462	462
* Coal other includes thermal coal, semi-soft coking coal and semi-hard coking coal.						to 2008 F	- 20 E - <b>20</b>
					K10 11n	to 2008 Form	n 20-F <b>30</b>

## Metals and minerals production (continued)

		2008 Production (a)				2007 oduction (a)		
	Rio Tinto % share	Total	Rio Tinto	Total	Rio Tinto	Total	Rio Tinto	
	(b)		Share		share		share	
IRON ORE (000 tonnes)								
Corumbá (Brazil)	100.0	2,032	2,032	1,777	1,777	1,982	1,982	
Hamersley Iron (Australia)	100.0	95,553	95,553	94,567	94,567	79,208	79,208	
Hamersley Iron Channar	(0.0	10.000	(	10 5 10	( 220		<b>5</b> 0 <b>7</b> 0	
(Australia)	60.0	10,382	6,229	10,549	6,330	9,798	5,879	
Hamersley Iron Eastern Range (Australia)	(s)	8,186	8,186	6,932	6,932	8,215	8,215	
Hope Downs (Australia) (t)	50.0	10,936	5,468	64	32	0,215	0,215	
Iron Ore Company of	2010	10,000	0,100	01	52			
Canada (Canada)	58.7	15,830	9,295	13,229	7,768	16,080	9,442	
Robe River (Australia)	53.0	50,246	26,631	51,512	27,301	52,932	28,054	
Rio Tinto total			153,394		144,707		132,780	
<b>LEAD ( 000 tonnes)</b> Greens Creek (US) (q)		4.6	3.2	17.0	11.9	16.9	11.9	
MOLYBDENUM ( 000 tonnes)								
Bingham Canyon (US)	100.0	10.6	10.6	14.9	14.9	16.8	16.8	
<b>PIG IRON ( 000 tonnes)</b> HIsmelt <sup>®</sup> (Australia)	60.0	144	87	115	69	89	53	
SALT (000 tonnes)								
Dampier Salt (Australia) (u)	68.4	8,974	6,135	7,827	5,242	8,323	5,405	
SILVER (mined) ( 000 ounces)								
Bingham Canyon (US)	100.0	3,414	3,414	3,487	3,487	4,214	4,214	
Escondida (Chile)	30.0	6,167	1,850	7,870	2,361	6,646	1,994	
Grasberg Joint Venture	40.0	1 100	330	E 020	477	1 (75	(70)	
(Indonesia) (n) Greens Greek (US) (g)	40.0	4,488	220 1 275	5,238 8,646	477 6 075	1,675	670 6 220	
Greens Creek (US) (q) Others		1,815 655	1,275 417	8,646 914	6,075 602	8,866 1,345	6,230 861	
Ould 5		033	71/	714	002	1,545	001	
Rio Tinto total			7,176		13,002		13,968	

SILVER (refined) ( 000 ounces) Kennecott Utah Copper (US)	100.0	3,252	3,252	4,365	4,365	4,152	4,152
TALC ( 000 tonnes) Rio Tinto Minerals talc (Australia/Europe/North America) (v)	100.0	1,163	1,163	1,281	1,281	1,392	1,392
TITANIUM DIOXIDE FEED	STOCK (	000 tonnes)					
Rio Tinto Iron & Titanium	100.0	1 504	1 50 4	1 450	1 450	1 415	1 415
(Canada/South Africa) (w)	100.0	1,524	1,524	1,458	1,458	1,415	1,415
<b>URANIUM ( 000 lbs</b> U <sub>3</sub> O <sub>8</sub> ) Energy Resources of							
Australia (Australia)	68.4	11,773	8,052	11,713	8,011	10,370	7,092
Rössing (Namibia)	68.6	8,966	6,149	6,714	4,605	7,975	5,469
Rio Tinto total			14,200		12,616		12,561
ZINC (mined) ( 000							
tonnes) Greens Creek (US) (q)		13.9	9.8	50.8	35.7	47.5	33.4
					Rio Tinto	o 2008 Form	20-F <b>31</b>

#### Metals and minerals production (continued)

Notes

(a) Mine production figures for metals refer to the total quantity of metal produced in concentrates or doré bullion irrespective of whether these products are then refined onsite, except for the data for iron ore and bauxite (beneficiated and calcined) which represent production of marketable quantities of ore.

(b) Rio Tinto

percentage share, shown above, is as at the end of 2008 and has applied over the period 2006-2008 except for those operations where the share has varied during the year and the weighted average for them 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	Note	2008	2007	2006
Queensland Alumina	(e)	80.0	46.3	38.6
Palabora	(0)	57.7	57.7	50.5
Dampier Salt Limited	(u)	68.4	67.0	64.9

- (c) Rio Tinto sold its 56.2 per cent share in Eurallumina with an effective date of 31 October 2006 and production data are shown up to that date.
- (d) Rio Tinto acquired the operating assets of Alcan with effect from 24 October 2007; production is shown as from that date. The Rio Tinto assets and the Alcan assets have been combined under the Rio Tinto Alcan name.
- (e) Rio Tinto held a 38.6 per cent share in QAL until 24 October 2007; this increased to 80.0 per cent following the Alcan acquisition.
- (f) Following a review of the basis for reporting aluminium smelter production tonnes, the data reported now reflect hot metal production rather than saleable product tonnes.

- (g) Rio Tinto sold its 50 per cent interest in the Ningxia aluminium smelter with an effective date of 26 January 2009.
- (h) Production at the Sohar smelter commenced in the third quarter of 2008.
- (i) Rio Tinto Alcan has an 80 per cent interest in the Awaso mine but purchases the additional 20 per cent of production.
- (j) 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. Data have been restated to reflect a moisture content adjustment.
- (k) Borate quantities are expressed as  $B_2O_3$ .
- 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.
- (m) In view of Rio Tinto Energy America s responsibilities under a management

agreement for the operation of the Colowyo mine, all of Colowyo s output is included in Rio Tinto s share of production.

- (n) 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.
- (o) Rio Tinto s shareholding in Palabora varied during 2006 due to the progressive conversion of debentures into ordinary shares.
- (p) 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.
- (q) 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.

(r) On the 28October 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 will be entitled to 100 per cent.

(s) 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.

- (t) Hope Downs started production in the fourth quarter of 2007.
- (u) Rio Tinto increased its shareholding in Dampier Salt Limited to 68.4 per cent at the beginning of July 2007.
- (v) Talc production includes some

products derived from purchased ores.

(w) Quantities comprise
 100 per cent of QIT
 and 50 per cent of
 Richards Bay
 Minerals production.

In March 2009, Rio Tinto announced the conditional sale of its 100 per cent interest in the Jacobs Ranch mine.

In January 2009, Rio Tinto announced the conditional sale of its 100 per cent interest in the Corumbá mine.

#### **Ore reserves (under Industry Guide 7)**

Reserves have been prepared in accordance with Industry Guide 7 under the United States Securities Act of 1933 and the following definitions:

An Ore Reserve means that part of a mineral deposit that can be economically and legally extracted or produced at the time of the reserves determination. To establish this, studies appropriate to the type of mineral deposit involved have been carried out to estimate the quantity, grade and value of the ore mineral(s) present. In addition, technical studies have been completed to determine realistic assumptions for the extraction of the minerals including estimates of mining, processing, economic, marketing, legal, environmental, social and governmental factors. The degree of these studies is sufficient to demonstrate the technical and economic feasibility of the project and depends on whether or not the project is an extension of an existing project or operation. The estimates of minerals to be produced include allowances for ore losses and the treatment of unmineralised materials which may occur as part of the mining and processing activities. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proven Ore Reserves as defined below.

The term economically , as used in the definition of reserves, implies that profitable extraction or production under defined investment assumptions has been established through the creation of a mining plan, processing plan and cash flow model. The assumptions made must be reasonable, including costs and operating conditions that will prevail during the life of the project.

Ore reserves presented in accordance with SEC Industry Guide 7 do not exceed the quantities that, it is estimated, could be extracted economically if future prices were to be in line with the average of historical prices for the three years to 30 June 2008, or contracted prices where applicable. For this purpose, contracted prices are applied only to future sales volumes for which the price is predetermined by an existing contract; and the average of historical prices is applied to expected sales volumes in excess of such amounts. Moreover, reported ore reserve estimates have not been increased above the levels expected to be economic based on Rio Tinto s own long term price assumptions.

The term legally , as used in the definition of reserves, does not imply that all permits needed for mining and processing have been obtained or that other legal issues have been completely resolved. However, for reserves to exist, there is reasonable assurance of the issuance of these permits or resolution of legal issues. Reasonable assurance means that, based on applicable laws and regulations, the issuance of permits or resolution of legal issues necessary for mining and processing at a particular deposit will be accomplished in the ordinary course and in a timeframe consistent with the Company s current mine plans.

The term proven reserves means reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling; and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established. Proven reserves represent that part of an orebody for which there exists the highest level of confidence in data regarding its geology, physical characteristics, chemical composition and probable processing requirements.

The term probable reserves means reserves for which quantity and grade and/or quality are computed from information similar to that used for proven reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation. This means that probable reserves generally have a wider drill hole spacing than for proven reserves.

The amount of proven and probable reserves shown below does not necessarily represent the amount of material currently scheduled for extraction, because the amount scheduled for extraction may be derived from a life of

mine plan predicated on prices and other assumptions which are different to those used in the life of mine plan prepared in accordance with Industry Guide 7.

The estimated ore reserve figures in the following tables are as of 31 December 2008. 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. Commodity price information is given in footnote (a).

Where operations are not managed by Rio Tinto the reserves are published as received from the managing company

**Ore reserves (under Industry Guide 7)** 

		Type of		Total ore reserves at end 2008		at		
		mine (b)		ige	Gra	ade	Interest %	Rio Tinto share
<b>BAUXITE</b> (c)								Recoverable mineral
			millio	ons of	%	Al <sub>2</sub>		millions
			tonr			$\mathbf{O}_{3}^{2}$		of tonnes
<b>Reserves at operating mine</b>						-		
Gove (Australia) (d)		O/P		75		9.4	100.0	175
Porto Trombetas (Brazil) (e)		O/F		205		0.6	12.0	25
Sangaredi (Guinea) (f)		O/F O/F		33		2.4	23.0 100.0	30
Weipa (Australia) (g)		U/P	9 1,7	30	3	2.4	100.0	1,736
Rio Tinto total								1,966
<b>BORATES</b> (h)					milli			Marketable product millions
					ton	of		oftonnog
Reserves at operating mine					ton	nes		of tonnes
Rio Tinto Minerals - Boron (US)								
mine			(	O/P	1	9.0	100.0	19.0
stockpiles (i)				S/P		2.3	100.0	2.3
Rio Tinto total								21.3
		Coal		Ν	larketabl	e coal		
		type ]	Marketable		qualit	•		
		(j)	reserves		(k)	(k)		
COAL (1)				Calor	rific	Sulphur		Marketable reserves
			millions of	Va	alue	content		millions
			tonnes	M,	l/kg	%		of tonnes
<b>Reserves at operating mines</b>					-			
<b>Rio Tinto Energy America</b>								
Antelope (US)	O/C	SC	296		).59	0.24	100.0	296
Colowyo (US) (m)	O/C	SC	20	23	3.84	0.44	100.0	20

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Cordero Rojo (US) (n)	O/C	SC	365	19.54	0.30	100.0	365	
Decker (US)	O/C	SC	9	21.98	0.53	50.0	4	
Jacobs Ranch (US)	O/C	SC	346	20.35	0.43	100.0	346	
Spring Creek (US)	O/C	SC	287	21.75	0.33	100.0	287	
Total US coal							1,318	
Rio Tinto Coal Australia								
Bengalla (Australia)	O/C	SC	132	28.21	0.47	30.3	40	
Blair Athol (Australia)	O/C	SC	29	26.17	0.31	71.2	21	
Hail Creek (Australia)	O/C	MC	167	32.20	0.35	82.0	137	
Hunter Valley Operations		SC +						
(Australia) (o)	O/C	MC	330	28.78	0.57	75.7	250	
		SC +						
Kestrel (Australia)	U/G	MC	131	31.60	0.59	80.0	105	
Mount Thorley Operations		SC +	24	20.41	0.42	(0, 0)	14	
(Australia)	O/C	MC	24	29.41	0.43	60.6	14	
Warkworth (Australia) (p)	O/C	SC + MC	278	30.67	0.44	42.1	117	
Total Australian coal							684	
Rio Tinto total reserves at ope mines	erating						2,002	
<b>Undeveloped reserves</b> (q) <b>Rio Tinto Coal Australia</b>								
Clermont (Australia)	O/C	SC	189	27.90	0.33	50.1	95	
Mount Pleasant (Australia)	O/C	SC	350	26.73	0.51	75.7	265	
Rio Tinto total undeveloped re	eserves						360	
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## **Ore reserves (under Industry Guide 7)**

	Type of	Total ore rese 200		Average		
	mine (b)	Tonnage	Grade	mill recovery %	Interest %	Rio Tinto share
COPPER						Recoverable metal
		millions of tonnes	%Cu			millions of tonnes
Reserves at operating		of tonnes	%Cu			of tonnes
mines						
Bingham Canyon (US)						
mine	O/P	555	0.49	86	100.0	2.364
stockpiles (i)	S/P	63	0.30	86	100.0	0.161
Escondida (Chile)						
sulphide mine	O/P	1,687	1.10	85	30.0	4.745
sulphide leach mine	O/P	2,112	0.53	33	30.0	1.109
oxide mine (r)	O/P	56	1.09	68	30.0	0.124
sulphide stockpiles (i)	S/P	3	1.52	85	30.0	0.011
sulphide leach stockpiles			- <b></b>		• • •	
(i)	S/P	91	0.77	33	30.0	0.069
oxide stockpiles (i)	S/P	81	0.84	68	30.0	0.140
	O/P +	2.665	1.01	00		<b>7 2</b> 01
Grasberg (Indonesia)	U/G	2,665	1.01	89	(s)	7.201
Northparkes (Australia) (t)		0.0	0.00	00	00.0	0.500
mine	U/G	90	0.80	89	80.0	0.509
stockpiles (i)	S/P	0.5	0.28	85	80.0	0.001
Palabora (South Africa)		01	0.60	0.0	<i>67 7</i>	0.004
(u)	U/G	91	0.62	88	57.7	0.284
Rio Tinto total reserves at o	perating					
mines						16.718
Undeveloped reserves (q)						
Eagle (US) (v)	U/G	3.6	2.93	95	100.0	0.102
Oyo Tolgoi (Mongolia)	O/P	930	0.50	87	9.9	0.399
Rio Tinto total						
undeveloped reserves						0.500

**DIAMONDS** (c)

carats

Recoverable

diamonds

			millions of tonnes	per tonne		millions of carats
<b>Reserves at operating mines</b>						
Argyle (Australia)						
		O/P +				
AK1 pipe mine		U/G	87	2.1	100.0	183.6
AK1 pipe stockpiles (i)		S/P	2.9	1.8	100.0	5.0
		O/P +				
Diavik (Canada) (w)		U/G	20	3.1	60.0	37.9
Murowa (Zimbabwe)						
mine		O/P	21	0.7	77.8	11.0
stockpiles (i)		S/P	0.1	0.4	77.8	0.03
Rio Tinto total						237.6
GOLD						Recoverable metal
		millions of	grammes per			millions
		tonnes	tonne			of ounces
Reserves at operating mines						
Bingham Canyon (US)						
mine	O/P	555	0.28	64	100.0	3.190
stockpiles (i)	S/P	63	0.16	64	100.0	0.206
stoenpries (r)	O/P +	00	0.10	01	100.0	0.200
Grasberg (Indonesia)	U/G	2,665	0.89	70	(s)	13.785
Northparkes (Australia) (t)		)				
mine	U/G	90	0.31	73	80.0	0.534
stockpiles (i)	S/P	0.5	0.18	76	80.0	0.002
Rio Tinto total reserves at ope mines	rating					17.717
Undeveloped reserves (q)						
Oyo Tolgoi (Mongolia)	O/P	930	0.36	71	9.9	0.753
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## **Ore reserves (under Industry Guide 7)**

	Type of mine	Total ore a end 2	t	Average mill		
	(b)	Tonnage	Grade	recovery %	Interest %	Rio Tinto share
IRON ORE (c)		millions of				Marketable product millions
		tonnes	%Fe			of tonnes
Reserves at operating mines and mines under construction						
Corumbá (Brazil) mine stockpiles (i)	O/P S/P	207 1.4	67.0 66.5		100.0 100.0	207 1.4
Hamersley (Australia) Brockman 2 (Brockman ore)						
(x) Brockman 4 (Brockman ore) Marandoo (Marra Mamba	O/P O/P	20 621	62.7 62.0		100.0 100.0	20 621
ore) (y) Mt Tom Price (Brockman	O/P	59	61.7		100.0	59
ore) (z) mine stockpiles (i)	O/P S/P	74 19	64.4 64.5		100.0 100.0	74 19
Mt Tom Price (Marra Mamba ore) Nammuldi (Marra Mamba	O/P	34	61.2		100.0	34
ore) Paraburdoo (Brockman ore)	O/P	24	61.3		100.0	24
(aa) Paraburdoo (Marra Mamba	O/P	14	63.4		100.0	14
ore) Western Turner Syncline	O/P	0.9	63.1		100.0	0.9
(Brockman ore) (bb) Yandicoogina (Pisolite ore HG) (cc)	O/P	313	61.9		100.0	313
mine stockpiles (i) Yandicoogina (Process	O/P S/P	225 4.2	58.5 58.5		100.0 100.0	225 4.2
randicoogina (Process product) (dd) mine Hammersley Channar (Australia) (ee)	O/P	146	58.2		100.0	146

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Brockman ore	O/P	89	63.3	60.0	54
Hammersley Eastern Range					
(Aus) (ee)					
Brockman ore	O/P	85	63.0	54.0	46
Hope Downs (Australia)					
(Marra Mamba ore)	O/P	343	61.4	50.0	172
Iron Ore Company of Canada					
(Canada) (ff)	O/P	571	65.0	58.7	335
Robe River					
(Australia)					
Pannawonica (Pisolite ore)					
mine	O/P	267	57.2	53.0	141
stockpiles (i)	S/P	20	56.9	53.0	11
West Angelas (Marra Mamba					
ore)					
mine	O/P	368	61.8	53.0	195
stockpiles (i)	S/P	5.7	58.0	53.0	3.0
Rio Tinto total					2,720

MOLYBDENUM		millions				Recoverable metal millions
		of tonnes	%Mo			of tonnes
<b>Reserves at operating mine</b>						
Bingham Canyon (US) (gg)						
mine	O/P	555	0.047	67	100.0	0.176
stockpiles (i)	S/P	63	0.013	67	100.0	0.006
Rio Tinto total						0.182

NICKEL		millions of				Recoverable metal millions
		tonnes	%Ni			of tonnes
<b>Undeveloped reserves (q)</b> Eagle (US) (v)	U/G	3.6	3.47	84	100.0	0.106
				Rie	o Tinto 2008	Form 20-F <b>36</b>

### **Ore reserves (under Industry Guide 7)**

	Type of mineTotal ore reserves at end 2008		Average mill		D: . T:		
	(b)	Tonnage	Grade	recovery %	Interest %	Rio Tinto share	
SILVER						Recoverable metal	
			grammes				
		millions	per			millions	
		of					
		tonnes	tonne			of ounces	
Reserves at operating mines							
Bingham Canyon (US) mine	O/P	555	2.24	73	100.0	29.384	
stockpiles (i)	O/P S/P	63	2.24 1.47	73 73	100.0	29.384	
Grasberg (Indonesia)	O/P + U/G	2,665	4.26	73	(s)	82.693	
Grasberg (Indonesia)	0/1 + 0/0	2,005	4.20	70	(8)	82.093	
Rio Tinto total						114.269	
TALC (h)		millio	ns of			Marketable product millions	
		tonn	es			of tonnes	
<b>Reserves at operating mines</b> Rio Tinto Minerals talc (hh)							
Europe/N America/Australia)	O/P + U						
mine		30			100.0	30.4	
stockpiles (i)		0	.2		100.0	0.2	
Rio Tinto total						30.6	

TITANIUM DIOXIDE FEEDSTOCK (h)		millions of	Ν	farketable product millions
		tonnes		of tonnes
Reserves at operating mines				
QIT (Canada)	O/P	52.1	100.0	52.1
QMM (Madagascar)	D/O	12.2	80.0	9.8
RBM (South Africa)	D/O	24.3	50.0	12.1

#### **Rio Tinto total**

URANIUM		millions of				Recoverable metal millions
		tonnes	%U <sub>3</sub> 0 <sub>8</sub>			of tonnes
<b>Reserves at operating mines</b>						
Energy Resources of						
Australia						
(Australia)						
Ranger #3 mine	O/P	7.9	0.234	86	68.4	0.011
Ranger #3 stockpiles (i)	S/P	22.3	0.114	86	68.4	0.015
Rössing (Namibia) (ii)						
mine	O/P	186.4	0.034	85	68.6	0.037
stockpiles (i)	S/P	3.9	0.040	85	68.6	0.001
Rio Tinto total						0.064
				Rio	Tinto 2008	Form 20-F <b>37</b>

### **Ore reserves (under Industry Guide 7)**

	Type of mine	Prov	en ore reser	ves at end 2008	Probal	ole ore reser	ves at end 2008		
	(b)	Tonnage	Grade	Drill hole Spacing (jj)	Tonnage	Grade	Drill hole Spacing (jj)		
<b>BAUXITE</b> (c)		millions of tonnes	%Al <sub>2</sub> O <sub>3</sub>		millions of tonnes	%Al <sub>2</sub> O <sub>3</sub>			
Reserves at operating mine		connes	,0111203		tonnes	,011 <u>1</u> 203			
Gove (Australia) (d) Porto Trombetas	O/P	111	49.5	50m x 100m	64	49.0	200m x 200m		
(Brazil) (e) Sangaredi (Guinea)	O/P	147	50.8	200m x 200m	59	50.1	400m x 400m		
(f)	O/P				133	52.4	75m x 75m		
Weipa (Australia) (g)	O/P	337	51.5	150m x 150m	1,398	52.6	300m x 300m		
<b>BORATES</b> (e)		milli ton	of		millions of tonnes				
Reserves at operating mine Rio Tinto Minerals Boron (US)									
mine stockpiles (i)	O/ S/	/P 1 /P	4.2	61m x 61m	4. 2.		61m x 61m		

	<b>Recoverable</b> reserves	% Yield to give	Proven	Marketable Reserves			
	total	marketable	TTOVEN	Drill hole spacing	Probable	Drill hole	
COAL (I)	millions	reserves	millions of	(jj)	millions of	spacing (jj)	
Reserves at operating mines Rio Tinto Energy America	of tonnes		tonnes		tonnes		
Antelope (US) Colowyo (US) (m) Cordero Rojo (US) (n)	O/C296O/C20O/C365	100 100 100	260 17 300	350m 150m 250m	36 3 65	500m 300m 400m	

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Decker (US)	O/C	9	100	9	250m		
Jacobs Ranch (US)	O/C	346	100	299	300m	47	400m
Spring Creek (US)	O/C	287	100	238	300m	49	400m
Rio Tinto Coal	0,0	207	100		c o o m	.,	100111
Australia							
Bengalla (Australia)	O/C	175	75	70	350m	62	500m
Blair Athol							
(Australia)	O/C	34	87	29	150m	0.3	150m
Hail Creek (Australia)	O/C	247	68	93	300m	73	400m
Hunter Valley							
Operations (Australia)							
(0)	O/C	484	68	267	300m	63	500m
Kestrel (Australia)	U/G	158	83	49	500m	83	1000m
Mount Thorley							
Operations (Australia)	O/C	37	65	21	125m	3	500m
Warkworth							
(Australia) (p)	O/C	426	65	157	450m	121	1000m
Undeveloped							
reserves (q)							
<b>Rio Tinto Coal</b>							
Australia							
							150m to
Clermont (Australia)	O/C	197	96	185	220m	4	300m
Mount Pleasant							125m to
(Australia)	O/C	459	76			350	500m
					Rio T	into 2008 Fo	rm 20-F <b>38</b>

### **Ore reserves (under Industry Guide 7)**

	Type of							
	mine (b) Ter				s at end 2008			ves at end 2008
	(b) Tor	inage	Grade		Drill hole spacing (jj)	Tonnage	Grade	Drill hole spacing (jj)
					1 8 ())			1 8 (5)
COPPER	mi	llions				millions		
		of				of		
D	te	onnes	%Cu			tonnes	%Cu	
Reserves at operating mines								
Bingham Canyon								
(US)								
mine	O/P	324	0.55		88m	231	0.49	106m
stockpiles (i)	S/P	35	0.36			28	0.30	
Escondida (Chile)								
sulphide mine	O/P	729	1.16		55m x 55m	958	1.05	85m x 85m
sulphide leach mine	O/P	626	0.52		60m x 60m	1486	0.54	95m x 95m
oxide mine (r)	O/P	7	1.21		45m x 45m	48	1.07	50m x 50m
sulphide stockpiles								
(i)	S/P	3	1.52					
sulphide leach								
stockpiles (i)	S/P	91	0.77					
oxide stockpiles (i)	S/P	81	0.84					
Grasberg					10	1.0.10	0.07	12
(Indonesia)	O/P + U/G	823	1.11		13m to 47m	1,842	0.97	42m to 97m
Northparkes								
(Australia) (t) mine	U/G	6.7	0.54		25 x 25 x 50m	83	0.82	40 yr 40 yr 90m
stockpiles (i)	S/P	0.7	0.34		25 X 25 X 50III	83	0.82	40 x 40 x 80m
Palabora (South	5/1	0.5	0.20					
Africa) (u)	U/G	91	0.62		76m			
Undeveloped	0/0	71	0.02		70111			
reserves (q)								
Eagle (US) $(v)$	U/G					3.6	2.93	25m
Oyo Tolgoi							, _	
(Mongolia)	O/P	127	0.58		50m	803	0.48	75m
DIAMONDS (c)		millio	ns c	arats		millions	carats	
			of			of		
		tonn		per onne		tonnes	per tonne	
<b>Reserves at operating</b>								
mines								
Argyle (Australia)								
AK1 pipe mine	O/P + U/G		18	1.1	50m x 50r	n 68	2.4	50m x 50m

AK1 pipe stockpiles							
(i)	S/P	0.9	3.8		2.0	0.8	
Diavik (Canada) (w)	O/P + U/G	7.0	2.7	27m to 34m	13	3.4	30m to 34m
Murowa (Zimbabwe)							
mine	O/P				21	0.7	50m
stockpiles (i)	S/P				0.1	0.4	

GOLD		millions g of	rammes		rammes		
		tonnes	per tonne		of tonnes	per tonne	
<b>Reserves at</b> <b>operating mines</b> Bingham Canyon (US)							
mine stockpiles (i) Grasberg	O/P S/P	324 35	0.31 0.20	88m	231 28	0.24 0.11	106m
(Indonesia) Northparkes (Australia) (t)	O/P + U/G	823	1.11	13m to 47m	1,842	0.79	42m to 97m
mine stockpiles (i) <b>Undeveloped</b> reserves (q)	U/G S/P	6.7 0.5	0.41 0.18	25 x 25 x 50m	83	0.31	40 x 40 x 80m
Oyo Tolgoi (Mongolia)	O/P	127	0.93	50m	803 Rio	0.27 o Tinto 200	75m 8 <i>Form 20-F</i> <b>39</b>

### **Ore reserves (under Industry Guide 7)**

	Type of	Proven ore reserves at end 2008			Probable ore reserves at end 2008			
	mine (b)	Tonnage	Grade	Drill hole spacing (jj)	Tonnage	Grade	Drill hole spacing (jj)	
<b>IRON ORE</b> (c)		millions of	~ -		millions of	~ ~		
Reserves at operating mines and mines under construction		tonnes	%Fe		tonnes	%Fe		
Corumbá (Brazil) mine stockpiles (i)	O/P S/P	100 1	66.9 66.5	100m x 100m	107	67.0	200m x 400m	
Hamersley (Australia) Brockman 2 (Brockman ore) (x)	O/P	14	62.7	50m x 50m	6	62.8	Max 100m	
Brockman 4 (Brockman ore)		366	62.2	50m x 50m	255	61.9	200m x 100m	
Marandoo (Marra Mamba ore) (y) Mt Tom Price	O/P	52	62.0	75m x 75m	7	59.6	Max 150m	
(Brockman ore) (z) mine stockpiles (i)	O/P S/P	41	64.1	30m x 30m	33 19	64.7 64.5	60m x 30m	
Mt Tom Price (Marra Mamba ore) Nammuldi (Marra	O/P	31	61.4	60m x 30m	3	59.4	60m x 30m	
Mamba ore) Paraburdoo (Brockman	O/P	21	61.4	50m x 50m	3	60.0	100m x 50m	
ore) (aa) Paraburdoo (Marra	O/P	10	63.6	30m x 30m	4	62.9	60m x 30m	
Mamba ore) Western Turner	O/P				0.9	63.1	60m x 60m	
Syncline (Brockman ore) (bb) Yandicoogina (Pisolite ore HG) (cc)	O/P	222	62.5	60m x 60m	92	60.6	60m x 60m	
mine stockpiles (i) Yandicoogina (Process	O/P S/P	225	58.5	50m x 50m	4	58.5		
product) (dd) Hamersley Channar	O/P	146	58.2	50m x 50m				
(Australia) (ee) (Brockman ore)	O/P	67	63.4	60m x 60m	22	63.0	Max 120m	

Hamersley Eastern Range (ee)							
(Brockman ore) Hope Downs (Australia)	O/P	63	63.0	60m x 60m	22	63.0	Max 120m
(Marra Mamba ore) Iron Ore Company of	O/P	28	61.8	50m x 50m	315	61.4	50m x 50m
Canada (Canada) (ff) Robe River (Australia)	O/P	394	65.0	122m x 61m	176	65.0	122m x 122m
Pannawonica (Pisolite ore)							
mine	O/P	246	57.3	max 70m x 70m	20	56.4	max 100m x 100m
stockpiles (i) West Angelas (Marra	S/P	3	57.0		17	56.9	
Mamba ore) mine	O/P	178	62.1	max 50m x 50m	190	61.6	max 200m x 50m
stockpiles (i)	S/P	0.4	59.7		6	58.0	
MOLYBDENUM		millions			millions		
		minut			111110110		
		of	~ ~ ~ ~		of	~ ~ ~	
		of tonnes	%Mo		of tonnes	%Mo	
Reserves at operating			%Mo			%Mo	
<b>Reserves at operating</b> <b>mine</b> Bingham Canyon (US)			% Mo			%Mo	
Reserves at operating mine Bingham Canyon (US) (gg) mine	O/P	tonnes 324	0.047	88m	tonnes	0.048	106m
<b>Reserves at operating</b> <b>mine</b> Bingham Canyon (US) (gg)	O/P S/P	tonnes		88m	tonnes		106m
Reserves at operating mine Bingham Canyon (US) (gg) mine		tonnes 324 35 millions	0.047	88m	tonnes	0.048	106m
Reserves at operating mine Bingham Canyon (US) (gg) mine stockpiles (i)		tonnes 324 35 millions of	0.047 0.016	88m	tonnes 231 28 millions of	0.048 0.009	106m
Reserves at operating mine Bingham Canyon (US) (gg) mine stockpiles (i) NICKEL		tonnes 324 35 millions	0.047	88m	tonnes 231 28 millions	0.048	106m
Reserves at operating mine Bingham Canyon (US) (gg) mine stockpiles (i) NICKEL Undeveloped reserves (q)	S/P	tonnes 324 35 millions of	0.047 0.016	88m	tonnes 231 28 millions of tonnes	0.048 0.009 %Ni	
Reserves at operating mine Bingham Canyon (US) (gg) mine stockpiles (i) NICKEL Undeveloped reserves		tonnes 324 35 millions of	0.047 0.016	88m	tonnes 231 28 millions of	0.048 0.009	106m 25m

### **Ore reserves (under Industry Guide 7)**

	Pr Type of mine (b)Tonnage		oven ore res at end 200		Probable ore reserves at end 2008			
			Grade	Drill Grade holeTonns spacing (jj)		Grade	Drill hole spacing (jj)	
SILVER		nillions of tonnes	grammes per tonne		millions of tonnes	grammes per tonne		
Reserves at operating mines Bingham Canyon (US) mine stockpiles (i) Grasberg (Indonesia)	O/P S/P O/P + U/G	324 35 823	2.50 1.73 4.30	88m 13m to 47m	231 28 1,842	2.24 1.47 4.25	106m 42m to 97m	
TALC (h)		nillions of tonnes		]	millions of tonnes			
<b>Reserves at operating mines</b> Rio Tinto Minerals - talc (hh) (Europe/N.America/Australia) mine	O/P + U/G	24.1		10m to 60m	6.2		15m to 100m	
stockpiles (i)	S/P	0.2						
TITANIUM DIOXIDE FEEDSTOCK (h)		nillions of tonnes		1	millions of tonnes			
Reserves at operating mines				(0)			(0)	
QIT (Canada)	O/P	28.6		< 60m x 60m 200m x	23.5		> 60m x 60m 400m x	
QMM (Madagascar)	D/O	11.8		100m	0.5		100m	
RBM (South Africa)	D/O	5.7		50m x 50m	18.6		800m x 100m	
URANIUM		nillions of tonnes	%U <sub>3</sub> 0 <sub>8</sub>	j	millions of tonnes	%U <sub>3</sub> 0 <sub>8</sub>		

<b>Reserves at operating mines</b> Energy Resources of Australia (Australia)							
				25m x			50m x
Ranger #3 mine	O/P	4.7	0.236	25m	3.2	0.232	50m
Ranger #3 stockpiles (i)	S/P	22.3	0.114				
Rössing (Namibia) (ii)							
				20m x			60m x
mine	O/P	30.3	0.035	20m	156.1	0.034	60m
stockpiles (i)	S/P	3.9	0.040				
					Rio Tinto	2008 Form	20-F <b>41</b>

#### **Ore reserves (under Industry Guide 7)**

#### Notes

(a) Commodity prices (based on a three year average historical price to 30 June, 2008) used to test whether the reported reserve estimates could be economically extracted, include the following benchmark prices:

Ore reserve	Unit	US\$
Aluminium	pound	1.15
Copper	pound	3.01
Gold	ounce	663
Iron Ore		
Australian benchmark (fines)	dmtu*	0.79
Atlantic benchmark (fines)	dmtu*	0.82
Molybdenum	pound	28.5
Nickel	pound	12.5
Silver	ounce	12.5

#### \* dry metric tonne unit

- Prices for all other commodities are determined by individual contract negotiation. The reported reserves for these commodities have been tested to confirm that they could be economically extracted using a combination of existing contract prices until expiry and thereafter three year historical prices.
- (b) Type of mine: O/P = open pit, O/C = open cut, U/G = underground, D/O = dredging operation
- (c) 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

- (d) Following completion of drilling, economic and technical studies at Gove, reserves have increased.
- (e) The increase in reserves at Porto Trombetas operations results from updated models incorporating additional drilling.
- (f) Following the completion of technical and economic studies Sangaredi reserves are presented for the first time.
- (g) Following economic and technical studies at Weipa, reserves have increased.
- (h) Reserves of industrial minerals are expressed in terms of marketable product, i.e. after all mining and processing losses. In the case of borates, the marketable product is  $B_2O_3$ .
- (i) Stockpile components of reserves are shown for all operations.

(j)

Coal type: SC = steam/thermal coal; MC = metallurgical/coking coal.

(k) Analyses of coal from the US were undertaken according to American Standard **Testing Methods** (ASTM) on an As Received moisture basis whereas the coals from Australia have been analysed on an Air Dried moisture basis according to Australian Standards (AS). MJ/kg =megajoules per kilogramme. 1 MJ/kg = 430.2Btu/lb.

(1)Coal reserves are shown as both recoverable and marketable. The yield factors shown reflect the impact of further processing, where necessary, to provide marketable coal. All reserves at operating mines are assigned, all undeveloped reserves are unassigned. By assigned and unassigned, we mean the following: assigned reserves means coal which has been committed by the coal company to operating mine shafts, mining

equipment, and plant facilities, and all coal which has been leased by the company to others; unassigned reserves represent coal which has not been committed, and which would require new mineshafts, mining equipment, or plant facilities before operations could begin in the property.

 (m) During 2008, Rio Tinto acquired a 100 per cent interest in the Colowyo mine, having previously held a partnership interest. The decrease in reserves follows production.

- (n) Reserves at Cordero Rojo have increased following the acquisition of a federal lease, drilling and technical studies.
- (o) Hunter Valley reserves increased commensurate with technical and economic studies, followed by pit redesigns.
- (p) Updated economic studies have led to an increase in reserves at Warkworth.
- (q) The term undeveloped reserves is used here to describe material

that is economically viable on the basis of technical and economic studies but for which construction and commissioning have yet to commence.

- (r) Changes in the Escondida reserves resulted from technical studies.
- (s) 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.
- (t) Open pit reserves at Northparkes have increased as a result of converting mineralised material to reserves. Underground reserves at Northparkes have increased after updated models following additional drilling, techincal studies and the application of new economic parameters.

 Production, combined with technical updates have led to a reduction of reserves at Palabora.

- Additional drilling, mine design changes and upgrading of mineralised material to reserves have increased reserves at Eagle.
- (w) Production depletion and technical studies have resulted in a slight decrease in grade of the remaining reserve at Diavik.
- (x) Hamersley Brockman 2 reserves decreased commensurate with production and pit redesigns.
- (y) An increase in Marandoo reserves resulted from upgrading mineralised material to reserves, a new geological model and pit redesign.
- (z) A model update followed by pit redesign led to decreased Mt Tom Price (Brockman ore) reserves.
- (aa) A decrease in Paraburdoo
   (Brockman ore) reserves followed from production depletion and a pit redesign.
- (bb) Following completion of technical and economic studies the

reserve at Western Turner Syncline is reported for the first time.

- (cc) Yandicoogina
   (Pisolite ore HG)
   reserves reduced as a
   result of production
   and technical studies.
- (dd) Remodelling and technical studies led to reserve increases for Yandicoogina (Process Product).
- (ee) Channar and Eastern Range reserve depletions result from production, technical studies and pit redesign.
- (ff) Reserves at Iron Ore Company of Canada are reported as marketable product, using process upgrade factors derived from current IOCC concentrating and pellet operations. The mined material equivalent is 1,393 million tonnes at 38 per cent iron.
- (gg) Molybdenum grades reflect reconciliation of model and plant grades.
- (hh) Rio Tinto Minerals Talc reserves declined with production and mine redesigns.
- (ii) Reserves at Rossing have increased as a

result of conversion of mineralised material to reserves and the development of a new pit design incorporating a new mineralisation model and results from additional drilling. (jj) Drill hole spacings are either average distances, a specified grid distance (a regular pattern of drill holes - the distance between the drill holes along the two axes of the grid will be aligned to test the size, shape and continuity of the mineral deposit; as such there may be different distances between the drill holes along the two axes of a grid) or the maximum drill hole spacing that is sufficient to determine the reserve category for a particular deposit. As the continuity of mineralisation varies from deposit to deposit, the drill hole spacing required to categorise a reserve varies between and within deposit types. In March 2009, Rio Tinto announced the conditional sale of its 100 per cent interest in the Jacobs Ranch mine.

In January 2009, Rio Tinto announced the conditional sale of its 100 per cent interest in the Corumba mine.

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### **Group Mines**

Rio Tinto share 100% unless stated

Mine	Location	Access	Title/lease
ALUMINIUM			
CBG Sangaredi (23%)	Conakry, Guinea	Road and air	Lease expires in 2038
Ely	Weipa, Queensland, Australia	Road and air	Alcan Queensland Pty. Limited Agreement Act 1965 expires in 2048 with 21 year right of renewal with a two year notice period
GBC Awaso (80%)	Awaso, Ghana	Road	Lease expires in 2022, renewable in 25 year periods
Gove	Gove, Northern Territory, Australia	Road, air and port	100% Leasehold (held in trust by the Commonwealth on behalf of the Traditional Owners until end of mine life)
<b>MRN Porto Trombetas</b> (12%)	Porto Trombetas, Brazil	Air or port	Mineral rights granted for undetermined period
		J	Rio Tinto 2008 <i>Form 20-F</i> <b>43</b>

### **Group mines (continued)**

Mine	History	Type of mine	Power source
ALUMINIUM			
CBG Sangaredi (23%)	Bauxite mining commenced in 1973. Shareholders are 51% Halco and 49% Guinea. Alcan holds 45% of Halco since 2004 and off-takes 45%. Current annual capacity is 13 million tonnes.	Open cut	On site generation (fuel oil)
Ely	Discovered in 1957; 100% secured in 1965. In 1997, Ely Bauxite Mining Project Agreement signed with the local Aboriginal land owners. Bauxite Mining and Exchange Agreement signed in 1998 with Comalco to allow for extraction of the ore by Comalco. Mining commenced in 2006, first ore extracted in 2007.	Open cut	Supplied by Weipa
GBC Awaso (80%)	Bauxite mining commenced in 1940 (100% British Aluminium). From 1974 to 1997, Ghana held 55%, Alcan 45%; since 1998 Alcan 80% Ghana 20%. Annual capacity is one million tonnes, currently limited to 750,000 tonnes by rail infrastructure.	Open cut	Electricity grid with on site generation back up

Gove	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. Current production capacity about ten million tonnes per annum with mine life estimated to 2025.	Open cut	Central power station located at the Gove refinery
MRN Porto Trombetas (12%)	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. Capital structure currently: Vale (40%), BHP-Billiton (14.8%), Rio Tinto Alcan (12%), CBA (10%), Alcoa/Abalco (18.2%) and Hydro (5%). Production 17.8 million tonnes of wet and dry bauxite annually.	Open cut	On site generation (heavy oil, diesel)

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### **Group mines (continued)**

Mine	Location	Access	Title/lease
ALUMINIUM (continued)			
Weipa	Weipa, Queensland, Australia	Road, air and port	Queensland Government lease expires in 2041 with option of 21 year extension, then two years notice of termination
COPPER			
Escondida (30%)	Atacama Desert, Chile	Pipeline and road to deep sea port at Coloso	Rights conferred by Government under Chilean Mining Code
<b>Grasberg joint venture</b> (40%)	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</b> Bingham Canyon	Near Salt Lake City, Utah, US	Pipeline, road and rail	Owned
Northparkes (80%)	Goonumbla, New South Wales, Australia	Road and rail	State Government mining lease issued in 1991 for 21 years
Palabora (58%)	Phalaborwa, Limpopo Province, South Africa	Road and rail	Lease from South African Government until deposits

exhausted. Base metal claims owned by Palabora

#### DIAMONDS

Argyle Diamonds	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</b> (60%)	Northwest Territories, Canada	Air, ice road in winter	Mining leases from Canadian federal government expiring in 2017 and 2018
<b>Murowa</b> (78%)	Zvishavane, Zimbabwe	Road and air	Claims and mining leases
ENERGY			
<b>Energy Resources of</b> <b>Australia</b> (68%) Ranger	Northern Territory, Australia	Road	Leases granted by State
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### **Group mines (continued)**

Mine	History	Type of mine	Power source
ALUMINIUM (continued)			
Weipa	Bauxite mining commenced in 1961. Major upgrade completed in 1998. Rio Tinto interest increased from 72.4% to 100% in 2000. In 2004 a mine expansion was completed that has lifted annual capacity to 16.5 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	Open cut	On site generation; new power station commissioned in 2006
COPPER			
Escondida (30%)	Production started in 1990 and expanded in phases to 2002 when the new concentrator was completed; production from Norte commenced in 2005 and the sulphide leach produced the first cathode during 2006	Open pit	Supplied from SING grid under various contracts with Norgener, Gas Atacama and Edelnor

<b>Grasberg joint venture</b> (40%)	Joint venture interest acquired in 1995. Capacity expanded to over and 200,000 tonnes of ore per day in 1998 with addition of underground production of more than 35,000 tonnes per day in 2003, with an expansion to a sustained rate of 50,000 tonnes per day by mid 2007		Long term contract with US-Indonesian consortium operated, purpose built, coal fired generating station
<b>Kennecott Utah Copper</b> Bingham Canyon	Interest acquired in 1989. Modernisation includes smelter complex and expanded tailings dam	Open pit	On site generation supplemented by long term contracts with Utah Power and Light
Northparkes (80%)	Production started in 1995; interest acquired in 2000	Open pit and underground	Supplied from State grid
Palabora (58%)	Development of 20 year underground mine commenced in 1996 with open pit closure in 2003	Underground	Supplied by ESKOM via grid network
DIAMONDS			
Argyle Diamonds	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 with underground expected in future	Long term contract with Ord Hydro Consortium and on site generation backup
<b>Diavik</b> (60%)	Deposits discovered 1994-1995. Construction approved 2000. Diamond production started 2003.	Open pit with underground expected in future	On site diesel generators; installed capacity 27MW with an upgrade under way

Second dike closed off in 2005 for mining of additional orebody. The underground mine is expected to start production in late 2009, ramping up to full production in 2012.

**Murowa** (78%)

Discovered in 1997. Small Open pit scale production started in 2004 Supplied by ZESA with diesel generator backup

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### **Group Mines (continued)**

Mine	Location	Access	Title/lease
ENERGY			
<b>Energy Resources of</b> <b>Australia</b> (68%) Ranger	Northern Territory, Australia	Road	Leases granted by State
<b>Rio Tinto Coal Australia</b> Bengalla (30%) Blair Athol (71%) Hail Creek (82%) Hunter Valley Operations (76%) Kestrel (80%) Mount Thorley Operations (61%) Warkworth (42%)	New South Wales and Queensland, Australia	Road, rail, conveyor and port	Leases granted by State
<b>Rio Tinto Energy</b> <b>America</b> Antelope Colowyo Cordero Rojo Decker (50%) Jacobs Ranch Spring Creek	Wyoming, Montana and 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> (69%)	Namib Desert, Namibia	Rail, road and port	Federal lease
INDUSTRIAL MINERALS			
	California, US	Road, rail and port	Owned

#### Rio Tinto Minerals: Boron

Rio Tinto Minerals: Talc	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
QIT-Fer et Titane Lac Tio	Havre-Saint-Pierre, Quebec, Canada	Rail and port (St Lawrence River)	Mining covered by two concessions granted by State in 1949 and 1951 which, subject to certain Mining Act restrictions, confer rights and obligations of an owner
<b>QIT Madagascar</b> <b>Minerals</b> (80%)	Fort-Dauphin, Madagascar	Road and port	Mining lease
Richards Bay Minerals (50%)	Richards Bay, KwaZulu-Natal, South Africa	Rail, road and port	Long term renewable mineral leases; State lease for Reserve 4 initially runs to the end of 2022; Ingonyama Trust lease for Reserve10 runs to 2022. Both mineral leases are required to be converted to new order mining rights by 30 April 2009 in terms of South African legislation. An application for conversion was made in 2006 for the Ingonyama Trust mineral lease, and an application was made in 2008 for the conversion of the State mineral lease

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### **Group Mines (continued)**

Mine	History	Type of mine	Power source
ENERGY			
<b>Energy Resources of</b> <b>Australia</b> (68%) Ranger	Mining commenced in 1981. Interest acquired through North in 2000. Life of mine extension to 2020 announced in 2007	Open pit	On site diesel/steam power generation
<b>Rio Tinto Coal Australia</b> Bengalla (30%) Blair Athol (71%) Hail Creek (82%) Hunter Valley Operations (76%) Kestrel (80%) Mount Thorley Operations (61%) Warkworth (42%)	Peabody Australian interests acquired in 2001. Production started for export at Blair Athol and adjacent power station at Tarong in 1984. Kestrel acquired and recommissioned in 1999. Hail Creek started in 2003	Open cut and underground (Kestrel)	State owned grid
<b>Rio Tinto Energy</b> <b>America</b> Antelope Colowyo Cordero Rojo Decker (50%) Jacobs Ranch Spring Creek	Antelope, Spring Creek, Decker and Cordero acquired in 1993, Cordero Rojo in 1997, Colowyo in 1995, Caballo Rojo in 1997, Jacobs Ranch in 1998 and West Antelope in 2004	Open cut	Supplied by IPPs and Cooperatives through national grid service
<b>Rössing Uranium</b> (69%)	Production began in 1978. Life of mine extension to 2016 approved in 2005	Open pit	Namibian National Power

#### INDUSTRIAL MINERALS

Rio Tinto Minerals: Boron	Deposit discovered in 1925, acquired by Rio Tinto in 1967	Open pit	On site co-generation units
Rio Tinto Minerals: Talc	Production started in 1885; acquired in 1988. (Australian mine acquired in 2001)	Open pit	Supplied by Atel and on site generation units. Australian mine power supplied by Western Power
QIT-Fer et Titane Lac Tio	Production started in 1950; interest acquired in 1989	Open pit	Long term contract with Hydro-Quebec
QIT Madagascar Minerals (80%)	Began as exploration project 1980s; construction approved 2005; ilmenite production started end of 2008	Mineral sands dredging	On site diesel generators
<b>Richards Bay Minerals</b> (50%)	Production started in 1977; interest acquired in 1989. Fifth dredge commissioned in 2000	Beach sand dredging	Contract with ESKOM

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### **Group Mines (continued)**

Mine	Location	Access	Title/lease
IRON ORE			
Hamersley Iron Brockman Marandoo Mount Tom Price Nammuldi Paraburdoo Yandicoogina Channar (60%) Eastern Range (54%)	Hamersley Ranges, Western Australia	Railway and port (owned by Hamersley Iron and operated by Pilbara Iron)	Agreements for life of mine with Government of Western Australia
Hope Downs Joint Venture (50% mine, 100% infrastructure) Hope Downs 1	Pilbara region, Western Australia	Railway owned and operated by Rio Tinto	Agreements for life of mine with Government of Western Australia
Iron Ore Company of Canada (59%)	Labrador City, Province of Newfoundland and Labrador	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>Rio Tinto Brasil</b> Corumbá	Matto Grosso do Sul, Brazil	Road, air and river	Government licence for undetermined period
Robe River Iron Associates (53%) Mesa J 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

Dampier Salt (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 renew in each case

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### **Group mines (continued)**

Mine	History	Type of mine	Power source
IRON ORE			
Hamersley Iron Brockman Marandoo Mount Tom Price Nammuldi Paraburdoo Yandicoogina Channar (60%) Eastern Range (54%)	Annual capacity increased to 68 million tonnes during 1990s. Yandicoogina first ore shipped in 1999 and port capacity increased. Eastern Range first shipped ore in 2004	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
Hope Downs Joint Venture (50% mine, 100% infrastructure) Hope Downs 1	Joint venture venture between Rio Tinto and Hancock Prospecting Pty Limited. Construction of Stage 1 to 22 million tonnes per annum commenced April 2006 and first production occurred November 2007. Stage 2 to an expected 30 million tonnes per annum has been approved and is to be completed by Q1 2009	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
Iron Ore Company of Canada (59%)	Current operation began in 1962 and has processed over one billion tonnes of crude ore since. Annual capacity now 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

<b>Rio Tinto Brasil</b> Corumbá	Iron ore production started in 1978; interest acquired in 1991	Open pit	Supplied by ENERSUL
Robe River Iron Associates (53%) Mesa J West Angelas	First shipment in 1972. Annual sales reached 30 million tonnes in late 1990s. Interest acquired in 2000 through North acquisition. West Angelas first ore shipped in 2002 and mine expanded in 2005	Open pit	Supplied through the integrated Hamersley and Robe power network operated by Pilbara Iron
Dampier Salt (68.4%)	Construction of the Dampier field started in 1969; first shipment in 1972. Lake MacLeod was acquired in 1978 as an operating field. Port Headland was acquired in 2001 as an operating field	Solar evaporation of seawater (Dampier and Port Headland) 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 headland from Western Power
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### **Group power stations**

Rio Tinto share 100% unless stated

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2008
ALUMINIUM				
<b>Gladstone Power</b> <b>Station</b> (42%)	Gladstone, Queensland, Australia	100% Freehold	Thermal power station	1,680 megawatts
Highlands Power Stations	Lochaber, Kinlochleven, UK	100% Freehold	Hydro-electric power	80 megawatts
Lynemouth Power Station	Lynemouth, UK	100% Freehold	Thermal power station	420 megawatts
Kemano Power Plant	Kemano, British Columbia, Canada	100% Freehold	Hydro-electric power	896 megawatts
Quebec Power Stations	The Saguenay, Quebec, Canada (Chute-a-Caron, Chute a la Savanne, Chute- des-Passes, Chute du Diable, Isle-Maligne, Shipshaw)	100% Freehold	Hydro-electric power	2,687 megawatts
Vigelands Power Station	Nr Kristiansand, Norway	100% Freehold	Hydro-electric power	26 megawatts

## Group smelters and refineries

Rio Tinto share 100% unless stated

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2008
ALUMINIUM				
Alma	Alma, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium rod, t-foundry, sow, molten metal	423,000 tonnes per year aluminium
Alouette (40%)	Sept-Iles, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium ingot, sow	590,000 tonnes per year aluminium
<b>Alucam</b> (47%)	Edea, Cameroon	100% Freehold	Aluminium smelter producing aluminium slab, ingot	100,000 tonnes per year aluminium
Anglesey (51%)	Anglesey, Wales, UK	100% Freehold	Aluminium smelter producing aluminium billet, block, sow	147,000 tonnes per year aluminium

	Arvida, Quebec, Canada		Aluminium smelter producing aluminium billet, molten metal	173,000 tonnes per year aluminium
Beauharnois	Beauharnois, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium ingot foundry	52,000 tonnes per year aluminium
Becancour (25%)	Becancour, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium billet, slab, t-foundry, t-bar	421,000 tonnes per year aluminium
Bell Bay	Bell Bay, Northern Tasmania, Australia	100% Freehold	Aluminium smelter producing aluminium ingot, block, t-bar	180,000 tonnes per year aluminium
Boyne Smelters (59%)	Boyne Island, Queensland, Australia	100% Freehold	Aluminium smelter producing aluminium ingot, billet, t-bar	557,000 tonnes per year aluminium
Dunkerque	Dunkerque, France	100% Freehold	Aluminium smelter producing aluminium slab, t-foundry, t-bar	261,000 tonnes per year aluminium
Gardanne	Gardanne, France	100% Freehold	Refinery producing specialty aluminas and smelter grade aluminas	635,000 tonnes per year specialty aluminas (including 133,000 tonnes of smelter grade

aluminas)

## Group smelters and refineries (continued)

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2008
ALUMINIUM (continu	ied)			
Gove	Gove, Northern Territory, Australia	100% Leasehold. (Commonwealth land held in trust on behalf of Traditional Owners). Numerous lots with varying expiry dates starting 2011	Refinery producing alumina	2,325,000 tonnes per year alumina
Jonquiere (Vaudreuil)	Jonquiere, Quebec, Canada	100% Freehold	Refinery producing speciality aluminas and smelter grade aluminas	1,500,000 tonnes per year aluminas
Grande-Baie	Saguenay, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium slab, sow, molten metal	212,000 tonnes per year aluminium
ISAL	Reykjavik, Iceland	100% Freehold	Aluminium smelter producing aluminium slab, t-bar	188,000 tonnes per year aluminium
Kitimat	Kitimat, British Columbia, Canada	100% Freehold	Aluminium smelter producing	252,000 tonnes per year aluminium

## aluminium billet, slab, ingot

Laterriere	Saguenay, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium slab, t-bar, molten metal	234,000 tonnes per year aluminium
Lochaber	Fort William, Scotland, UK	100% Freehold	Aluminium smelter producing aluminium slab, t-bar	43,000 tonnes per year aluminium
Lynemouth	Lynemouth, Northumberland, UK	100% Freehold	Aluminium smelter producing aluminium slab, t-bar	178,000 tonnes per year aluminium
Queensland Alumina (80%)	Gladstone, Queensland, Australia	73.3% Freehold 26.7% Leasehold (of which more than 80% expires in 2026 and after)	Refinery producing alumina	3,953,000 tonnes per year alumina
Sao Luis (Alumar) (10%)	Sao Luis, Maranhao, Brazil	100% Freehold	Refinery producing alumina	1,400,000 tonnes per year of alumina which will increase to 3,500,000 tonnes per year after expansion in 2009
St-Jean-de-Maurienne	St-Jean-de-Maurienne, France	100% Freehold	Refinery producing alumina	138,000 tonnes per year aluminium
Sebree	Robards, Kentucky, US	100% Freehold	Aluminium smelter producing	196,000 tonnes per year aluminium

## aluminium billet, ingot foundry, t-bar

Shawinigan	Shawinigan, Quebec, Canada	100% Freehold	Aluminium smelter producing aluminium billet, sow	100,000 tonnes per year aluminium
<b>Sohar</b> (20%)	Sohar, Oman	100% leasehold expiring in 2035	Aluminium smelter producing small ingot and low profile sow products	230,000 tonnes per year aluminium
SORAL (50%)	Husnes, Norway	100% Freehold	Aluminium smelter producing aluminium billet	170,000 tonnes per year aluminium
Tiwai Point (New Zealand Aluminium Smelters) (79%)	Invercargill, Southland, New Zealand	19.6% Freehold 80.4% Leasehold (expiring in 2029 and use of certain Crown land)	Aluminium Smelter producing aluminium ingot, billet t-bar	365,000 tonnes per year aluminium
<b>Tomago</b> (52%)	Tomago, New South Wales, Australia	100% Freehold	Aluminium smelter producing aluminium billet, slab, ingot	527,000 tonnes per year aluminium
Yarwun	Gladstone, Queensland, Australia	97% Freehold 3% Leasehold (expiring in 2101 and after)	Refinery producing alumina	1,400,000 tonnes per year alumina

## Group smelters and refineries (continued)

Smelter/refinery	Location	Title/lease	Plant type/product	Capacity as of 31 December 2008
COPPER				
Kennecott Utah Copper	Magna, Salt Lake City, Utah, US	100% Freehold	Flash smelting furnace, Flash convertor furnace copper refinery	335,000 tonnes per year refined copper
Palabora (58%)	Phalaborwa, South Africa	100% Freehold	Reverberatory Pierce smith copper refinery	130,000 tonnes per year refined copper
INDUSTRIAL MINER	RALS			
Boron	California, US	100% Freehold	Borates Refinery	565,000 tonnes per year boric oxide
QIT-Fer et Titane Sorel Plant	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</b> <b>Minerals</b> (50%)	Richards Bay, South Africa	100% Freehold	Ilmenite smelter	1,060,000 tonnes per year titanium dioxide slag

## **IRON ORE**

Hismelt (60%)	Kwinana, Western Australia	100% Leasehod (expiring in 2010 with rights of renewal for further 25 year terms)	HIsmelt ironmaking plant producing pig iron	800,000 tonnes per year pig iron
IOC Pellet Plant (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

#### Item 4A. Unresolved Staff Comments

There are no unresolved written comments from the SEC staff regarding its periodic reports under the Exchange Act received more than 180 days before 31 December 2008.

## Item 5. Operating and Financial Review and Prospects

This Item contains forward looking statements and attention is drawn to the Cautionary statement on page 11. This Item includes a discussion of the main factors affecting the Group s Profit for the year, as measured in accordance with IFRS. In monitoring its financial performance, the Group also focuses on that part of the Profit for the year attributable to equity shareholders of Rio Tinto, which is referred to as Net earnings, and on an additional non IFRS measure called Underlying earnings. The latter measure, which is also based on the amounts attributable to Rio Tinto shareholders, is reported to provide greater understanding of the underlying business performance of Rio Tinto operations. This measure is used by management to track the performance of the Group on a monthly basis. The earnings of the Group s product groups as reviewed by management exclude amounts that are outside the scope of underlying earnings. Net earnings and underlying earnings have been reconciled on page 63 and the exclusions in arriving at underlying earnings have been analysed on page 65.

In this report, the sales revenue of the parent companies and their subsidiaries is referred to as Consolidated sales revenue . Rio Tinto also reports a sales revenue measure that includes its share of jointly controlled entities and associates, which is referred to as Gross sales revenue . This latter measure is considered informative because a significant part of the Group s business is conducted through operations that are subject to equity accounting.

This Item is comprised of the following:

Chairman s statement providing a high level review of the Group

Chief executive s message providing a high level review of the Group s operations

Recent developments Chinalco strategic partnership

Group financial performance

Operating reviews for each of the principal product groups and global support groups

Financial review of the Group

#### Chairman s statement

Despite a sharp reversal in prices, the strong medium to long run outlook for commodity markets has not fundamentally changed

At the end of 2008 many metals and minerals prices remained well above the historical trend.

Subdued conditions are expected in early 2009.

Chinese investment is expected to start gaining strength in the second half of 2009.

Marginal producers are expected to curtail supply.

No one in the basic resources industry will forget 2008 quickly. It was a year of two parts - starting with a continuation of strong demand and prices but finishing with a dramatic slide in prices driven by the collapse in global economic conditions.

Our long standing strategy of investing in large, long life, low cost mining and processing assets remains our core strength in the current downturn of the world economy. Despite market declines, this uncomplicated approach will continue to deliver long term shareholder value and ensure we are well positioned to take advantage of our top quality assets when the recovery comes.

We remain convinced that the addition of the Alcan assets to our portfolio, and their integration into Rio Tinto will be a source of long term value creation. We are ahead of target to deliver US\$1.1 billion after tax in synergies from

the end of 2010.

We made net capital expenditures totalling US\$8.5 billion in 2008. We will now limit capital expenditures for 2009 to around US\$4 billion, to reflect falling demand, while sustaining our growth trajectory. We retain the goal of returning our balance sheet to a single A credit rating and will reduce net debt by US\$10 billion in 2009. In the meantime our cash flows are able to repay the existing level of debt.

We are focused on the future to ensure we are best positioned for the upturn when it comes. In 2008 we put important building blocks in place with major development projects, testing technology for automated mines, renewing our organisational structure to maximise the benefits of standardised and shared management approaches, and introducing our progressive new Rio Tinto brand identity.

#### **Results and dividends**

The Group s underlying earnings in 2008 were US\$10,303 million, 38 per cent above 2007. Net earnings were US\$3,676 million compared with US\$7,312 million in 2007 reflecting impairment charges resulting from recent significant weakening in economic and market circumstances, principally relating to goodwill on the Alcan acquisition. This includes a charge of US\$8.4 billion related to impairments, partly offset by gains of US\$1.5 billion from asset divestments. Cash flow from operations increased 64 per cent to US\$20,668 million. The total dividends declared for 2008 of 136 US cents per share maintained the level of the 2007 dividend. The Group s objective remains to maximise its value and increase the dollar value of ordinary dividends over time.

#### **BHP Billiton** s approach

You will recall in November 2007 Rio Tinto received an unsolicited approach from BHP Billiton proposing a combination of the two companies. This was followed in February 2008 by a pre-conditional takeover offer which BHP Billiton finally withdrew in November 2008 citing deterioration of near term global economic conditions.

During the term of the offer, our board monitored the situation closely and nothing changed our view that the BHP Billiton bid significantly undervalued our assets and future prospects. The board also believes the great majority of synergies that would have resulted would have come from the Rio Tinto assets, and Rio Tinto shareholders would not have been adequately rewarded. Those synergies would, in any event, have been highly dependent on any remedies required by competition regulators and on delivery risk.

## **Proposed transaction with Chinalco**

On 12 February 2009 we announced the intention to form a major strategic partnership with Chinalco, a leading Chinese diversified resources company, that the board unanimously recommends to shareholders. Chinalco s cash investment of US\$19.5 billion will strengthen our balance sheet on terms that add value to the Group and increase our flexibility to grow as markets recover. It will strengthen Rio Tinto s position in the industry during a period in which China s importance in the global economy is growing rapidly. More detail on the proposal is set out on pages 59 to 62. **Value creation strategy** 

Rio Tinto has, for decades, followed a consistent and successful strategy with the goal of maximising shareholder value through excellence in mining, the operation of large scale, long life, low cost assets, and an emphasis on quality. We draw strength from our product diversity and broad geographic spread of operations.

The strategy focuses on the upstream activities of metals and minerals production - particularly mining and, as in Rio Tinto Alcan, on advantaged primary processing. Through a rigorous and risk aware investment appraisal process, we seek opportunities that will create value at all points of the economic cycle, investing in expansions in line with market demand.

Rio Tinto has always preferred value to growth. Quality assets will perform better in tough times. Our strategic priorities today are to adjust the speed of our expansion and development activities in line with market developments. Accordingly, a number of business units have been reviewing and adjusting their activities.

Another priority is our programme of disposal of non core assets which will lower our debt level and create the opportunity to focus our business on world class, market leading positions. In 2008 we realized US\$2.6 billion from disposals and the divestment programme has continued in 2009.

## **Board and governance\***

Good governance is the foundation of an ethical approach to business. The board continued their focus on promoting the high standards of conduct we expect of our employees around the world, recognising that actions speak louder than words. In 2008 we renewed our commitment to our values with a revised version of our statement of principles and standards of conduct, *The way we work*.

The board was pleased to welcome Jan du Plessis as a non executive director from 1 September 2008 and he will be standing for election at the 2009 Annual general meetings. He is currently chairman of British American Tobacco plc as well as a non executive director of Lloyds Banking Group plc and Marks and Spencer Group plc. His appointment brings additional financial expertise to the board and a broad experience of major global businesses, particularly in Africa. Jan has also joined the *Audit committee*. As was announced on 14 January 2009, I notified the board of my preference to retire at the conclusion of the annual general meeting in Australia on 20 April 2009. After the termination of the BHP Billiton pre-conditional offer for the Group, and the identification of a successor which

started in late 2008, I felt this was the right time to step down after five and a half years as chairman. Jim Leng was appointed chairman designate in January 2009. He subsequently resigned from the board in February, and I have agreed to the board s request to remain as chairman until a successor is appointed.

Dick Evans, who joined the board following the acquisition of Alcan, will be stepping down and I thank him for the contribution he has made to Rio Tinto.

#### Sustainable development

A commitment to sustainable development remains central to our strategy. Our operations have long time horizons and involve the investment of large amounts of fixed capital. We need careful management of social, environmental and economic issues with strong governance to deliver on our promises to communities, governments, employees and shareholders. We strive for a zero harm environment and all of us on the board regret very much the tragic loss of life Rio Tinto 2008 Form 20-F 55

that occurred at our operations in 2008.

We know we can always do better, but it is very encouraging to note the broad endorsement we have received from many in the global conservation community for our approach to managing biodiversity, the awards our businesses receive for work to combat HIV-AIDS, our renewed focus on tackling the causes of climate change with a revamped energy and climate strategy team, and the efforts we are making to prepare nationals for careers in the mining industry ahead of our projects in Mongolia and Guinea.

Rio Tinto was again identified as a sustainable development leader during the year by retaining its listing on the Dow Jones Sustainability Index (DJSI) World Index and the FTSE4Good, as well as again attaining platinum status on the Business in the Community Corporate Responsibility Index. The Group was also added to the DJSI STOXX Index.

Rio Tinto became a signatory to the UN Global Compact in 2000 and we were one of its early supporters. We also remain an active member of the World Business Council for Sustainable Development and the International Council on Mining and Metals, whose members are committed to superior business practices in sustainable development. **Outlook** 

We have recently seen an unprecedented rate of decline in our markets, but our strong long term outlook for commodity markets has not fundamentally changed. At the end of 2008 prices remained above the historical trend, despite the downturn.

Although the current slowdown has been much more dramatic than anticipated, we expect China s long term growth to continue as a major driver of commodities demand. China has been temporarily hit by the combined effect of the Western world slowdown and a correction in its housing market, partly a function of the tightening of monetary policy introduced in 2007 to damp down rising inflationary pressures.

When global economic activity recovers we could see metals and minerals demand pick up rapidly, driven by the requirement to rebuild stocks, at a time when supply is constrained by the cutbacks that occurred during the downturn and by the challenges of delivering new supply, often from new sources. China particularly may surprise the market. It is the rate of deceleration and acceleration of the Chinese economy which drives metal demand and prices, given its major share of total global demand. Just as China decelerated sharply, with a strong impact on metals demand, it will also work powerfully in the upswing.

We believe the fundamentals of the Chinese market, and other fast growing markets like India, remain intact and the industry s long term prospects remain positive. While activity is likely to be relatively muted in the first half of this year, Chinese investment is expected to start gaining strength in the second half of 2009 with the support of substantial domestic savings and a shift in government policy towards promoting growth objectives including expansion of transport infrastructure and housing. While government spending will support Chinese GDP growth, it is expected nevertheless to slow further in 2009.

#### **Our people**

We have a high performing organisation and I regret that deteriorating business conditions have caused us to slow our development programme and reduce the size of our workforce. In 2008 we conducted a global employee engagement survey to give our people an opportunity to have their say about working for Rio Tinto. It gave us clear insights into what we need to do to enhance business performance.

The Group benefits enormously from the strong commitment of the Rio Tinto team around the world. I thank them for their unfailing efforts in 2008 during a period of quite extraordinary and challenging corporate activity. In spite of many distractions, management and employees have stayed focused on safety, maintaining deliveries to customers and conducting our business in a socially responsible way. The board is highly appreciative of these efforts which, during my period as chairman, I have found inspirational.

#### Paul Skinner Chairman

6 March 2009

#### Note

\* On 17 March 2009 Rio Tinto announced that Jan du Plessis will be appointed as Chairman of the board on the retirement of Paul Skinner with effect from the conclusion of the Annual General Meeting of Rio Tinto Limited on 20 April 2009.

#### Chief executive s message An extraordinary year

2008 was a year of stark contrasts. Our business performed exceptionally well in the first nine months before being hit hard by a steep decline in commodity markets in the fourth quarter. But despite the biggest global financial crisis in generations, the quality of our business shone through and we succeeded in maintaining strong cash flow and earnings.

This encouraging financial performance was unfortunately overshadowed by a very damaging year on the safety front. There were 18 fatalities in the businesses managed by Rio Tinto, including ten people killed in a helicopter crash in Peru.

Twelve of the 18 deaths occurred at new projects in developing countries and 14 of the 18 were employees of contractors.

A major review of contractor management is now under way and in 2009 there will be renewed emphasis on the implementation of Group standards and systems for safety and on the expectations and training for leaders. We have also redoubled our work on preventing low probability, high consequence incidents. On a more positive safety note, 2008 saw a welcome reduction in the frequency of lost time injuries and also of the rate of all injuries.

Market conditions in the fourth quarter of 2008 combined to send the spot prices of many commodities down to levels last seen in 2006. The unprecedented downturn and continuing near term uncertainty reflect a more negative global macroeconomic setting.

We have always said we are in a cyclical industry and our strategy is geared to this fact. Rio Tinto is a resilient business, with low cost, long life assets that enable us to build value throughout the cycle. No less important to the Group s success is the quality of our people, who have demonstrated great skill, flexibility and drive in meeting the exceptional challenges which confronted us in 2008.

During the year, we continued to invest in new production capacity, while re-examining the timing of big capital projects to ensure that planned production levels are carefully aligned with projections of demand.

Looking to our future, the transaction we announced with Chinalco in February 2009 makes great financial and strategic sense. It is intended to position Rio Tinto to lead the resources industry into the next decade and beyond by ensuring the continuity of our strategy with the added benefit of Chinalco s valuable relationships, resources and capabilities.

#### How we manage for value

We are a low cost producer of the key commodities that support the industrialisation of developing countries like China. In 2007 (the most recent year for which full comparative industry data is available), 93 per cent of our iron ore production, 95 per cent of our copper and 87 per cent of our aluminium production were positioned in the lower half of the cost curve.

In the current market conditions we are implementing a comprehensive package of tough but necessary measures which take into account the short term impact on the demand for our products. These initiatives are aimed at preserving value for shareholders by conserving cash flow and reducing levels of debt.

There will be 14,000 staff reductions globally made up of 8,500 contractors and 5,500 employees. Controllable operating costs are to be cut by at least US\$2.5 billion per annum by 2010 and net debt will be reduced by US\$10 billion by the end of 2009. We intend to cut our capital expenditure to about US\$4 billion in 2009, from US\$8.5 billion in 2008, which will of course affect many projects. In addition, more assets will be divested than those already earmarked for sale.

All projects and near term capital expenditure will be continuously reassessed in light of demand from China, the prevailing outlook for commodity prices and the falling costs of construction. In short, our aim is to make sure our businesses remain robust during a period of relatively low prices.

We have, for example, deferred a final decision on the US\$2.5 billion modernization of the Kitimat aluminium smelter in Canada. Instead, we plan to spend a further US\$300 million to continue the initial stages of the project; this is in addition to US\$200 million committed last July.

Rio Tinto Alcan has announced an 11 per cent cutback in aluminium production, equivalent to 450,000 tonnes of metal per year. This is being accompanied by a decrease in alumina production of close to six per cent.

The fundamentals of the aluminium industry nevertheless remain strong. Higher energy costs are raising the aluminium cost curve, particularly in China, to the advantage of lower cost producers like Rio Tinto Alcan. I am therefore confident that our aluminium operations will continue to play a vital role in helping Rio Tinto meet its commitment to creating value.

Our iron ore operations are performing well and we expect robust demand in the medium to long term. In the short term, however, a drop in demand has led to a tenper cent reduction in our iron ore shipments and to a scaling back of our immediate production forecasts. Iron Ore Company of Canada is cutting production in 2009 and expenditure at the Simandou iron ore project in Guinea is being reduced.

Our review of short term capital spending has also led us to slow exploration and evaluation at the La Granja copper project in Peru.

Meanwhile, in Australia, the Argyle diamond underground project, Northparkes Mines (copper), Kestrel coal and HIsmelt<sup>®</sup> have all trimmed back their expansion activities or temporarily ceased further investment.

But the story is not only one of capital expenditure cuts and slowdowns. We are taking advantage of this period to look for further opportunities to add value to projects by redirecting our project design focus, looking at the best, rather than the fastest, solutions. Creating this breathing space gives us the time for further study to reduce capital costs, minimise our environmental impact, enhance our social contribution and shorten development timetables.

#### A stable financial position

The way we manage for value means our financial position remains stable. In 2008 we reduced our net debt by US\$6.5 billion. Our next major repayment will become due in October 2009 and we have available to us unused credit facilities of US\$8.1 billion, whilst our interest costs are at a very competitive rate of around 3.5 per cent.

In early 2009, we sold, for very good prices, our Corumbá iron ore mine in Brazil and two potash development projects in Argentina and Canada.

All the previously announced divestment processes are under way and our primary objective continues to be obtaining appropriate value, in spite of some delays in the timing of the divestments.

#### **Market conditions**

The recent turbulence in the world s financial markets and the dramatic drop in the demand for our products have resulted in a massive, synchronised global slowdown.

China s growth trajectory dipped much more than expected in the fourth quarter of 2008. This may lead to a pick up in 2009 in the cumulative demand for most of the metals and minerals we produce. However, we hope to see some recovery in China s gross domestic product in the second half of this year.

In the West, anxiety in financial markets has meant falling asset values, volatile exchange rates and depressed commodity prices. The net result has been a substantial downturn in OECD economies.

Meanwhile, in China, monetary policy to dampen inflation is being loosened in order to maintain a growth rate that remains the envy of the world. The China urbanisation story and its beneficial effect on future metal markets still holds true, despite the recent economic turmoil. Fifteen years ago, only 25 per cent of the Chinese population was living in cities. Today, urban dwellers account for about 40 per cent of the total and that proportion is expected to reach 60 per cent by 2025. In other words, there will be hundreds of millions of people who will require new homes, schools, factories, offices, roads and other infrastructure.

Take aluminium, for example. In China today, consumption of the metal is about nine kilograms per capita. In Taiwan and South Korea it is about 20 kilograms. So if China were simply to attain a similar level of consumption, it would consume an additional 13-15 million tonnes of aluminium a year the equivalent of 38 per cent of today s total world demand.

Mining is a long term industry and we still expect global demand for Rio Tinto s key products - including seaborne iron ore, copper and aluminium to double in the next 15 to 20 years. That growth will be sustained in large part by China, along with India and other emerging markets.

So, the long term outlook for Rio Tinto remains positive. In the meantime, the Group has positioned itself to deal with the economic slowdown and to take advantage of the rebound when it happens.

#### Looking to future growth

Rio Tinto has a broad portfolio of projects and our growth rate is not dependent on anyone project. More than 80 per cent of our growth plans are derived from brownfield developments in established business environments. Generally, 85 per cent of our earnings come from businesses located in OECD countries.

In Madagascar, construction of the US\$1 billion QMM mineral sands operation was substantially completed on time in 2008. It represents the largest foreign investment in the country and forms part of a regional development plan supported by the World Bank. The first production of ilmenite from the plant is due to be shipped to Canada in March for processing into titanium dioxide slag. This high quality resource in Madagascar is expected to be in production for 40 years.

We are confident we can manage the risks associated with investments such as these. We are experienced operators in frontier regions, with a good reputation in sustainable development and community relations.

In the midst of the current difficulties, we are keeping our eyes on the longer term prize. Our Mine of the Future technology and innovation project in Western Australia remains a top priority whatever the market conditions. It is one of the world s biggest private sector trials of robotics and it will transform the efficiency and safety of the way we mine.

It consists of a fleet of mining equipment that loads and hauls ore automatically. An important step towards reality was taken in 2008 with the activation for testing of the first Autonomous Haulage System at the West Angelas mine in the Pilbara.

We have promising exploration prospects in nickel, bauxite, diamonds, ilmenite and lithium borates, plus potential expansion of iron ore resources in the Pilbara and at Simandou in Guinea.

At the heart of our long term value story is the strength of our project pipeline and our commitment to improving mining technology. Our portfolio of projects allows us to target strong production growth over the long term with the flexibility to decelerate as we have done when there is a pause in demand.

#### A new reality

We will have a difficult global economy for perhaps the next two years, during which we will have to navigate with cost cutting and debt reduction. All of our actions over the past few months are focused on communicating this reality.

That said, looking beyond the current global financial crisis, there remains good reason to be fairly optimistic about the medium and longer term. I am confident we have the right strategy for these difficult times. Indeed it is a strategy that will serve us well whatever the future may bring.

Having travelled widely round the Group in 2008, I have seen for myself the skills, energy and unwavering commitment of our workforce. I very much regret the necessity of having to make many of these valuable people redundant and to cut back on our project development work.

Those employees who remain will make us a stronger company, a company that is able to shift more rapidly back to a higher gear when the upturn comes. It is they who make us strong and competitive, adding value for shareholders every day. I thank all of them for their outstanding contribution as we press on into another eventful year. **Tom Albanese** Chief executive

6 March 2009

#### **Recent developments** Chinalco strategic partnership

On 12 February 2009 the Rio Tinto board announced they are unanimously recommending to shareholders a transaction with Aluminum Corporation of China ( Chinalco ), a leading Chinese diversified resources company.

The transaction will forge a pioneering strategic partnership through the creation of joint ventures in aluminium, copper, andiron ore as well as the issue of convertible bonds to Chinalco, which would, if converted, allow Chinalco to increase its existing shareholding in Rio Tinto.

The transaction is intended to position Rio Tinto to lead the resources industry into the next decade and beyond by ensuring the continuity of its strategy with the benefit of Chinalco s relationships, resources and capabilities.

The Rio Tinto board has extensively considered a range of strategic options, and has concluded that the opportunity offered by the strategic partnership with Chinalco, together with the value on offer for the investments by Chinalco in certain of Rio Tinto s mineral assets and in the convertible bonds, is superior to other identified options and offers greater medium term certainty and long term value for Rio Tinto s shareholders.

#### **Transaction overview**

The transaction will deliver substantial aggregate cash proceeds of US\$19.5 billion through:

An investment by Chinalco in certain aluminium, copper and iron ore joint ventures totalling US\$12.3 billion; and

The issue of subordinated convertible bonds in two tranches with conversion prices of US\$45 and US\$60 in each of Rio Tinto plc and Rio Tinto Limited for a total consideration of US\$7.2 billion. If converted, the subordinated convertible bonds would increase Chinalco s current shareholding to 19.0 per cent in Rio Tinto plc and 14.9 per cent in Rio Tinto Limited, equivalent to an 18.0 per cent interest in the Group.

Rio Tinto intends to use the proceeds of the transaction primarily to strengthen its balance sheet, to repay debt and to provide flexibility to continue to invest in value creating growth opportunities. The transaction will allow Rio Tinto to raise funds at a time when financial markets are distressed, thereby significantly reducing its debt levels, strengthening its balance sheet, and increasing its flexibility to pursue attractive investment opportunities throughout the cycle.

Following the transaction, Rio Tinto will maintain operational control of the businesses that are the subject of the strategic partnerships. The current Rio Tinto Group senior executive team will continue to manage each business, with continuity of Rio Tinto s existing strategy and business principles. Governance arrangements will be implemented to regulate the continuing relationship between the parties on the basis that Rio Tinto retains responsibility for carrying on the day to day management and operation of the businesses independently of Chinalco.

The Rio Tinto board believes the strategic alliance with Chinalco will strengthen Rio Tinto s ability to deliver its strategy of maximising shareholder value through the development and operation of low cost, long life assets.

In addition to significantly strengthening Rio Tinto s balance sheet and ensuring financial flexibility over the medium term, the pioneering partnership is expected to offer the following benefits to Rio Tinto:

A link to Chinalco s strong relationships within China, which Rio Tinto believes will continue to be the main driver of commodity market growth over the longer term.

The strategic alliance creates the opportunity for joint ventures and project development in emerging economies. The two groups bring complementary skills including Chinalco s capabilities to deliver infrastructure projects, and Rio Tinto s leadership in operational excellence and sustainable development.

Rio Tinto will enter into a landmark joint venture for exploration in China in partnership with Chinalco.

The Chinalco relationship will facilitate access for Rio Tinto to funding from Chinese financial institutions for project development.

In recognition of its significant investment and consistent with the strategic alliance, Chinalco will be entitled to nominate two new non executive board members (one independent under applicable corporate governance criteria) to add to the 15 current board members of Rio Tinto. Independent non executive directors will continue to comprise a majority of the Rio Tinto board, consistent with corporate governance best practice. Rio Tinto will comply fully with the UK Combined Code on Corporate Governance following completion of the transaction. These appointments will

be on the same terms as the other non executive directors of Rio Tinto. Further details on the relationship agreement are set out on page 60.

The transaction is conditional upon approval of Rio Tinto shareholders and is subject to government and regulatory approvals. The initial completion of the transaction is scheduled to occur prior to 31 July 2009.

#### Strategic partnership investments

Chinalco will invest US\$12.3 billion in aluminium, copper and iron ore strategic alliances in the form of strategic alliance notes or equity. The strategic alliance notes are synthetic instruments which track the cash generated by the assets and give a return based on the cash generated, taking into account Chinalco s level of investment.

The businesses and assets, and Rio Tinto and Chinalco s resulting economic interests, are set out in the table below. Further details on the Group s businesses and assets are set out on pages 43 to 53.

Chinalco s investments will be made through participation in the relevant Rio Tinto entities which own these assets, and the form of that investment will vary between each entity. If the transactions involving certain assets do not

complete on the date on which the transactions involving Hamersley Iron, Weipa, Yarwun and Escondida (in certain circumstances) and the convertible bonds complete, Chinalco will pay certain sums into escrow which will then be paid to Rio Tinto on completion of the transactions involving those particular assets.

Business	Strategic partnership	Rio Tinto s existing economic	Chinalco s proposed share of Rio Tinto s economic	Rio Tinto s resulting economic
		interest	interest	interest
Weipa	Aluminium	100%	30%	70%
Yarwun	Aluminium	100%	50%	50%
Boyne	Aluminium	59.4%	49%	30%
Gladstone Power Station	Aluminium	42.1%	49%	21.5%
Escondida	Copper	30%	49.75%	15%
Grasberg	Copper	40%	30%	28%
La Granja	Copper	100%	30%	70%
Kennecott Utah Copper	Copper Iron	100%	25%	75%
Hamersley Iron	Ore	100%	15%	85%
Development Fund *				50%

\* The Development Fund will be jointly owned by Rio Tinto and Chinalco. The US\$500 million included in the transaction is for the acquisition of project developments, including from Rio Tinto.

#### **Product group strategic alliances**

Strategic alliance committees will be established for each of the aluminium, copper and iron ore strategic alliances with Chinalco s voting rights generally in line with its level of investment.

The committees will provide a forum for discussion of matters relating to the particular assets that constitute that strategic alliance. Rio Tinto will chair the strategic alliance committees and will hold a casting vote. Rio Tinto will retain day to day management and operational control of the underlying assets that Rio Tinto manages.

Chinalco is entitled to appoint two out of six members of the iron ore strategic alliance committee, and three out of six members of each of the aluminium and the copper strategic alliance committees. Chinalco will have the right to be represented on the board of the holding company of each particular asset. Appropriate governance arrangements will be in place to ensure continued independent and commercial decision making.

In addition to the investments outlined, in relation to aluminium, Rio Tinto and Chinalco have also identified future areas of cooperation, all of which will be subject to formal agreement by the strategic alliance committee and board of Rio Tinto.

The aluminium strategic alliance committee will establish a pro-rata jointly owned bauxite marketing venture. The strategic alliance would market a proportion of Weipa produced bauxite outside Australia, after satisfying Rio Tinto s internal requirements and existing customers, with the remaining bauxite marketing to be managed by Rio Tinto. As part of the agreement, Chinalco will also receive a 25 year commitment for bauxite supply from Weipa on arm s length terms.

In relation to the iron ore alliance, Rio Tinto and Chinalco will establish a jointly owned sales company which will market 30 per cent of Hamersley Iron s iron ore output in China. This sales company will contract the marketing with Rio Tinto. All other marketing of iron ore will be carried out by Rio Tinto.

#### **Exploration**

As part of the strategic partnership, and in addition to the product group strategic alliances, Chinalco and Rio Tinto intend to pursue additional cooperative arrangements and new business opportunities, including sharing of operational

and capital project best practices. As a demonstration of this project development initiative, Rio Tinto and Chinalco are already negotiating a possible agreement in relation to the joint development of Rio Tinto s Simandou iron ore project in Guinea and have entered into a memorandum of understanding to establish a strategic alliance to explore opportunities in mainland China that will allow Rio Tinto to take an interest in discovered deposits.

## **Project development fund**

Rio Tinto and Chinalco will establish a project development fund, using the initial capital contribution from Chinalco described above, to exploit project opportunities in aluminium, copper and iron ore, to be held within the framework of the relevant strategic alliance. Potential investments include exploration projects in China, opportunities within the parties aluminium businesses in Australia and China, and Rio Tinto s existing development projects. **Secondment policy** 

In order for Rio Tinto and Chinalco to capture and transfer the best practice and experience that each company has established over time, Rio Tinto and Chinalco have agreed a secondment policy under which Chinalco may second executive, senior management or junior personnel, as appropriate, into roles within each asset and/or into each strategic alliance. Rio Tinto may second appropriate management and technical personnel to Chinalco.

## **Relationship agreement**

On completion of the transaction, Chinalco and Rio Tinto will enter into a relationship agreement to regulate the continuing

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relationship between the parties. In particular, the agreement will ensure that:

Rio Tinto is capable of carrying on its business independently of Chinalco as a significant shareholder.

Transactions and relationships between Chinalco (or any of its associates) and Rio Tinto are at an arm s length and on normal commercial terms.

Chinalco shall be entitled to nominate up to two directors (one of whom shall be an independent director) to the Rio Tinto board as long as it continues to have the right to hold at least 14.9 per cent of the aggregate publicly held share capital of Rio Tinto (assuming conversion of the convertible bond). Should Chinalco s shareholding entitlement in Rio Tinto fall below 14.9 per cent, (but remain above 9.9 per cent) Chinalco shall be entitled to nominate one director to the Rio Tinto board.

Directors of Rio Tinto nominated by Chinalco shall not be permitted to vote on any board resolution on any matter involving Chinalco or where the board determines in accordance with the board s policy that there is a conflict of interest.

The relationship agreement will terminate in the event that Chinalco ceases to hold a right to 9.9 per cent of the aggregate publicly held share capital of Rio Tinto or if Rio Tinto plc ceases to be listed on the Official List in the United Kingdom and traded on the London Stock Exchange and Rio Tinto Limited ceases to be admitted on the official list of, and its securities quoted on, the Australian Securities Exchange.

#### **Convertible bonds**

Chinalco will invest a total of US\$7.2 billion in subordinated convertible bonds issued by Rio Tinto plc and Rio Tinto Limited (or companies within the Rio Tinto Group) with a maturity of 60 years. If converted, the bonds would increase Chinalco s current shareholdings to 19.0 per cent in Rio Tinto plc and 14.9 per cent in Rio Tinto Limited, equivalent to an 18.0 per cent interest in the Rio Tinto Group. The Rio Tinto plc bonds will pay an annual coupon of 9.0 per cent and the Rio Tinto Limited Bonds will pay an annual coupon of 9.5 per cent.

Each of the Rio Tinto plc and Rio Tinto Limited bonds will be split into two tranches. Tranche A of the bonds will convert into Rio Tinto plc shares and Rio Tinto Limited shares at an initial conversion price equivalent to US\$45 per share. Tranche B of the bonds will convert into Rio Tinto plc shares and Rio Tinto Limited shares at an initial conversion price equivalent to US\$60 per share. However, these conversion prices are subject to adjustment in certain circumstances such as, inter alia, share consolidations, share splits and share distributions. Tranche A represents US\$3.1 billion of the total issue size, and Tranche B represents US\$4.1 billion of the total issue size.

The respective conversion premium to be paid by Chinalco on Tranche A and Tranche B of the Bonds is: 107 per cent for Tranche A and 176 per cent for Tranche B to the Rio Tinto plc closing price on 30 January 2009.

68 per cent for Tranche A and 124 per cent for Tranche B to the Rio Tinto Limited closing price on 30 January 2009.

The bonds will be convertible into ordinary shares of Rio Tinto plc and Rio Tinto Limited at any time from 41 days after the closing date up to a certain number of days prior to the earlier of the maturity date of the bonds and the date of redemption of the bonds. The bonds will be redeemable by Rio Tinto after seven years. If so redeemed for cash, Rio Tinto presently intends to replace the bonds with instruments that achieve similar rating agency equity credit.

The bonds have been structured with the aim of achieving 50 per cent equity credit from the rating agencies. Standard & Poor s has indicated, subject to satisfactory final documents and the amount to be issued relative to the capital of the Group, that the bonds would be eligible for intermediate (50 per cent) equity credit. The amount of equity credit is subject to final confirmation by the agencies.

#### **Financial impact**

The value of the gross assets, and the pro forma net underlying business unit earnings of the assets, that are the subject of the strategic alliances are US\$14,021 million and US\$5,841 million respectively. The data is extracted from the Group s accounting records for the year ended 31 December 2008 and represents Rio Tinto s interest prior to completion of the transaction.

#### **Implementation agreement**

The transaction is governed by an implementation agreement entered into by the parties that includes the following in relation to break fees, exclusivity and liquidated damages arrangements.

#### **Break fee obligations**

Subject to certain exceptions, the implementation agreement provides for a break fee of US\$195 million to be payable by Rio Tinto to Chinalco in the following circumstances:

The Rio Tinto board withdraws or adversely changes its recommendation that Rio Tinto shareholders approve the resolutions necessary for the transaction.

The Rio Tinto board recommends a competing proposal.

The break fee is not payable where:

Despite a triggering event as defined in the agreement, Rio Tinto shareholders approve the resolutions necessary for the

#### transaction.

The Rio Tinto board has not withdrawn or adversely changed their recommendation and Rio Tinto shareholders do not approve the resolutions necessary for the transaction, or all or part of the transaction does not complete because a condition precedent is not satisfied.

An independent expert determines that the transaction is not fair and reasonable.

The implementation agreement has been terminated or Rio Tinto is unilaterally entitled to terminate the implementation agreement.

The break fee is payable only once and will constitute Chinalco s sole and exclusive remedy in connection with the events and circumstances triggering the obligation to pay.

#### **Exclusivity arrangements**

The implementation agreement contains customary terms and conditions for an agreement of this nature which restrict Rio Tinto from soliciting a competing proposal from any third party, or entering into negotiations or discussions in relation to a competing proposal with any third party.

The restriction on negotiations or discussions with third parties does not prevent Rio Tinto from engaging in such negotiations and discussions in the event that the Rio Tinto board (after having considered advice from its legal and, if appropriate, financial advisers), acting in good faith and in order to satisfy what they reasonably consider to be their fiduciary or statutory duties, determine that there is a superior proposal available to Rio Tinto, or one or more proposals may reasonably be expected to lead to a superior proposal. Where the Rio Tinto board has made such a determination, Rio Tinto is required to notify Chinalco of the general nature of that superior proposal. If the Rio Tinto board intends to recommend a superior proposal, then prior to the publication of that recommendation Rio Tinto shall provide Chinalco with the material terms of the proposal and an opportunity to respond.

The above exclusivity arrangements apply from the period commencing on 12 February 2009 and end on the earlier of the date of termination of the implementation agreement, or the date on which the transactions in respect of the convertible bonds, Hamersley Iron, Weipa, Yarwun and (subject to certain conditions) Escondida, complete. Liquidated damages

# Rio Tinto has agreed to a liquidated damages regime in the case of its wilful breach of obligations to establish the joint

ventures for Escondida, Grasberg and Kennecott Utah Copper. This is designed to protect Chinalco against the risk that it completes the first tranche of the transaction, and Rio Tinto subsequently breaches the obligations to deliver the balance of the assets. Total liquidated damages payable are US\$850 million. The liquidated damages would not be payable unless the shareholders approved the transaction, as the regime only applies once initial completion has occurred.

## Shareholder approvals

The transaction will be on the terms and subject to the conditions set out in the transaction documents, and to be set out in a circular to be sent to Rio Tinto shareholders. The circular will contain further financial and other information, together with the Rio Tinto board s recommendation and will be sent to Rio Tinto shareholders shortly.

#### **Group financial performance**

The Group uses a number of key performance indicators ( KPI s) to monitor financial performance. These are summarised below and discussed later in this report.

КРІ	2008 US\$m	2007 US\$m	2006 US\$m	2005 US\$m	2004 US\$m
Underlying earnings	10,303	7,443	7,338	4,955	2,272
Net debt	38,672	45,191	2,437	1,313	3,809
Capital expenditure	The Group s capital projects are listed on pages 26 to 27.				
Total shareholder return ( TSR )	(71.3)%	91.8%	7.6%	78.4%	3.0%

#### **Acquisition of Alcan**

During 2007, the Group acquired 100 per cent of the issued share capital of Alcan Inc. Alcan s results have been included for the entire year ended 31 December 2008 whereas in 2007 Alcan s results were included from 24 October 2007. This has had a significant effect on comparability of the two periods

## Net earnings and underlying earnings

Both net earnings and underlying earnings deal with amounts attributable to equity shareholders of Rio Tinto. However, IFRS requires that the profit for the period reported in the income statement should also include earnings attributable to outside shareholders in subsidiaries. The profit for the period is reconciled to net earnings and to underlying earnings as follows:

	2008	2007	2006
	US\$m	US\$m	US\$m
Profit for the year from continuing operations Loss after tax from discontinued operations	5,436 (827)	7,746	7,867
Profit for the year	4,609	7,746	7,867
Less: attributable to outside equity shareholders	(933)	(434)	(429)
Attributable to equity shareholders of Rio Tinto (net earnings)	3,676	7,312	7,438
Exclusions from underlying earnings	6,627	131	(100)
Underlying earnings attributable to shareholders of Rio Tinto	10,303	7,443	7,338

## 2008 financial performance compared with 2007

2008 underlying earnings of US\$10,303 million and net earnings of US\$3,676 million were, respectively, US\$2,860 million above and US\$3,636 million below the comparable measures for 2007. The principal factors explaining the movements are set out in table below:

Changes in underlying earnings and net earnings 2007	2008	Underlying earnings US\$m	Net earnings US\$m
2007 Underlying earnings and net earnings		7,443	7,312

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Effect of changes in:			
Prices	4,983		
Exchange rates	299		
Volumes	233		
General inflation	(336)		
Energy	(219)		
Other cash costs	(882)		
Exploration and evaluation costs (net of disposals of exploration			
properties)	(47)		
Interest/tax/other	(1,171)		
Total change in Underlying earnings		2,860	2,860
Profits on disposal of interests in businesses			1,469
Impairment (charges) less reversals			(8,293)
Exchange differences and gains/(losses) on derivatives			653
Other, including divestment and takeover defence costs			(325)
2008 Underlying earnings and net earnings		10,303	3,676

The effect of price movements on all major commodities was to increase earnings by US\$4,983 million compared with 2007. Prices for the Group s major traded products remained strong for the first nine months of the year in an environment of favourable economic conditions and strong demand. However, these favourable market conditions came to an end at the end of the third quarter of 2008, as significant financial turbulence led to sharp declines in the rate of global demand for commodities and in the price of most of the Group s principal products. The table below shows average prices for 2008 and 2007 and the 2008 year end price for the principal commodities for which the Group

receives payments based on spot market pricing:

	Year end price	Average price	Average price
Commodity	2008	2008	2007
Copper (USc/lb)	131.6	319.5	323.7
Aluminium (USc/lb)	66.0	117.7	119.8
Gold (US\$/oz)	865	872	691
Molybdenum (US\$/lb)	9.5	30.8	29.9

Rio Tinto negotiated strong benchmark pricing levels for its iron ore production, with effect from 1 April 2008. Agreements were reached with major iron ore customers for a 96.5 per cent increase for lump ore and 79.88 per cent increase for fines for the 2008 contract year, representing an 85.7 per cent weighted average increase. Since the beginning of the third quarter of 2008, the spot price for iron ore has suffered a decline similar to the commodities listed above. However Rio Tinto s exposure to this decline was ameliorated by its long term contract portfolio.

Contract prices for the seaborne thermal and coking coal markets reflected strong demand and tight supply. Aluminium inventories were written down by US\$185 million at the year end to reflect realisable values.

There was a sharp appreciation of the US dollar in late 2008 relative to the currencies in which Rio Tinto incurs the majority of its costs. However, the effect on average exchange rates for the year was not significant compared with 2007. In 2008, the Australian and Canadian dollars strengthened in the first half of the year and then weakened sharply in the second half such that the average exchange rate for both currencies for 2008 was within one per cent of the prior year. The effect of all currencymovements was to increase underlying earnings relative to 2007 by US\$299 million.

Higher sales volumes from iron ore growth projects, coking and thermal coal and the inclusion of a full year of Alcan s operations were partly offset by lower copper and gold volumes at Escondida, Kennecott Utah Copper, Grasberg and Northparkes. The overall impact of all volume movements was an increase of US\$233 million relative to 2007.

The Group continued to invest further in the future development of the business with an increased charge to underlying earnings of US\$530 million from exploration and evaluation costs. In line with Rio Tinto s policy, the US\$483 million gain on disposal of the Kintyre undeveloped property has been recognised within underlying earnings. The net impact on underlying earnings from the change in exploration and evaluation costs was a decrease of US\$47 million compared with 2007. Increased energy costs reduced underlying earnings by US\$219 million. Higher freight, contractor, maintenance and input costs were experienced throughout the Group, notably in the Energy & Minerals and Copper & Diamonds product groups, as industry supply constraints persisted.

The effective tax rate on underlying earnings, excluding equity accounted units was 31.6 per cent compared with a rate of 25.7 per cent in 2007. The increase compared with 2007 relates to the absence of the 2007 Canadian tax rate benefit, the adverse impact in 2008 of foreign exchange movements, particularly the revaluation of Canadian dollar denominated tax balances, and increased expenditure in 2008 on growth projects on which no tax relief is recognised.

The Group interest charge was US\$765 million higher than in 2007, mainly reflecting a full year of increased net debt following the acquisition of Alcan. The debt under the Alcan acquisition facilities continues to incur an interest rate of 30 to 40 basis points over US\$ LIBOR.

## 2007 financial performance compared with 2006

Net earnings of US\$7,312 million in 2007 were US\$126 million below 2006, a decrease of two per cent. Underlying earnings of US\$7,443 million were US\$105 million above 2006, an increase of one per cent. Underlying earnings per share increased by five per cent and net earnings per share increased by two per cent in 2007 reflecting the lower number of shares resulting from the share buyback programme in the first half of the year. The principal factors explaining the changes in underlying earnings are shown in the table below.

Changes in underlying earnings and net earnings 2006 2007		Underlying earnings US\$m	Net earnings US\$m
2006 Underlying earnings and net earnings		7,338	7,438
Effect of changes in:			
Prices	1,364		
Exchange rates	(403)		
Volumes	516		
General inflation	(218)		
Cash costs	(442)		
Non-cash costs	(201)		
Exploration, evaluation and technology costs (net of disposals of			
exploration properties)	(309)		
Tax/other	(202)		
Total change in Underlying earnings		105	105
Impairment (charges) less reversals			(157)
Exchange differences and gains/(losses) on derivatives			176
Other, including non recurring consequences of Alcan acquisition			(250)
2007 Underlying earnings and net earnings		7,443	7,312
	Rio	Tinto 2008 Form	m 20-F 64

The effect of price movements on all major commodities was to increase earnings by US\$1,364 million. Prices for the major products remained strong throughout the year and were higher overall than those experienced in 2006: average copper prices were six per cent higher whilst average aluminium prices were three per cent higher. The strength of the global iron ore market was reflected in the 9.5 per cent increase in the benchmark price, mainly effective from 1 April 2007. The seaborne thermal and coking coal markets were also strong and strengthened further in the second half.

Molybdenum prices averaged US\$30/lb throughout 2007, an increase of 20 per cent compared with the prior year.

There was significant movement in the US dollar in 2007 relative to the currencies in which Rio Tinto incurs the majority of its costs. The Australian dollar was 11 per cent stronger, the Canadian dollar was six per cent stronger and the South African rand four per cent weaker. The effect of all currency movements was to decrease underlying earnings relative to 2006 by US\$403 million.

Higher sales volumes predominantly from growth projects increased underlying earnings by US\$516 million compared with 2006. The ramp up of new projects in iron ore (including the Yandicoogina and brownfields expansions), higher volumes of copper in concentrate at Escondida from improved grades, higher refined copper sales from the Kennecott Utah Copper (KUC) smelter operating at close to capacity and higher diamond grades at Diavik were the main contributors.

The Group continued to invest further in the future development of the business with an increased charge to underlying earnings of US\$309 million from exploration, evaluation and technology costs. Higher freight and demurrage costs and increased energy costs reduced underlying earnings by US\$163 million and US\$82 million, respectively. Significant shipping congestion at the port of Newcastle affected coal sales with a resulting impact on costs at Rio Tinto Coal Australia, through higher demurrage and a higher unit cost of sale. General inflation and mining inflation increased costs by US\$218 million and US\$140 million respectively as higher contractor, maintenance and input costs were experienced throughout the Group, notably in the iron ore and copper operations, as industry supply constraints persisted.

An increase in non cash costs reduced 2007 earnings by US\$201 million compared with 2006, following the completion of several large capital investment projects.

The effective tax rate on underlying earnings, excluding equity accounted units, was 25.7 per cent compared with 24.2 per cent in 2006. The tax charge in 2007 was reduced by US\$392 million as a result of the impact of the reduction in the Canadian tax rate enacted in December 2007 on deferred tax provisions. The 2006 tax rate benefited from US\$335 million of US Alternative Minimum Tax credits, which were recognised on the balance sheet as a result of improved prospects for recovery of these from future taxable earnings from the Group s US operations, as well as the utilisation of US\$140 million of previously unrecognised tax assets.

Alcan s contribution to underlying earnings for the nine weeks to 31 December 2007 was US\$424 million, including a benefit relating to the change in the Canadian tax rate as described above. Exploration divestments increased 2007 underlying earnings by US\$139 million relative to 2006. A higher interest charge from an increase in net debt following the Alcan acquisition reduced earnings by US\$248 million relative to 2006. These variances and the tax variances referred to above are included within the US\$202 million adverse variance for Tax/other . **Exclusions from underlying earnings 2006 2008** 

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.

Exclusions from underlying earnings 2006 2008	2008 US\$m	2007 US\$m	2006 US\$m
Profit less losses on disposal of interests in businesses	1,470	1	3
Impairment (charges) less reversals	(7,579)	(113)	44
Impairment of discontinued operations	(827)		
Exchange gains/(losses) on external debt and intragroup balances	960	156	(14)

Gains/(losses) on currency and interest rate derivatives not qualifying			
for hedge accounting	(22)	34	30
Losses on commodity derivatives not qualifying for hedge accounting	(95)		
Other exclusions	(534)	(209)	37
Total excluded in arriving at underlying earnings	(6,627)	(131)	100

Profit on disposal relates to the disposal of the Cortez gold mine and the Greens Creek silver/zinc/lead mine. These disposals were part of the previously announced divestment programme.

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 have been excluded from underlying earnings. Other charges excluded from underlying earnings comprise costs relating to non recurring acquisitions, disposals and similar corporate projects.

Of the Group s total post tax impairment charge of US\$8.4 billion (which includes US\$0.8 billion in respect of discontinued operations) US\$7.9 billion relates to the Group s aluminium businesses including the Packaging unit.

The acquisition price of Alcan anticipated significant growth in smelter and refinery capacity, but following the recent significant weakening in economic and market circumstances, many of these growth projects have been deferred.

These deferrals, together with the weak economic environment and increases in input costs, have resulted in the impairment charge. The deferral of some of these projects will be reviewed in light of the strategic partnership with Chinalco announced on 12 February 2009.

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 follows the requirements of the accounting standards as, in the Group s view, the upstream aluminium business fair value less cost to sell is 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 includes both Alcan and the aluminium activities previously owned by Rio Tinto which are now managed as a single business.

The impairment charge does not trigger the covenant under the Alcan acquisition facilities, which requires that the ratio of net debt to underlying EBITDA be no greater than 4.5 times.

Exchange gains on external debt and intragroup balances of US\$960 million relates 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 the year, led to these significant movements. The tax on exchange gains and losses includes a benefit of US\$254 million through recovery of tax relating to the prior years. It also includes tax relief for losses on US dollar debt. The pre-tax loss is offset by gains on intragroup balances which are largely not subject to tax.

An impairment of discontinued operations of US\$827 million relating to Packaging has been 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 realized on the sale of Packaging, less an estimate of remaining costs to sell. The Packaging business has been valued based upon an assessment of its fair value, which is required because this business is presented as an Asset Held-for-Sale in the Group balance sheet. Engineered Products has also been valued based upon an assessment of its fair value, so the Group s intention is to sell this group of businesses.

In 2007 an impairment charge of US\$328 million after tax was recognised at Argyle following a decline in value as a result of large increases in the estimated capital costs of the underground project. This was partly offset by the reversal of the residues of the impairments of Tarong Coal and Palabora.

Other exclusions from underlying earnings in 2007, a charge of US\$209 million, mainly comprised non recurring consequences of the Alcan acquisition, including integration costs. Of this total, US\$146 million resulted from the sale of Alcan inventories that were revalued based on selling prices at the date of acquisition

#### Group financial results by product group 2006 2008

	2008 US\$m	2007 US\$m	2006 US\$m
Iron Ore	6,017	2,664	2,265
Aluminium	1,184	1,097	746
Copper & Diamonds	1,758	3,751	3,737
Energy & Minerals	2,887	687	899
Other operations	(52)	15	33
Other items	(337)	(526)	(241)
Exploration and evaluation	(124)	20	(84)
Net interest	(1,030)	(265)	(17)
Group underlying earnings	10,303	7,443	7,338
Exclusions from underlying earnings	(6,627)	(131)	100
Net Earnings	3,676	7,312	7,438

#### Aluminium

The aluminium product group, Rio Tinto Alcan, is the global leader in the aluminium industry. Its operations, which are closely integrated across the world, include mining high quality bauxite, refining alumina for both primary aluminium production and specialty markets, and producing primary aluminium at some of the lowest cost, most technologically advanced aluminium smelters in the industry.

Mined bauxite	Rio Tinto share million tonnes
2004	12.8
2005	15.6
2006	16.3
2007	20.9
2008	35.0
	Rio Tinto
	share
Bauxite reserves	million tonnes
2004	1 146
2004 2005	1,146 1,211
2005	1,193
2007	1,387
2008	1,966
2000	1,700
	Rio Tinto
	share
Alumina production	000 tonnes
2004	2,231
2005	2,963
2006	3,247
2007	3,877
2008	9,009
	Rio Tinto
	share
Aluminium production	000 tonnes
2004	837
2005	854
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2006 2007 2008	845 1,473 4,062
Aluminium group underlying earnings contribution*	US\$m
2004 2005 2006 2007 2008	331 392 746 1,097 1,184
Underlying earnings contribution* 2006-2008	US\$m
2006 Underlying earnings	746
Effect of changes in: Prices and exchange Inflation Volumes Costs Tax and other	(12) (37) 11 (36) 425
2007 Underlying earnings	1,097
Effect of changes in: Prices and exchange Inflation Volumes Costs Tax and other	(207) (55) 930 (86) (495)
2008 Underlying earnings	1,184
<ul> <li>* A reconciliation of the net earnings with underlying earnings for 2006, 2007 and 2008 as determined under IFRS is set out on page 63. All amounts</li> </ul>	
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presented by the product groups exclude net interest and other centrally reported items.

Rio Tinto Alcan is well regarded for its leadership in research and technology as well as its leading position in clean, hydroelectric generation. It has decided to divest its Engineered Products unit of seven downstream businesses, as well as the Packaging unit.

At 31 December 2008, Rio Tinto Alcan s bauxite production was the highest in the industry, at 35.0 million tonnes per annum, up from 31.4 million tonnes in 2007 (on a 12 month comparative basis). At the same time, Rio Tinto Alcan had a leading position in alumina refining and full ownership or participation in 24 aluminium smelters with a total annual capacity of nearly 4.2 million tonnes, the vast majority of which are located in OECD countries.

In the current environment of weaker than average demand, the group retains a competitive advantage, as about two thirds of its aluminium is produced in the lowest cost segment of the industry and it is curtailing higher cost production. The favourable cost position, especially regarding energy inputs, will benefit it during the current global economic downturn.

At 31 December 2008, Rio Tinto Alcan had operating assets of US\$35,730 million (excluding Packaging), which accounted for 60 per cent of the Group s operating assets and compared to US\$43,885 million of operating assets at 31 December 2007. In 2008, Rio Tinto Alcan contributed US\$23,839 million in revenue and US\$1,184 million in underlying earnings, which accounted for 41 per cent and 12 per cent of the Group s gross sales revenue and underlying earnings, respectively, compared to US\$7,359 million of revenue and US\$1,097 million of underlying earnings in 2007. The year 2008 was the first full 12 months of combined Rio Tinto and Alcan operations. At year end Rio Tinto Alcan employed approximately 39,000 people worldwide, excluding the Packaging unit.

Jacynthe Côté, chief executive, Rio Tinto Alcan, succeeded Dick Evans who retired on 1 February 2009 and is based in Montreal, Canada.

#### **STRATEGY**

Rio Tinto Alcan intends to focus on the following initiatives to retain its position as the global leader in the aluminium industry:

Maximising shareholder return and value generated from the group s high quality assets.

Improving the group s relative position on the global cost curve of aluminium assets.

Achieving excellence in health, safety and environmental performance, including in relation to climate change.

Continuing excellence in operations and industry leading technology.

Attaining preferred supplier status with responsiveness to customer needs and market dynamics.

Becoming an employer of choice.

#### **KEY ACHIEVEMENTS**

Record bauxite and alumina production levels, and 57 per cent of aluminium smelters achieved record hot metal production levels.

On target delivery of announced synergies, with the integration of Alcan achieving an after tax saving of US\$585 million.

Commissioning of the Sohar smelter in Oman and first production of aluminium.

Investment of an additional US\$300 million to further the modernisation of the Kitimat aluminium smelter in British Columbia, Canada.

Pre-feasibility study for two additional phases of a new AP50 smelting technology pilot plant to evaluate the addition of another 150,000 to 170,000 tonnes of capacity.

Official inauguration of the newly commissioned pilot plant for the treatment of spent potlining in Saguenay, Quebec.

Significant progress on the construction of the expansion of the Yarwun alumina refinery in Australia.

Continuing expansion of capacity at the Gove alumina refinery in Australia.

Effective transition of Lannemezan workforce to new employment following closure of smelter.

Successful financial and cultural integration between Rio Tinto Aluminium and Alcan with minimum loss of key resources.

New effective global leadership structure in place.

#### **KEY PRIORITIES FOR 2009**

Delivering commitments to health, safety and environmental objectives, and to customers and stakeholders, while adjusting to current market conditions.

Increasing efficiency and speed of execution throughout the organisation.

Maintaining focus on growth opportunities and strategic capabilities.

Maximising free cash flow.

# **OVERVIEW OF SUSTAINABLE DEVELOPMENT**

Safety

Rio Tinto Alcan and its employees are dedicated to leadership in health, safety, and environmental practices at our workplaces

and insofar as they affect the communities in which we operate. The ultimate goal remains zero harm. Regrettably, two fatalities occurred during the year at Engineered Products sites.

Key priorities for reducing major risks include diligent contractor management, controlling pedestrian safety, improving lock out, tag out systems, as well as addressing confined space entry, lifting devices, and working at heights. An initiative has been launched to improve the Process Safety Management System to prevent collapse, fire, and explosion as well as the release of toxic, reactive, flammable, or explosive materials. In downstream operations, a large scale man machine interface programme plays a vital role in fatality prevention initiatives.

During the integration of Alcan, focus has been on the implementation of the Rio Tinto HSE performance standards and reporting definitions, while retaining the elements of leading practice within Alcan. This will establish clear global priorities and common business standards aimed at achieving world class performance and a sustainable culture of excellence. The integration process is progressing as planned. This includes the associated opportunities for knowledge transfer between colleagues, including training programmes in auditing and pre-task assessment, accident investigation, and performance standards.

Rio Tinto Alcan s all injury frequency rate (AIFR) of 1.24 at the end of 2008 represented a 25 per cent reduction over the 2007 integrated Rio Tinto and former Alcan baseline.

#### All injury frequency rate

2004	1.46
2005	1.41
2006	1.45
2007	1.67
2008	1.24

#### **Greenhouse Gas Emissions**

While Rio Tinto Alcan is the largest contributor to Rio Tinto s greenhouse gas emissions due to the nature of aluminium smelting, it nevertheless occupies a leading position in the generation of low greenhouse gas (GHG) intensity power, sourced in many cases from hydroelectricity.

Total GHG emissions were 32.5 million tonnes of carbon dioxide equivalent in 2008 (16.8 from direct and 15.7 from indirect emissions), representing a 4.8 per cent improvement in on site GHG emissions per tonne of product over a 2007 baseline. This is the result of operational efficiency improvements, retrofitting with best in class technology, and the closure of some underperforming operations. Rio Tinto Alcan contributes 65 per cent of Rio Tinto s total GHG emissions.

Total greenhouse gas emissions	Million tonnes carbon dioxide equivalent
2004	10.7
2005	11.4
2006	11.9
2007	32.7
2008	32.5

Per 200,000 hours

worked

Projects are currently under way to improve overall site performance, including cost and production, in support of GHG and energy targets. Several of these are being undertaken through the group s business improvement process, each supported by a detailed action plan to bridge the gap between current and targeted performance. **INTEGRATION OF ALCAN** 

The integration of Alcan delivered after tax synergy savings of US\$585 million in 2008. (In July 2007, after tax synergies were targeted at US\$600 million by 2009 year end. In November 2007, the target was raised to US\$1.1 billion in 2010). Current synergies represent 53 per cent of the revised target and were achieved at a cost of US\$47 million, representing only 50 per cent of the anticipated cost of achieving those synergies.

Rio Tinto Alcan maintains strong discipline and focus on the importance of successful integration, and on leveraging shared resources within the Rio Tinto Group. The benefits delivered to date are derived from a range of business areas, from new revenue opportunities to operational improvements and expense reductions. In the current economic climate, integration remains a key priority. As a result, Rio Tinto Alcan remains focused on delivering greater benefits and on maximising value by optimising processes and reducing costs. Synergies have accelerated over the past year and were delivered ahead of plan by 39 per cent. With the Integration Steering Committee and Integration Management Office continuing to oversee the process, we believe that we remain on track to reach the targeted synergies.

#### FINANCIAL PERFORMANCE

#### 2008 compared with 2007 (combined)

In 2008, Rio Tinto Alcan s contribution to underlying earnings was US\$1,184 million, an increase of US\$87 million from 2007. If, for illustrative purposes only, the underlying earnings of Rio Tinto Alcan for 2007 were presented on a combined basis, including the results of Alcan from 1 January 2007, Rio Tinto Alcan s contribution to underlying earnings would have been US\$2,825 million (unaudited). Rio Tinto Alcan s contribution to underlying earnings in 2008 was lower than its contribution in 2007 on a combined basis principally as a result of higher costs, the absence of tax benefits and a sharp decline in LME prices during the second half of 2008, coupled with the continuing economic downturn in most markets. The average

aluminium price in 2008 was US\$2,595 per tonne compared with US\$2,646 per tonne in 2007. The average ingot product realisation for 2008 was US\$2,753 compared to US\$2,745 in 2007. These results exclude Packaging as it is classified as a discontinued operation, but include downstream operations of Engineered Products.

In terms of revenue and prices, the first nine months of 2008 were in line with expectations, until the fourth quarter saw a dramatic collapse in aluminium prices from above US\$2,000 per tonne to the region of US\$1,500. Depressed demand is expected to continue in 2009 and Rio Tinto has delayed plans to introduce new production capacity. In terms of production volumes, the portfolio of assets operated well, although there was a one month interruption at the Yarwun alumina refinery and two aluminium smelters were affected by power failures.

# 2007 compared with 2006 (not combined)

In 2007, Rio Tinto Alcan s contribution to underlying earnings was US\$1,097 million, an increase of 47 per cent compared with 2006. The higher contribution was due mainly to the one off impact of the reduction in the Canadian tax rates attributable to the Alcan businesses, but was also supported by higher aluminium prices. The average aluminium price in 2007 was US\$2,646 per tonne compared with US\$2,557 per tonne in 2006. These results exclude Alcan Packaging as it is classified as a discontinued operation.

## **BAUXITE & ALUMINA OPERATIONS**

#### Bauxite

At 31 December 2008, Rio Tinto Alcan s bauxite production was 35.0 million tonnes per annum, up from 31.4 million tonnes at 31 December 2007. Rio Tinto produces bauxite from its two wholly owned bauxite mines at Weipa and Gove in Australia and from operating bauxite mines located in Brazil, Ghana and Guinea, in which it holds interests.

The bauxite business strengths include:

The largest reserves and mineralised material inventory in the industry, which are expected to ensure sufficient bauxite supply to sustain Rio Tinto Alcan s long term growth strategy.

Annual production capacity that supports both internal alumina production and significant sales to third parties.

Scope for expansion of annual production in the long term.

Interests in three of the four largest bauxite mines in the world (Weipa, Porto Trombetas and Sangaredi), located in the top three bauxite reserve countries (Australia, Brazil and Guinea).

Regional concentration of reserves (Weipa, Ely, Gove), which is expected to provide the basis for future optimisation opportunities based on their geographical proximity.

The Weipa mine, located at Cape York, Australia, contains reserves of 1,736 million tonnes and significant quantities of additional mineralisation (including the adjacent Ely mining lease). The mine has an annual production capacity of 21.0 million tonnes and is Rio Tinto Alcan s largest bauxite mine. In 2008, the mine further increased its production capacity by 2.8 million tonnes from 18.2 million tonnes in 2007. Bauxite from Weipa is either sold to third parties or shipped to Gladstone for processing at the Yarwun and the 80 per cent owned Queensland Alumina Limited (QAL) refineries.

The Gove mine in the Northern Territory, co-located with the Gove alumina refinery, contains bauxite reserves of 175 million tonnes and significant quantities of additional mineralisation as at 31 December 2008, with an annual production capacity of over 6.0 million tonnes. The Gove refinery consumes most of the mine s output, although some output is sold to third parties.

Outside Australia, the group owns 12 per cent of the Porto Trombetas bauxite mine in Brazil. Its share of reserves is 25 million tonnes and it also has significant quantities of additional mineralisation as at 31 December 2008, plus a share of annual production capacity of 2.0 million tonnes. Rio Tinto also owns 22.95 per cent of the Sangaredi mine in Guinea and 80 per cent of the Awaso mine in Ghana, constituting shares of annual production capacity of 6.0 million tonnes and 0.6 million tonnes, respectively.

#### Alumina

Rio Tinto Alcan s share of alumina production capacity was 9.0 million tonnes at the end of 2008. Alumina production

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includes both smelter grade and specialty luminas, with a wide range of products from hydrate to calcined, fused, activated and tabular aluminas. These serve many industrial purposes in chemical, refractory, ceramics, tiles, glass and abrasives applications.

Commitments to the specialty alumina market are balanced with the group s internal demand for smelter grade alumina from Primary Metal operations. Internal demand reduces Rio Tinto Alcan s exposure to adverse developments in alumina pricing and assists in the management of supply and demand during cyclical fluctuations. Additional strengths of the alumina business include:

Recognised technological capability backed by a strong research and development team.

Deployment of leading technology in expansion projects under way or planned at Gove and Yarwun.

Modern, best in class assets with expansion optionality.

Procurement synergies through ownership of the north eastern Australia alumina refineries at Gove, Yarwun and QAL. Their proximity to the Weipa and Gove bauxite mines provides opportunities for operational optimisation as experience, best practices and supply chain benefits are shared.

The Gove refinery is a wholly owned two million tonnes per annum plant which is in the final stages of commissioning of its 1.8 million tonnes per annum expansion. The Gove refinery is located next to the Gove bauxite mine.

The Yarwun refinery, located in Gladstone, has a current nameplate capacity of 1.4 million tonnes per annum and is undergoing expansion to increase capacity to 3.4 million tonnes per annum. Significant capital expenditure commitments had already been made to the expansion before the start of the downturn.

QAL, located in Gladstone, Australia, is one of the world s largest alumina refineries with a capacity of just under four million tonnes per annum. QAL operates in the second quartile of the industry cash cost curve and has opportunities for further development.

The ten per cent owned São Luis (also known as Alumar) refinery in Brazil, has a current capacity of 1.5 million tonnes per annum.

In addition, Rio Tinto Alcan also owns the 1.5 million tonnes per annum Jonquière (Vaudreuil) alumina refinery in Quebec, Canada and the 0.6 million tonnes per annum Gardanne refinery in France, which produces mainly specialty alumina and small quantities of smelter grade alumina (below 50,000 tonnes per annum). Both refineries operate in the fourth quartile of the industry cash cost curve. Other wholly owned refinery operations relate to specialty alumina, in which four smaller plants combine with Gardanne and part of Jonquière (Vaudreuil) to provide around 750,000 tonnes of annual production capacity.

As part of its integration with former Alcan operations, Rio Tinto Alcan has established its global Bauxite and Alumina headquarters in Brisbane, Australia.

#### 2008 operating performance

Rio Tinto Alcan s share of bauxite production was 35.0 million tonnes in 2008, which represents an increase of 12.1 per cent compared to 2007 on a 12 month comparable basis including former Alcan and Rio Tinto operations combined. This increase reflects higher capacity as well as an increase in both internal requirements and external demand in the first nine months of 2008. Demand contracted significantly during the final quarter of 2008, as a result of the global economic slowdown. Two new post Panamax bulk ore carriers were acquired to support global bauxite shipping requirements.

Production of bauxite at Weipa in 2008 was 20.0 million tonnes (beneficiated and calcined), 9.9 per cent higher than in 2007. Weipa bauxite shipments rose by 5.0 per cent to 19.5 million tonnes.

Rio Tinto Alcan s smelter grade alumina production for 2008 was 5.9 per cent higher than in 2007 at 8.3 million tonnes on a 12 month comparable basis including former Alcan and Rio Tinto operations combined. The specialty alumina business produced 759,000 tonnes of alumina in 2008 compared with 722,000 tonnes in 2007 on a 12 month comparable basis including former Alcan and Rio Tinto operations combined.

A temporary blockage in the residue pipeline at the Yarwun refinery during the third quarter resulted in curtailed operations and 113,000 tonnes of lost production. Essential maintenance was conducted during this period and full capacity was restored in August.

At Gove, slower commissioning led to a revision of the 2008 production target to 2.3 million tonnes. A detailed programme of work completed in 2008 identified a series of debottlenecking projects that provide a pathway for further increases in the capacity of the refinery.

## PRIMARY METAL OPERATIONS

At 31 December 2008, Rio Tinto Alcan had full ownership or participation in 24 smelters with a total annual capacity of nearly 4.2 million tonnes, the vast majority of which are located in OECD countries. **Smelting facilities** 

As with any commodity business, the position on industry cost of production rankings is important in determining relative profitability. Rio Tinto enjoys a strong position, as around two thirds of the capacity of its aluminium production network is located in the first quartile of the industry cash cost curve, with another 20 per cent located in the second quartile. Only seven per cent and six per cent of Rio Tinto Alcan s current smelting capacity lies in the third and fourth quartiles of the industry cash cost curve respectively. Certain smelters operating outside the first two quartiles of the cost curve will be closed during 2009, including the smelting operations at the Anglesey Aluminium Metal joint venture in Wales due to the uncertainty of power supply and renewal arrangements and the Beauharnois smelter in Quebec, which was commissioned in 1943 and uses Söderberg technology.

Rio Tinto Alcan believes that its favourable position on the cost curve will prove increasingly valuable during the current economic situation as pricing and the industry s average cash costs fluctuate, influenced by factors such as

energy costs, currency revaluations and possible greenhouse gas emission costs. The group is a low cost aluminium producer as a result of the following factors:

Ownership and progressive implementation of industry leading, proprietary Aluminium Pechiney (AP) series pre-bake cell technology, one of the most efficient aluminium smelting technologies in the world from an energy and operating cost perspective.

A modern smelter fleet, with over 70 per cent of overall smelting capacity being less than 30 years old, a significantly greater proportion than the industry average.

Ownership of around half of its smelters electricity generation needs, compared to an industry average of approximately 30 per cent.

Continued industry leadership and operational expertise, demonstrated by safety improvements and an ability to extract on average 1.1 per cent per annum production capacity improvement.

The largest concentration of smelting assets is located in Canada, where Rio Tinto Alcan has ownership interests in nine smelters, seven of which are wholly owned. Eight of the smelters are located in Quebec and one in British Columbia. Total

annual production capacity in Canada is 1.8 million tonnes as of 31 December 2008. All of this capacity is powered by clean, renewable hydroelectricity, the majority of which is owned by Rio Tinto Alcan.

In Australasia, Rio Tinto Alcan has ownership interests in four smelters, three in Australia and one in New Zealand. The Bell Bay smelter in Australia is wholly owned, while interests in the other three facilities range from 52 to 79 per cent. The total annual attributable production capacity in this region is 1.07 million tonnes as at 31 December 2008.

In Oman, the new Sohar smelter started metal production in June 2008. It is on track to reach full production in the first quarter of 2009 at an initial capacity of 360,000 tonnes per annum. The smelter uses the most up to date AP36 technology and is expected to be positioned in the first quartile of the industry cost curve.

Rio Tinto Alcan has a substantial presence in Europe with ownership interests in seven smelters, primarily in France and the UK. Their total annual production capacity at 31 December 2008 was one million tonnes.

Rio Tinto Alcan owns a single smelter in the US as well as an interest in a smelter in Cameroon. Together, these two smelters represent a total annual production capacity of 245,000 tonnes. Rio Tinto completed the sale of its 50 per cent interest in the pre- bake Line 3 of the Ningxia smelter in China in January 2009.

## **Power facilities**

Aluminium smelters are long term investments, with electricity costs typically representing around one quarter of industry average smelting cash costs. Secure, long life and competitively priced electricity supply is of vital importance.

As of 31 December 2008, Rio Tinto Alcan owns electricity generating capacity of 5,310 megawatts, compared to 5,076 megawatts at the end of 2007. This is sufficient to meet approximately half of electricity needs, a proportion far above the industry average, while long term power purchase contracts account for an additional 46 per cent. Furthermore, 74 per cent of electricity supply is derived from hydroelectric and nuclear power.

The majority of power facilities are located in proximity to the Canadian aluminium smelters. Six separate wholly owned power stations located on the Péribonka and Saguenay rivers in Quebec comprise a generation capacity of 2,919 megawatts. In 2008, a major refurbishment programme was completed at these power stations. The water management system with its associated dams, reservoirs and catchment areas, covers an area of 73,800 square kilometres. The wholly owned Kemano power station in British Columbia has a capacity of 896 megawatts and primarily supplies electricity to the wholly owned Kitimat smelter. These energy assets are the result of construction efforts that took place over a period of 50 years, making such facilities extremely difficult and costly to replicate today.

In Europe, Rio Tinto Alcan has three wholly owned power stations in the UK, totalling 500 megawatts of capacity, and one in Norway with a total of 26 megawatts. Of this European generating capacity, 420 megawatts is coal fired while the remainder is based on hydropower.

In Australia, the group has a 42.1 per cent share of the Gladstone Power Station with a capacity of 708 megawatts to supply the Boyne Island smelter.

#### Technology

In addition to its power capabilities, Rio Tinto Alcan exercises undisputed industry leadership with regard to research and technology. The strategy is to create value by maximising the value of existing assets, supporting operational excellence and growth through technology, and addressing key issues for aluminium smelting such as energy consumption, environmental impact and logistics. During 2008, the group consolidated its resources to create a new global technology organisation in Asia, Europe and North America.

Rio Tinto Alcan actively continues to seek to lower unit energy consumption while reducing emissions, including greenhouse gases.

Rio Tinto Alcan continues to develop AP50 smelting technology and is currently undertaking the potential development of an AP50 plant in the Saguenay region of Quebec. In March 2008, a start was made on developing the next generation of AP technology. AP-Xe is expected to provide high performance technology required for future greenfield and brownfield expansions. This technology is designed to be retrofitted to previous AP series cells. While most savings are expected from greenfield applications, significant savings could also be achieved in retrofitted cells. AP-Xe is an example of Rio Tinto Alcan s focus on step changes in energy consumption, environmental impact, and

full economic cost so as to maintain and extend its position as industry technology leader.

Advanced technology is sold to third parties. In addition to being a viable business, this reinforces Rio Tinto Alcan s position as a partner of choice for joint ventures given its combination of technological ability and management skills. To further advance the creation of value, Rio Tinto Alcan is pursuing initiatives to reduce capital requirements of new aluminium smelters. This aspect of the business may prove increasingly valuable in accessing future growth options, as trends in the supply side of the industry are moving away from the developed world due to diminishing availability of competitively priced, secure power.

Technological leadership has furthered sustainable development initiatives with the commissioning of a wholly owned facility in Saguenay, Quebec, to treat the spent potlining that results from the aluminium smelting process. **Other businesses** 

The Primary Metal business recognises the opportunities available to it as an industry leader, and participates in a number of businesses related to aluminium smelting, such as the production and sale of cathode blocks, anodes, aluminium fluoride and calcined coke, as well as the provision of engineering services, sale of smelting equipment, and electricity sales where generation is surplus to production needs. These operations are present worldwide, with particular emphasis in North America

#### and Europe.

# 2008 operating performance

In 2008, Rio Tinto Alcan produced 4.06 million tonnes of primary aluminium, maintaining a similar level to 2007 production volumes of 4.08 million tonnes (on a 12 month comparable basis including former Alcan and Rio Tinto operations combined).

Smelters continued to produce close to capacity during 2008, with the exception of the Anglesey Aluminium (UK) joint venture and the New Zealand Aluminium Smelters Limited (NZAS) joint venture. Anglesey Aluminium Metal operated at levels of approximately 80 per cent due to technical issues, and NZAS at about 87 per cent due to power availability constraints at the beginning of the year and a transformer failure in the fourth quarter of 2008. The Lannemezan smelter in France, with an annual capacity of 50,000 tonnes, was permanently shut down in March 2008.

## **RIO TINTO ALCAN PROJECTS**

In light of changing demand dynamics in the aluminium industry and budgetary constraints, Rio Tinto Alcan has decided in 2008 to defer certain projects in its capital expenditure programme. It has reduced its capital expenditure budget for 2009 and plans to shut down certain smelters during 2009. Despite these reductions, the group will selectively continue to commit capital to certain high priority projects during 2009 and also remains prepared to rapidly recommence projects that have been deferred as and when market conditions improve.

# **BAUXITE & ALUMINA**

# Weipa (Rio Tinto: 100 per cent)

A US\$30 million feasibility study is under way to develop a new bauxite operation to the south of the existing Weipa bauxite mine and port. If approved, Weipa s total bauxite production capacity would increase from 21 million tonnes in 2008 to 35 million tonnes. The mine development would take three years to construct.

#### Yarwun (Rio Tinto: 100 per cent)

Expansion of the Yarwun alumina refinery in Gladstone, Queensland, is expected to cost about US\$1.8 billion with most of this already committed. The expansion will increase capacity to 3.4 million tonnes per annum and is expected to more than double annual production by 2011. First shipments are expected towards the end of 2010.

Further to the group s ongoing commitment to reduce greenhouse gas emissions and improve energy efficiency, the refinery will incorporate a 160 megawatt gas fired cogeneration facility, thus making gas the primary fuel source. The facility is expected to reduce carbon dioxide emissions per tonne of alumina by 35 per cent relative to coal.

The expanded refinery is expected to operate in the second quartile of the industry cash cost curve. There remains potential for the refinery to be further expanded to over four million tonnes per annum.

# Gove (Rio Tinto: 100 per cent)

The 1.8 million tonnes per annum expansion of the Gove alumina refinery in Australia continues, although technical challenges and soft market conditions resulted in 2008 production of 2.3 million tonnes.

Associated infrastructure includes a deep water port, a township and an oil fired power station. The expansion cost is currently US\$2.3 billion and is expected to bring the Gove refinery to a total capacity of 3.0 million tonnes per annum, making it one of the largest alumina refineries in the world. Following completion of the expansion, the refinery is expected to operate in the second quartile of the industry cash cost curve. Alternative energy sources (such as coal which could be backhauled by the bauxite ships) are currently being evaluated, which could result in a further reduction in cash operating costs.

# São Luis Alumar (Rio Tinto: 10 per cent)

A 2.1 million tonnes per annum expansion of the Alumar refinery in Brazil (Rio Tinto Alcan share 210,000 tonnes) is under way and progress on construction is approximately 85 per cent advanced as of 31 December 2008. The project will cost an estimated US\$200 million (Rio Tinto s share). Alumar is expected to be positioned in the first quartile of the industry operating cost curve once construction is completed in mid 2009.

#### Guinea (Rio Tinto: 50 per cent)

In May 2004, Rio Tinto Alcan and Alcoa signed a memorandum of understanding for the proposed development and construction of an alumina refinery in the Boké region of Guinea. The refinery, with a proposed initial capacity of 1.7 million tonnes per annum, would be built in the Kamsar area and would receive its bauxite supply from the Compagnie des Bauxites de Guinée, a joint venture in which Rio Tinto Alcan has a 22.95 per cent indirect interest

through its participation in Halco Mining. A pre-feasibility study has already been completed and the project is expected to be positioned in the first quartile of the industry cost curve.

Madagascar (Rio Tinto: 51 per cent)

Options for development of a greenfield bauxite mine and alumina refinery in Madagascar in partnership with a Malagasy company are currently being considered. The preliminary concept study has been completed and this indicates potential for a 1.85 million tonnes per annum refinery with expansion capability to 3.7 million tonnes per annum. Rio Tinto Alcan will continue with its studies for this project.

## **Primary Metal**

# Sohar (Rio Tinto: 20 per cent)

On 12 June 2008, Sohar Aluminium poured the first metal at its newly constructed smelter in Oman. The state of the art smelter uses Rio Tinto Alcan s benchmark AP 36 technology the most efficient and environmentally friendly technology commercially available. With an initial capacity of 360,000 tonnes per annum, the smelter is on track to reach full production in the first quarter of 2009. In addition to its equity interest in the project, Rio Tinto Alcan assumes responsibility for technical and operational support as well as sales and marketing of all metal exported. The smelter is expected to be positioned in the first quartile of the industry cost curve. A second potline of similar size is currently being discussed among the joint venture partners. Under the original agreement, Rio Tinto Alcan has rights to up to 60 per cent of this second potline.

## Hydropower (Rio Tinto: 100 per cent)

On 28 October 2008, the group announced a US\$228 million investment in a new 225 megawatt high efficiency turbine at the Shipshaw power station in Saguenay, Quebec, Canada. The project is expected to be completed in December 2012. The Shipshaw power station is a major component of Rio Tinto Alcan s extensive hydroelectric network, which has a total capacity of approximately 2,919 megawatts in Quebec. Furthermore, on 30 January 2008, the group announced an investment in its Lochaber, Scotland hydroelectric facilities, which will include the installation of new hydroelectric turbo generator.

Spent potlining facility (Rio Tinto: 100 per cent)

In June 2008, Rio Tinto Alcan inaugurated its US\$225 million facility for the treatment of spent potlining. Located in Saguenay, Quebec, this unique industrial scale pilot plant is expected to have the capacity to recycle approximately 80,000 tonnes of spent potlining per year using proprietary technology. Spent potlining is the residual material generated in the de-lining of pots in the smelting of aluminium, composed of carbon and various inert elements. It is typically pre-treated and put in landfill with strict precautions, but the new recycling process will enable spent potlining components to be recycled, providing the aluminium industry with a sustainable solution for these by-products.

# Kitimat (Rio Tinto: 100 per cent)

In October 2008, Rio Tinto announced an additional sustaining investment of US\$300 million in the modernisation of the Kitimat aluminium smelter in British Columbia, Canada, bringing total investments in the project to date to US\$500 million. Full scale investment in the modernisation project of about US\$2.5 billion has been delayed pending an improvement in market conditions.

The modernisation project will replace outdated smelting methods with industry leading AP35+ prebake technology and increase current production from 245,000 tonnes per year to approximately 400,000 tonnes per year, representing expansion of more than 60 per cent. The facility will take increased advantage of available power from the Kemano hydroelectric facility, with a capacity of 896 megawatts, and leverage access to the Pacific Rim in terms of raw materials and metal markets. When completed, the smelter is expected to be positioned in the first quartile of the industry cost curve.

# AP50 pilot plant, Quebec (Rio Tinto: 100 per cent)

In May 2008, Rio Tinto Alcan announced that it is going forward with a pre-feasibility study for two additional phases to the AP50 pilot plant for which preparatory work has begun in Saguenay, Quebec. The study is evaluating the potential for an additional 150,000 to 170,000 tonnes of capacity to the pilot plant as well as a possible subsequent expansion. This AP50 pilot plant will use the newest generation of AP technology. It will be powered exclusively by hydroelectricity. Representing a potential investment of up to US\$2.5 billion, the expanded plant would also become the platform for future AP technology developments.

# Alma (Rio Tinto: 100 per cent)

The Alma smelter in Quebec is one of Rio Tinto Alcan s most modern and efficient facilities. A potential expansion project, announced in April 2008 and currently in pre-feasibility, would add approximately 170,000 tonnes to the current production of slightly more than 400,000 tonnes, making Alma one of the largest smelters in North America. The cost of the Alma expansion is estimated at approximately US\$1 billion. The project has been deferred due to the current economic downturn.

# Cameroon (Rio Tinto: 47 per cent and 100 per cent)

In October 2005, Rio Tinto Alcan signed a memorandum of understanding with the Government of Cameroon, which was then amended in November 2007, to provide for the expansion of the Alucam smelter and development and construction of a greenfield aluminium smelter. Under the agreed upon terms, Alucam, a joint venture in which Rio Tinto Alcan owns a 47 per cent interest, would build a 300 megawatt power dam and a 200,000 tonne per year expansion of the existing smelter. In addition, a 930 megawatt power dam would be developed together with a 400,000 tonne per year greenfield aluminium smelter by Rio Tinto Alcan on a 100 per cent basis. The expansion and the greenfield smelter are at different stages of development, but when completed both would be positioned in the first half of the industry cost curve.

# Boyne Island Smelters Limited (Rio Tinto: 59 per cent)

Rio Tinto Alcan and its joint venture partners are investing in two projects to modernise and extend the life of the Boyne Island aluminium smelter in Australia. The first project is related to the necessary replacement of two carbon baking furnaces,

which supply anodes to two of the smelter s reduction lines. The second project is related to the replacement of mobile cranes and upgrade of associated runways on two reduction lines. Both projects are high priority end of life replacements and are required in order for the reduction lines to continue operating. The crane and runway refurbishment project is also required in order to meet current safety standards and statutory regulations.

## Coega (Rio Tinto: 80 per cent)

As a result of power supply shortages in South Africa, the smelter project at Coega has been delayed indefinitely pending confirmation that ESKOM, South Africa s national power utility, will be able to supply electricity under the Electricity Supply Agreement signed in November 2006. The project team has been reduced, with small teams retained in Port Elizabeth and Johannesburg.

## Saudi Arabia

In December 2008, Rio Tinto Alcan and Ma aden announced that their relationship will be one of cooperation rather than one of equity partnership and in March 2009 signed two key agreements in support of the project. The technology transfer agreement provides Ma aden with Rio Tinto Alcan s industry-leading AP smelting technology, while the cooperation agreement will provide for various other types of project support.

## Sarawak (Rio Tinto: 60 per cent)

In August 2007, Rio Tinto Alcan and Cahya Mata Sarawak Berhad signed a heads of agreement for the proposed development of a smelter in the State of Sarawak, Malaysia. Pre-feasibility work has been undertaken and joint venture agreements are being finalised. Under the joint venture, detailed feasibility studies on the design, engineering, construction, commissioning and operation of a smelter with an initial capacity of 720,000 tonnes will be undertaken. The smelter is expected to have the capability to be expanded to 1.5 million tonnes per annum. When completed, the smelter is expected to be positioned in the first quartile of the industry cost curve.

## **OUTLOOK**

On 20 January 2009, Rio Tinto Alcan announced measures to curtail production and cut costs. This involves a reduction in the global workforce of approximately 1,100 roles (300 contractors and 800 employees), and substantial cost reduction programmes in facilities worldwide.

# **Bauxite & Alumina outlook**

The unprecedented, severe decline in global economic conditions and the aluminium metal market towards the end of 2008 are expected to continue throughout 2009 bringing with it reduced global demand for bauxite and alumina.

As a result of the weaker outlook Bauxite and Alumina has implemented alumina production curtailments totalling six per cent and is implementing substantial cost and capital reduction programmes, and project reviews in line with other measures being implemented across the Rio Tinto Alcan product group.

Production at the Jonquière (Vaudreuil) alumina refinery in the Saguenay region of Quebec is to be temporarily curtailed by 400,000 tonnes, while the Gardanne refinery in France will see a 15 per cent cutback of about 105,000 tonnes.

The reduction in alumina refinery production will necessarily result in reduced global demand for bauxite. Rio Tinto s major bauxite resources in Weipa and Guinea are at the low end of the cost curve and well positioned to supply internal demand and third party demand when the outlook improves.

These measures are being taken to reduce levels of debt, conserve cash flow and better align production with demand to position the division to take advantage of improved conditions when the global economy recovers. **Primary Metal outlook** 

Demand and pricing for Rio Tinto Alcan s products were adversely affected by the deterioration of the global economic situation towards the end of 2008. Rio Tinto Alcan expects this very difficult market environment to prevail during 2009 and to continue to impact its operations.

Rio Tinto Alcan has initiated a variety of targeted measures to conserve cash. These actions include production curtailments, significant reductions in capital expenditures and additional cost, procurement and working capital initiatives. In 2009 there will be an 11 per cent reduction in aluminium production brought about by permanent closure of the Beauharnois smelter in Quebec, Canada, and production curtailments that started in 2008 at the Dunkerque (France), Lochaber (UK), Lynemouth (UK), and St-Jean-de-Maurienne (France) smelters and at the SORAL (Norway) joint venture.

In addition, reduced capacity will result from equipment failure at Tiwai Point (New Zealand); reduced production due to energy supply issues at Alucam (Cameroon); the sale of Rio Tinto Alcan s 50 per cent interest in an aluminium smelter in the Ningxia province of China; and due to unsuccessful power negotiations, the anticipated ending of smelting operations at Anglesey Aluminium Metal in the UK at the end of September 2009 when its current power contract expires.

Rio Tinto Alcan believes that its position on the industry cost curve, its pipeline of long term value creation options as well as these short term cash preserving measures will assist the group in the current economic situation. ALCAN ENGINEERED PRODUCTS

Alcan Engineered Products is a global sector-leading business strongly committed to developing innovative, value added products for a broad range of markets and applications. The portfolio consists of seven downstream businesses: aerospace, non

commodity aluminium rolled products, aluminium extrusions, cable, composite products, automotive components and international trade.

Regrettably, two fatalities occurred during the year at Engineered Products operations. The overall Recordable Case Rate continued to improve and at 0.95 was a 19 per cent improvement on 2007.

As at 31 December 2008, the business unit operated at 97 operating sites in 34 countries. Following the acquisition of Alcan Inc. in October 2007, Rio Tinto decided to divest Alcan Engineered Products. The sale process is ongoing. **2008 operating performance** 

Following favourable market conditions and a record performance in 2007, the 2008 business environment proved very challenging. Market conditions deteriorated over the course of the year and the business was affected by a number of operating issues including equipment breakdowns and a casthouse fire. An asset integrity audit was conducted from which a follow up action plan is currently being formulated. In response to the adverse impacts of the sharp economic downturn and one off operating issues, Engineered Products implemented a broad range of measures to reduce costs and conserve cash. These generated approximately US\$60 million in cost savings in 2008.

#### ALCAN PACKAGING

Alcan Packaging is a global leader in value added specialty packaging, ranking first in flexible food, flexible pharmaceutical, plastic cosmetics and tobacco packaging. It is one of the few participants in its product markets with a global reach.

Alcan Packaging s strategy is to achieve operating excellence, moving toward fewer, larger, more specialised plants and to grow its business through innovation, partnership with multinational customers and development in emerging countries and regions. The business delivers innovative packaging solutions using plastics, engineered films, aluminium, paper, paperboard and glass to customers worldwide. As at 31 December 2008, the business unit comprised 131 operating sites in 31 countries and regions around the world.

Alcan Packaging s Recordable Case Rate of 0.48 and lost time injury and illness rate of 0.16 improved by 25 per cent and 36 per cent respectively compared with 2007, reaching the best levels in the industry.

The potential divestment of the Packaging business unit was being explored by Alcan during the first half of 2007 and was confirmed as part of Rio Tinto s announcement of an agreed bid for Alcan on 12 July 2007. The sale process for Alcan Packaging is ongoing.

# **Copper and Diamonds**

The Copper & Diamonds portfolio comprises a diverse mix of operations and projects.

Mined copper	Rio Tinto share 000 tonnes
2004	753
2004	733 784
2006	803
2007	738
2008	699
	Rio Tinto
Copper reserves	share 000 tonnes
2004	19,312
2005	19,512 18,844
2006	17,989
2007	17,258
2008	16,718
	Rio Tinto
Refined copper	share 000 tonnes
2004	333
2005	314
2006	299
2007	390
2008	322
	Rio Tinto share
Mined diamonds	000 carats
2004	25,202
2005	35,635
2006	35,162
2007 2008	26,023 20,816
2000	20,810
	Rio Tinto
	share
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2004	174,500
2005	313,300
2006	281,500
2007	255,400
2008	237,600

Copper & Diamonds underlying earnings contribution*	US\$m
2004	1,048
2005	2,273
2006	3,745

 2007
 3,751

 2008
 1,758

# Underlying earnings contribution\* 2006-2008

2006 Underlying earnings Effect of changes in:	3,745
Prices and exchange	357
Inflation	(44)
Volumes	362
Costs	(225)
Tax and other	(444)
2007 Underlying earnings	3,751
Effect of changes in:	
Prices and exchange	(117)
Inflation	(61)
Volumes	(1,038)
Costs	(679)
Tax and other	(98)
2008 Underlying earnings	1,758

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000 carats

US\$m

\*

A reconciliation of the net earnings with underlying earnings for 2006, 2007 and 2008 as determined under IFRS is set out on page 63. All amounts presented by the product groups exclude net interest and other centrally reported items.

The Copper group is a world leader in copper production. It includes Kennecott Utah Copper (KUC) in the US and interests in the producing copper mines of Escondida in Chile, Grasberg in Indonesia, Northparkes in Australia and Palabora in South Africa. In 2008, the Copper group produced approximately 700,000 tonnes of copper, which places it among the top five copper producers in the world. Molybdenum and gold are valuable by-products of KUC s Bingham Canyon mine.

In addition to its producing assets, the group has interests in three of the world s largest known undeveloped Greenfield copper projects. The group also has the potential to become a major nickel producer with projects in the US and Indonesia.

Rio Tinto Diamonds includes Rio Tinto s 60 per cent interest in the Diavik diamonds mine located in the Northwest Territories of Canada, the wholly owned Argyle mine in Western Australia and Rio Tinto s 78 per cent interest in the Murowa mine in Zimbabwe. Diamond sales and marketing are centralised in Antwerp, with representative offices in New York and Mumbai. Rio Tinto Diamonds is the third largest diamond producer in the world by volume.

At 31 December 2008, the Copper & Diamonds group had operating assets of US\$5,536 million, which accounted for nine per cent of the Group s operating assets, compared to US\$5,359 million of operating assets at 31 December 2007. In 2008, the Copper & Diamonds group contributed US\$6,669 million in revenue and US\$1,758 million in underlying earnings, which accounted for 11 per cent and 17 per cent of the Group s gross sales revenue and underlying earnings, respectively, compared to US\$9,521 million of revenue and US\$3,751 million of underlying earnings in 2007.

Bret Clayton, chief executive Copper & Diamonds, is based in London.

# STRATEGY

# Copper

The Copper group s strategy is to be a leading base metal provider by value creation, with a focus on copper, molybdenum and nickel.

The strategy is based on a long term view of increasing demand from China and other developing countries, coupled with anticipated supply side constraints.

While the current economic environment is limiting demand in the near term, the group expects the economic expansion of China and other developing economies to resume. The Copper group believes that its portfolio of mines and projects gives it the flexibility to adapt to changing economic conditions. Investment plans are rigorously evaluated in light of demand and supply scenarios.

While certain investments have been delayed in response to recent macroeconomic conditions, Rio Tinto believes it has the capability and experience to develop and expand its portfolio of assets when economic conditions improve. Rio Tinto is investing in the application of innovative technologies including block caving, automation, flash converter smelting and sulphide leaching. As copper mining shifts from open pit to underground, Rio Tinto believes its block caving expertise will enable mine life extensions through access to new high grade deposits at greater depths. Rio Tinto has developed its block caving expertise at its existing operations at Northparkes, Palabora and Grasberg. Future developments are expected to rely on large scale block caving include Oyu Tolgoi, Resolution and Bingham Canyon.

Rio Tinto carefully observes the principles of *The way we work*, with a focus on responsible environmental performance and a commitment to strong community relations. The Copper group is not constrained by geographic considerations and can work where development opportunities exist.

#### Diamonds

Rio Tinto Diamonds strategy is to be the preferred global supplier of natural rough diamonds and to operate, manage and develop world class diamond resources safely and efficiently. Rio Tinto Diamonds aims to maintain its focus on operational and marketing excellence and continue its strong sustainable development and environmental performance across its operations.

Rio Tinto Diamonds intends to retain its position as a leading diamond supplier, by focusing on rough diamond sales, except where there are exceptional opportunities for adding value through cutting and polishing, such as with Argyle pink diamonds. Rio Tinto Diamonds intends to continue its focus on retaining custody through the supply chain of the diamonds it produces by marketing all products according to the mine of origin.

The current economic situation presents challenges for Rio Tinto Diamonds in terms of weakening demand and prices. However the group believes that robust action has been taken to address this by slowing development and reducing production in the short term at both Argyle and Diavik.

#### **KEY ACHIEVEMENTS**

#### Copper

In 2008 the Copper group realised substantial increases in mineralised material inventory from work completed by Rio Tinto Exploration.

Brownfield exploration in the Bingham Canyon mine area identified significant quantities of additional mineralisation. The mineralised material is located beneath the current Bingham Canyon pit and is currently under study for extraction by open

pit mining methods. A recently discovered molybdenum orebody beneath the existing pit could provide additional options for future development.

The Resolution copper project in Arizona (55 per cent Rio Tinto, 45 per cent BHP Billiton), identified significant quantities of mineralised material. Investment of US\$652 million in pre-feasibility studies was approved in August 2008. Production could commence in 2020, eventually increasing to 500,000 tonnes per annum.

At the La Granja project in Peru, significant quantities of mineralised material have been identified. A pre-feasibility study is considering options around an open pit with heap leach processing, solvent extraction and electrowinning production of both copper and zinc as high purity cathode.

Significant quantities of nickel-cobalt mineralisation have been identified at the Sulawesi project in Indonesia. An order of magnitude study was updated in 2008 and is expected to be optimised in 2009.

Mineralised material inventory increased at Oyu Tolgoi, which now includes the new Heruga deposit.

A number of investments were also approved during 2008 to enhance the Copper group s options for future copper, molybdenum and nickel mine production.

In June 2008, Rio Tinto approved a US\$270 million investment in the Molybdenum Autoclave Process (MAP) at KUC. As part of the Group wide decision to reduce capital expenditure in response to recent economic developments, this project will be delayed while retaining the option to restart development when economic conditions improve. The facility is expected to increase molybdenum recovery, produce chemical grade molybdenum products and recover by-product rhenium.

A US\$82 million expansion and modernisation of the bulk flotation process at KUC s Copperton concentrator was completed during 2008. A US\$73 million investment in mining equipment has also been agreed in order to accelerate mining and allow possible mine extensions beyond 2019.

Environmental Impact Assessments were filed during the year to support a Phase 5 expansion, a new desalination plant and a power plant at Escondida. In light of current economic conditions, these investments have been reviewed and will be delayed.

PT Freeport Indonesia Company (PTFI) has several projects in progress throughout the Grasberg district, including developing its large scale underground orebodies located beneath the Grasberg open pit. The expansion of the currently operating Deep Ore Zone (DOZ) mine to 50,000 tonnes per day is complete with third quarter rates averaging 61,000 tonnes per day. A further expansion to 80,000 tonnes per day is under way with completion targeted by 2010. Other projects include the development of the high grade Big Gossan mine, currently designed to ramp up to full production of 7,000 tonnes per day in 2011, and the continuing development of the Common Infrastructure project. The infrastructure project will provide access to the Grasberg underground orebody, the Kucing Liar orebody and future development of the mineralised area below the DOZ mine.

## **Diamonds**

An order of magnitude study was completed at the Bunder project in India. The study defined significant quantities of mineralised material. The results confirm the Bunder project as the largest hard rock diamond discovery in India. There is additional exploration potential at depth. Evaluation work including the processing of surface bulk samples from the next largest pipe is underway and results are expected in early 2009. A pre-feasibility study is also planned for 2009.

A number of cost saving initiatives were adopted by the group during 2008. The Diavik business improvement process was a notable success delivering cost reductions across the operation. The Diavik underground project transition successfully commenced with improved asset performance and staff reductions.

Rio Tinto also successfully implemented a new sales and marketing organisation in both Antwerp and Perth with the completion of the centralisation of all sorting activities in Antwerp.

The Murowa mine was successful in eliminating the bottleneck at the process plant, resulting in record annual ore processed and record carat production, despite lower ore grades.

#### **KEY PRIORITIES FOR 2009**

Safety will continue to be a paramount concern throughout 2009, particularly in light of the natural disruption from planned redundancies. Copper & Diamonds intends to continue to focus on safety improvements for employees and contractors at all sites. Specific areas to focus on include contractor familiarity and adherence to Rio Tinto

standards.

To support the Group s debt reduction targets, Copper & Diamonds intend to optimise cash management at all operations by implementing working capital initiatives and associated reporting processes.

Investigations will continue at KUC on the life of mine extension through local drilling programmes.

Copper Projects will maintain and maximise optionality around key projects despite reduced capital spending. In particular, deferral periods will be utilised to improve orebody and technological knowledge.

Palabora Mining Company expects to complete its planned black economic empowerment transaction. **OVERVIEW OF SUSTAINABLE DEVELOPMENT** 

## Safety

Safety performance and awareness continued to be a major focus at all operations. Despite this focus, there were 11 fatalities at managed operations and projects (La Granja and KUC) and three at non managed operations (Grasberg). In 2008 the all injury frequency rate (AIFR) for the Copper and Diamonds group was 1.03 compared to 1.34 in 2007. Rio Tinto 2008 *Form 20-F* **79** 

## All injury frequency rate

## Per 200,000 hours worked

2004 2005 2006	1.33 1.65 1.31
2007	1.34
2008	1.03

#### Copper

In 2008 there was one fatality at KUC when a delivery driver was crushed while offloading pipe from a truck. For KUC the all injury frequency rate was 1.07 compared to 1.28 for 2007. Consistent with KUC s three year safety plan, safety improvement efforts during 2009 will be focused on quality safety interactions with employees and contractors and consistent safety communications regarding safety standards, safety leadership, contractor safety, and process safety.

At the La Granja project in Peru, in March 2008, three employees and seven contractors were fatally injured in a helicopter crash.

Palabora experienced an overall decline in its safety performance, with the all injury frequency rate increasing from 0.62 in 2007 to 0.86 in 2008. Root cause analysis indicated that the role and function of the supervisor is a key area where performance can be improved. A supervisory skills training programme is being implemented which will be compulsory for all leaders.

For Northparkes the all injury frequency rate improved significantly to 1.03 compared to 3.83 for 2007. This improvement resulted from a range of safety initiatives aimed largely at the contractor workforce. These initiatives included a greater focus on safety interactions and supervision, improved task based risk assessments and improved injury management processes.

#### Diamonds

For Diamonds, the all injury frequency rate improved to 0.94 compared to 1.50 in 2007. Diavik was awarded the John T Ryan safety award in the Northwest Territories of Canada and the Bunder project in India remained injury free for 2008.

#### **Greenhouse gas emissions**

Total greenhouse gas (GHG) emissions were 3.3 million tonnes of carbon dioxide equivalent in 2008. More than half this total is attributed to copper mining, smelting and refining activities at KUC. In recent years expansion at KUC and Diavik has overshadowed the impact of divestments and improvements at other sites.

# Total greenhouse gas emissionsMillion tonnes carbon<br/>dioxide equivalent

2004	2.9
2005	3.0
2006	3.0
2007	3.3
2008	3.3

# Copper

KUC is committed to continual improvement in energy efficiency across the business. It accurately meters energy use, manages peak loads and has completed a variety of improvement projects including increasing motor efficiency and reducing fuel consumption, as well as introducing cogeneration at some plants.

KUC has participated on Utah Governor Jon Huntsman s Blue Ribbon Action Coalition, a committee that looked at ways to address climate change issues in Utah. In 2008, KUC s overall GHG emissions intensity increased, primarily due to lower than anticipated copper production. However, management initiatives have identified various improvement projects and gains in energy efficiencies. Substantial progress was made during 2008 embedding over 50 energy improvements across the business, ranging from reducing diesel consumption in haul trucks to upgrading motors, lighting, ore milling and flotation equipment.

Palabora s initiatives to increase awareness and maximise efficiency in operations resulted in reduced energy consumption. Overall energy consumption from all fuel sources was reduced by 5.8 per cent compared to 2007. Specifically, electrical energy consumed was reduced by 3.5 per cent largely through increased awareness and maximising efficiencies on various operational processes.

At Northparkes Mines, greenhouse intensity per tonne milled increased as a consequence of the resumption of open cut mining, processing harder ores and the construction works associated with the E48 project. **Diamonds** 

At Argyle, greenhouse gas intensity per carat produced increased in 2008 as a result of waste stripping in the northern part of the open pit and underground development. Argyle is investigating increasing the use of hydroelectricity in mine operations and improving the diesel efficiency of the power station. Greenhouse gas intensity per carat produced at Diavik increased in 2008 as the project transitioned from open pit to underground mining. Diavik is working on various projects focused on reducing fuel consumption.

At Murowa, greenhouse gas intensity per carat produced decreased in 2008 due to higher production efficiency. The focus in 2009 is on further improving production efficiency and reliability of electricity supply from the state grid.

#### FINANCIAL PERFORMANCE

#### 2008 compared with 2007

The Copper & Diamonds group s 2008 sales revenue was US\$6,669 million and its contribution to underlying earnings was US\$1,758 million, US\$1,993 million less than in 2007. Lower volumes and prices combined with increases in the cost of basic materials, fuel, explosives and labour, were the primary reasons for the decline in underlying earnings.

The average price of copper was 320 US cents per pound during 2008, compared with 324 US cents in 2007. The average gold price of US\$872 per ounce, compared with US\$691 per ounce in 2007. The average price of molybdenum was US\$30.80 per pound compared with US\$29.92 per pound in 2007. Copper and molybdenum prices declined significantly during the second half of 2008 as a result of weakening demand in the context of the global economic slowdown.

The overall impact of price changes on the Copper & Diamonds group, including the effect of provisional pricing movements, was to decrease underlying earnings by US\$159 million. At 31 December 2008, the group had 183 million pounds of copper sales that were provisionally priced at 133 US cents per pound. The final price of these sales will be determined during the first half of 2009. This compares to 270 million pounds of open shipments at 31 December 2007 provisionally priced at 304 US cents per pound.

KUC s contribution to underlying earnings in 2008 of US\$998 million was US\$651 million lower than 2007. Earnings were impacted by lower copper, gold and molybdenum sales volumes and higher operating costs. The decrease in sales volumes was principally due to a scheduled smelter shutdown during the second half of 2008. Higher input prices, particularly for energy, lower molybdenum production and increased maintenance costs also adversely impacted underlying earnings in 2008.

Rio Tinto s share of underlying earnings from Escondida was US\$836 million, US\$689 million lower than 2007. The reduction reflects lower prices, lower volumes due to lower grades and reduced availability of the Laguna Seca concentrator, and higher cash costs. Provisional pricing adjustments at the end of 2008 also contributed to lower underlying earnings.

The Grasberg joint venture contributed US\$4 million to underlying earnings, a decrease of US\$155 million from prior year. As a result of an open pit failure, Rio Tinto s share of metal from 2008 production was greatly reduced as the production levels were just above the minimum thresholds set out in the joint venture metal strip agreement.

Palabora s 2008 earnings were US\$49 million, US\$9 million lower than prior year. Earnings were impacted by lower prices, lower volumes of finished copper sold and higher costs for personnel and consumables. The decrease was partially offset by increased by-product revenues.

Northparkes Mines made a loss of US\$12 million, a decrease in underlying earnings of US\$149 million from 2007 due to lower copper production after the closure of the E26 block cave in 2007.

Diamonds contributed US\$137 million to Rio Tinto s underlying earnings in 2008, a decrease of US\$143 million from 2007. Sales revenue for 2008 was US\$840 million, US\$180 million lower than in 2007. Decreased volumes at both Argyle and Diavik adversely affected earnings. An impairment charge of US\$107 million after tax was recognised at Diavik to reduce its carrying value to an estimated recoverable amount. Rio Tinto Diamonds share of production decreased to 20.8 million carats in 2008, compared to 26.0 million carats in 2007 due to lower grades. **2007 compared with 2006** 

The Copper group s contribution to 2007 underlying earnings was US\$3,479 million, compared to underlying earnings of US\$3,538 million in 2006. Higher prices and volumes offset higher costs and the absence of 2006 tax benefits. The average price of copper was 324 US cents per pound during 2007, six per cent higher than in 2006. The average gold price of US\$691 per ounce was 15 per cent higher than in 2006. The average price of molybdenum was US\$29.92 per pound compared with US\$24.60 per pound in 2006. Higher volumes were achieved across all operations except Northparkes, with the largest increases at Escondida due to a full year s sulphide leach production, and at KUC due to the absence of the 2006 smelter shutdown. Higher operational costs were due to increased truck numbers resulting from longer haul profiles at KUC, increased diesel power costs due to natural gas restrictions at Escondida and the

premature shutdown of Lift 2 at Northparkes and switch to lower grade opencut stockpiles. Evaluation projects also impacted cash costs due to higher spending at Resolution, La Granja, the Keystone project at KUC and the share of spending on the Oyu Tolgoi project.

Diamonds contributed US\$280 million to Rio Tinto s underlying earnings in 2007, an increase of US\$69 million over 2006. Sales revenue for 2007 was US\$1,020 million,US\$182 million higher than in 2006. Increased volumes from Diavik, a reduction in stocks at Argyle and tax credits in Australia and Canada contributed to earnings. An impairment charge of US\$328 million after tax was recognised at Argyle, reflecting industry cost pressures and the difficult ground conditions encountered in the underground project.

## **OPERATIONS**

## Copper

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

KUC operates the Bingham Canyon mine, Copperton concentrator and Garfield smelter and refinery complex near Salt Lake City, Utah. KUC is a polymetallic mine, producing copper, gold, molybdenum and silver. As the second largest copper producer in the US based on 2008 production, KUC supplied approximately 12 per cent of the US s annual refined copper requirements and employed approximately 1,900 people at 31 December 2008. KUC is well positioned on the industry cost curve, benefiting from significant by-product revenues from molybdenum, gold, and silver. Although mining operations at Bingham Canyon have taken place for over 100 years, the mine continues to have extensive optionality for future development.

Over the past three years, exploration has identified a significant molybdenum deposit beneath the Bingham Canyon open pit, additional porphyry mineralisation below the southern pit wall at depth, and multiple exploration targets with further potential both in the immediate three to four kilometre wide orbit of the Bingham pit and within 20 kilometres of the Oquirrh Range.

#### 2008 operating performance

Ore processed at the Copperton concentrator in 2008 was a new record. KUC s copper in concentrate production increased to 238,000 tonnes in 2008, an increase of 12 per cent from 2007. Copper cathode production of 200,600 tonnes was 65,000 tonnes less than in 2007. The decrease in refined copper and gold were primarily the result of a planned smelter shutdown during the second half of 2008. Molybdenum concentrate production in 2008 was 19,400 tonnes, compared to 26,600 tonnes in the previous year. The decrease in molybdenum production was driven by a nearly 17 per cent decrease in ore grades compared to 2007.

Stripping of waste rock on the east side of the pit was accelerated in mid 2008. This is expected to bring deliveries of higher grade ore forward to compensate for declines in ore grades expected in 2011 and 2012. Current ore reserves and additional mineralisation are expected to enable open pit operations to continue until 2019 and possibly to 2036.

The Keystone project continued to evaluate open pit and underground expansion options at the mine. The timeline for development of this project is under review given the current global economic setting. Dewatering and rehabilitation of an existing mine shaft continued in 2008, and some surface infrastructure was constructed.

The bulk flotation upgrade at the KUC concentrator, which started in 2007, was largely completed in 2008. The project is expected to increase copper recovery by two per cent and concentrate grade by four per cent.

The construction of the Molybdenum Autoclave Process (MAP) facility approved during 2008 has been delayed due to falling prices.

# Principal operating statistics at KUC

	2008	2007	2006
Rock mined (000 tonnes)	153,761	142,297	145,343
Ore milled (000 tonnes)	49,134	47,525	47,857
Head grades:			
Copper (%)	0.58	0.53	0.63
Gold (g/t)	0.35	0.38	0.49
Silver (g/t)	2.97	3.00	3.50
Molybdenum (%)	0.041	0.050	0.057
Copper concentrates produced ( 000 tonnes)	931	889	1,019
Production of metals in copper concentrates:			
Copper (000 tonnes)	238.0	212.2	265.6
Gold (000 ounces)	368	397	523
Silver ( 000 ounces)	3,414	3,487	4,214

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Molybdenum concentrates produced (000 tonnes)	19.4	26.6	30.2
Contained molybdenum (000 tonnes)	10.6	14.9	16.8
Concentrate smelted on site (000 tonnes)	941	1,103	918
Production of refined metals:			
Copper (000 tonnes)	200.6	265.6	217.9
Gold (000 ounces)	303	523	462
Silver ( 000 ounces)	3,252	4,365	4,152

## Escondida (Rio Tinto: 30 per cent)

The Escondida copper mine in Chile s Atacama Desert, is the largest copper mine in the world in terms of annual production, and has a mine life expected to exceed 30 years. It accounted for approximately eight per cent of global primary copper production. BHP Billiton owns 57.5 per cent of Escondida and is the operator and product sales agent.

The Escondida district hosts two of the largest porphyry copper deposit systems in the world, Escondida and Escondida Norte, located five kilometres from Escondida.

# 2008 operating performance

Escondida s copper in concentrate production was 992,000 tonnes, 255,000 tonnes less than in 2007. Copper in cathode production of 258,000 tonnes was 20,000 tonnes more than in 2007.

Early in 2008, production was impacted by lower grades and a deficit of prestripping in the Norte pit which restricted

access to ore. The pre-stripping deficit was due to longer than anticipated haul cycles to the sulphide leach pad. Additional mining equipment was introduced to rectify this issue. Escondida production during August and September 2008 was adversely impacted by three shutdowns of the SAG mill on the Laguna Seca concentrator plant, resulting in ten days of lost production. The interruptions resulted from problems with the mill s electric motor. Following these interruptions, the SAG mill has operated at a reduced rate to limit the risk of additional failures occurring. The group currently expects that repairs will be completed in the second quarter of 2009.

Principal operating statistics for Escondida (100 per cent basis)	2008	2007	2006
Rock mined (000 tonnes)	405,738	345,377	338,583
Ore milled ( 000 tonnes)	<b>89,451</b>	90,697	84,158
Head grade:			
Copper (%) Production of contained metals	1.37	1.64	1.59
Copper ( 000 tonnes)	992	1,247	1,122
Gold (000 ounces)	144	187	170
Silver (000 ounces)	6,167	7,870	6,646
Copper cathode ( 000 tonnes)	258	238.4	134.4

In previous years, electrical power for Escondida was generated by gas fired power stations with gas sourced from Bolivia via Argentina. High Argentine demand for gas, and an ongoing territorial dispute between Bolivia and Chile, has led to curtailment of gas supply to Chile. Chilean power generators have been forced to move towards diesel power generation and the majority of the resulting cost increase has been passed on to customers such as Escondida.

During 2008, Escondida filed Environmental Impact Assessments for the Phase 5 expansion and a new desalination plant. In light of current economic conditions these investments have been reviewed and will be delayed.

Future growth options at Escondida are driven by current brownfield exploration activities. There is a significant exploration drilling programme on a number of potential deposits around the Escondida lease area, with positive results already announced at Pampa Escondida.

# Grasberg joint venture (Rio Tinto: 40 per cent)

Grasberg, located in the province of Papua in Indonesia, is one of the world s largest copper and gold mines in terms of reserves and production. It is owned and operated by Freeport Indonesia (PTFI), the principal and 91 per cent owned subsidiary of the US based Freeport-McMoRan Copper & Gold Inc. (FCX).

The Government of Indonesia owns the remaining nine per cent of PTFI. 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, as well as representation on operating and technical committees.

The joint venture operates under an agreement with the Government of Indonesia, which allows the joint venture to conduct exploration, mining and production activities in a 10,000 hectare area (Block A). Exploration activities are also conducted in an approximate 200,000 hectare area (Block B). All of the proven and probable ore reserves and current mining operations are located in Block A. Rio Tinto and PTFI also have joint ventures in other entities which have exploration rights in areas covering 690,000 hectares in addition to Blocks A and B. Rio Tinto has the right to 40 per cent of the exploration potential in all areas outside of Block A.

To meet the mine s social obligations to local communities, at least one per cent of Grasberg s net sales revenues are committed to support village based programmes. In addition, two trust funds were established in 2001 in recognition of the traditional land rights of the local Amungme and Komoro tribes. In 2008, PTFI contributed US\$34 million (net of Rio Tinto portion) and Rio Tinto US\$0.5 million in total to the funds.

#### 2008 operating performance

Grasberg s copper production in 2008 was 521,300 tonnes, 48,100 tonnes less than in 2007. On 10 September 2008 Freeport announced that a small scale open pit failure encompassing approximately 75,000 tonnes of material occurred at Grasberg. As a result, Rio Tinto s share of copper and gold from 2008 production was greatly reduced as the production levels were just above the minimum thresholds set out in the joint venture agreement.

The expansion of the currently producing Deep Ore Zone (DOZ) mine to 50,000 tonnes per day was completed with third quarter rates averaging 61,000 tonnes per day. A further expansion to 80,000 tonnes per day is under way with completion targeted for 2010.

Principal operating statistics for PTFI (100 per cent basis)	2008	2007	2006
Ore milled ( 000 tonnes)	70,595	77,593	83,716
Head grades			
Copper (%)	0.83	0.82	0.85
Gold (g/t)	0.66	1.24	0.85
Silver (g/t)	3.21	3.53	3.84
Production of metals in concentrates			
Copper (000 tonnes)	521.3	569.4	610.8
Gold (000 ounces)	1,199	2,689	1,880
Silver ( 000 ounces)	4,707	5,238	5,609

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

Palabora Mining Company is a publicly listed company on the Johannesburg Stock Exchange and operates a mine and smelter complex in South Africa.

Palabora supplies most of South Africa s copper needs and exports the balance. It employed approximately 2,100 people at 31 December 2008. For the first time, three year wage agreements were entered into with organised labour covering the period ending in February 2011.

During 2008, the Palabora Value Proposition was introduced, outlining the benefits available to employees and adding retention bonuses for key skills. The result of this initiative has been a 50 per cent reduction in resignations, particularly in the scarce skill area of certified artisans. Palabora achieved a 41 per cent rate of employing historically disadvantaged South Africans in management positions. This key milestone is a crucial step in securing New Order Mineral Rights in terms of the Mining Charter.

The Minerals and Petroleum Resource Development Act (MPRDA) requires mines in South Africa to be at least 15 per cent owned by historically disadvantaged South Africans by April 2009. This requirement will increase to 26 per cent by 2014. Palabora has entered into discussions regarding a potential broad based black economic empowerment transaction. The structure of the envisioned transaction is being finalised for presentation to the existing shareholders and will be presented to the South African Department of Minerals and Energy for their consideration during the first quarter of 2009.

## 2008 operating performance

Copper concentrate production from Palabora was 286,500 tonnes in 2008, 47,300 tonnes more than in 2007. The concentrator at Palabora kept pace with the rate of underground production. In addition, the reclaiming of low grade concentrate from pond storage facilities and the re-processed smelter secondary material facilitated a 19 per cent increase in contained copper production. The majority of higher grade surface stockpiles have now been fully processed and a toll treating contract with Foskor at 24,000 tonnes per day has been re-instituted.

The smelter and refinery complex experienced several unplanned outages and as a result anode production averaged 6,300 tonnes per month in 2008. Copper was sold as concentrate during the periods of low smelter availability. Small quantities of purchased blister copper were also introduced into the casting furnace on a trial basis.

Palabora has suspended two expansion projects for 2009, the Western Extension and Phase 2 of the magnetite rail loader. These actions are in response to the overall deterioration of market conditions. The Western Extension will expand the existing underground mine and ultimately is expected to add two years to the copper mine life. Phase 2 of the magnetite rail loader is expected to increase capacity to load magnetite for rail shipment. These expansion projects will be reviewed when market conditions improve.

Principal operating statistics for Palabora (100 per cent basis)

	2008	2007	2006
Ore milled ( 000 tonnes)	12,454	12,915	10,730
Head grade:			
Copper (%)	0.69	0.70	0.71
Copper concentrates produced (000 tonnes)	286.5	239.2	208.9
Contained copper (000 tonnes)	85.1	71.4	61.5
New concentrates smelted on site (000 tonnes)	261.3	295.8	288.5
Refined copper produced (000 tonnes)	75.9	91.7	81.2
Magnetite concentrate ( 000 tonnes)	1,951	1,306	1,127

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

Northparkes is a joint venture with the Sumitomo Group (20 per cent).

In November 2006, the joint venture partners approved the development of the E48 block cave project, which was expected to cost US\$160 million (Rio Tinto share: US\$127 million) and extend the mine s life to 2016. As a response to current economic conditions however, the completion of the E48 project has been deferred. Northparkes has also initiated a review of working capital that will focus on contractor management, inventory lead-time management, obsolete stock and accounts payable. Other initiatives include optimising both underground and open cut mining programmes. Northparkes employed approximately 220 people at 31 December 2008

#### 2008 operating performance

Copper production at Northparkes was 24,800 tonnes, 18,000 less than production in 2007. Underground production was constrained throughout 2008 as a result of the early closure of the E26 Lift 2 block cave in 2007 due to the ingress of clay in the underground draw points. Surface stockpiles were used to maintain full mill capacity whilst additional underground and open cut ore sources were brought into production. Construction of the Lift 2 North extension was completed in early 2008 and was ramped up to full production in mid-2008.

The E22 pit was re-opened and began producing ore from July 2008. As a result, the grade of ore processed steadily increased during 2008. Ore processed during 2008 was lower as harder open cut and stockpiled ore impacted on mill throughput rates.

The next stage of the E48 block cave underground project, which is 75 per cent complete, was suspended in early 2009. Ore will be sourced from Lift 2 North and the E22 open pit. At 31 December 2008 the E48 project was ahead of schedule and within budget.

Exploration drilling has identified mineralisation beneath the E48 project with the potential to sustain larger scale underground mining.

Principal operating statistics at Northparkes (100 per cent basis)

	2008	2007	2006
Ore milled (000 tonnes)	5,244	5,297	5,789
Head grade:			
Copper (%)	0.54	0.91	1.53
Gold (g/t)	0.26	0.62	0.64
Production of contained metals			
Copper (000 tonnes)	24.8	43.1	83.3
Gold (000 ounces)	32.3	78.8	94.7

# Kennecott Minerals (Rio Tinto: 100 per cent)

Kennecott Minerals sold its two principal US operating mines in early 2008. Kennecott Greens Creek Mining Company and Kennecott Juneau Mining Company, which held a 70.3 per cent interest and managed the Greens Creek Joint Venture, were sold to Hecla Mining Company, the joint venture partner, on 16 April 2008. Sales proceeds were US\$750 million (US\$700 million in cash and US\$50 million in Hecla stock), resulting in a net after tax gain of US\$376 million. The 40 per cent interest in the Cortez Joint Venture was sold to its 60 per cent joint venture partner Barrick Gold on 5 March 2008, for US\$1.7 billion cash, resulting in a net after tax gain of US\$1.0 billion. In addition, Rio Tinto will benefit from a deferred bonus payment in the event of a significant discovery of additional reserves and additional mineralisation at the Cortez gold mine and will also retain a contingent royalty interest in the future production of the property. After tax cash flow of US\$1.6 billion was generated from the sale of the two mining operations.

Kennecott Minerals believes that it has a record of successful mine closures and reclamation which has demonstrated protection of the environment and responsible post mining land use. The Flambeau mine in Wisconsin became a community nature park with walking and equestrian trails. Ridgeway in South Carolina has two fresh water pit lakes and wetland for ecological studies. The Nevada Copper reclaimed tailings area supports cattle ranching and agricultural production.

## 2008 operating performance

Net earnings of US\$31 million (excluding gain on property sales) reflect the fact that Rio Tinto only owned Greens Creek and Cortez during the first few months of 2008. This compares to 2007 underlying earnings of US\$106 million. **Diamonds** 

#### Argyle (Rio Tinto: 100 per cent)

The Diamonds group owns and operates the Argyle diamond mine in Western Australia. Production from Argyle s AK1 open pit mine is expected to continue through to 2011 after which the mine will transition to underground operations which are expected to extend the life of the mine to about 2018.

# 2008 operating performance

The AK1 pit experienced a wall failure at the end of 2007, which significantly reduced ore volumes from the mine. As a result, lower grade stockpiled ore was processed through the recovery plant. Diamonds recovered decreased to 15.1 million carats in 2008 from 18.7 million carats in 2007. With a planned slowdown in underground construction Argyle intends to operate the open pit mine through to 2011. Mining will continue in the southern end of the pit to extract the remaining economic ore. When the southern end of the pit is completed in 2009, mining is expected to move to the Northern Bowl and continue until ore is available from the underground mine.

With the diamond market severely impacted by the downturn in the US economy, the underground project has been slowed by reducing the project workforce. In addition, processing in the surface operations are expected to be suspended for up to three months from March 2009. The extended processing plant shutdown provides an opportunity to perform essential maintenance, training and improvement activities to ensure processing resumes at a sustainable rate.

#### Principal operating statistics at Argyle

	2008	2007	2006
Ore processed ( 000 tonnes)	6,809	8,625	8,441
Carats produced ( 000 carats)	15,076	18,744	29,078

#### Diavik Diamonds (Rio Tinto: 60 per cent)

The Diamonds group operates the Diavik Diamond Mine, located 300 kilometres north east of Yellowknife, Northwest Territories, Canada. It is an unincorporated joint venture between Rio Tinto and Harry Winston Diamond Corporation (formerly Aber Diamonds). Operations at Diavik began in 2003 with mining of the A154 kimberlite pipes. Open pit mining of the A154 pipe is expected to cease in mid 2009. Ore production in the A418 pipe commenced in 2008 and is expected to be the main ore source as the underground mine ramps up to full production. **2008 operating performance** 

Lower than expected grade from A154 South pipe reduced diamond production in 2008 to 5.5 million carats (Rio Tinto share)

from 2007 record production of 7.2 million carats. By the end of the year, grade from this area had recovered. Mining in A154 is expected to cease in mid 2009, when mining will shift to the A418 pipe until the underground is fully developed and operational in 2012. The availability of the winter road was much improved from the previous year and supply of materials did not negatively affect operations. Underground production is expected to commence in the fourth quarter of 2009 and full production is expected to be reached in 2012. Underground ore production will be sourced from all three pipes.

Principal operating statistics at Diavik (100 per cent basis)

	2008	2007	2006
Ore processed (000 tonnes)	2,414	2,400	2,331
Carats produced ( 000 carats)	9,225	11,943	9,829

#### Murowa (Rio Tinto: 77.8 per cent)

Production at Murowa commenced in late 2004 after US\$11 million was spent on constructing a 200,000 tonnes per year plant and supporting infrastructure. Controls established at the commencement of the project to ensure that Rio Tinto retains custody of the diamonds produced at Murowa have performed without incident.

#### 2008 operating performance

The Diamond group s share of production in 2008 of 205,000 carats increased significantly from 113,000 in 2007 as a result of higher volumes following the successful ramp up of the extended life project. A political power sharing agreement between the governing and main opposition parties in Zimbabwe remained unsettled at end of the year. As in 2007, hyperinflation and commodity shortages created challenging operating conditions for the group. **Principal operating statistics at Murowa** (100 per cent basis)

	2008	2007	2006
Ore processed ( 000 tonnes) Carats produced ( 000 carats)	383 264	203 145	216 240

#### **COPPER & DIAMONDS GROUP PROJECTS**

The group has developed a strong portfolio of copper, nickel and diamonds projects and has acquired interests in four of the world s largest known undeveloped copper and nickel deposits Oyu Tolgoi (Mongolia), Resolution (US), La Granja (Peru) and Sulawesi (Indonesia).

In addition, the Eagle project in the US is positioned to commence construction and the Copper group retains a 19.6 per cent interest in Northern Dynasty Minerals which has a 50:50 joint venture in the Pebble project in Alaska. The group believes that these projects, combined with some of the world s largest brownfields development opportunities at Bingham Canyon and Grasberg, create an opportunity for the group to leverage its size and capability to unlock shareholder value.

In 2008, the expenditure on project evaluation was US\$376 million on a pre-tax cash cost basis. Due to challenging economic conditions, the Copper group has decided to defer expenditure on some projects. The focus in 2009 will be on sustaining capital expenditure. However, the group remains prepared to restart development on recovery of demand

for its products.

At Oyu Tolgoi, measures are being implemented to reduce the current rate of spending on pre-construction development work pending conclusion of an Investment Agreement with the Government. A slowdown has also occurred at La Granja where exploration drilling has been reduced and non essential work has been deferred. At Resolution, the rate of expenditures on the pre-feasibility work has also been slowed. At Argyle Diamonds, the underground project has been slowed by reducing the project workforce.

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

The Resolution Copper project is located in the historic Pioneer Mining District three miles east of Superior, Arizona. Exploration from 2001 to 2003 indicated a large body of copper mineralisation more than 1,300 metres below surface. The deposit is a world class porphyry copper-molybdenum system. The project team is currently working through a pre-feasibility study, including dewatering the former Magma mine and sinking an exploratory shaft to 2,000 metres below the surface as well as evaluating the technical, legal and environmental issues and preparing the mining plan.

Although the ultimate size of the deposit has not been fully defined, it is characterised by copper mineralisation of greater than one per cent in suitable host rocks above an elevation of 750 metres below sea level. It extends over an area of at least two kilometres in an east northeast direction and 1.5 kilometres in a north north west direction, with a local thickness greater than 500 metres. Significant but lower grade mineralisation extends beyond this defined body of strong mineralisation.

In May 2008, Resolution announced that it had completed sufficient drilling on its deep porphyry copper deposit to report significant quantities of mineralised material. Rio Tinto announced in August 2008 an investment of US\$652 million to support continued pre-feasibility studies on the proposed mine. In the near term the investment will allow Resolution to proceed with dewatering the legacy mine affected by the previous mining operations and proceed with shaft sinking needed to reach the identified copper deposit.

Before the studies can be completed and the mine developed, Resolution Copper must gain ownership of and manage surface lands above the mine and in the immediate surrounding area. In return for this land, Resolution Copper intends to transfer to the US government over 5,500 acres of high priority conservation lands. Passage of the Southeast Arizona Land Exchange and Conservation Act, currently under review in the US Congress, would accomplish this goal and will also benefit the town of Superior, the region and the state of Arizona.

Oyu Tolgoi (Rio Tinto: 9.9 per cent interest in Ivanhoe Mines Limited)

In October 2006 Rio Tinto purchased a stake of just under ten per cent in Ivanhoe Mines Limited in order to jointly develop the Oyu Tolgoi copper-gold deposit in Mongolia s South Gobi region. Rio Tinto has the right to progressively increase its stake to 43 per cent over the next four years at pre-determined prices. Oyu Tolgoi has a potential average production rate of 440,000 tonnes of copper per year with significant gold by-products. It is also geographically positioned to supply growing Asian copper markets.

The project is expected to bring substantial benefits to the local community and the people of Mongolia. Since the initial discovery, more than 4,000 Mongolians have been employed and currently 90 per cent of the project workforce is Mongolian. More than 900 Mongolian businesses have worked with Oyu Tolgoi since 2001. Once an acceptable investment agreement is concluded, Rio Tinto and Ivanhoe Mines are committed to giving preference to Mongolian companies, training as many Mongolian workers as possible and laying the foundation for a long life mine that will provide well paid jobs for several generations of Mongolians.

Rio Tinto and Ivanhoe Mines are actively engaged and working with the Mongolian Government to progress settlement of a long term investment agreement. The newly formed coalition government has affirmed that the development of major mineral deposits, including Oyu Tolgoi, is a matter of high priority.

Progress has been made at Oyu Tolgoi from the bottom of No.1 Shaft to drive twin horizontal tunnels towards the Hugo South mineralisation. The continuation of underground construction work has included the commissioning of the electrical sub-station and construction of a workshop and permanent sump facilities. In the second half of 2008, Ivanhoe Mines received US\$122 million from Rio Tinto for the purchase of large long lead time equipment for construction of the project.

As a result of the global financial crisis there was a significant slowdown in pre-construction activity during the later part of 2008 which is expected to continue into 2009. Furthermore, the absence of an acceptable investment agreement to allow construction to proceed has resulted in a reduction in manning and a curtailment of spending. **La Granja** (Rio Tinto: 100 per cent)

The La Granja copper project located in the Cajamarca region of northern Peru is in the pre-feasibility phase. Rio Tinto acquired the project in December 2005 through a public bidding process carried out by the Peruvian Government. Consideration included an up front payment of US\$22 million plus a commitment to fund a further investment of US\$60 million.

In May 2008, Rio Tinto released a mineralised material estimate for La Granja. Rio Tinto completed 80 kilometres of exploration drilling to the end of 2008. Results showed that the area may host a cluster of several porphyries with associated mineralised bodies of breccia and skarn, including a new extension of breccia to the northwest of the current resource, exhibiting higher grades than the previously stated average. Though still to be quantified, the property may hold significantly greater tonnages than the estimated mineralised material. La Granja could represent the largest undeveloped greenfield copper project in Latin America. It has the potential to be a very large, long life operation.

Instead of looking at La Granja as a conventional milling operation producing concentrates for export, the pre-feasibility study is aimed at demonstrating the possibility of recovering copper metal using leaching of copper from whole ore, with solvent extraction and electrowinning to produce high quality copper cathode. The timeline and options for development of this project are under review given the current global economic setting.

There are many stakeholders with an interest in the project due to the potential positive impact on the local and national economy. At the same time, local communities have high expectations of Rio Tinto s presence in the area, where basic infrastructure and services are lacking. Rio Tinto intends to continue working in a participatory manner with local communities to promote sustainable development and help them develop and improve their quality of life with the engagement of local, regional and national authorities and institutions.

Sulawesi Nickel (Rio Tinto: 100 per cent)

Rio Tinto identified a lateritic nickel deposit in an area which straddles the border of Central and South East Sulawesi provinces in Indonesia. This deposit currently ranks as one of the largest known undeveloped greenfield lateritic nickel deposits in the world. The project could develop into a world class operation, mining and processing ore to produce nickel metal at a rate of 46,000 tonnes per annum, with potential for future expansion. An order of magnitude

study was updated in 2008 and will be optimised in 2009, as the implications of the new Indonesian Mining Law are better understood.

Rio Tinto submitted an application for a Contract of Work (CoW) for the Sulawesi Nickel Project to the Government of Indonesia in mid December 2008, following finalisation of agreements with regional governments and with holders of local mining authorisation which overlapped the CoW application area.

Subsequent to submission of the CoW application, a new mining bill (Minerba) was passed by the national parliament, replacing the previous mining law under which CoW s were granted. Investment under Minerba must be carried out pursuant to permits or licenses for exploration, development and exploitation of minerals. Minerba became effective from mid January 2009 and its implementation will rely on a number of government regulations that are expected to be issued within the next 12 months. The implications of Minerba on the project will be fully reviewed and assessed following government socialisation programmes which are planned in early 2009, and as regulations become available.

Rio Tinto is continuing to work closely with the regional governments and communities with a number of socio-economic, community and environmental baseline studies commencing in early 2009.

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

Late in 2007 Rio Tinto approved the development of the high grade underground Eagle nickel mine in Michigan, US. During 2008 Eagle has been addressing legal challenges to issued mine permits. At the same time, Eagle continued with engineering designs and acquisition of major pieces of mining equipment in preparation for construction. The Humboldt mill was purchased in 2008 and general site clean up and permitting was initiated. Additional exploration at Eagle identified a previously unknown high grade copper and nickel zone.

There are similarities between Eagle and other world class magmatic nickel-sulphide deposits. Rio Tinto has an extensive land position in the Eagle district which is extremely prospective, including a 30 kilometre identified trend containing multiple target intrusions. In 2008, an airborne geophysical survey identified over 100 new anomalies similar to Eagle in the region. These anomalies are currently being evaluated and will be prioritised for exploration in 2009.

#### Pebble (Rio Tinto: 9.8 per cent)

Rio Tinto has a 19.6 per cent equity holding in Northern Dynasty Minerals which owns a 50 per cent share in the Pebble Joint Venture. The joint venture owns the right to develop the Pebble Copper project in Alaska, US. In July 2007 Anglo American agreed to invest the first US\$1.4 billion of studies and development costs to earn a 50 per cent stake in the project. The Pebble project is located about 200 miles south west of Anchorage in the Bristol Bay region of Alaska on land designated for mineral exploration and development.

## Entrée Gold (Rio Tinto: 15.8 per cent)

Rio Tinto has a direct 15.8 per cent equity holding in Entrée Gold (ETG), a Canadian listed company that owns strategic tenements surrounding the Oyu Tolgoi project in Mongolia. Ivanhoe Mines also holds a 14.6 per cent equity holding in ETG and has an exploration joint venture agreement on key titles which entitle ETG to 30 per cent of the minerals discovered above 560 metres and 20 per cent of any minerals discovered below 560 metres. The main physical assets in the ETG portfolio include a 20 per cent interest in the high grade Hugo North Extension and 20 per cent of the recent Heruga gold discovery. ETG also has 100 per cent ownership of the Lookout Hill property, coal targets in Mongolia and exploration titles in Arizona, New Mexico and China.

#### Argyle underground (Rio Tinto: 100 per cent)

Rio Tinto approved the development of an underground block cave mine under the AK1 open pit in late 2005. It also approved an open pit cutback on the Northern Bowl to facilitate the transition from open pit to underground mining. Due to the difficult short term market conditions the underground project will be limited to only critical development activities resulting in a workforce reduction and demobilisation of contractors. First production from the underground operation is now expected in 2013.

## **Diavik underground** (Rio Tinto: 60 per cent)

Following completion of a feasibility study in 2007 approval was given to proceed with underground mining of the A154N, A154S and A418 kimberlites. The capital investment was increased to account for higher than budgeted construction and material costs. However a number of initiatives have been identified to postpone some expenditure to subsequent years.

In January 2009 it was announced that underground development would be slowed to defer costs in light of current market conditions. Underground production is now expected to commence about six months later than planned in the fourth quarter of 2009, and should reach full production in 2012. Open pit mining is expected to cease in 2012, at which time Diavik is expected to source all its ore from the underground mine.

#### Murowa (Rio Tinto: 77.8 per cent)

The capital cost estimate for the Murowa expansion project (MXP) was revalidated during 2008, and a number of options identified to reduce the capital cost. The project remains on hold given the current uncertain investment environment in Zimbabwe and difficult diamond market conditions.

#### Bunder (Rio Tinto: 100 per cent)

The project was transferred from Rio Tinto Exploration to the Diamonds Group in November 2008 upon completion of the order of magnitude study. Evaluation work is continuing including the processing of bulk samples. Results are expected in 2009.

#### **OUTLOOK**

The unprecedented decline in global economic conditions towards the end of 2008 is expected to continue in 2009 leading to depressed demand and lower prices for base metals in the short term.

Rio Tinto Copper has responded to these developments by immediately reviewing capital expenditure levels across all managed operations and projects. Two projects (E48 at Northparkes and the MAP project at KUC) have been suspended until prices for copper and molybdenum/rhenium recover. The optionality in both projects has been retained so they can be re-initiated relatively quickly when conditions permit. Studies at the La Granja, Resolution, Sulawesi and Eagle projects have also been slowed. Despite the slowdown in direct investment in the project portfolio, considerable effort is being applied to value engineering, systems and process readiness across all projects. Efforts to reduce operating costs are also under way.

The short term economic situation presents challenges to Rio Tinto Diamonds in terms of weakening demand and Rio Tinto 2008 Form 20-F 88

prices. However the group has taken decisive action to address this by slowing development and reducing production in the short term at both Argyle and Diavik. The rough diamond market, particularly for higher quality goods remained strong for most of 2008 although demand was weaker during the last quarter of 2008. The weakness of the global economy is expected to lead to lower demand across the entire market.

#### **Energy and Minerals**

The Energy & Minerals group comprises thermal coal, coking coal, uranium, borates, talc and titanium dioxide feedstock operations. It is one of the largest suppliers of these products in its key markets, the US and Asia. Its coal interests are located in Australia and the US and supply the seaborne traded and Australian and US domestic markets.

Mined coal	Rio Tinto share million tonnes
2004	157.4
2005	153.6
2006	162.3
2007	155.6
2008	160.5
Mined uranium	Rio Tinto share 000 pounds U3O8
2004	13,170
2005	14,511
2006	12,561
2007	12,616
2008	14,200
Coal reserves	Rio Tinto share million tonnes
2004	2,184
2005	2,184
2006	1,975
2007	1,936
2008	2,002

Uranium reserves	Rio Tinto share 000 pounds U3O8
2004 2005 2006 2007 2008	70,983 117,826 121,594 136,027 140,511
Energy and minerals underlying earnings contribution*	US\$m
2004 2005 2006 2007 2008	661 869 891 687 2,887
Underlying earnings contribution* 2006 2008	US\$m
2006 Underlying earnings Effect of changes in: Prices and exchange Inflation Volumes Costs Tax and other	891 114 (83) 11 (203) (43)
2007 Underlying earnings Effect of changes in: Prices and exchange Inflation Volumes Costs Tax and other	687 1,901 (90) 197 129 63

2008 Underlying earnings

\* A reconciliation of the net earnings with underlying earnings for 2006, 2007 and 2008 as determined under IFRS is set out on page 63. All amounts presented by the product groups exclude net interest and other centrally reported items.

These interests comprise Rio Tinto Coal Australia (RTCA) which manages the group s interests in nine coal mines in Queensland and New South Wales, and Rio Tinto Energy America (RTEA) which owns and operates four open cut coal mines in Montana and Wyoming. Rio Tinto is seeking to divest RTEA. The group also manages Colowyo Coal in Colorado, US; Colowyo was separated from the remainder of RTEA late in the year as it is not part of an asset divestment programme. The group s reserve and additional mineralisation position in thermal and coking coal is sufficient to underpin significant greenfield and brownfield expansions in the future.

Rio Tinto Uranium supplies uranium oxide produced at its majority owned mines in Australia and Namibia to electric power utilities worldwide. Rio Tinto Uranium is currently the world s largest uranium supplier.

The Minerals part of the group comprises Rio Tinto Minerals (RTM), a global leader in borates and talc supply and science, and Rio Tinto Iron & Titanium (RTIT), the market leader in titanium dioxide feedstock, used in the manufacture of pigments for paint and plastics. During the year management of Dampier Salt was transferred to the Rio Tinto Iron Ore group due to geographic proximity.

At 31 December 2008, the Energy & Minerals group had operating assets of US\$5,639 million, which accounted for ten per cent of the Group s operating assets compared to US\$6,517 million of operating assets at 31 December 2007. In 2008, the Energy & Minerals group contributed US\$10,998 million in revenue and US\$2,887 million in underlying earnings, which accounted for 19 per cent and 28 per cent of the Group s gross sales revenue and underlying earnings, respectively, compared to US\$7,403 million of gross sales revenue and US\$687 million of underlying earnings in 2007.

Preston Chiaro, chief executive, Energy & Minerals, is based in London.

#### STRATEGY

The Energy & Minerals group s core purpose is to maximise the value it creates from supplying the world s mineable energy and minerals needs. The group focuses its resources on excellence in operations; large scale, long life, cost competitive assets; the quality of investment opportunities; and operating in a responsible and sustainable manner.

A key part of the Energy & Minerals group's strategy is to ensure it is a leading advocate of, and investor in, the sustainable future uses of coal. In 2008 the group continued to dedicate resources and funds to the development of low emission coal technology through Hydrogen Energy, its joint venture with BP, through COAL21 in Australia, and in several low emission coal research organisations in the US and Australia.

With a global nuclear power resurgence under way driven in large part by the need for baseload electricity generation that minimises emissions of greenhouse gases, Rio Tinto aims to maintain its position as one of the world s leading uranium suppliers to power this growth.

At both Namibia s Rössing and Energy Resources of Australia s (ERA) Ranger mine, a number of opportunities for further low cost brownfield expansion are under consideration. ERA also owns the Jabiluka deposit, one of the world s largest undeveloped uranium deposits. In addition to the significant and sustainable operating assets at Rössing and ERA, Rio Tinto has increased uranium exploration activity around the world.

Its minerals strategy is market driven and focuses on optimising volumes and product mix to create value by directing resources toward high value growth sectors in both mature and emerging markets. Market differentiation requires technical and marketing expertise so the group maintains R&D facilities in Europe, Canada and the US to develop new products and support customers.

It focuses on meeting customers needs for consistent quality, on time delivery and responsiveness; by providing technical support to customers on the use of minerals in consumer products; setting and meeting aggressive business improvement targets; and establishing stock points to supply demand growth in emerging economies. **KEY ACHIEVEMENTS** 

RTIT began production of ilmenite at the QIT Madagascar Minerals (QMM) mineral sands operation at Fort Dauphin in Madagascar. First production in December 2008 was a major landmark in a project which, notwithstanding many complex environmental, social and technical challenges, could become a model for future projects in Africa and elsewhere in the developing world.

During 2008, negotiations progressed at Richards Bay Minerals (RBM) on the divestment of 26 per cent of the business to a consortium of historically disadvantaged groups in order to meet the requirements of legislation governing broad based economic empowerment in the South African mining industry.

Rössing Uranium has continued on its growth path, with total production of nine million pounds in 2008, the first time this volume has been achieved since 1988.

The first sale of uranium from Australia to China was completed in 2008, following the ratification of a bilateral safeguards agreement between the two governments.

Following a review of its asset portfolio, the group sold the Tarong coal mine to Tarong Energy Corporation and the Kintyre uranium project in Australia to a joint venture comprising Cameco Corporation and Mitsubishi Development.

Significant progress was made on development of the Clermont coal mine and construction started on an extension of the Kestrel underground coal mine. Operational excellence programmes in all businesses continued to deliver improvements by systematically eliminating waste, reducing process variability, and engaging and empowering the workforce. Many operations delivered record production and sales results throughout the year and safety

performance continued to improve. **KEY PRIORITIES FOR 2009** 

Continue to improve safety performance

Maximise free cash flow

Continue to operate in a responsible and sustainable manner during the global economic downturn

Meet customer needs to position the group as the supplier of choice when the global economy begins to recover

# Retain and continue to develop the best people OVERVIEW OF SUSTAINABLE DEVELOPMENT

#### Safety

Safety performance and awareness continued to be a major focus of all operations. In 2008 the all injury frequency rate (AIFR) was 0.65 compared to 0.87 in 2007.

Regrettably, three fatalities occurred in 2008. The first occurred at Rio Tinto Minerals Luzenac operations where a mobile crane driver was fatally injured when the crane he was driving overturned. The second occurred at RBM when a security guard was fatally shot while trying to apprehend a suspect who was stealing scrap metal. The third occurred at RTIT s Havre-St-Pierre port when a cable being used to position a contract vessel broke free and struck an employee.

RTIT s Quebec Iron and Titanium (QIT, or Fer et Titane), RBM, and QMM achieved significant improvements in statistical safety performance with AIFR improving by 49 per cent, 47 per cent and 11 per cent respectively. Rio Tinto Minerals AIFR improved by 16 per cent and at RTCA by 20 per cent. The injury severity rate, a measure of the seriousness of injuries, decreased in all businesses except Rio Tinto Energy America (RTEA) and Energy Resources of Australia (ERA).

Rössing achieved 2.8 million lost time injury free hours for the first time and the QMM titanium project achieved in excess of 12 million hours lost time injury free. RTEA s Sustainable Development Communities Programmes were nationally recognised by the US Office of Surface Mining and the National Mining Association with the Good Neighbour award.

All injury frequency rate	Per 200,000 hours worked
2004	1.79
2005	1.29
2006	0.89
2007	0.87
2008	0.65

#### **Greenhouse Gas Emissions**

In line with the group s strategy to be a leading advocate of sustainable future uses of coal, Energy & Minerals continued to dedicate resources to the development of clean coal technology. A key focus is to ensure energy and climate change are considered in business decisions.

In 2007 Hydrogen Energy was launched, a 50:50 joint venture with BP which aims to develop low carbon energy projects around the world. The group s strategic intent is to use Hydrogen Energy to build a low carbon energy

300 000 1

business reliant on fossil fuel feedstocks that will ultimately leverage Rio Tinto s capabilities in identifying, acquiring and operating large long life coal assets. Gasification opens new and larger markets for coal and the aim is to maximise returns across the emerging coal gasification value chain. Early positioning is expected to convey an important element of competitive advantage. A key to unlocking value will be proactively to shape government policy to support and enable initial projects.

Hydrogen Energy will initially focus on the production of hydrogen for sale to utilities generating electricity and carbon capture and storage technology to sequester carbon dioxide from the atmosphere. The first projects are being pursued in Abu Dhabi and California.

Rio Tinto is a member of COAL21, a voluntary fund established by Australian black coal producers to support the development of low emission coal technologies. Members pledge 20 cents per tonne of coal produced to the fund. Rio Tinto committed A\$9.76 million to the fund in 2008.

Both RTEA and RTCA have a number of NPV positive optimisations and energy reduction projects being researched or implemented. A number of optimisation projects have been identified throughout the group.

Total greenhouse gas (GHG) emissions were 10.1 million tonnes of carbon dioxide equivalent in 2008. Energy and Minerals operations each account for about half of this total.

The majority of RTM s greenhouse gas emissions are from its Boron Operations in California, the first mining operation to register its GHG emissions to the California Climate Action Registry. An energy management plan has been in place since 2002, and during 2008 RTIT sites undertook audits to identify opportunities for GHG and energy reduction.

2007 2008

# Million tonnes carbon dioxide<br/>equivalent20048.820059.120069.5

9.1 9.5 9.7 10.1

# FINANCIAL PERFORMANCE

## 2008 compared with 2007

The Energy & Minerals group s 2008 sales revenue was US\$10,998 million and its contribution to underlying earnings was US\$2,887 million, US\$2,200 million more than in 2007. Increases in the cost of basic materials, fuel, explosives and labour were more than offset by production growth and improved commodity prices in coal, uranium, borates and metallics.

Higher prices for coal were realised as a result of increases in hard coking, semi-soft and thermal coal prices. In addition, overall production volumes increased as a result of higher production at RTCA and RTEA.

At RTCA hard coking coal production rose 20 per cent to 7.4 million tonnes from 6.2 million in 2007 in spite of continuing coal chain infrastructure bottlenecks and several weather events early in the year. In the Hunter Valley there was continued focus on production of semi-soft coal in favour of thermal coal to take advantage of higher relative prices.

RTEA s year end shipment total was 133.3 million tonnes for 2008, compared to 128.3 million tonnes in 2007. In addition to increases in pricing and production volumes, RTEA s high margin HL&P broker contract performed at 100 per cent in 2008. High margin export sales and other broker sales also boosted earnings. However, quality considerations and operational issues resulted in Colowyo making a pre-tax loss of US\$17.1 million in 2008.

Consistent with the worldwide mining industry, RTCA and RTEA experienced an increase in the input prices of materials and supplies in 2008 resulting in higher variable costs of mining. At RTCA costs were higher as a result of higher royalties due on increased revenues. There were extensive ship queues particularly for thermal coal. Towards the end of the year cost benefits were obtained from price reductions in the purchase of equipment parts and consumables.

Diesel prices at RTEA increased by more than 31.6 per cent in 2008. Explosives costs increased by 26 per cent.

Labour costs also increased significantly, reflecting the competitive regional labour shortage and steadily increasing healthcare costs. Tyre costs increased with the worldwide shortage of large mining equipment tyres. Unscheduled repairs at Jacobs Ranch and Colowyo increased maintenance and contractor costs. At the same time, strip ratios increased as reserves got deeper, resulting in the requirement to move increasing volumes of overburden.

Non cash costs at RTEA also increased due to a change in the asset base, a new end of mine closure estimate that incorporated a change in discount rates and a fixed asset verification requiring some write offs that accelerated depreciation.

Uranium oxide is typically sold under long term contracts, with pricing determined both by fixed prices negotiated several years in advance, and by market prices at time of delivery. Higher market prices and the expiration of older contracts containing price caps contributed to an eight per cent increase in uranium revenues in 2008 compared to 2007.

Uranium spot prices continued to demonstrate volatility, falling well below term prices in 2008 (after being well above in 2007) as financial speculators liquidated stocks throughout the year. The long term uranium price remained relatively strong at US\$95 per pound in the first half of the year, falling to US\$70 by December. Despite the fall in spot prices through most of the year, the spot market strengthened in November and December and the longer term prospects remained favourable given the challenges that most uranium producers faced in trying to expand production or bring new production into operation. As a result, uranium prices in the longer term are expected to remain well

above the levels seen for most of the last two decades.

Higher pricing and higher volumes at Rössing Uranium were partially offset by lower sales at ERA. Sales at ERA decreased to 11.6 million pounds compared to the 2007 volume of 11.7 million pounds.

However, results continued to be affected by increasing operating costs for consumables, particularly sulphuric acid. In addition, significant costs were incurred at Rössing for aggressive stripping of overburden to expose ore that will ensure the consistency of the quantity and the grade of plant feed for the next few years. At ERA unit costs were adversely affected by the need to build ore inventory in line with the current life of mine plan.

In uranium, earnings benefited from the one off US\$495 million sale of the Kintyre uranium project in Western Australia.

Improved Minerals earnings reflected improved volumes and prices. These were partially offset by increased freight rates and sulphuric acid and zinc oxide input prices. RTIT recorded earnings of US\$295 million up from US\$164 million in 2007. Revenue increased by 15 per cent due to strong metallic prices which delivered robust margins on iron, steel and powder products. These increases were partially offset by price pressures on consumables, energy and maintenance costs.

The weakening of the US dollar against the Australian dollar reduced earnings at Australian operations. The Namibian:US dollar exchange rate was favourable, positively impacting earnings from Rössing by US\$40 million in 2008.

#### 2007 compared with 2006

The Energy group s 2007 contribution to underlying earnings was US\$484 million, net of US\$27 million project costs, US\$222 million less than in 2006.

Continuing coal chain infrastructure bottlenecks and allocation cutbacks in Australia resulted in ongoing production cutbacks and higher demurrage costs.

The results also reflected the softening of coking coal prices although there were increases in thermal coal prices and the stronger uranium oxide market. The weakening of the US dollar against the Australian dollar reduced earnings at Australian operations. For all operations, rising fuel prices and the tightness of the labour supply market continued to place pressure on operating results.

Despite lower volumes of uranium sold, higher market prices and the expiration of older contracts containing price caps contributed to a 69 per cent increase in uranium revenues in 2007 compared to 2006. At ERA results were affected by production losses associated with a severe rain event and flooding of the pit.

Minerals earnings were adversely affected by a tax charge related to the borates business. RTIT recorded earnings of US\$164 million, up from US\$152 million in 2006. RTIT earnings benefited from a 15 per cent revenue increase, largely due to strong co-product prices.

## **OPERATIONS**

#### Energy

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

Rio Tinto Coal Australia manages the group s Australian coal interests. These include, in Queensland: the Blair Athol (Rio Tinto: 71 per cent), Kestrel (Rio Tinto: 80 per cent), Tarong (Rio Tinto: 100 per cent) and Hail Creek (Rio Tinto: 82 per cent) coal mines and the Clermont deposit (Rio Tinto: 50 per cent). The sale of the Tarong mine to Tarong Energy Corporation was announced in 2007 and this sale took effect from 31 January 2008.

RTCA also provides management services to Coal & Allied Industries (Coal & Allied) for operation of its four mines located within 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\$6.5 billion (US\$5.7 billion) at 31 December 2008. Coal & Allied wholly owns Hunter Valley Operations, has an 61 per cent interest in Mount Thorley Operations, a 42 per cent interest in the contiguous Warkworth mine, and a 30 per cent interest in the Bengalla mine which abuts its wholly owned Mount Pleasant development project. Coal & Allied also has a 37 per cent interest in Port Waratah Coal Services coal loading terminal.

In New South Wales, Coal & Allied was an active participant in a review of port allocation set up by the state government to work with industry to achieve a long term framework. The Government of New South Wales has announced a proposal which includes long term contracts to underpin investment in port and rail; triggers to build new port capacity on demand; and a proposal for a fourth terminal, to be managed by Port Waratah Coal Services. In addition, the Federal Government has announced A\$1 billion in funding to the ARTC to increase rail track capacity in the Hunter Valley.

Blair Athol produces thermal coal and sells principally to the Japanese market generally based on annual agreements. Kestrel and Hail Creek sell mainly metallurgical coal to customers in Japan, south east Asia, Europe and Central America, generally on annual agreements.

Coal & Allied produces thermal and semi soft coal. Most of its thermal coal is sold under contracts to electrical or industrial customers in Japan, Korea and elsewhere in Asia. The balance is sold in Europe and Australia. Coal & Allied s semi soft coal is exported to steel producing customers in Asia and Europe under a combination of long term contracts and spot business.

RTCA and Coal & Allied collectively employ approximately 3,200 people.

#### 2008 operating performance

RTCA s 2008 contribution to underlying earnings was US\$1,721 million, US\$1,475 million higher than in 2007. This was driven by increases in hard coking, semi-soft and thermal coal prices.

Hard coking coal production from the Queensland coal operations increased by 20 per cent in 2008 compared with 2007. Higher production was achieved at all Queensland operations despite loss of volume in January and February due to severe flooding. Total production at Blair Athol increased from 7.9 million tonnes to 10.2 million tonnes

primarily as a result of exploitation of port capacity allowing additional sales. Kestrel s total production increased by 11 per cent to 4.0 million tonnes. Hail Creek total production was 6.0 million tonnes, an increase of 21 per cent.

In the Hunter Valley production also increased at all operations. Production of semi soft coal increased by one million tonnes to take advantage of stronger prices. Vessel queues in New South Wales were relatively stable in 2008.

An investment programme by the owners and operators of the coal ports at Newcastle and Dalrymple Bay on the eastern seaboard of Australia is expected to result in additional port capacity from 2010.

Rio Tinto Energy America (Rio Tinto: 100 per cent)

Rio Tinto Energy America wholly owns and operates four open cut coal mines in the Powder River Basin of Montana and Wyoming, US, and has a 50 per cent interest in, but does not operate, the Decker mine in Montana. RTEA also Rio Tinto 2008 Form 20-F 94

manages the group s interest in Colowyo Coal in Colorado, US.

The second largest US coal producer based on sales volume, RTEA sells its ultra low sulphur coal to electricity generators predominantly in mid-western and southern states.

In April, RTEA obtained rights to a federal coal tract adjacent the Cordero Rojo mine with an estimated 266.2 million tonnes of in place coal. The acquisition will extend the operating life of the mine.

Rio Tinto announced the conditional sale of its Jacobs Ranch mine for US\$761 million during March 2009 and is exploring options to sell most of RTEA.

RTEA employed 2,159 people at year end 2008.

## 2008 operating performance

RTEA posted record coal production and sales with a year end shipment total of 133.3 million tonnes. Site specific annual coal production records were set at Antelope (32.5 million tonnes), Jacobs Ranch (38.2 million tonnes) and Spring Creek mine (16.3 million tonnes). This was the result of strong customer demand for Powder River Basin coal and was supported by incremental expansions at Antelope and Spring Creek and installation of an overland conveyor at Jacobs Ranch mine. Record overburden movement volumes were also recorded at Jacobs Ranch and Spring Creek during 2008.

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

Energy Resources of Australia (ERA) is a publicly listed company and had a market capitalisation of A\$3.6 billion (US\$2.5 billion) at 31 December 2008.

Since 1981 ERA has mined ore and produced uranium oxide at its Ranger open pit mine, 250 kilometres east of Darwin in Australia s Northern Territory. ERA also has title to the adjacent Jabiluka mineral lease, which in 2003 was put on long term care and maintenance. Ranger and Jabiluka are surrounded by, but remain separate from, the World Heritage listed Kakadu National Park, and especially stringent environmental requirements and governmental oversight apply.

The Ranger mine is the second largest uranium mine in the world and ERA is the fourth largest producer. ERA has considerable operational experience and a well established market position and is focused on maximising value from resources available on existing lease areas which are considered highly prospective.

In line with the group s strategy of seeking additional production volumes and long term expansions to supply the current favourable market environment, ERA put significant effort into achieving growth through capitalising on opportunities for expansion and extension of production including an extension of the existing Ranger mine through exploration, and installation of additional processing equipment to treat low grade and lateritic ore.

ERA s capital expansion projects to radiometrically sort low grade ores and process laterite ore were commissioned during 2008. The laterite processing plant will contribute approximately 0.88 million pounds per annum of uranium oxide to production from 2008 through to 2014. The radiometric sorter will upgrade lower grade ore and allow an additional 2.4 million pounds of uranium oxide to be produced over a five year period from 2008.

ERA employs 448 people.

## 2008 operating performance

ERA s 2008 contribution to underlying earnings was US\$141 million, US\$103 million (271 per cent) higher than in 2007. This was driven by a rise in the average realised price of uranium oxide from US\$25.06 per pound to US\$32.53 per pound despite sales being lower at 11.6 million pounds compared to the 2007 volume of 11.7 million pounds. The 2008 sales figures include no borrowed material.

Recovery work following 2007 flooding was successful in allowing production to return to normal levels, including access to higher grade ores in 2008 with no adverse environmental consequences. In December 2008 ERA received a A\$188 million (US\$130 million) settlement relating to the 2007 flooding and losses arising from Cyclone Monica and the failure of the acid plant in 2006. Further work has been completed to reduce the impact of future weather events on the mine s performance.

ERA continued to work with the Mirarr, traditional owners of the land on which the mining lease is located. The Mirarr continued delivery of a cultural awareness program to all new ERA employees and participated in environmental and cultural heritage management programmes. Increasing indigenous employment is a significant focus including the provision of training and employment opportunities. The year saw the number of indigenous

employees increase from 65 to 95 (21 per cent of the workforce). Improving on this result will continue to be a focus for 2009.

Rössing Uranium (Rio Tinto: 68.6 per cent)

Rössing Uranium produces and exports uranium oxide from Namibia to power utilities globally. Rössing continues to play a major role in the Namibian economy, both in terms of GDP contribution of around ten per cent as well as education, employment and training. In 2008 the company was recognised by one of Namibia s leading business journals as a major contributor to national human capital development.

Notable achievements for 2008 were the attainment of 2.9 million lost time injury free hours and the production of nine million pounds of uranium oxide, the highest since 1988. The company continues to implement innovative practices aimed at enhancing internal efficiency.

Commissioning of the heap leach test columns was completed as part of the heap leach project. The project is

expected ultimately to lower treatment operating costs, enabling lower grade of uranium oxide to be treated successfully. Capital equipment acquisitions associated with the life of mine extension project for the new mining area are in place and supported increased mining activity in 2008 as well as improved plant availability and efficiency contributing to higher uranium metal output for the year.

A pushback on the south wall in Trolley 10 area has extended the expected life of the phase one pit to 2011. The mine is positioned for higher volumes in 2009 and beyond.

The current approved life of mine extensions will take the expected mine life to 2020 and further potential opportunities exist to extend both the mine life and production volumes depending on the long term price outlook and costs of production. Activities will continue to focus on continuous net present value (NPV) growth, improving margins and creation of options from potential reserves.

Studies undertaken during 2008 are showing support for an expansion plan that includes heap leaching with production up to 13 million pounds per year. This compares to the base case which is limited to existing tank leach capacity of ten million pounds per year U308. The current work is not yet complete and therefore has not been used for the 2009 annual life of mine plan. The current life of mine plan is based on an expanded tank leach case. It is anticipated that future plans will include heap leaching which will be supported by the current feasibility study targeted for approval mid 2009.

Rössing currently employs approximately 1,300 people.

#### 2008 operating performance

Operating results for 2008 were much improved from 2007. Production volumes increased as a result of improved grades from the mine as well as improved availability and efficiency of both fixed and mobile plant.

Total uranium production at Rössing increased to 9.0 million pounds in 2008, compared to 6.7 million pounds in 2007, an increase of 34 per cent. The increase was due to higher grades at Rössing as well as the stripping campaign carried out in 2007 to expose ore reserves for mining.

In 2008 the mine focused on maintaining stability in the process and improving the head grade by applying a better blending strategy.

#### Minerals

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

RTM comprises borates and talc mines, refineries, and shipping and packing facilities on five continents.

Rio Tinto Minerals supplies nearly 40 per cent of global demand for refined borates and 25 per cent of global demand for talc. Minerals markets include automotive, construction, telecommunications, agriculture and consumer products industries.

More than one million tonnes of refined borates are produced at Boron Operations, the organisation s principal borate mining and refining operation in California s Mojave Desert. Borates are essential to plants and part of a healthy diet for people. They are also key ingredients in hundreds of products essential to an acceptable standard of living, chief among them: insulation fibreglass, textile fibreglass, and heat resistant glass (54 per cent of world demand); ceramic and enamel frits and glazes (ten per cent); detergents, soaps and personal care products (four per cent); agricultural micro-nutrients (one per cent); and other uses including wood preservatives and flame retardants (31 per cent).

RTM operates talc mines including the world's largest, in south west France and processing facilities in Austria, Australia, Belgium, Canada, France, Italy, Japan, Mexico, Spain and the US. Talcs enhance performance in hundreds of applications, including paper, paints, polymers, ceramics, and personal care products. This complexity demands an in depth understanding not only of talc s properties and functions but also of its full range of applications and user industries.

In total Minerals employs approximately 2,600 people.

#### 2008 operating performance

Total borates production rose by nine per cent from 560,000 tonnes boric oxide in 2007 to 610,000 tonnes in 2008, with strong demand in Asia Pacific offsetting the slowdown in the North American housing industry. Total talc production declined by nine per cent compared from 1,281,000 tonnes in 2007 to 1,163,000 tonnes in 2008, with sales in Europe offsetting volume declines in North America driven by the housing and automotive sector slowdown.

#### **Rio Tinto Iron and Titanium**

Quebec Iron & Titanium (Rio Tinto: 100 per cent),

Richards Bay Minerals (Rio Tinto: 50 per cent)

RTIT comprises the wholly owned Quebec Iron & Titanium (QIT) in Quebec in Canada, an 80 per cent share in the QMM ilmenite project in Madagascar and a 50 per cent interest in Richards Bay Minerals (RBM) in KwaZulu-Natal, South Africa.

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

QIT s proprietary process technology enables it to supply both the sulphate and chloride pigment manufacturing methods. QIT has the capacity to produce 400,000 tonnes of upgraded slag (UGS) per annum and is currently

improving its smelter facility to process ilmenite from the Madagascar project into a new high grade slag product.

RBM s ilmenite has a low alkali content which makes its feedstock suitable for the chloride pigment process. RBM has the capacity to produce one million tonnes of feedstock annually.

RTIT employs approximately 4,100 people.

#### 2008 operating performance

Titanium dioxide production increased by four per cent compared with 2007 as the UGS plant reached record production levels.

Titanium dioxide pigment is the principal end use market for feedstocks manufactured by RTIT. Global titanium dioxide pigment demand slowed significantly across all sectors (paint, plastics and coatings) following the knock on effect of the slump in construction activity and the weak automotive sector in the second half of the year.

Markets for iron and steel co-products strengthened further from 2007, resulting in a significant contribution to earnings. RTIT is actively leveraging the allocation of iron units across its range of metallics co-products (HPI, steel billet, iron and steel powders) to maximise returns amid changing market conditions.

## **ENERGY & MINERALS GROUP PROJECTS**

The main Energy group coal development projects in Australia are the extension of the Kestrel mine and the construction of the new Clermont mine to replace the nearby Blair Athol mine that reaches the end of its life in 2012. Both projects are at an advanced stage of construction and have supply contracts in place. Due to the economic slowdown, work at Kestrel will be slowed in 2009 and consideration given to deferring capital expenditure at Clermont, which is due to start production in 2010.

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

In September 2007 ERA announced an extension to the Ranger open pit at a capital cost of A\$57 million which is expected to extend mining until 2012. The pushback, when combined with optimisation of the existing pit, added an additional 10.7 million pounds of contained uranium oxide to reserves. The majority of the additional production from the extension is expected to occur in 2011. Studies to examine options to further expand the mine and increase production from the processing plant continued in 2008.

Exploration and evaluation activity increased in 2008 with ERA spending US\$13.7 million compared to US\$11.8 million in 2007. The work focused on near mine extensions to the Ranger orebody. Due to this and other evaluation work ERA s estimate of additional mineralisation at Ranger increased significantly. **Rössing Uranium** (Rio Tinto: 68.6 per cent)

After years of operating below capacity during a period of low uranium prices, in December 2005 approval was granted to restore annual production capacity to 8.8 million pounds per annum and extend the expected life of the operation to 2020. Total incremental and sustaining capital cost of the expansion was US\$112 million.

In 2008, drilling programmes were completed for numerous orebodies on the lease. The current programme is focused on proving up the main pit which remains open at depth. Rössing completed construction of and started test work on a trial column assembly for a heap leach pilot plant. Rössing also completed a conceptual layout for the full scale plant on the existing tailings dam.

On behalf of the Rössing Uranium Board and shareholders, Rio Tinto acquired a 20.9 per cent interest in Extract Resources Ltd, the company which owns the Rössing South deposit. This stake is valued at NA\$520 million and comprises 15.1 per cent directly and 5.8 per cent through an interest in Kalahari Minerals plc. This interest will be sold to Rössing.

Extract recently announced its mineralised material estimate based on the exploration results for the North Zone of Rössing South.

Rössing will seek to negotiate a joint venture for the development of Rössing South with Extract Resources as this is expected to provide optimal value to the shareholders of both Rössing and Extract Resources.

#### Rio Tinto Coal Australia Clermont (Rio Tinto: 50.1 per cent)

RTCA and its joint venture partners approved additional investment of US\$475 million to bring total investment to US\$1,290 million for the development of the Clermont thermal coal mine in central Queensland. The additional costs covered scope changes and cost inflation.

Clermont, which is situated 15kilometres south east of the Blair Athol mine, is expected to become one of Australia s largest thermal coal producer when it reaches full capacity, which is scheduled for 2013. The mine will be brought into production to replace Blair Athol, due to close in 2015, and will use Blair Athols existing infrastructure and market position. To date construction has progressed slightly behind plan but with first coal production expected as planned in 2010.

## Rio Tinto Coal Australia Kestrel (Rio Tinto: 80 per cent)

RTCA and its joint venture partners approved investment of US\$991 million for the extension of the Kestrel mine. This represents a 20 year investment in the Bowen Basin of Queensland to help meet Asian demand for metallurgical coal. Given the late year global financial turmoil and uncertainty in steel demand for 2009 and beyond, output from the

existing Kestrel operation will be slowed in 2009. Completion of the development project is still expected in 2012. **Coal & Allied Mount Pleasant** (Rio Tinto: 75.7 per cent of Coal & Allied 100 per cent of Mount Pleasant) In 2006, Coal & Allied started a feasibility study on the Mount Pleasant coal mine project located adjacent to the Bengalla coal mine near Muswellbrook in the Hunter Valley, NSW. With continued uncertainty surrounding coal chain infrastructure in the Hunter Valley, and weaker markets, a decision to develop has been deferred.

#### Coal & Allied Lower Hunter Land (Rio Tinto: 75.7 per cent)

In 2006 Coal & Allied signed a memorandum of understanding with the NSW Government to facilitate the provision of extensive land conservation corridors in the Lower Hunter under a land offset scheme. The remaining 20 per cent is being considered for land development. Extensive community consultation continued through 2008. Coal & Allied submitted concept plans to the Government for the southern lands in November 2007 and will do so for the northern lands in early 2009. Government approval of these plans is awaited.

#### Rio Tinto Energy America (Rio Tinto: 100 per cent)

During 2008, RTEA completed construction and commissioning of the Jacobs Ranch overland conveyor and in pit crusher project. This has reduced emissions and operating costs in addition to providing latent capacity for expansion (from around 38 million tonnes to over 45 million tonnes per annum).

#### QIT Madagascar Minerals (Rio Tinto 80 per cent)

The QMM project was approved in 2005 and consists of the development of a mineral sand mine and separation plant, and port facilities in southern Madagascar as well as an upgrade of QIT s ilmenite smelting facilities in Canada.

The Government of Madagascar contributed US\$35 million to the establishment of the port as part of its Growth Poles project funded by the World Bank. The project has adhered to its schedule; however, cost inflation and foreign exchange effects increased the cost to US\$1.18 billion from the original estimate of US\$1.03 billion. First ilmenite production occurred at the end of 2008.

The mine will be a key initial customer of the deep sea multi-use public port at Ehoala, providing the base load to help establish the port. Over time, it is expected the port will make an important contribution to economic development of the region.

RTIT will manage the port operations. At the end of the life of the mine, the port will come under the responsibility and control of the Government of Madagascar.

Extensive engagement and consultation with the Government of Madagascar, local people, and community leaders has taken place over many years. The World Bank is involved in a development role and non government organisations, including the Royal Botanic Gardens, Kew, Fauna and Flora International and Missouri Botanical Gardens have been involved in planning environmental and conservation strategies.

#### Kazan trona (Rio Tinto 100 per cent)

The Kazan trona project is located 35 kilometres northwest of Ankara in Turkey. Rio Tinto completed pre-feasibility studies in 2008 but has now commenced divestment of the project as soda ash is no longer considered to be core to Rio Tinto s strategy.

## OUTLOOK

#### Overview

The diverse markets being served by the group s operations are all likely to be adversely affected by the global economic downturn, albeit differentially due to both geography and market sector.

Energy markets are generally least affected as electric power demand is relatively inelastic. This is especially true for low cost, base load power stations such as those fired by uranium or low cost thermal coal. At the other end of the spectrum are commodities needed to produce durable goods such as automobiles and appliances, which have seen rapid declines in sales as the effects of the downturn have spread around the world.

The Energy & Minerals group is responding to the economic crisis by focusing management attention on cash conservation. Non essential capital expenditures have been deferred wherever possible, and a range of initiatives will focus on working capital reductions, operating cost efficiencies, procurement efficiencies, and some reductions in employee and contractor numbers.

#### Energy

Coking coal markets are likely to be the most severely affected by the global economic downturn as a result of the decline in steel demand since the end of 2008. Kestrel mine coking coal is forecast to reduce by 15 per cent in 2009 in response to the slowdown in the world steel industry. This is expected to be offset by higher thermal coal production. Demand for thermal coal and for uranium remains robust in both domestic (US) and seaborne traded coal markets, and globally for uranium.

RTEA has fully sold its output for 2009, whereas RTCA typically fixes prices for both coking and thermal coal in association with the Japanese fiscal year (1 April 31 March). Prices for seaborne traded coals, both thermal and coking, are expected to be much lower in 2009 than for 2008.

#### Minerals

RTM experienced a significant slowdown in demand for its products in the last few months of 2008. This market weakness is expected to last well into 2009.

Product volumes could be lower by 30 per cent or more, although pricing has held up surprisingly well. Primary end use markets with significantly lower demand include electronics (eg flat panel displays, circuit boards, and other components) and insulation fibreglass for the housing industry. Paints and coatings are also expected to be hard hit in terms of both volumes and price as the housing and automotive markets remain depressed.

#### **Iron Ore**

Rio Tinto s Iron Ore group is the second largest supplier to the world s seaborne iron ore trade based on 2008 production. It has a global supply capacity to serve both Pacific and Atlantic markets. RTIO has established a global integrated platform of mines and rail and port infrastructure, which is designed to respond rapidly to changes in demand for iron ore.

Iron ore production	Rio Tinto share million tonnes
2004 2005 2006 2007 2008	107.8 124.5 132.8 144.7 153.4
Iron ore reserves	Rio Tinto share million tonnes
2004 2005 2006 2007 2008	1,512 2,339 2,430 2,449 2,720
Underlying earnings contribution*	US\$m
2004 2005 2006 2007 2008	568 1,736 2,265 2,664 6,017
Changes in underlying earnings 2006 2008	US\$m

2006 Underlying earnings	2,265
Effect of changes in: Prices and exchange rates General inflation Volumes Costs Tax and other	536 (43) 136 (255) 25
2007 Underlying earnings	2,664
Effect of changes in: Prices and exchange rates	3,654
General inflation	(71)
Volumes	165
Costs	(446)
Tax and other	51
2008 Underlying earnings	6,017

\* A reconciliation of the net earnings with underlying earnings for 2006, 2007 and 2008 as determined under IFRS is set out on page 63. All amounts presented by the product groups exclude net interest and other centrally reported items.

In January 2009 Rio Tinto agreed to sell the Corumbá mine in Brazil for US\$750 million. RTIO s most significant mineral resource base is located in the Pilbara in Western Australia. Its portfolio of operations also includes production in Canada, a major development project in West Africa and a project in India. RTIO operations, supported by integrated and technologically advanced infrastructure linking mines to port, will maintain its ability to supply the largest and fastest growing markets. RTIO s Australian portfolio also includes the HIsmelt® plant south of Perth, which applies innovative technology to convert iron ore fines with significant impurities into high quality pig iron. RTIO took responsibility for management of Dampier Salt during 2008 due to the proximity of salt operations in Western Australia. All 2007 numbers have been restated to include Dampier Salt.

RTIO believes it is well positioned to meet the challenges posed by recent developments in major steel markets, including the economic slowdown in China amid the severe downturn in global financial markets. Following a programme of continuing investment, and a transition in shorter term focus from production growth to cost control,

RTIO s portfolio of long life, low cost assets positions it to withstand cyclical fluctuations and take advantage of the eventual rebound.

At 31 December 2008, the Iron Ore group had operating assets of US\$7,632 million, which accounted for 13 per cent of the Group s operating assets and compared to US\$9,311 million of operating assets at 31 December 2007. In 2008, the Iron Ore group contributed US\$16,527 million in revenue and US\$6,017 million in underlying earnings, which accounted for 28

per cent and 58 per cent of the Group s gross sales revenue and underlying earnings, respectively, compared to US\$9,193 million of revenue and US\$2,664 million of underlying earnings in 2007. At year-end RTIO employed 7,660 people in Western Australia and 11,109 worldwide.

Sam Walsh, chief executive Iron Ore, is based in Pertth Western Australia.

#### STRATEGY

RTIO s strategy of being the world s best positioned supplier of iron ore is a key component of the Group s strategy of maintaining a strong position in products that underpin global economic growth. RTIO seeks to expand its business by operating its assets with an emphasis on maximising efficiency and therefore margins.

In part due to the implementation of its investment programme during the past five years, RTIO has positioned itself to expand its business while maintaining its ability to respond to changes in global demand for iron ore.

While capital expenditure has been reduced in response to the economic downturn, RTIO believes it is capable of reactivating its planned expansions in the Pilbara (beyond 220 million tonne annual capacity), and IOC in Canada (beyond 18 million tonnes of pellets and concentrate) in a short timeframe. The Group expects to be able to reactivate its projects in Guinea and India in response to changes in market conditions and as its capital expenditure budget permits.

In addition to its reductions in capital expenditure, RTIO has also introduced a series of initiatives to reduce its operating costs in order to enhance its flexibility. Production from the HIsmelt® iron making plant outside Perth was suspended for three months starting in December 2008. RTIO is reducing its level of employment and is in the process of implementing certain structural reforms to consolidate its operating units. Similarly, at Corumbá in Brazil, RTIO has reduced employment levels.

### **KEY ACHIEVEMENTS**

In November 2008, RTIO achieved a major milestone with the completion of the Cape Lambert upgrade to 80 million tonnes annual capacity (Mt/a), well ahead of schedule and within budget. Construction continued on Mesa A in the Robe Valley and Brockman 4 west of Tom Price, with both of these mines intended to enhance RTIO s production in the future.

Rio Tinto s 50:50 joint venture with Hancock Prospecting increased annual production capacity at the Hope Downsmine to 22 Mt/a. In addition, the Hope Downs South extension was completed on time and within budget, and the first ore was processed in November 2008. In early 2009, Hope Downs South will be fully incorporated into the Pilbara network.

In July 2008, RTIO achieved a significant milestone, reaching a major agreement with the Ngarluma people over the proposed expansion of coastal infrastructure in the Pilbara, clearing the way for a comprehensive new Indigenous Land Use Agreement for the area.

In September, RTIO s HIsmelt® pig iron-making plant was awarded the prestigious Golden Gecko award for environmental excellence from the Western Australia Government. The Expansion Projects team s construction of the Lang Hancock Railway to Hope Downs mine was also highly commended in the same awards.

During 2008, the Group was honoured at the Australian Business Arts Foundation awards and the WA Business and the Arts awards for its partnerships with leading cultural organisations. In Western Australia Rio Tinto strongly supports community organisations such as the Perth International Arts Festival, SciTech, Black Swan Theatre Company and Fiona Stanley s Telethon Institute for Child Health Research and the Committee for Perth. **KEY PRIORITIES FOR 2009** 

Rio Tinto has long worked towards increasing the employment of traditional owners and other indigenous people. In July a goal of building indigenous participation to 20 per cent of the RTIO workforce by 2015 was established. This includes a commitment that any local Aboriginal person who finishes year-10 schooling will have the opportunity of a traineeship with Rio Tinto.

Commute services were introduced to assist indigenous workers from several regional centres in Western Australia, as part of a wider expansion of fly-in, fly-out programmes operating from regional centres across the state. The year 2009 will see an escalation of activity in this area, a fundamental aspect of Rio Tinto s community licence to operate. RTIO plans to escalate a comprehensive network of land use agreements with traditional owners.

The environment will continue to be a major focus for RTIO in 2009, particularly the more efficient use of energy and water. In the past year a number of studies examined improved water management practices in the Pilbara, such as harnessing dewatering discharge to achieve environmental benefits and also providing potential commercial opportunities for traditional owners.

RTIO will continue its strategy of bringing advanced technology and innovative applications to its traditional open pit mining techniques, with a number of exciting projects already under way. Several academic partnerships have been established, including a A\$10.5 million partnership with Curtin University in Western Australia to develop a world class innovation centre dedicated to strategic research and development in materials and sensing in mining. The Centre will play a significant role in Rio Tinto s drive to incorporate world class R&D in its operations and vision for the Mine of the Future .

Safety will continue as a priority focus throughout 2009. Specific areas to focus on include contractor familiarity and adherence with Rio Tinto standards, the frequency of hand injuries and the continued risk of driving related issues still the single greatest risk area across our operations.

### **OVERVIEW OF SUSTAINABLE DEVELOPMENT**

#### Safety

Performance for the Iron Ore group remained broadly in line with the previous year at a 0.93 all injury frequency rate (AIFR), compared with 0.96 in 2007. Sadly, the performance was marred by a tragic double fatality in a dump truck incident at the Simandou project in Guinea in early November involving employees of a contractor. Resources were put in place to support employees and affected families.

The Dampier port upgrade project was completed in early 2008 with the excellent record of 2.3 million man hours lost time injury free.

The Corumbá operation in Brazil was one of the recipients of the Chief Executive s Safety Award in 2008, for its sustained excellence in safety performance. All operations conducted semi-quantitative risk assessments to identify potential fatality risks, with plans to mitigate those exposures. Other safety initiatives included the improvement of the Contractor Management System as well as an improved pre-task risk assessment tool.

All injury frequency rate	per 200,000 hours worked
2004	1.80
2005	1.55
2006	1.23
2007	0.96
2008	0.93

#### **Greenhouse gas emissions**

Energy reduction plans have been rolled out across the majority of Iron Ore sites, where energy champions have been appointed to identify energy reduction opportunities. Energy sub-metering and data tracking is being enhanced across the business to assist this and meet imminent compliance requirements. Energy consumption targets are in place for all sites and progress will be tracked.

RTIO s total greenhouse gas (GHG) emissions were 4.2 million tonnes of carbon dioxide equivalent in 2008. In the past two years increased production, longer rail and truck hauls and increased stripping have contributed to the emissions increase. Iron Ore is preparing for energy assessments to meet the Australian Government s Energy Efficiency Opportunities Act.

RTIO will replace its ageing and inefficient power generation infrastructure at the Pilbara coast with new generation plant which includes technology able to emit 25 per cent less GHG emissions and have the ability to retrofit a combined cycle which could further reduce emissions in the future.

Housing and Town Services have implemented several initiatives to improve energy efficiency in towns and camps. RTIO s technology division continues to work towards demonstrating a number of new technologies which could significantly reduce energy use and GHG emissions.

A number of these technologies, such as hybrid locomotives and alternative fuels for haul trucks and trains, are being managed under an alliance with General Electric, bringing together the Eco-magination and Mine of the Future programmes. In addition, the division is studying new technologies for alternative electricity generation, including the use of solar power.

Total greenhouse gas emissions	Million tonnes carbon dioxide equivalent
2004	2.4
2005	3.1
2006	3.4
2007	3.5

#### 2008

#### **2008 IN REVIEW**

In April 2008, the High Court of Australia ruled in RTIO s favour over the rights to its Shovelanna deposit, east of Newman in the Pilbara. The decision upheld the Western Australian Minister for Resources decision to terminate a rival exploration licence application by Cazaly Resources. Another action by Cazaly Resources, calling into question the rights held by the Rhodes Ridge Joint Venture (Rio Tinto 50 per cent share) to its eponymous deposit east of Yandicoogina, and applying for tenure over that area, is in progress. The Rhodes Ridge Joint Venture rights have, notwithstanding, been renewed by the State for a further annual term commencing 1 January 2009.

In June 2008, RTIO, through Hamersley Iron, announced that it had reached agreement with Pilbara mining junior Iron Ore Holdings (IOH) on commercial terms for an innovative mine gate sales arrangement, enabling the purchase of iron ore from a new IOH mine at Phil s Creek, 90 kilometres from Newman a deposit that would be otherwise stranded by its remoteness from infrastructure. This innovative agreement was hailed for demonstrating the use of a commercial agreement to reach a satisfactory outcome without resort to mandating rail access.

In November 2008 Rio Tinto appealed to the Australian Competition Tribunal against the decision of the Australian Federal Treasurer to declare its Pilbara rail network available for competitors seeking access to infrastructure, as provided for under the Trade Practices Act 1974. The hearing starts in late 2009.

The decision of the Federal Treasurer is now stayed pending the outcome of that appeal. If the decision of the Treasurer is not overturned on appeal this would not of itself allow access to third parties. Rather they would be entitled to

seek that access terms be agreed or arbitrated, and additional requirements would have to be met at this second stage (some within and some outside the control of those third parties). If those additional requirements are not met, or are not able to be met, then access would not occur.

Rio Tinto also engaged with State representatives during 2008 in relation to a rail haulage regime being considered by the State. The State has indicated that it will not seek to unilaterally impose such a regime.

Significant operational challenges during 2008 were proactively managed to mitigate value destruction caused by external events (loss of a majority of Pilbara power supply due to an explosion at Apache Energy s gas plant, and threats to commuter air services as a result of industrial action at National Jet Systems) and internal events such as the ineffective industrial action taken by a small number of trade union members in the rail division.

## FINANCIAL PERFORMANCE

## 2008 compared with 2007

RTIO s contribution to 2008 underlying earnings was US\$6,017 million, US\$3,353 million higher than in 2007.

RTIO experienced strong demand for its iron ore during the first nine months of 2008. This was reflected in the 86 per cent weighted average pricing increase achieved in June 2008 following RTIO s agreement with China s Baosteel on the price for Hamersley iron ore deliveries for the contract year commencing 1 April 2008. During the final three months of 2008, however, RTIO experienced a contraction in demand for its iron ore, due to the global economic slowdown and in particular slower economic growth in China. Despite this contraction in demand, RTIO s total shipments of iron ore for the full year 2008 were 153 million tonnes, nine million tonnes higher than in 2007.

Although the price for iron ore on the spot market decreased during the final three months of 2008, the impact of this decrease on RTIO was limited since the vast majority of RTIO s sales during this quarter were at annual prices under long term contracts. RTIO sold 15.8 million tonnes of iron ore at the spot rate during 2008. However, most of these sales were made prior to the significant market deterioration from October 2008 and were consistently above the benchmark contract price.

#### 2007 compared with 2006

#### RTIO s contribution to 2007 underlying earnings was US\$2,664 million, US\$399 million higher than in 2006.

Demand for iron ore remained extremely strong across the product range throughout 2007, driven by the continuing robust growth in global steel demand and production, significantly exceeding seaborne suppliers capacity to match. Total Chinese iron ore imports rose from 326 million tonnes to 383 million tonnes, accounting for more than 90 per cent of world growth. Hamersley Iron and Robe River in Australia operated at record or near record levels of production in 2007.

## **OPERATIONS**

#### Iron ore

#### Hamersley Iron (Rio Tinto: 100 per cent)

Hamersley Iron operates nine mines in Western Australia, including three mines in joint ventures, approximately 700 kilometres of dedicated railway, and port and infrastructure facilities located at Dampier. These assets are run as a single operation managed and maintained by Pilbara Iron.

In November 2008, RTIO completed the final phase of construction of Pilbara infrastructure to support an annual production capacity of 220 Mt/a. Dampier port s terminals at East Intercourse Island and Parker Point account for a combined capacity of 140 Mt/a, together with Cape Lambert s increased capacity of 80 Mt/a.

RTIO made substantial investments in rolling stock and replacement track across much of its rail network, including the acquisition of 40 new generation, energy efficient locomotives.

Hope Downs mine, a 50:50 joint venture with Hope Downs Iron Ore Pty Ltd (owned by Hancock Prospecting Pty Ltd), enjoyed its first year as a significant contributor to the production of the Pilbara Blend iron ore product. This was complemented by the first production of ore from the Hope Downs South expansion, completed ahead of schedule in November 2008.

RTIO also commenced several projects in connection with its plans to expand annual production capacity beyond 220 million tonnes. These included a US\$149 million commitment for studies in respect of a new mine at the Western Turner Syncline, near Tom Price, which has a projected annual capacity of up to 29 million tonnes. Rio Tinto also invested US\$500 million for a regional power upgrade in the Pilbara, including the installation of a new gas powered

power plant adjacent to the 7 Mile rail operations centre. This plant is intended to replace the ageing, steam driven turbine plants at Dampier and Cape Lambert.

Hamersley s total shipments of iron ore to major markets in 2008	Million tonnes
China	73.0
Japan	28.5
Other Asia	17.9
Europe	1.3
Other	0.4
	121.2
Note	
This table includes 100 per cent of all shipments through joint ventures.	Dis Tists 2009 E 20 E 102
	Rio Tinto 2008 <i>Form 20-F</i> <b>103</b>

#### Robe River Iron Associates (Rio Tinto: 53 per cent)

Robe River Iron Associates (Robe) is an unincorporated joint venture in which Mitsui (33 per cent), Nippon Steel (10.5 per cent) and Sumitomo Metal Industries (3.5 per cent) hold interests. Robe River is the world s fourth largest seaborne trader in iron ore.

Robe River operates two open pit mining operations in Western Australia. Mesa J is located in the Robe Valley, south of the town of Pannawonica. The mine produces Robe River fines and lump, which are pisolitic iron ore products. The West Angelas mine, opened in 2002, is located approximately 100 kilometres west of the town of Newman. The mine produces Marra Mamba iron ore products, which are incorporated into the Pilbara Blend.

The upgrade of Cape Lambert port to an annual capacity of 80 million tonnes was completed in November 2008. This was the final step in the achievement of total annual export capacity of 220 Mt/a.

Work progressed during 2008 on the new US\$901 million Mesa A/Warramboo mine west of Pannawonica township, which is intended to replace Mesa J as the main source of Robe s pisolite production once the Mesa J deposit is depleted. In September 2008, Rio Tinto announced the US\$257 million upgrade of Pannawonica to support the new mine.

Robe River primarily exports under medium and long term supply contracts with major integrated steel mill customers in Japan, China, South Korea and Europe.

Robe s total shipments of iron ore to major markets in 2008	Million tonnes
Japan	23.2
China	19.6
Europe	4.5
Other Asia	3.0
	50.3

#### 2008 operating performance

Rio Tinto operates its mines, rail and port operations in the Pilbara as an integrated system to maximise value through efficiencies of scale and flexibility. The assets and operations of Hamersley Iron and Robe River are effectively combined for operational management purposes, notwithstanding the varying financial interests in the joint ventures managed by RTIO.

Hamersley Iron s total production in 2008 was 125.1 million tonnes, 13 million tonnes more than the 112.1 million tonnes in 2007.

Robe River s total production in 2008 was 50.2 million tonnes, comprising 25.0 million tonnes from Mesa J, and 25.2 million tonnes from West Angelas. Sales were 24.8 million tonnes of Mesa J and 25.5 million tonnes of West Angelas products. These results were achieved amid significant construction activity.

One of RTIO s key projects during 2008 was the Drumbeat initiative, which was designed to eliminate bottlenecks across the system following the expansion to 220 Mt/a, completed in November 2008. The Drumbeat initiative focuses on improving rail assets such as rolling stock and achieving a more efficient integration between rail and port operations. While challenges remain, during the second half of 2008, production rates were regularly in excess of 200 million tonnes on an annualised basis.

A major gas explosion at Apache Energy s Varanus Island plant off the Pilbara coast effectively removed nearly two thirds of RTIO s power supply, necessitating urgent curtailment of power usage and the sourcing of alternative supply from other sources. The outage lasted two months in June and July, however gas supplies in Western Australia are not expected to return to pre-incident levels until May 2009. While contingency planning enabled the issue to be managed, operations were impacted, and a significant additional cost of A\$70 million has been incurred up to the end of 2008.

The strike by a small number of locomotive drivers in October and November 2008 also produced challenges to efficiency, but were overcome with the assistance of the vast majority of rail workers who prevented any real impact, such that October was a record month for tonnes railed.

In August a Cape Lambert rail car dumper was severely damaged in an accident. The dumper was returned to service in mid September 2008 after repair, integrity and operational checks. While out of service, RTIO s other four dumpers at Dampier and Cape Lambert operated at peak capacity, demonstrating the flexibility of the port loading system and helping to minimise loss of tonnage and demurrage. In November 2008, RTIO announced that, as a result of the global economic crisis and the sudden decrease in Chinese demand for iron ore, it would cut its shipments by ten per cent from the expected 190-195 million tonnes (on a 100 per cent basis) for 2008. Production was subsequently limited across the Pilbara, with significant redeployment of staff and assets to assist with new stockpiles and operational shutdowns. Initially operations at the Channar and Brockman 2 mines were suspended. This was followed by a two week general shutdown of all mine and rail operations across the Pilbara in late December. Operations at all mines were restarted in early January 2009.

#### Iron Ore Company of Canada (Rio Tinto: 58.7 per cent)

RTIO operates Iron Ore Company of Canada (IOC) on behalf of shareholders Mitsubishi (26.2 per cent) and the Labrador Iron OreRoyalty Income Fund (15.1 per cent).

IOC is Canada s largest iron ore pellet producer based on 2008 production. It operates an open pit mine, concentrator and pellet plant at Labrador City, Newfoundland and Labrador, together with a 418 kilometre railway to its port facilities in Sept-Îles, Quebec. IOC has large ore reserves with low levels of contaminants.

Products are transported on IOC s railway to Sept-Îles on the St Lawrence Seaway. IOC s port on the St Lawrence Rio Tinto 2008 Form 20-F 104

Seaway is ice free all year and handles both ocean going ore carriers and Lakers, providing competitive access to all seaborne pellet markets and to the North American Great Lakes region. IOC exports its concentrate and pellet products to major North American, European and Asian steel makers.

In December 2008, RTIO decided to bring production into line with reduced demand through a number of measures. A pellet line was closed, and another scheduled for a maintenance shutdown early in 2009. The capacity expansion programme was suspended, including the PODS (parallel ore delivery system). As with all slowdown measures, the priority is to best position IOC to take advantage of the eventual improvement in market conditions.

IOC employs approximately 2,000 people.

IOC s total shipments of iron ore to major markets in 2008	Million tonnes
Europe	6.0
Asia Pacific	3.5
North America	5.1
Middle East	0.5
	15.1

#### 2008 operating performance

Production of pellets and concentrates continued strongly through the year, which highlighted the record mine performance from the first half and de-bottlenecking efforts at the plant.

The demand for IOC s products strengthened further in 2008 with concentrate prices increasing by 68.75 per cent and pellet prices by 86.67 per cent over last year s benchmark prices.

Total saleable production was 15.8 million tonnes, up from 13.2 million tonnes in 2007 during which a strike occurred. Pellet production was 12.6 million tonnes (11.3 million tonnes in 2007) with saleable concentrate being 3.2 million tonnes (1.9 million tonnes in 2007). Higher production levels and higher sales prices more than offset higher input costs.

#### Mineração Corumbaense Reunida (Corumbá) (Rio Tinto: 100 per cent)

In January 2009, Rio Tinto announced the sale of Corumbá to the Brazilian diversified miner, Vale, for US\$750 million. The transaction is expected to close in the second half of 2009.

Corumbá produced 2.0 million tonnes of lump and fines iron ore in 2008, selling 1.8 million tonnes to customers across South America, Europe and Asia. A number of developments through the year led to improved efficiency, including the introduction of a dry-ore plant (designed to encourage a greater market for direct reduction processes).

Work continued on a number of studies to increase capacity substantially from approximately 2 Mt/a to more than 12 Mt/a, together with early work towards establishing better barging arrangements and a new port in Uruguay.

Corumbá received the Chief Executive s Safety Award for the third time, firmly establishing its leadership credentials in this most important aspect of operations.

HIsmelt<sup>®</sup> (Rio Tinto: 60 per cent)

The HIsmelt<sup>®</sup> iron making project at Kwinana in Western Australia is a joint venture among Rio Tinto (60 per cent interest through its subsidiary, HIsmelt Corporation), US steelmaker Nucor Corporation (25 per cent), Mitsubishi Corporation (ten per cent), and Chinese steelmaker Shougang Corporation (five per cent).

Plant and process performance improved in 2008, and towards the end of the year, installation of process improvements resulted in a fundamental improvement in the output. As a result of the improvements, HIsmelt<sup>®</sup> achieved a range of new production records, including an average daily production rate of 1,660 tonnes of pig iron sustained over a five day period.

Due to substantial reduction in demand for HIsmelt<sup>®</sup> product, the plant has been place on a programme of care and maintenance and will consider reopening in April 2010 following an assessment of prevailing market conditions. As a result of this decision an impairment charge of US\$182 million was recorded in 2008.

Interest in the HIsmelt<sup>®</sup> technology remains strong, and licence negotiations continue with several Chinese and Indian steelmakers adding to the existing three licences already agreed. The European Union supported ULCOS (Ultra-Low Carbon dioxide (CO2) Steelmaking) consortium announced plans to build a HIsarna<sup>®</sup> pilot plant in Germany from 2010, combining HIsmelt<sup>®</sup> technology with an alternative iron ore pre-treatment option in a quest to reduce the CO2 emissions of current steel technologies by at least 50 per cent.

The winning of the Golden Gecko award for environmental excellence was an endorsement of the unique selling proposition of HIsmelt<sup>®</sup> technology in a world increasingly conscious of the need to limit industry s environmental footprint.

#### Minerals

Dampier Salt (Rio Tinto 68.4 per cent)

In 2008 RTIO took responsibility for Dampier Salt (DSL). DSL manages three salt operations located in the Pilbara and Gascoyne regions of Western Australia. Salt is produced by solar evaporation of natural sea water at its Dampier and Port Hedland operations, and by solar evaporation of a concentrated brine extracted from the natural aquifer that sits within the halite layer beneath Lake MacLeod.

Salt customers are located across Asia and the Middle East. The majority are chemical companies who use salt as feedstock for the production of chlorine and caustic soda (together known as chlor-alkali production). Salt is also used for

food preparation and other general purposes including road de-icing.

# 2008 operating performance

Salt production and shipping increased to 6.1 million tonnes and 5.9 million tonnes respectively (Rio Tinto share), as recovery from cyclones experienced in 2006 and 2007 continued, and with the commissioning of the two stages of a one million tonne per annum expansion of the Lake MacLeod field. The last stages of repairs at Port Hedland following Cyclone George in 2007 have been extended and will be completed in the second quarter 2009. Until recently, gypsum has also been dredge mined at Lake MacLeod. This operation was placed under care and maintenance in December 2008 due to the general demand for gypsum based wallboard being reduced as a result of the downturn in Asian housing markets. Shipping of the remaining gypsum stocks will continue through 2009 as product leaching is completed.

# **IRON ORE GROUP PROJECTS**

RTIO s growth strategy has involved a commitment of more than US\$9 billion to expand the global production platform for iron ore since 2003. The feasibility study into expanding Pilbara capacity beyond 220 Mt/a capacity by 2012 was well advanced before the economic slowdown began in the third quarter of 2008.

Rio Tinto spent A\$103 million in the Pilbara on evaluation of iron ore deposits that form part of the medium to long term production plan. Evaluation in 2008 largely focused on the Nammuldi/Silvergrass region and the Rhodes Ridge Joint Venture and Brockman 4 sites.

RTIO is reassessing the expansion in the context of the current economic situation. A decision is expected in the first half of 2009, and a number of critical components of the expansion have continued unchanged.

# Upgrade beyond 220 Mt/a

Rio Tinto has introduced an aggressive expansion programme during the past five years, and remains well positioned to execute the next phase in its strategy. Cape Lambert has been nominated as the preferred site for expansion of Pilbara port facilities beyond 220 Mt/a. Early planning for reaching 320 Mt/a involves construction of a new terminal (Cape Lambert West) capable of berthing four Capesize ships, and vacant and available land to the west of the existing rail line was selected to accommodate stockpiles under this plan.

During 2009 the economic slowdown may lead to reduced competition, which may provide options for accelerated execution of some projects, as well as improved cost expectations when there are credible signs of market recovery. A key goal of RTIO s cutbacks in operations and projects is to maintain a robust platform from which to capitalise on an upturn.

Work has progressed in anticipation of the next expansion of iron ore production capacity. An array of projects designed to support increased production is under way, and some will be progressed through to completion notwithstanding the short term slowdown. These will include:

# Mesa A (Rio Tinto 53 per cent)

A US\$901 million development of the Mesa A/Waramboo deposits, which will sustain pisolite production for the Robe River lump and fines products from 2010, when Mesa J mine stocks are scheduled for gradual depletion. Mesa A is expected to ramp up to 25 Mt/a capacity from 2011.

#### **Brockman 4**

A US\$1.5 billion development of the Brockman 4 site as a 22 Mt/a capacity mine, scheduled to be completed in 2010. While there is scope to expand this to 36 Mt/a capacity subject to favourable market conditions.

#### Western Turner Syncline

A US\$149 million study into the establishment of a new mine near Tom Price, with the ore to be fed into the latter s processing plant.

# Hope Downs 4 (Rio Tinto 50 per cent)

A US\$71 million pre-feasibility study into developing the deposit, which is 45 kilometres east of the Hope Downs 1 mine. No decision has been made yet on the feasibility study.

# **Remote Operations Centre (ROC)**

Announced in December 2007, is a new facility located near Perth Airport, designed to accommodate staff and electronic equipment to operate by remote control a range of assets and processes in the Pilbara. The new building, big enough for 350 people, is under construction and is expected to be completed in mid-2009.

# **Dampier power station**

A US\$538 million (Rio Tinto US\$425 million) new plant is expected to provide more efficient supply of power to Dampier and Cape Lambert ports and operations. The 160MW station will have four open cycle gas turbines, and a 220kV transmission line is being built to Cape Lambert from the 7 Mile Rail Operations site, where the new station is sited. When complete the new plant will replace the ageing stations at Cape Lambert and Dampier.

#### Mine of the Future<sup>TM</sup>

An industry leading plan announced by Rio Tinto in January is testing the implementation of a number of innovative mining technology applications in the Pilbara. Several of these are being introduced at Pit A at the West Angelas mine, which has been designated as a pioneer site for Mine of the Future trials. The system consists of a fleet of Komatsu mining equipment that loads and hauls ore automatically. Artificial intelligence in the equipment learns the layout of the mine, how to recognise and avoid other vehicles and obstacles, and how to ferry loads from loading face to dump with the least wear and tear, delay and use of fuel. Without drivers, the system revolutionises productivity and the way mining has been conducted. The new mining process incorporates automated drilling, an alliance with Atlas Copco announced in September. The blast hole drill without an on board operator is guided by satellite GPS to sink its holes in the pit floor on a precise grid. Drilling and blasting by this method would revolutionise the speed of open pit developments.

## Iron Ore Company of Canada (Rio Tinto: 58.7 per cent)

In March 2008, IOC announced an investment of C\$500 million to increase its annual production of iron ore concentrate to 22 million tonnes. In September 2008, it announced a further investment of C\$300 million to increase annual production of iron ore concentrate to 22.8 million tonnes and pellet production to 13.8 million tonnes by 2011.

In December 2008, in response to market conditions, IOC announced the suspension of these expansion projects. A re-start will be considered once market conditions improve.

# Simandou (Rio Tinto: 95 per cent)

The Simandou project in eastern Guinea, west Africa, lies within one of the best undeveloped major iron ore provinces in the world. During the year RTIO conducted advanced studies into establishing an iron ore mine of 70 Mt/a capacity, and potentially of up to 170 Mt/a capacity. A number of options are being reviewed to establish the most efficient and economic means of transporting the mined ore from the project.

Rio Tinto has spent nearly US\$400 million on the work necessary to develop a long life iron ore mine at Simandou. During 2008, RTIO spent an average US\$20 million per month on drilling, engineering and support. RTIO has conducted exploration and development efforts throughout the 738 square kilometre concession area. A total of 16 drill rigs has been deployed to complete more than 200,000 metres of drilling on over 1,200 sites.

In August, Rio Tinto received correspondence from the Guinean Government purporting to rescind the Concession, the legality of which Rio Tinto questioned. In December it received further correspondence referring to a purported compulsory relinquishment of the northern half of the Concession whilst confirming Rio Tinto s entitlement to the southern half of the Concession. A number of political developments in Guinea since then have occurred and RTIO has engaged in top level discussions with various stakeholders in an effort to clarify the status of the project. Rio Tinto remains of the view that it has complied with all its obligations in relation to the Concession such that it is entitled to hold and retain the entire Concession. It will continue working with the Guinean Government to seek to resolve this matter on that basis.

The project has employed an average workforce of 1,800 staff and contractors across the year, 90 per cent of them Guinean, operating from offices in Conakry and Kerouane, and construction camps at Canga East and Oueleba in the mining concession.

The International Finance Corporation (the private sector arm of the World Bank Group) retains a five per cent stake in the project and is working with Rio Tinto to develop it in an environmentally and socially sustainable way.

The successful implementation of this project will include a competitive infrastructure solution, which may be dependent upon the outcome of the analysis of transportation alternatives.

# Orissa, India (Rio Tinto: 51 per cent)

Orissa is one of the key iron ore regions of the world. RTIO has a joint venture with the state owned Orissa Mining Corporation to develop its iron ore leases. With expectations of significant infrastructure and industrial development in India in the medium and long term, Rio Tinto remains keen to contribute to the development of the Indian iron ore sector. Rio Tinto has continued discussions with major domestic iron ore and steel companies and expects to commence mining in 2009.

# **OUTLOOK**

The operations of RTIO are in broad alignment with the market demand for iron ore, with imminent expansions able

to match increased demand. There is clearly a consolidation of the industry under way, during which time the advantages of Rio Tinto being the only producer with a truly global supply strategy should become more apparent.

RTIO will maintain its focus on creating value through reducing discretionary costs and cutting waste wherever possible to preserve margins. In early 2009 an organisational restructuring was under way to eliminate 4,400 full time equivalent roles. Capital expenditure reduction targets for 2009 and 2010 are estimated at US\$5 billion, comprising US\$1.4 billion in 2009 and US\$3.6 billion in 2010. Other cost reductions are expected to be achieved through reduced market pressures on input costs and the implementation of various procurement savings.

While reduced iron ore demand has reduced the urgency of RTIO s capacity expansion, in many cases RTIO will postpone rather than cancel its expansion projects. Many expansion projects are sufficiently advanced to enable a rapid resumption in response to increased demand (such as the Automated Train Operations project in the Pilbara).

In every case, increases in market demand will be the key factor. RTIO has invested a substantial portion of its earnings since 2003 in expanding and improving its production network, including developing two world class ports capable of maintaining a 220 Mt/a capacity. RTIO believes that this has left it in an ideal position to capitalise on a market recovery.

#### **Exploration**

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 by both mine production and successful brownfield exploration after more than 40 years.

Continuing this legacy, since 2000, the Exploration group has identified two of the largest copper opportunities in the world at Resolution in Arizona, US and La Granja in Peru. Exploration has also delivered the world s largest known undeveloped high grade iron ore deposit, at Simandou in Guinea, as well as the Caliwingina channel iron deposits in the Pilbara, Australia. Exploration identified the Potasio Rio Colorado potash deposit in Argentina which Rio Tinto has sold to Vale, the largest potash discovery in South America, and in 2008 handed over to the product groups for further evaluation the Sulawesi nickel deposit in Indonesia and the Mutamba and Chilubane ilmenite deposits in Mozambique.

A significant proportion of exploration expenditure is returned to Rio Tinto through the sale of Tier 2 discoveries. Over the nine year period 2000 to 2008, divestment of Exploration group projects has returned US\$977 million for a net pre tax exploration spend of approximately US\$226 million. Over the period this translates to an average Tier 1 discovery cost of just over US\$28 million per deposit.

The Exploration group is organised geographically into regional multi-commodity teams. This provides a local presence, an in-depth understanding of the operating environment and in-country proximity to opportunities. At the same time, programmes are prioritised on a global basis so that only the most attractive opportunities are pursued.

At the end of 2008, the Exploration group was actively exploring in 26 countries, and assessing opportunities in a further 15, for a broad range of commodities including bauxite, copper, coking coal, iron ore, industrial minerals, diamonds, nickel and uranium. The number of employees and contractors was 625 and 115 respectively resulting in a full time equivalent headcount of 694.

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	Cailwingina	Iron Ore	Australia
2007	Cailwingina North	Iron Ore	Australia
2008	Sulawesi	Nickel	Indonesia
2008	Mutamba/Chilubane	Titanium	Mozambique

#### **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, lowest cost, resources that are profitable at all parts of the natural price cycle and that deliver a sustainable competitive advantage. These are described as Tier 1 resources.

Greenfield exploration, which aims to establish completely new operating business units, involves geographic or commodity diversification away from existing Group operations. The greenfield portfolio comprises primarily opportunities in bauxite, copper, iron ore, energy and minerals (coal and uranium).

Brownfield exploration is directed at sustaining or growing the existing Group business units. The brownfield environment provides the easiest opportunity for creating value through exploration as the Group controls highly prospective title around its existing operations where the likelihood of finding additional mineralisation is strong. With processing infrastructure already in place, this means capital expenditure requirements for developing additional

orebodies are usually lower than in a greenfield setting.

# SAFETY

The exploration all injury frequency rate has fallen from 1.25 at the end of 2007 to 0.97 at the end of 2008. This reduction has come from a focused effort to reduce drilling related injuries - primarily through improved supervision of drill contractors and increased training for drill supervisors.

All injury frequency rate	Per 200,000 hours worked
2004	0.95
2005	0.55
2006	0.88
2007	1.25
2008	0.97

## FINANCIAL PERFORMANCE

Exploration expenditures reported by Rio Tinto include exploration and evaluation spends in both the greenfield and brownfield environments. Evaluation includes all pre-feasibility and feasibility study work. Expenditure on evaluation projects

reported separately by each of the Rio Tinto product groups is included in this summary.

## 2008 compared with 2007

Gross cash expenditure on exploration and evaluation in 2008 was US\$1,134 million, an increase of US\$560 million over 2007 gross expenditure. This primarily reflects the progression of high quality advanced projects within the exploration and evaluation pipeline. Gross expenditures are offset by US\$489 million cash proceeds from the sale of the Kintyre and Corani properties, Wafi and Hidden Valley royalties, and various other interests, which is net of the impairment of shares during 2008. The pre-tax charge to underlying earnings of US\$645 million is net of the US\$489 million of total proceeds from the divestments mentioned above.

## 2007 compared with 2006

Gross cash expenditure on exploration and evaluation in 2007 was US\$574 million, a US\$229 million increase over 2006, reflecting an increase in the number of high quality projects in the exploration and evaluation pipeline. Gross expenditures are offset by US\$253 million cash proceeds from the divestment of the Peñasquito royalty, shares in Anatolia Minerals, the Southdown iron ore deposit and various other interests. The pre tax charge to underlying earnings in 2007 was US\$321 million net of the US\$253 million of total proceeds from divestments mentioned above. **2008 OPERATING PERFORMANCE** 

Two Tier 1 greenfield discoveries, the Sulawesi nickel deposit in Indonesia and the ilmenite rich Mutamba and Chilubane heavy mineral sand deposits in Mozambique, as well as the Tier 2 Bunder diamond deposit in India, were transferred to product group evaluation teams. The Jadar lithium borate project in Serbia, thought to be the largest lithium deposit outside South America, was identified as a valuable but non core asset and is being prepared for divestment.

Order of magnitude studies commenced at the Regina potash property in Saskatchewan, Canada which Rio Tinto has sold to Vale, the Tamarack nickel-copper prospect in Minnesota, US, and at the Altai Nuurs coking coal property in Mongolia. These projects, as well as earlier stage opportunities at Amargosa in Brazil (bauxite) and Crowsnest in British Columbia, Canada (coking coal) are expected to provide the Group with the next crop of potential discoveries.

At the Simandou (iron ore, Guinea), La Granja (copper, Peru) and Resolution (copper, US) greenfield evaluation projects, mineralised material estimates were published in the first half of 2008. Subsequent drilling at all three properties continues to return additional significant mineralisation.

In the brownfield exploration environment, drilling at the Bingham Canyon mine delineated additional copper mineralisation and a zone of molybdenum-dominated mineralisation beneath the current open pit.

At Energy Resources of Australia, the exploration programme focused on defining the Ranger 3 Deeps deposit located east of the current open pit. A similar near mine programme is now under way on the Rössing mine property in Namibia.

#### **OUTLOOK**

In 2009, the scope of exploration programmes will be reduced significantly as part of the Group s cost saving measures. The exploration group will explore for a narrower range of commodities in a total of 14 countries. The global number of employees in 2009 will be reduced to 300 people.

Focus in 2009 will shift from cost intensive drilling of advanced projects to the re-invigoration of early stage activities. Reactivation of major drilling programmes will await an improvement in the market environment.

Divestment of Tier 2 assets will continue where real value can be realised, with a target of 100 per cent of the annual greenfield exploration budget being returned to the Group.

# The next crop of potential discoveries

Project	Commodity	Country	Stage
Tamarack	Nickel/Copper	US	Order of Magnitude
Crowsnest	Coking Coal	Canada	Project of Merit
Amargosa	Bauxite	Brazil	Project of Merit
Altai Nuurs	Coking Coal	Mongolia	Order of Magnitude

#### **Technology and Innovation**

The Technology & Innovation (T&I) group consists of a central team of technology professionals and a number of technology centres that develop leading practice and promote improved practice in mining and processing, asset management, strategic production planning, and project development, execution and evaluation. Emphasis is given to common and visible measures of operational effectiveness, the improvement of analytical tools and development of staff capability and effectiveness.

Most work is dedicated to current technologies and operations but a separate Innovation Centre focuses on step change innovation to confer competitive advantage in development of orebodies likely to be available to the Group in the future.

The total number of employees in T&I at year end was 351, compared with 378 at year end 2007.

Grant Thorne, Group executive T&I, is based in Brisbane, Australia.

#### **STRATEGY**

T&I s strategy is to underpin operational excellence in the business units and to increase the contribution of technology to the Group s vision of industry leadership.

T&I s objectives include:

Working with the business units to deploy technology solutions that increase earnings.

Developing a pipeline of valuable new investment projects.

Positioning the Group to develop orebodies that are likely to require innovative mining solutions.

## **KEY ACHIEVEMENTS**

The Improving performance together (IPT) asset management programme that started in 2004 was instrumental in assisting Iron Ore Company of Canada in making significant improvements to its mining and ore delivery fleet performance in 2008. Production is affected in winter months by issues with reliability of mine equipment. At extremely low temperatures, most mechanical and electrical systems are stressed. In mid 2007 the T&I team working together with the IOC asset management team implemented the IPT programme to help address these reliability issues. In 2008, mine production fleet availability improved to 78 per cent from average historical levels of 75 per cent. This improvement in mine fleet performance coupled with similar improvements in the reliability of the ore delivery system contributed to improvements in production at IOC in 2008.

The Asset Management Centre Mine Monitoring and Control programme was implemented in early 2008. This includes the installation of real time, on line equipment monitoring systems. By the end of 2008, over 400 monitoring systems had been installed on haul trucks across the Group. Significant benefits are already in evidence. For example, at Rio Tinto Coal Australia Hail Creek Mine, the ability to monitor and influence the truck operators use of the service brake is expected to save over US\$250,000 annually in brake repair costs. With this same programme, Rio Tinto Iron Ore has also targeted savings in excess of US\$900,000 and other business units such as KUC have been able to identify and prevent component failures. The consequence is safer operations, more productive use of equipment and lower maintenance costs.

During 2007, RTIO completed order of magnitude studies on a further expansion to 320 million tonnes per annum (Mt/a). T&I applied the IPT Strategic Production Planning (SPP) approach at RTIO, commencing in August 2007 which delivered results in March 2008. T&I, together with RTIO developed strategic scheduling and valuation models and evaluated a variety of options in order to identify the most valuable resource development sequence and mining/ processing approach, which increased the expansion base case valuation substantially. In addition, the possibility of a further potential expansion beyond 320 Mt/a was explored. The work was recognised in 2008 when the RTIO/SPP team was awarded the Terry Palmer Award, an internal Rio Tinto award, for its achievements in innovation, collaboration and contribution to the business.

The payload management initiative which is led by the IPT Mining team was instrumental in improving haul truck fleet performance at a number of the Group s mines in 2008. At the seven Pilbara Iron sites where payload management is in special focus, the average load carried by each truck has increased by more than five per cent. Also, load variability has reduced on average by more than ten per cent. Closer operation to design limits and avoidance of

overloading were the basis for an additional 15 million tonnes of material movement in 2008 without risk of increased equipment damage.

# FINANCIAL PERFORMANCE

# 2008 compared with 2007

The T&I gross cost in 2008 was US\$158 million, compared with US\$160 million in 2007. Staffing and expenditure was constrained to respond to the deterioration in global economic outlook.

# 2007 compared with 2006

The T&I group gross cost was US\$160 million in 2007 compared with US\$118 million in 2006. The increase was due to the higher level of activity, reflected also by higher staff numbers, and the continued development and deployment of leading operational practice across the Group.

# **2008 OPERATING PERFORMANCE**

#### Safety

T&I is committed to the safe operation of its facilities and to the safe deployment of its personnel. As a consequence of a single, low severity injury, the T&I all injury frequency rate was 0.24 for 2008 compared with 0.00 in 2007. **Innovation** 

T&I s Innovation Centre aims to implement Group wide change improvements in the application of technology on behalf of the Group.

The Group has adopted a strategic programme entitled Mine of the Future . This comprises an interlinking set of projects aimed at delivering demonstrable step change improvements in productivity, cost performance and product quality in both surface and underground mining operations and associated mineral recovery technologies.

A key strategy in pursuit of the Mine of the Future is the establishment of long term relationships with world class research and development providers. For example, the Group has established an exclusive long term strategic partnership with the Australian Centre for Field Robotics (ACFR) at the University of Sydney which resulted in the formation of the Rio Tinto Centre for Mine Automation.

The first breakthrough delivered by the Centre for Mine Automation is the successful development and deployment of autonomous blast hole drilling in the Pilbara. This exclusive partnership also leverages the Group s progress in the deployment of driverless haul trucks through a partnership with Komatsu.

Through Mine of the Future , the Group is also focused on the operation of the first Autonomous Iron Ore mine, designated Pit A , which is located at the West Angelas mine in the Pilbara. Pit A combines autonomous drilling with autonomous trucks and is fully integrated with the RTIO remote operations centre in Perth which controls the movement of equipment. Pit A achieved a significant milestone in December 2008 when the autonomous truck fleet was commissioned alongside the Group s autonomous drill rig, providing a launch platform for full operation in 2009.

A long term partnership with Curtin University was established in early 2008, resulting in the formation of the Rio Tinto Centre for Materials and Sensing in Mining. The partnership explores the use of advanced materials in mining applications to increase the operational life of equipment. The partnership also facilitates the transfer of advanced oil industry sensing technologies into mining applications.

*Innovation* s underground mining activities in 2008 continued to focus on the block cave method which is of particular relevance to the large copper orebodies currently under development. Technologies progressed include rapid mechanical development of shafts and tunnels, remote monitoring in underground mining and innovative underground crushing and sizing solutions.

The Group s capabilities in the field of processing and recovery were enhanced by the formation of the Rio Tinto Centre for Advanced Mineral Recovery, which is a long term partnership with Imperial College London. Progress was made on advancing breakthrough technology targeted to remove barren material from copper ore in order to significantly lift head grades. In addition, breakthroughs in flotation control offer the potential to materially increase recovery in copper applications.

## **Production Technology**

The Production Technology Centre addresses core mining and processing production processes. The IPT programme or Production Technology continued to deliver strong results in 2008. The programme assisted the operating business units in realising over US\$400 million in pre-tax cash flow benefits in 2008 and will remain a key programme in 2009.

Specific mining initiatives included haul truck payload management, off road tyre demand reduction, and the development of an explosives safety standard in surface mining.

The Production Technology Centre also focuses on core metallurgical capability and delivery of processing improvements. During 2008, the Centre focused on the implementation of a structured methodology to identify and eliminate specific points of loss (throughput, recovery, and grade) at the Group s processing operations. Common measures for the performance of concentrators and other fixed plant were introduced globally to enable monitoring and sustain improvements.

#### **Asset Management**

The Asset Management Centre focuses on the effective choice and deployment of the Group s equipment for mining

and processing. During 2008, it focused on the continued reliability and performance of equipment across the Group, including the implementation of asset management standards, technical systems and global metrics to compare and monitor the performance of both heavy mobile equipment and fixed plant.

The IPT programme for Asset Management continued to deliver strong results in 2008, assisting the business units to realise over US\$200 million in pretax cash flow benefits. Installation of real time on line equipment maintenance monitoring systems has led to continued improvement in areas such as heavy mobile equipment availability and economic extension of engine and component life.

The Centre also introduced a comprehensive suite of training programmes in 2008 to ensure the functional development of asset management professionals across the Group. Several new asset management Communities of Practice were introduced in 2008 to improve collaboration and knowledge sharing.

#### **Strategic Production Planning**

The focus of the Strategic Production Planning (SPP) Centre is to establish leading practice and develop Group wide solutions in mineral resource development, orebody knowledge and mine planning. Attention is directed to developing the skills of staff who are involved in these processes. The Centre also oversees the Group s reserves estimation and reporting process as well as the core technical systems.

A key element of the Strategic Production Planning process is SPP s cooperation with business units to develop comprehensive plans and valuations of strategic development options. Development options which are considered typically include mining and processing methods and capacities, infrastructure alternatives and blending/marketing opportunities.

Results from SPP provide a logical resource development framework for more detailed studies and investment decision making.

#### **Project Development**

The Project Development Centre provides guidance, support and training for all aspects of capital projects, from pre-feasibility through to execution and commissioning. It also performs a governance function by conducting project reviews and reporting back to Group operations. The Centre manages capital projects on behalf of the business units and is responsible currently for the execution of the Argyle Diamond underground project, Kestrel mine extension and the Clermont coal mine project. With construction now largely complete, responsibility for the QMM project in Madagascar was handed back to the Minerals product group at year end.

#### **Technical Risk Evaluation**

The Technical Risk Evaluation Centre, whose staff are deliberately reserved from involvement in the formulation of major investment proposals, provides independent review and advice on the adequacy of risk identification and mitigation at key points in the project approvals process. The Centre also sets standards for Risk Analysis and Management more generally across the Group and in 2008 initiated the development of a Group wide risk management and reporting system.

#### **Production Technology Services**

Production Technology Services comprises the central team of technology professionals deployed from five regional hubs who provide the breadth of experience and a multi-disciplinary approach to support existing business activity and the pursuit of new, profitable growth. The staff are deployed at the request of business units and the technology centres within T&I.

#### **OUTLOOK**

In response to the global economic downturn, T&I has re-aligned its 2009 priorities to support the Group s new key initiatives and commitments. T&I will reduce controllable operating costs and make headcount reductions. T&I plans to reduce its gross operating costs by US\$40 million, or 25 per cent from 2008 levels.

The number of employees is expected to be reduced by about 100, or 30 per cent. These reductions are necessary as a result of lower business unit demand for T&I services as the business units continue to reduce their operating and capital expenditures. Despite these reductions, T&I is dedicated to maintaining the critical capabilities necessary to support and retain the Group s future growth options.

For 2009, T&I s operating priority will be to assist businesses to reduce unit operating costs by intensifying the focus on improving operational excellence and increasing the contribution of technology to the Group s vision of industry leadership. T&I will continue to work with Group businesses to deliver measurable increases in earnings and will continue to assist from a technological viewpoint in the selection of the most attractive investment opportunities.

#### Other operations MARKETING

Rio Tinto aims to maximise the value of its low cost asset base through high performance sales and marketing. Customer facing sales and marketing activity is conducted at each business unit, or in some cases at a product group level, supported by a small central function, the Marketing Centre. The Centre collaborates with business units to provide rigorous and focused support to the development of marketing strategies and their tactical execution, performance measurement and monitoring, as well as talent development.

Strategically, we ensure that all our business units have a robust five year marketing strategy that combines a distinct positioning in target segments with clear customer value propositions and supporting price, product, customer and supply chain strategies.

Tactically the focus is on capturing value opportunities and developing and delivering short term plans aligned with each business unit s marketing strategy. Typically this will include determining elements such as target prices, volume of spot/term business and working capital management.

This structure enables us to deliver the One Rio Tinto agenda of realising cash flow benefits through economies of scale and scope, process standardisation and marketing best practice, while retaining the essential local knowledge of our customers and their markets.

It is axiomatic in this relationship that both the business unit and Marketing Centre must define and be accountable for the subsequent delivery of improved cash flow. The Marketing Centre has a rolling target of working with business units to identify in excess of US\$100 million of incremental cash flow each year.

This kind of collaboration has generated over US\$700 million in incremental cash flow for Rio Tinto during 2008. As an example of results achieved, a business unit worked with the Marketing Centre to determine how the customer portfolio should change based on a projected view of shifting demand growth. As a result, the business unit is implementing significant changes to its core customer base as well as to its product portfolio which will position it to take advantage of geographic shifts in demand away from historical markets and deliver significant incremental cash flow above plan.

As economic conditions have changed in 2008, our focus on executing a marketing strategy remains paramount. Whilst ensuring a flexible short term response to the challenges of the economic slowdown, especially in terms of cash flow management, business units remain focused on positioning themselves for future growth opportunities while maximising profit in the short term.

The changed economic conditions make the aim of maximising asset value through marketing even more imperative. In 2009, work will begin on further developing an integrated supply chain to better match demand with supply, accelerating Rio Tinto s entry into the Indian market and improving our short term price forecasting capability. 2009 will also see expansion of our sales and marketing hub in Singapore to better serve our Asian markets.

Incremental cash fow target vs actual	2008 US\$m	2007 US\$m
Target	250	129
Actual	716	251

The Marketing Centre s total costs in 2008 were equal to the budget of US\$8.5 million. **RIO TINTO MARINE** 

#### **Ocean freight**

Ocean freight is an important part of Rio Tinto s marketing. Seaborne cargo transportation is managed by Rio Tinto Marine to provide the Group with a comprehensive capability in all aspects of marine transportation, global freight markets and the international regulatory environment.

Rio Tinto seeks to enhance value for itself and its customers by actively participating along the supply chain in delivering the Group s products to market. The identification and execution of freight solutions enable Rio Tinto s business units to deliver added value to customers, while exerting greater influence on vessel selection, operational

safety, scheduling practices, port efficiency and cost management.

The Marine group consists of approximately 70 shipping professionals, located principally in Melbourne, Singapore, London and Montreal, supporting Rio Tinto businesses globally. During 2008, Rio Tinto Marine handled over 100 million tonnes of dry bulk cargo, a 28 per cent increase on 2007 volumes. Cash operating costs of US\$20 million were incurred for the management of freight contracts valued at US\$2.9 billion during the year.

Rio Tinto Marine 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. Rio Tinto's product diversity and global coverage affords Rio Tinto Marine the ability to combine internal and complementary external trade flows to increase vessel utilisation and profitability.

The Group s HSE and vessel assurance standards for freight are set and maintained by Rio Tinto Marine, one of three equal shareholders in RightShip, a ship vetting specialist, promoting safety and efficiency in the global maritime industry. The all injury frequency rate (AIFR) for Rio Tinto Marine during 2008 was 0.25, representing a substantial improvement on 2007 results due to better contractor management and a demonstrated unwillingness to accept poor Rio Tinto 2008 Form 20-F 113

safety performance.

Rio Tinto Marine received two awards for good risk and safety management at the annual Seacare Authority awards in Sydney, Australia. Marine s onboard Risk Register system was joint winner under Best Workplace and Safety Management System, entered as a collaborative effort with ship managers ASP.

During 2008 Rio Tinto Marine took possession of two new bulk carriers, RTM Piiramu and RTM Weipa, with the final two vessels in a series of five to be delivered during 2009. These vessels will be used principally for the transportation of bauxite from Rio Tinto Alcan s mine at Weipa, Queensland. These purpose built vessels deliver volume and efficiency advantages on niche trade routes, guaranteeing supply and eliminating freight cost variability.

Rio Tinto Marine assumed responsibility for the expanded seaborne transportation requirements of Rio Tinto Alcan during 2008. The Rio Tinto and Alcan combination has increased the Group s global cargo base, particularly in Panamax and Handy vessel classes, and provided a greater presence in the Atlantic. This has afforded enhanced freight opportunities, cargo combinations and the realisation of synergies.

The close collaboration of Rio Tinto Marine with the Group s operations recently identified a solution to supply tugs to the new port servicing QIT Madagascar Minerals (QMM). The development of a strategy for future tug boat requirements at Dampier s iron ore port operations resulted in two tugs, which had been in service at Dampier for 15 years, being replaced with modern vessels better suited to moving a growing volume of larger sized bulk carriers. The vessels being replaced at Dampier were ideally suited to the smaller scale Madagascar operation and were consequently reallocated, saving on capital expenditure in a tight secondhand market, and eliminating the need to charter tugs in a high priced environment. Although the market environment changed rapidly during 2008, the mission of creating long term competitive advantage for Rio Tinto s products, developing delivered product solutions for customers and building enterprise value through freight remains unchanged. Rio Tinto Marine will continue to position the Group for the future by creating advantageous freight opportunities.

# **Freight market**

The dry bulk shipping market had a year of mixed fortunes during 2008, with freight prices achieving new highs followed by a fall to the lowest rates seen for many years. The Baltic Dry Index (BDI), an index of dry bulk ship chartering rates, started the year from a high base and increased another 27 per cent to its May peak.

Weaker demand and negative sentiment drove freight price declines for much of the second half, with the BDI closing down 93 per cent over the calendar year.

The first half of 2008 was characterised by strong demand for dry bulk commodities, combined with supply constraints and port congestion, resulting in increased long haul trade and high fleet utilisation. The high demand on a stretched fleet of vessels drove both spot and period time charter prices to record highs. Shipyard order books swelled rapidly in 2007 and continued to grow in 2008, resulting in a large tranche of new vessel capacity set to deliver from 2009 through 2011. Long lead times for new vessels saw large premiums paid for second hand vessels in all segments.

Slowing global demand and reduced access to financial credit combined in the second half of 2008 to lead freight prices substantially lower across all dry bulk vessel segments. In contrast to the first half, new vessel ordering all but ceased, second hand vessel prices plummeted, prospective owners re-evaluated recent vessel orders and many market participants found themselves in financial distress.

The outlook is expected to see dry bulk freight prices remain more subdued during 2009. A relaxation in demand for bulk carriers during the last quarter of 2008 saw fleet utilisation reduced to levels more commensurate with historic norms. Lower fleet utilisation is expected to be maintained, with new dry bulk fleet deliveries ensuring the sector remains adequately supplied as global trade growth resumes. The removal of older vessels for demolition, along with the cancellation of some new vessel orders, is expected to temper the ultimate rate of dry bulk fleet growth. LAND

#### Kennecott Land (Rio Tinto: 100 per cent)

Kennecott Land was established in 2001 to capture value from the non mining land and water rights assets of Kennecott Utah Copper. Kennecott Land s holdings are over 50 per cent of the remaining undeveloped land in Utah s Salt Lake Valley. Approximately 16,000 hectares of the 37,000 hectares owned is developable land and is all within 20 miles (32km) of downtown Salt Lake City.

Kennecott Land s first community, Daybreak, encompasses 1,800 hectares and is entitled to develop approximately 20,000 residential units and nearly 14 million square feet of commercial space. Daybreak is well advanced, with over 1,850 home sales completed since opening in June 2004. At full build out, the community will house 50,000 to 60,000 residents. Kennecott Land develops the required infrastructure and prepares the land for sale to home builders and commercial users; and where appropriate, engages in the ownership and development of select commercial projects. Revenues in 2008 were US\$30 million.

Kennecott Land is in the process of studying development opportunities for the remaining non Daybreak landholdings. Development potential is approximately 163,000 residential units and 58 million square feet of commercial space. Land use entitlements for future projects will be sought following an internal business case analysis on lands which are suitable for development.

#### Financial review Cash flow

# 2008 compared with 2007

# Cash flow from operations, including dividends from equity accounted units, was a record US\$20,668 million, 64 per cent higher than 2007 due to the effect of higher commodity prices for the first nine months of the year.

Tax paid for 2008 increased to US\$3,899 million, US\$478 million higher than for 2007 largely due to the increase in taxable profits and the payment of tax on the disposal of the Greens Creek and Cortez mines. Net interest paid of US\$1,538 million for 2008 was US\$1,049 million higher than 2007, arising mostly from interest paid on the Alcan debt.

The Group invested at record levels, in particular in expansion projects. Capital expenditure on property, plant and equipment and intangible assets was US\$8,574 million in 2008, an increase of US\$3,574 million over 2007. This included the expansion of the Cape Lambert port and the Hope Downs mine in Western Australia, the expansion of the Yarwun alumina refinery and the construction of the Clermont thermal coal mine in Queensland, the A418 dike at the Diavik diamond mine and the completion of the Madagascar ilmenite mine. Certain major capital projects have been deferred or slowed to bring capital expenditure down to US\$4 billion in 2009. However, some of these projects will be reviewed in light of the proposed strategic partnership with Chinalco.

The net cash proceeds of disposals in 2008 were US\$2,563 million, and related to Cortez, Greens Creek and Alcan s aerospace service centres business. Acquisitions less disposals were US\$37,526 million in 2007 mainly relating to the acquisition of Alcan.

Dividends paid in 2008 of US\$1,933 million were US\$426 million higher than dividends paid in 2007, following the 31 per cent increase in the 2007 final dividend which was paid in 2008. The share buyback programme was discontinued after the announcement of the Alcan acquisition on 12 July 2007: returns to shareholders from the on-market buyback of Rio Tinto plc shares in 2007 totalled US\$1,648 million.

## 2007 compared with 2006

Cash flow from operations, including dividends from equity accounted units, was US\$12,569 million in 2007, 15 per cent higher than in 2006 due to the effect of higher earnings and favourable working capital movements.

Tax paid for 2007 increased to US\$3,421 million, US\$622 million higher than for 2006 largely due to the delayed tax effect of the increased earnings in 2006 compared to 2005 and tax paid by Alcan. Net interest paid of US\$489 million for 2007 was US\$361 million higher than 2006, arising mostly from Alcan acquisition debt arrangement costs and interest paid on the Alcan debt.

The Group invested at record levels, in particular in expansion projects. Expenditure on property, plant and equipment and intangible assets was US\$4,968 million in 2007, an increase of US\$980 million over 2006. This included the completion of the second phase of the Dampier port and Yandicoogina iron ore mine expansions, as well as construction of the Hope Downs iron ore mine in Western Australia, the expansion of the Yarwun alumina refinery, the A418 dike construction at the Diavik diamond mine and the Madagascar ilmenite mine.

The net cash cost of acquisitions in 2007 was US\$37,526 million, which was net of US\$13 million related to disposals. Almost all of the acquisition cost related to Alcan. The acquisition was financed by US\$38 billion of syndicated bank loans. Acquisitions less disposals were US\$279 million in 2006 mainly relating to the acquisition of an initial stake in Ivanhoe Mines.

Dividends paid in 2007 of US\$1,507 million were US\$1,066 million lower than dividends paid in 2006 which included a special dividend of US\$1.5 billion. The share buyback programme was discontinued after the announcement of the Alcan acquisition on 12 July 2007: returns to shareholders from the on market buyback of Rio Tinto plc shares in 2007 totalled US\$1,611 million (net of US\$13 million proceeds from the exercise of options), compared with US\$2,339 million in 2006.

#### **Balance sheet**

Rio Tinto commissioned independent expert valuation consultants to advise on the fair values of Alcan s assets. As required under International Financial Reporting Standards (IFRS), the tangible and intangible assets of the acquired business have been uplifted to fair value. The residue of the purchase price not allocated to specific assets and liabilities has been attributed to goodwill. In accordance with IFRS 3 Business Combinations, the provisional price

allocations at acquisition have been revised to reflect revisions to fair value adjustments recorded in 2008. This led to an increase in goodwill of US\$5.6 billion (see note 41 to the *2008 Financial statements*). Goodwill at 31 December 2008 was US\$14.3 billion and that relating to equity accounted units was US\$1.6 billion compared to US\$21.1 billion and US\$1.9 billion respectively at 31 December 2007. This decrease is due to an impairment charge of US\$6.6 billion relating to goodwill that arose on the acquisition of Alcan that was tested for impairment for the first time on 31 October 2008.

Net debt decreased by US\$6.5 billion over the period to US\$38.7 billion. This movement was a result of free cash flow, asset disposals and other derivative and exchange movements. Net debt to total capital remained unchanged at 63 per cent at 31 December 2008 following the impairment charges and the decline of the Australian and Canadian dollars, and interest cover was ten times compared to 20 times in 2007.

In addition, the Group s share of the third party net debt of equity accounted units totalled US\$1.0 billion at 31  $\mathbf{D}_{1}^{2} = \mathbf{D}_{2}^{2} + \mathbf{D}_{2}^{2} + \mathbf{D}_{3}^{2} + \mathbf{D}_{3}^$ 

December 2008. US\$0.3 billion of this debt is with recourse to the Rio Tinto Group.

The Group had available at 31 December 2008 undrawn committed facilities of US\$8.1 billion up to October 2010. Provisions for post retirement benefit plans increased as a result of the fall in the value of assets held in the pension plans. This was offset, to some extent, by a fall in the value of the obligations resulting from higher discount rates and lower expected inflation. This increase in the provision resulted in a loss of US\$1.3 billion being recognised directly in equity.

Net assets attributable to Rio Tinto shareholders decreased by US\$4.1 billion. The decrease reflected profit after tax attributable to Rio Tinto shareholders of US\$3.7 billion less US\$1.9 billion of dividends. In addition, there was a negative currency translation effect of US\$5.0 billion as the Australian dollar, the Canadian dollar and the Euro all weakened against the US dollar.

#### **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. From 1 January 2008, Rio Tinto Alcan adopted the Rio Tinto Group policy on trading and hedging.

The Group s business is finding, mining and processing mineral resources, and not trading. Generally, the Group only sells commodities it has produced but may purchase commodities to satisfy customer contracts from time to time and to balance the loading on production facilities. In the long term, natural hedges operate in a number of ways to help protect and stabilize 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 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 in the sections on currency, interest rate, commodity price exposure and treasury management below.

The Group s 2008 Financial statements and disclosures show the full extent of its financial commitments including debt.

The risk factors to which the Group is subject that are thought to be of particular importance are summarised on pages 6 to 11.

The effectiveness of internal control procedures continues to be a high priority in the Rio Tinto Group. The Boards statement on internal control is included under Corporate governance on page 174.

#### Capital resources and contractual obligations

The Group s total capital is defined as Rio Tinto s shareholders funds plus amounts attributable to outside equity shareholders plus net debt and amounted to US\$61 billion at 31 December 2008 (2007: US\$71 billion). 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 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. In December 2008, Moody s downgraded the long-term ratings of the Group from A3 to Baa1 and S&P downgraded its long-term ratings from BBB+ to BBB and its short-term corporate credit ratings from A-2 to A-3. Ratings agencies have retained a negative outlook in respect of their ratings. Following the announcement of the strategic alliance with Chinalco, Moody s placed the group under a review for possible downgrade at the same time affirming the Prime-2 short term ratings. S&P reaffirmed the BBB rating and upon successful completion of the transaction may revise the outlook to stable from negative. In the medium term the Group aims to restore its long term credit rating to a single A credit rating in order to enhance its ability to access the credit markets on more favourable terms. Credit ratings are not a

recommendation to purchase, hold or sell securities, and are subject to revision or withdrawal at any time by the ratings organisation.

## Gross debt maturity profile as at 31 December 2008

2009	9,782
2010	9,700
2011	449
2012	10,605
2013	3,124
2014	500
2015	509
2016	145
2017	250
2018 - 2035	4,146

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US\$m

The Alcan acquisition was financed under syndicated bank facilities of up to US\$40 billion at floating interest rates, of which US\$38 billion was drawn down in connection with the acquisition. At 31 December 2008, US\$28 billion was drawn down under the syndicated bank facilities. The syndicated bank facilities are split into two term facilities (Facilities A and D), which are fully drawn and two revolving facilities (Facilities B and C), which are available for utilisation until shortly before their respective maturity dates. Facility C may also be used as a swingline facility. Term Facility A was originally for an amount of US\$15 billion, of which US\$8.9 billion remained outstanding at 31 December 2008.

The maturity date for Facility A was originally October 2008, but with an extension option to October 2009, which has been exercised. Revolving Facility B is for an amount of up to US\$10 billion, of which US\$9.1 billion was drawn at 31 December 2008. The maturity date for Facility B is October 2010. Revolving Facility C is for an amount of up to US\$5 billion, all of which is undrawn. The maturity date for Facility C is October 2012. Term Facility D was originally for an amount of US\$10 billion, the full amount of which remains outstanding at 31 December 2008. The maturity date for Facility D is December 2012. Advances under each Facility generally bear interest at rates per annum equal to the margin for that Facility plus LIBOR and any mandatory costs. Facilities A and B are subject to mandatory prepayment and cancellation to the extent of net proceeds received from disposals of assets and from the raising of funds through capital markets, subject to specified thresholds and conditions. Any such net proceeds must first be applied in prepayment of the amounts outstanding under Facility A. Further net proceeds would then be retained by the Group up to a corresponding and cancelled amount of any undrawn commitments under Facility B, and net proceeds beyond this cancellation would finally be applied in prepayment of any amounts outstanding under Facility B. The Group s committed bank standby facilities contain no financial undertakings relating to interest cover and are not affected to any material extent by a reduction in the Group s credit rating. The syndicated bank facilities also contain a financial covenant requiring the maintenance of a ratio of net borrowings to EBITDA no greater than 4.5 times. A compliance certificate must be produced for this ratio on a semi annual basis. In addition the facility agreement contains restrictions on the Group, including that it be required to observe certain customary covenants including but not limited to (i) maintenance of authorisations; (ii) compliance with laws; (iii) change of business; (iv) negative pledge (subject to certain carve outs); (v) environmental laws and licences; and (vi) subsidiaries incurring financial indebtedness.

The Group maintains backup liquidity for its commercial paper programme and other short term debt by way of committed bi-lateral bank facilities and syndicated credit facilities related to the US\$40 billion Alcan acquisition facility. At 31 December 2008, the Group has available committed financing of US\$5.0 billion under Alcan Facility C, US\$0.9 billion under Facility B and US\$2.2 billion unused committed bilateral banking facilities.

The Group s net debt as a percentage of total capital was 63 per cent at 31 December 2008, unchanged from 31 December 2007.

Net debt and equity	*Equity US\$m	Net debt US\$m	**Net debt as a percentage of invested capital
2005	15,739	1,313	7.7%
2006	19,385	2,437	11.2%
2007	26,293	45,191	63.2%
2008	22,461	38,672	63.3%

#### Notes

- \* Includes minority interest share of net debt
- \*\* Calculated as borrowings divided by total capital. Total capital is the sum of net debt and equity, including minority interests.

Rio Tinto does not have a target debt to equity ratio, but has a policy of maintaining a flexible financing structure so as to be able to take advantage of new investment opportunities that may arise. Following the acquisition of Alcan, the Group has publicly stated an objective to reduce its debt to equity ratio from current levels through a targeted asset divestment programme, capital restructurings and through operating cash flows to a level consistent with a solid investment grade credit rating. This policy is balanced against the desire to ensure efficiency in the debt/equity structure of the Group balance sheet in the longer term through proactive capital management programmes. On 10 December 2008, Rio Tinto announced certain key initiatives and commitments to reduce net debt by US\$10 billion in 2009, including US\$8.9 billion due in October 2009.

In January 2009, Rio Tinto reached an agreement to sell its potash assets and Brazilian iron ore operation for US\$1.6 billion. The sale of potash assets was completed on 5 February 2009 and the US\$850 million cash proceeds have been used to pay down debt. The completion of the sale of the Brazilian iron ore assets, from which proceeds of US\$750 million will be received, is subject to regulatory approvals which are expected during the second half of 2009. During March 2009, Rio Tinto announced the conditional sale of its Jacobs Ranch mine for US\$761 million.

During December 2008 the Group unwound interest rate swaps with a principal amount of US\$5.9 billion to take advantage of market conditions and generated US\$800 million in cash of which US\$90 million is included in the interest line in the cash flow statement. The funds were used to pay down debt and as a result the percentage of floating rate debt to total debt was reduced from 88 per cent to 73 per cent. The Group continues to maintain a preference for floating rate debt but will continue to actively manage its mix of floating and fixed rate debt.

As at 31 December 2008, the Group had contractual cash obligations arising in the ordinary course of business as follows:

		Less than 1	Between 1 and 3	Between 3 and 5	After 5
Contractual cash obligations	Total US\$ m	year US\$ m	years US\$ m	years US\$ m	years US\$ m
Expenditure commitments in relation to:					
Operating leases Other (mainly capital commitments)	1,561 4,354	336 3,568	565 487	345 228	315 71
Long term debt and other financial obligations					
Debt (a)	39,378	10,079	9,902	13,637	5,760
Interest payments (b)	8,024	1,375	2,053	1,230	3,366
Unconditional purchase obligations (c)	10,345	1,245	1,643	1,153	6,304
Other (mainly trade creditors)	6,628	5,942	344	219	123
Total	70,290	22,545	14,994	16,812	15,939
Notes					
<ul><li>(a) Debt obligations include bank borrowings</li></ul>					
repayable on demand.					
(b) Interest payments have been projected					
using the interest rate applicable at					
31 December 2008, including the					
impact of currency and					
interest rate swap agreements where					
appropriate. Much of the debt is subject to					

variable interest rates. Future interest payments are subject. therefore, to change in line with market rates. (c) 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 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.

Information regarding the Group s pension commitments and funding arrangements is provided in the post retirement benefits section of this *Financial review* and in note 49 to the 2008 *Financial statements*. The level of contributions to funded pension plans is determined according to the relevant legislation in each jurisdiction in which the Group operates. In some countries there are statutory minimum funding requirements while in others the Group has developed its own policies, sometimes in agreement with the local trustee bodies. The size and timing of contributions will usually depend upon the performance of investment markets. Depending on the country and plan in question the funding level will be monitored quarterly, bi-annually or annually and the contribution amount amended appropriately. Consequently it is not possible to predict with any certainty the amounts that might become payable in 2010 onwards. The impact on cash flow in 2008 of the Group s pension plans, being the employer contributions to defined benefit and defined contribution pension plans, was US\$615 million. In addition there were contributions of

US\$53 million in respect of unfunded healthcare schemes. Contributions to pension plans for 2009 are estimated to be around US\$150 million higher than for 2008. This is predominantly attributable to the decline in financial markets during 2008 which has resulted in a deterioration of the funding positions of most of the Group s plans. Healthcare plans are unfunded and contributions for future years will be equal to benefit payments and therefore cannot be predetermined.

Information regarding the Group s close down and restoration obligations is provided in the relevant section of this review and in note 27 to the 2008 Financial statements. 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. Generally, the Group s close down and restoration obligations to remediate in the long term are not fixed as to amount and timing and are not therefore included in the above table.

Favourable market conditions came to an abrupt halt during the fourth quarter of 2008. A very significant financial turbulence led to sharp declines in the rate of global economic growth, in global demand for commodities and in the price of most of the Group s principal products. These negative trends adversely impacted the Group s near term cash flows and financial outlook. Based on current forecasts and the available undrawn committed borrowing facilities of US\$8.1 billion, the directors expect that the Group will be able to meet its debt and other obligations in the foreseeable future. Nevertheless owing to the continued volatility and uncertainty in the markets the directors have carried out a detailed review of actions available to them to address the risk of operational cash flows being insufficient to meet the Group s scheduled debt repayments.

On 12 February 2009 the Group announced that the board is recommending to shareholders a transaction with Aluminium Corporation of China (Chinalco). This transaction is subject to a number of conditions, including shareholder, government and regulatory approvals. The directors remain confident that the transaction will complete in the expected timeframe, although a number of the conditions are outside their control. If the transaction is not approved, the directors will consider alternative measures to address the Group s debt obligations in a timely and cost effective manner, which will depend primarily upon market conditions and continued progress with the Group s divestment programme.

#### **Dividends and capital management**

Rio Tinto s progressive dividend policy aims to increase the US dollar value of dividends over the long term, while ensuring that a solid investment grade credit rating is maintained.

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. Rio Tinto plc dividends are

declared and paid in pounds sterling and Rio Tinto Limited dividends are declared and paid in Australian dollars, converted at exchange rates applicable to the US dollar two days prior to the announcement of dividends. Holders of American Depositary Receipts (ADRs) receive a US dollar dividend at the rate declared. Changes in exchange rates could result in a reduced sterling or Australian dollar dividend in a year in which the US dollar value is maintained or increased. The interim dividend for each year in US dollar terms will be equivalent to 50 per cent of the total US dollar dividends declared in respect of the previous year.

On 10 December 2008 the Group announced that the 2008 dividend was to be maintained at the 2007 level of 136 US cents with no 20 per cent uplift in 2009.

Final 2008 dividends to Rio Tinto Limited shareholders will be fully franked. The board expects Rio Tinto Limited to be in a position to pay fully franked dividends for the reasonably foreseeable future.

#### **Treasury management and financial instruments**

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.

Rio Tinto does not acquire or issue derivative financial instruments for trading or speculative purposes; nor does it believe that it has 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, 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 is considered to exist by virtue of the possible non performance of the counterparties to financial instruments held by the Group.

Derivative contracts are carried at fair value based on published price quotations for the period for which a liquid active market exists. Beyond this period, Rio Tinto s own assumptions are used.

#### **Off balance sheet arrangements**

In the ordinary course of business, to manage the Group s operations and financing, Rio Tinto enters into certain performance guarantees and commitments for capital and other expenditure.

The aggregate amount of indemnities and other performance guarantees, on which no material loss is expected, including those related to joint ventures and associates, was US\$588 million at 31 December 2008.

Other commitments include capital expenditure, operating leases and unconditional purchase obligations as set out in the table of contractual cash obligations, included in the liquidity and capital resources section above.

#### Exchange rates, reporting currencies and currency exposure

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 partly determined has a positive effect on Rio Tinto s underlying earnings.

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.

> Effect on net and

		underlying
	Average	earnings
		of 10% change
	exchange	in
	-	full year
	rate for	average
Earnings sensitivities exchange rates	2008	+/- US\$m
Australian dollar	US 86 cents	502
Canadian dollar	US 94 cents	214
Euro	US147 cents	34
Luio	US\$147 cents US\$1 = 522	54
Chilean peso	pesos	17
New Zealand dollar	US 71 cents	29
South African rand	US 12 cents	47
UK sterling	US 186 cents	22
-		

#### Note

The sensitivities in the Average exchange rate for 2008 column are based on 2008 prices, costs and volumes and assume that all other variables remain constant.

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.

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. A substantial part of the Group s US dollar debt is located in subsidiaries having a US functional currency.

However, 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 of the 2008 Financial statements. 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.

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 exposures 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 expenditure and other significant financial items such as tax and dividends. There is a legacy of currency forward contracts used to hedge operating cash flow exposures which were acquired with Alcan and the North companies. Details of currency derivatives held at 31 December 2008 are set out in note 34 to the 2008 Financial statements.

The sensitivities below give the estimated effect on underlying earnings, net earnings and equity of a ten per cent strengthening in the full year closing US dollar exchange rate, assuming that each exchange rate moved in isolation. Financial assets and liabilities will not remain constant throughout 2009, however, and therefore these numbers should be used with care.

	Closing	Effect on net earnings of 10%	Of which amount impacting	Effect of items impacting directly
Earnings sensitivities exchange on financial	exchange rate US	strengthening of US\$	underlying earnings	on equity
assets/liabilities	cents	US\$m	US\$m	US\$m
Functional currency of business unit: Australian dollar Canadian dollar South African rand	69 82 11	(12) 159 13	78 193 19	5 56

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Euro	141	249	28	2
New Zealand dollar	58	21	2	

#### Notes

(a) The sensitivities show the net sensitivity of US dollar exposures in Australian dollar functional currency companies, for example, and Australian dollar exposures in US dollar functional currency companies. (b) The sensitivities indicate the effect of a ten per cent strengthening of the US dollar against each currency. (c) Rio Tinto Alcan Inc., which has a **US** functional currency, 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 2008 for a ten per cent strengthening of the US dollar do not include any tax benefit related to this

debt because the capital losses generated would not be recognised. If the US dollar weakened below 97 Canadian cents then tax charges would begin to be recognised at 15 per cent. (d) The sensitivities include the Rio Tinto share of the sensitivities of equity accounted units. (e) Some US dollar functional currency companies are exposed to exchange movements on local currency deferred tax balances. The only material exposure is to the Canadian dollar and a 10 per cent strengthening of the US dollar would reduce underlying earnings by US\$115 million. This would partially offset the US\$193 million gain shown above.

The functional currency of many operations within the Rio Tinto Group is the local currency in the country of operation. The former Alcan aluminium and alumina producing operations primarily use a US dollar functional currency. Foreign currency gains or losses arising on translation to US dollars of the net assets of non US functional currency operations are taken to equity and, with effect from 1 January 2004, recorded in a currency translation reserve. A weakening of the US dollar would have a positive effect on equity. The approximate translation effects on

the Group s net assets of ten per cent movements from the year end exchange rates are as follows: Rio Tinto 2008 Form 20-F 120

		2008 Effect on net assets
	Closing exchange	of 10% change in
	rate	closing rate
Net assets sensitivities exchange on translation	US cents	+/- US\$m
Australian dollar Euro Canadian dollar	69 141 82	1,264 621 180

#### **Interest rates**

Rio Tinto s interest rate management policy is generally to borrow and invest at floating interest rates. This approach is based on the 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 and currency risk on most of its foreign currency borrowings by entering into cross currency 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. At the end of 2008, US\$10.6 billion (2007: US\$4.9 billion) of the Group s debt was at fixed rates after taking into account interest rate swaps and finance leases. Based on the Group s net debt and other floating rate financial instruments at 31 December 2008, the effect on the Group s net earnings of a half percentage point increase in US dollar LIBOR interest rates with all other variables held constant, would be a reduction of US\$100 million. These balances will not remain constant throughout 2009, however, and therefore these numbers should be used with care. **Commodity prices** 

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 spread and the Group does not generally believe commodity price hedging would provide long term benefit to shareholders. The Group may hedge certain commitments with some of its customers or suppliers. Details of commodity derivatives held at 31 December 2008 are set out in note 34 to the *2008 Financial statements*. The forward contracts to sell copper were entered into as a condition of the refinancing of Palabora in 2005. Many of the aluminium forward contracts and embedded derivatives were acquired with Alcan.

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 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 annually 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. At the end of 2008 the Group had 183 million pounds of copper sales (2007: 270 million pounds) that were provisionally priced at 133 US cents per pound (2007: 304 US cents per pound). The final price of these sales will be determined in 2009. The impact on earnings of a ten per cent change in the price of copper for the provisionally priced sales would be US\$15 million (2007: US\$58 million).

Approximately 24 per cent of Rio Tinto s 2008 net earnings from operating businesses came from products whose prices were terminal market related and the remainder came from products priced by direct negotiation. The reduction from 52 per cent in 2007 is due to the reduction in Copper net earnings combined with a significant increase in Iron Ore and Energy net earnings.

The Group continued to achieve high average prices for its products in 2008 despite prices in terminal markets declining sharply during the second half of the year.

The poor economic outlook and weakness in metals demand is likely to weigh on average prices in 2009. In the longer run, urbanisation and income drivers in emerging markets in countries such as China and India are likely to reassert themselves in rising demand for metals.

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 2008 for the following products would be:

			Effect on underlying and net earnings
		Average	of
		market	
		price	10% change in
		for 2008	full year average
Earnings sensitivities commodity prices	Unit	US\$	+/- US\$m
Copper	pound	3.20	389
Aluminium	pound	1.18	739
Gold	ounce	872	30
Molybdenum	pound	31	62
Iron ore	dmtu	N/A	829

#### Notes

(a) The above sensitivities are based on 2008 volumes.

(b) Excludes impact of commodity derivatives.

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.

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 2008. 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. Own use contracts are contracts to buy or sell non financial items that can be net settled but ere 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 and changes in exchange rates can influence commodity prices and vice versa.

			Effect of
			items
			impacting
			directly
		Effect on	on Rio Tinto
		net	share
			of equity of
		earnings of	10%
		10%	
		increase	increase
		from	from
		year end	year end
Earnings sensitivities	commodity price on financial assets/liabilities	price	price
Products		US\$m	US\$m
Copper			(13)
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Coal Aluminium	(62)	(8) (16)
Total	(62)	(37)

#### **Sales revenue**

			2008	2007	2006
Commodity	Source	Unit	US\$	US\$	US\$
Aluminium	LME	Pound	1.18	1.20	1.16
Copper	LME	Pound	3.20	3.24	3.06
Gold	LBMA	Ounce	872	691	602
	Australian benchmark	(b)			
Iron ore	(fines) (a)	dmtu	1.29	0.79	0.71
	Metals Week: quote for				
Molybdenum	dealer oxide price	Pound	31	30	25

#### Notes

(a) average for the calendar year

(b) dry metric tonne unit

The above table shows published benchmark 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 benchmark and Rio Tinto s realised prices. The prices set out in the table are the averages for each of the calendar years, 2006, 2007 and 2008.

The Group s sales revenue will not necessarily move in line with these benchmarks 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, as included in the Financial Information by Business Unit in the 2008 *Financial statements*.

The sales revenues of the Iron Ore group increased by 80 per cent in 2008 compared with 2007. There was an 86 per cent weighted average increase in the benchmark price, mainly effective from 1 April 2008 which resulted in a 63 Rio Tinto 2008 Form 20-F 122

per cent increase in the average Australian iron ore fines benchmark for the calendar year. In addition, spot market sales had a significant positive impact. Although the price for iron ore on the spot market decreased during the final three months of 2008, the impact on Rio Tinto was limited since the vast majority of its iron ore spot market sales were made in the first nine months of the year when spot prices were in excess of long term contracts. IOC enjoyed a more stable operating environment in 2008 after the resolution of the industrial action in 2007.

The Australian iron ore fines benchmark increased by 9.5 per cent in April 2007. In addition to higher prices, sales revenues at Hamersley Iron were higher from record production following completion of the second phase of the Dampier port upgrade and the Tom Price brownfield and Yandicoogina JSE mine expansions. At IOC, volumes were lower as a result of a seven week strike in the first and second quarters of the year and this was only partly mitigated by higher prices.

The 2008 sales revenues of the Aluminium group decreased by one per cent against 2007 on a combined adjusted basis and increased by 224 per cent on a non adjusted basis due to the inclusion of a full year of Alcan. The average aluminium price of 118 US cents per pound was two per cent lower than the 2007 average price. Aluminium prices were strong for the first nine months of the year. The fourth quarter saw a sharp fall in aluminium prices from around 110 US cents per pound to 66 US cents per pound at year end. The decline in prices underlines the weakness in demand causing a continued build-up of LME stocks. Despite the fact that the fall in aluminium prices has been accompanied by a fall in costs, producers have also been responding to the downturn and the weakness in demand by cutting back output. However, these have not been of sufficient magnitude to support prices as LME stocks have continued to rise.

The Aluminium group s sales revenues are from aluminium and related products such as alumina and bauxite. Aluminium production was unchanged overall from the prior year, while bauxite and alumina production rose by 12 per cent and six per cent respectively over 2007. The bauxite production increase reflects investment in increased capacity at Weipa and the alumina production reflects a 23 per cent increase at the Gove refinery as it continues to increase capacity.

The average 2007 aluminium price of 120 US cents per pound was three per cent above the 2006 average price. Alcan s sales revenue for the two months from acquisition, which includes revenue from Engineered Products, was US\$3,798 million. Rio Tinto Aluminium s sales revenue increased by one per cent in 2007 reflecting higher volume and price for bauxite and aluminium and lower volume and price for alumina.

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 benchmarks. 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 benchmark prices.

Sales revenues for the Energy & Minerals group increased by 49 per cent in 2008 compared with 2007 due to higher prices and sales volumes. Asian seaborne thermal coal spot prices came off their highs in the second half of 2008 due to the general slump in demand across all economies in reaction to the global economic downturn. Published 2008 market indications for Australian thermal coal showed an increase of 93 per cent and an increase of 145 per cent in the coking coal benchmark price. Revenues of the Group s Australian coal operations increased by 126 per cent in 2008 due to higher thermal coal prices and higher coking prices. Hard coking coal production from the Queensland coal operations increased by 20 per cent compared with 2007 as a result of higher demand and increasing port capacity.

Revenues of the Group s Australian coal operations decreased by three per cent in 2007 with lower thermal coal sales largely attributable to infrastructure constraints and a severe weather event. Published 2007 thermal coal benchmarks in Australia improved by 33 per cent in the calendar year whilst coking coal benchmarks decreased by 13 per cent.

Rio Tinto Energy America s 2008 revenues have benefited from new contracts at higher prices. Volumes in 2008 are higher than 2007 due to recent investment and expansion at Antelope, Jacobs Ranch and Spring Creek mines to meet the robust market demands of Powder River Basin coal. In the US, published market indications of spot prices

for Wyoming Powder River Basin thermal coal 8800 BTU (0.80 sulphur) show an increase of 36 per cent for the average spot price in 2008 compared with 2007. These same prices showed a decrease of around 20 per cent in 2007 compared with 2006. However, Rio Tinto Energy America s revenues increased by nine per cent in 2007 with improved realised prices due to its long term contracts.

The Copper & Diamonds group also produces gold and molybdenum as significant by-products. The average copper price of 320 US cents per pound was one per cent below the 2007 average price. The gold price averaged US\$872 per ounce, an increase of 26 per cent on the prior year, whilst the average molybdenum price was US\$31 per pound, an increase of three per cent compared with 2007. Total Copper & Diamonds Group sales revenues in 2008 decreased by 30 per cent over 2007. Higher by-product prices were more than offset by lower volumes of copper, gold and molybdenum. Kennecott Utah Copper sales were impacted by a scheduled smelter shutdown during the second half of 2008. Escondida experienced lower volumes due to lower grades and operational difficulties at the Laguna Seca SAG mill, and Grasberg was adversely impacted by a pit wall failure in September 2008. Diamond prices realised by Rio Tinto depend on the size and quality of diamonds in the product mix. Diamond sales revenue decreased by 18 per cent in 2008 against 2007 primarily due to lower grades processed.

Total Copper & Diamonds group sales revenues in 2007 increased by 20 per cent over 2006. Copper revenuesRio Tinto 2008 Form 20-F123

increased by 17 per cent reflecting higher volumes at KUC and Escondida as well as higher prices. Gold revenue increased by 69 per cent with higher volumes at Kennecott Minerals and the Grasberg joint venture.

Diamond sales revenue increased by 22 per cent in 2007 against 2006 due to higher sales volumes and polished pink diamond tender prices as the result of tighter supply and higher demand.

#### Critical accounting policies and estimates

#### **Dual listed company reporting**

As explained in detail in the Outline of Dual Listed Companies Structure and basis of financial statements section in the 2008 Financial statements, the consolidated financial statements of the Rio Tinto Group deal with the results, assets and liabilities of both of the dual listed companies, Rio Tinto plc and Rio Tinto Limited, and their subsidiaries. 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 2008 Annual report and 2008 Financial statements satisfy 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 27 January 2006 (as amended on 22 December 2006). The 2008 Financial statements disclose the effect of the adjustments to consolidated IFRS profit, consolidated total recognised income and consolidated shareholders funds for the Group that would be required under the version of IFRS that is applicable in Australia (Australian IFRS). The 20-F has been prepared in accordance with IFRS as issued by the IASB.

The US dollar is the presentation currency used in these financial statements, as it most reliably reflects the Group s global business performance.

#### Ore reserve estimates

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 and Australian IFRS are based on the reserves, and in some cases mineral resources, determined under the JORC code.

For the purposes of this combined Annual report on Form 20-F estimates of ore reserves have been computed in accordance with the SEC s Industry Guide 7, rather than in accordance with the JORC code, and are shown on pages 33 to 42. Ore reserves presented in accordance with SEC Industry Guide 7 do not exceed the quantities that, it is estimated, could be extracted economically if future prices were to be in line with the average of historical prices for the three years to 30 June 2008, or contracted prices where applicable. For this purpose, contracted prices are applied only to future sales volumes for which the price is predetermined by an existing contract; and the average of historical prices is applied to expected sales volumes in excess of such amounts. Moreover, reported ore reserve estimates have not been increased above the levels expected to be economic based on Rio Tinto s own long term price assumptions. Therefore, a reduction in commodity prices from the three year average historical price levels would not necessarily give rise to a reduction in reported ore reserves.

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, restoration and environmental clean up costs.

#### Asset lives

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. A change in the prospects for renewal of the contractual rights without a significant incremental cost could impact on the Group s depreciation and amortisation rates and asset carrying values. **Acquisition accounting** 

On the acquisition of a subsidiary, the purchase method of accounting is used whereby the purchase consideration is allocated to the identifiable assets, liabilities and contingent liabilities (identifiable net assets) on the basis of fair value at the date of acquisition.

Rio Tinto acquired Alcan Inc during 2007. The Group commissioned expert valuation consultants to advise on the fair values and asset lives of Alcan s assets. The residue of the purchase price not allocated to specific assets and liabilities has been attributed to goodwill. The provisional values and asset lives incorporated in the 2007 *Financial statements* have been revised in 2008 (within 12 months of the date of acquisition) as permitted by IFRS 3 Business Combinations .

#### Asset carrying values

Events or changes in circumstances can give rise to significant impairment charges or reversals of impairment provisions in a particular year. In 2008, the Group s results included impairment charges of US\$8.4 billion (after tax), which related mainly to impairment of goodwill arising on the acquisition of Alcan. In 2007, the Group s results included net impairment charges of US\$113 million (after tax and outside shareholders interests). An impairment charge was recognised at Argyle, which was partially offset by impairment reversals at Palabora and Tarong. In 2006, the Group s results included net impairment reversals of US\$396 million (US\$44 million after tax and outside shareholders interests). Impairments were reversed at KUC and IOC, which more than offset impairment charges at Argyle and Tarong.

When such events or changes in circumstances impact on a particular asset or cash generating unit, its carrying value is assessed by reference to its recoverable amount, being the higher of fair value less costs to sell and value in use (being the net present value of expected future cash flows of the relevant cash generating unit). This is often estimated using discounted cash flow techniques.

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 long term commodity prices; exchange rates; operating costs; discount rates; and, in the case of the Group s upstream aluminium business (Upstream Aluminium), the real term growth rate incorporated into the calculation of its terminal value.

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.

Reviews of carrying values relate to 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 the product groups consist of several operations with independent cash generating streams, which therefore constitute separate cash generating units.

Goodwill acquired through business combinations has been allocated to groups of cash generating units that are being managed as a combined business. These 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 Group s reporting segments, which are its product groups.

The cash flow forecasts are based on best estimates of expected future revenues and costs. These may include net cash flows expected to be realised from extraction, processing and sale of mineralised material that does not currently qualify for inclusion in proven 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.

Where the recoverable amount of a cash generating unit is dependent on the life of its associated ore body, 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 ore body, 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 mine plan is therefore the basis for forecasting production output in each future year and for forecasting production costs.

For upstream aluminium, forecast cash flows are determined over a period of ten years. The cash flow projections are based on long term production plans covering the expected operating life of each plant, in line with normal practice in the aluminium industry.

Rio Tinto s cash flow forecasts are based on assessments of expected long term commodity prices, which for most commodities are derived from an analysis of the marginal costs of the producers of the relevant commodities. These assessments often differ from current price levels and are updated regularly.

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.

As denoted above, cost levels incorporated in the cash flow forecasts are based on the current long term mine plan or long term production plan for the cash generating unit. For value in use calculations used in impairment reviews, recent cost levels are considered, together with expected changes in costs that are compatible with the current condition of the business. 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.

The recoverable amount for upstream aluminium includes an assumption the business will continue in perpetuity. This assumption is incorporated through the use of a terminal value, which represents the value of the cash flows beyond the tenth year. The terminal value assumes annual real terms growth in Upstream Aluminium s cash flows of one quarter of one percent. Upstream Aluminium benefits from a global marketplace with substantial barriers Rio Tinto 2008 *Form 20-F* **125** 

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 will support demand for aluminium.

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 smelters, 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 long term mine plan. Where the major assets of a cash generating unit are not dependent on the life of a related orebody, management applies judgement in estimating the remaining service potential of long lived assets.

Forecast cash flows are discounted to present values using Rio Tinto s weighted average cost of capital with appropriate adjustment for the risks associated with the relevant cash flows, to the extent that such risks are not reflected in the forecast cash flows. For final feasibility studies and ore reserve estimation, internal hurdle rates are used which are generally higher than the weighted average cost of capital.

Value in use and ore reserve estimates are based on the exchange rates current at the time of the evaluation. In final feasibility studies and estimates of fair value, a forecast of the long term exchange rate is made having regard to spot exchange rates, historical data and external forecasts.

Forecast cash flows for ore reserve estimation for JORC purposes and for impairment testing are generally based on Rio Tinto s long term price forecasts. For Upstream Aluminium, the prices used fall within the range of analysts long term consensus forecasts current around the date of the evaluation.

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.

#### 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.

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. The costs are estimated on the basis of a closure plan. The cost estimates are calculated annually during the life of the operation to reflect known developments, eg updated cost estimates and revisions to the estimated lives of operations, and are subject to formal review at regular intervals. 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. The initial closure provisions together with changes, other than those arising from the unwind of the discount applied in establishing the net present value of the provision, are capitalised within property, plant and equipment and depreciated over the lives of the assets to which they relate.

Clean up costs result from environmental damage that was not a necessary consequence of mining, including remediation, compensation and penalties. These costs are charged to the income statement. Provisions are recognised at the time the damage, remediation process and estimated remediation costs become known. Remediation procedures may commence soon after this point in time but may continue for many years depending on the nature of the disturbance and the remediation techniques.

As noted above, 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 and environmental clean up, which would affect future financial results.

#### **Overburden removal costs**

In open pit mining operations, it is necessary to remove overburden and other barren waste materials to access ore from which minerals can economically be extracted. The process of mining overburden and waste materials is referred to as stripping. During the development of a mine, before production commences, it is generally accepted that stripping costs are capitalised as part of the investment in construction of the mine.

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 of the second and subsequent pits is considered to be production phase stripping relating to the combined operation.

Stripping of waste materials continues during 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.

Rio Tinto defers production stage stripping costs for those operations where this is the most appropriate basis for matching costs with the related economic benefits and the effect is material. Stripping costs incurred in the period are Rio Tinto 2008 *Form 20-F* **126** 

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 ratio falls short of the life of mine or pit ratio. The life of mine or pit ratio is based on the proven and probable reserves of the mine or pit and is 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.

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.

In the production stage of some operations, further development of the mine requires a phase of unusually high overburden removal activity that is similar in nature to preproduction 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 property, plant and equipment or in investment 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 operating costs or in the Group s share of the results of its jointly controlled entities and associates as appropriate.

During 2008, production stage stripping costs incurred by subsidiaries and equity accounted operations were US\$175 million higher than the amounts charged against pre tax profit (2007: production stage costs exceeded the amounts charged against pre-tax profit by US\$56 million). In addition, US\$117 million of deferred stripping was written off in 2007 as part of the Argyle impairment. The net book value carried forward in property, plant and equipment and in investments in jointly controlled entities and associates at 31 December 2008 was US\$1,026 million (2007: US\$884 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 2008, 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		
	2008	2007	2006	2008	2007	2006
Kennecott Utah Copper (2019) (a) (b) Grasberg Joint Venture (2015)	1.98	1.99	2.04	1.24	1.32	1.36
(a)	3.27	3.47	3.01	2.87	3.05	2.63
Diavik (2008) (c)	1.23	0.42	0.89	1.20	0.91	0.96
Escondida (2041) (d)	0.12	0.07	0.08	0.10	0.10	0.12

#### Notes

(a) Stripping ratios shown are waste to ore.

(b) Kennecott s life of mine stripping ratio decreased in 2006 as the latest mine plan included higher metals prices, which made previously uneconomic material (waste) economic to mine as ore.

(c) Diavik s stripping ratio is disclosed as bench cubic metre per carat. The 2007 deferred stripping ratio is based on single pit commercial production with a scheduled end in Q4 2008. The 2008 deferred stripping ratio is based on a dual pit commercial production scheduled to end in Q2 2009 and early Q3 2011 respectively.

(d) Escondida s stripping ratio is based on waste tonnes to pounds of copper mined.

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.

## **Functional currency**

The determination of functional currency affects the carrying value of non current assets included in the balance sheet and, as a consequence, the amortisation of those assets included in the income statement. It also impacts exchange gains and losses included in the income statement.

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 of Rio Tinto s entities, this is the currency of the country in which each operates. Transactions denominated in currencies other than the functional currency are converted to the functional currency at the exchange rate ruling at the date of the transaction unless hedge accounting applies. Monetary assets and liabilities denominated in foreign currencies are retranslated at year end exchange rates.

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 into US dollars at average rates of exchange. Balance sheet 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. Exchange gains and

losses which arise on balances between Group entities are taken to the foreign currency translation reserve where the intra group 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. With the above exceptions, and except for derivative contracts which qualify as cash flow hedges, exchange differences are charged or credited to the income statement in the year in which they arise.

#### Deferred tax on fair value adjustments

On transition to 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 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 acquired assets and/or goodwill under IFRS.

#### Post retirement benefits

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 balance sheet. The Group has adopted the option under IAS 19 to record actuarial gains and losses directly in the Statement of Recognised Income and Expense.

The most significant assumptions used in accounting for post retirement 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 mortality assumption is used to project the length of time for which future pension payments will be made. The discount rate is used to determine the net present value of those future payments and each year the unwinding of the discount on those liabilities is charged to the Group s income statement.

Valuations are carried out using the projected unit method. The expected 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 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.

The discount rate used in determining the service cost and interest cost charged to income is the market yield at the start of the year on high quality corporate bonds. For countries where there is no deep market in such bonds the yield on government bonds is used. For determining the present value of obligations shown on the balance sheet, market yields at the balance sheet date are used.

Details of the key assumptions are set out in note 49 to the 2008 Financial statements.

For 2008 the charge against income for post retirement benefits net of tax and minorities was US\$367 million. This charge included both pension and post retirement healthcare benefits. The charge is net of the expected return on assets which was US\$697 million after tax and minorities.

In calculating the 2008 expense the average future increase in compensation levels was assumed to be 3.7 per cent and this will decrease to three per cent for 2009 reflecting lower assumed inflation in most territories. The average discount rate used for the Group s plans in 2008 was 5.6 per cent and the average discount rate used in 2009 will be 6.2 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 2008 pension cost was 6.4 per cent. This will decrease to 5.9 per cent for 2009. This reduction results mainly from lower government bond yields in most territories which drives assured 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 IFRS net earnings in 2009 would be expected to increase by some US\$72 million to US\$439 million. This increase is mainly attributable to the lower expected return on assets. 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 2008 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 balance sheet.

	IFRS
	US\$m
Sensitivity of Group s 2008 net earnings to changes in:	
Expected return on assets	
increase of 1 percentage point	90
decrease of 1 percentage point	(90)
Discount rate	
increase of 0.5 percentage points	
decrease of 0.5 percentage points	2
Salary increases	
increase of 0.5 percentage points	(13)
decrease of 0.5 percentage points	12
Demographic allowance for additional future mortality improvements	
participants assumed to be one year older	15
participants assumed to be one year younger	(15)

Further information on pensions and other post retirement benefits is given in note 49 to the 2008 Financial statements.

#### Temporary differences related to closure costs and finance leases

Under the initial recognition rules in paragraphs 15 and 24 of IAS 12 Income Taxes , 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.

The Group s interpretation of these initial recognition rules has the result that no deferred tax asset is provided on the recognition of a provision for close down and restoration costs and the related asset, or on recognition of assets held under finance leases and the associated lease liability, except where these are recognised as a consequence of business combinations.

On creation of a closure provision, for instance, there is no effect on accounting or taxable profit because the cost is capitalised. As a result, the initial recognition rules would appear to prevent the recognition of a deferred tax asset in respect of the provision and of a deferred tax liability in respect of the related capitalised amount.

The temporary differences will reverse in future periods as the closure asset is depreciated and when tax deductible payments are made that are charged against the provision. Paragraph 22 of IAS 12 extends the initial recognition rules to the reversal of temporary differences on assets and liabilities to which the initial recognition rules apply. Therefore, deferred tax is not recognised on the changes in the carrying amount of the asset which result from depreciation or from the changes in the provision resulting from expenditure. When tax relief on expenditure is received this will be credited to the income statement as part of the current tax charge. The unwind of the discount applied in establishing the present value of the closure costs does affect accounting profit. Therefore, this unwinding of discount results in the recognition of deferred tax assets.

The application of this initial recognition exemption has given rise to diversity in practice: some companies do provide for deferred tax on closure cost provisions and the related capitalised amounts. Deferred tax accounting on initial recognition is currently the subject of an IASB/FASB convergence project which may at some future time require the Group to change this aspect of its deferred tax accounting policy.

If the Group were to provide for deferred tax on closure costs and finance leases under IFRS the benefit to underlying and net earnings would have been US\$39 million (2007: US\$21 million) and to equity would have been US\$182 million (2007: US\$185 million).

#### Deferred tax potentially recoverable on Group tax losses

The Group has carried forward losses; mainly in the UK, French and Canadian tax groups; that have the potential to reduce tax charges 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\$1,000 million at 31 December 2008 (31 December 2007: US\$1,196 million). Of these, US\$899 million have been recognised as deferred tax assets (31 December 2007: US\$868 million), leaving US\$101 million (31 December 2007: US\$328 million) unrecognised, as recovery is not considered probable. This amount excludes unrecognised capital losses which can only be recovered against future capital gains.

Within the UK tax group, US\$246 million in tax losses have been recognised as deferred tax assets

(31 December 2007: US\$162 million), with no amounts unrecognised. Within the French tax group, US\$309 million in tax losses have been recognised as deferred tax assets (31 December 2007: US\$407 million) with no amounts unrecognised. Within the Canadian tax group, US\$172 million in tax losses have been recognised as deferred tax assets (31 December 2007: US\$62 million), with no amounts unrecognised.

#### Exploration

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.

The carrying values of exploration and evaluation assets 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 mineralised material 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 and may therefore benefit from existing infrastructure and equipment.

#### Contingencies

Disclosure is made of material contingent liabilities unless the possibility of any loss arising is considered remote. Contingencies are disclosed in note 35 to the 2008 Financial statements.

#### **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 above in the section on underlying earnings.

# Item 6. Directors, Senior Management and Employees

## Chairman and executive directors

## Chairman

Paul Skinner BA (Hons) (Law), DpBA (Business Administration), age 64

*Appointment and election:* Director of Rio Tinto plc and Rio Tinto Limited since 2001, he was appointed chairman of the Group in 2003. Paul was last re-elected by shareholders at the 2008 annual general meetings. He is chairman of the *Nominations committee*. Paul has agreed to remain as chairman until the conclusion of the Annual General Meeting of Rio Tinto Limited on 20 April 2009 (note c).

*Skills and experience:* Paul graduated in law from Cambridge University and in business administration from Manchester Business School. He was previously a managing director of The Shell Transport and Trading Company plc and group managing director of The Royal Dutch/Shell Group of Companies, for whom he had worked since 1966. During his career he worked in all of Shell s main businesses, including senior appointments in the UK, Greece, Nigeria, New Zealand and Norway. He was CEO of its global Oil Products business from 1999 to 2003.

#### *External appointments* (current and recent):

Director of Standard Chartered plc since 2003

Director of the Tetra Laval Group since 2005

Director of L Air Liquide SA since 2006

Non executive member of the Defence Board of the UK Ministry of Defence since 2006

Member of the board of INSEAD business school since 1999

Chairman of the Commonwealth Business Council since 2007

Chairman of the International Chamber of Commerce (UK) from 2005 to 2008

Director of The Shell Transport and Trading Company plc from 2000 to 2003

## Chief executive

Tom Albanese BS (Mineral Economics), MS (Mining Engineering), age 51

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2006. Tom was re-elected by shareholders at the 2008 annual general meetings.

*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 May 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

## **Finance director**

Guy Elliott MA (Oxon), MBA (INSEAD), age 53

*Appointment and election:* Finance director of Rio Tinto plc and Rio Tinto Limited since 2002. Guy was last re-elected by shareholders in 2007.

*Skills and experience*: Guy joined the Group in 1980 after gaining an MBA having previously been in investment banking. He has 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 of Cadbury plc since July 2007 and Chairman of its *Audit committee* since March 2008 and its Senior Independent Director since July 2008

#### **Executive director**

Dick Evans BS (Industrial Engineering), MS Management, age 61

*Appointments and election*: Director of Rio Tinto plc and Rio Tinto Limited since 2007. Dick was elected by shareholders at the 2008 annual general meetings. Further to the continued integration of the former Alcan business, Dick will retire from the Rio Tinto plc and Rio Tinto Limited boards at the conclusion of the Rio Tinto Limited annual

general meeting on 20 April 2009.

*Skills and experience*: Dick joined Rio Tinto following the acquisition of Alcan where he had held several senior management positions since 1997 including executive vice president and president and chief executive officer from 2006 to 2007. Prior to Alcan, he held senior management positions with Kaiser Aluminum & Chemical Corporation. *External appointments* (current and recent):

Director of AbitibiBowater Inc. since 2003 and its chairman since February 2009 Director of the International Aluminium Institute since 2001 and Chairman since 2008 Director of the Conference Board of Canada since 2007

#### **Non Executive Directors**

Sir David Clementi MA, MBA, FCA, age 60

*Appointment and election:* Director of Rio Tinto plc and Rio Tinto Limited since 2003. Sir David was appointed chairman of the *Audit committee* at the conclusion of the 2008 annual general meetings. Sir David was last re-elected by shareholders in 2006 and will stand for re-election in 2009. (notes a, b and e).

*Skills and experience:* Sir David was chairman of Prudential plc until December 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):

Non executive director of Foreign & Colonial Investment Trust PLC since May 2008

Chairman, King s Cross Central General Partnership since October 2008

Chairman of Prudential plc from 2002 until 2008

Member of the Financial Reporting Council between 2003 and 2007

#### Vivienne Cox MA (Oxon), MBA (INSEAD), age 49

*Appointment and election:* Director of Rio Tinto plc and Rio Tinto Limited since 2005. Vivienne was last re-elected by shareholders at the 2008 annual general meetings. (notes a and e).

*Skills and experience*: Vivienne is currently Executive Vice President and Chief Executive Officer, Alternative Energy for BP p.l.c. She is a member of the BP group chief executive s committee. She holds degrees in chemistry from Oxford University and in business administration from INSEAD. During her career in BP she has worked in chemicals, exploration, finance, and refining and marketing.

## External appointments (current and recent):

Non executive director of Climate Change Capital Limited since May 2008

Non executive director of Eurotunnel plc between 2002 and 2004

## Jan du Plessis B.Com, LLB, CA(SA), age 55

*Appointment and election*: Director of Rio Tinto plc and Rio Tinto Limited effective 1 September 2008. Jan will stand for election at the 2009 annual general meetings and will be appointed as Chairman with effect from the conclusion of the Annual General Meeting of Rio Tinto Limited on 20 April 2009 (notes a and e).

*Skills and experience*: Jan was appointed chairman of the Board of British American Tobacco plc in July 2004, having been a non executive director since his appointment to that company s board in 1999. He is also a non executive director and chairman of the Audit Committee of Lloyds Banking Group plc. He was previously Group Finance Director of Richemont and chairman of RHM plc. Jan has degrees in Commerce and Law from the University of Stellenbosch, South Africa, and is a South African Chartered Accountant.

## External appointments (current and recent):

Chairman of the Board of British American Tobacco plc since 2004

Non executive director of Lloyds Banking Group plc since October 2005 and Chairman of its Audit Committee since May 2008

Non executive director of Marks and Spencer Group PLC since November 2008

Sir Rod Eddington B Eng, M Eng, D Phil (Oxon), age 59

*Appointment and election:* Director of Rio Tinto plc and Rio Tinto Limited since 2005. Sir Rod was elected by shareholders in 2006 and stands for re-election in 2009. (notes c, d and e).

*Skills and experience*: Sir Rod was chief executive of British Airways Plc until the end of September 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):

Director of News Corporation plc since 1999

Director of John Swire & Son Pty Limited since 1997 Non executive chairman of JPMorgan Australia and New Zealand since 2006

Director of CLP Holdings since 2006

Director of Allco Finance Group Limited since 2006 Chief executive 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 Chairman Infrastructure Australia since February 2008 Chairman designate of the ANZ Bank (to be appointed a director in late 2009)

## Michael Fitzpatrick B Eng, BA (Oxon), age 56

*Appointment and election:* Director of Rio Tinto plc and Rio Tinto Limited since 2006. Michael was elected by shareholders in 2007. (notes a, b and e).

*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 2001Chairman of the Victorian Funds Management Corporation from 2006 to 2008

Managing director of Hastings Funds Management Ltd from 1994 to 2005

Director of Pacific Hydro Limited from 1996 to 2004

Director of Australian Infrastructure Fund Limited from 1994 to 2005

Yves Fortier CC, OQ, QC, LLD, Av Em, age 73

*Appointments and election*: Director of Rio Tinto plc and Rio Tinto Limited since 2007. Yves was elected by shareholders in 2008. (notes c, d and e).

*Skills and experience*: Yves Fortier was Ambassador and Permanent Representative of Canada to the United Nations from 1988 to 1992. He is chairman 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 of Ogilvy Renault since 1992

Director of NOVA Chemicals Corporation since 1998

Chairman and director of Alcan Inc. from 2002 until 2007

Governor of Hudson s Bay Company from 1998 to 2006

Director of Royal Bank of Canada from 1992 to 2005

Director of Nortel Corporation from 1992 to 2005

Trustee of the International Accounting Standards Committee from 2000 to 2006

Richard Goodmanson MBA, BEc and BCom, B Eng (Civil), age 61

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2004. He was last re-elected by shareholders in 2008 and is chairman of the *Committee on social and environmental accountability*. (notes b, d and e). *Skills and experience*: Richard is executive vice president and chief operating officer of DuPont. During his career he has worked at senior levels for McKinsey & Co, PepsiCo and America West Airlines, where he was president and CEO. He joined DuPont in early 1999 and in his current position has responsibility for a number of the global functions, and for the non US operations of DuPont, with particular focus on growth in emerging markets.

## *External appointments* (current and recent):

Executive vice president and chief operating officer of DuPont since 1999

Chairman of the United Way of Delaware since 2006 (director since 2002)

Economic Advisor to the Governor of Guangdong Province, China since 2003

Non executive director of Qantas Airways Limited since June 2008

Director of the Boise Cascade Corporation between 2000 and 2004

Andrew Gould BA, FCA, age 62

*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 by shareholders in 2006 and will stand for re-election in 2009. (notes b, c and e).

*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 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 Board of Trustees of King Abdullah University of Science and Technology in Jeddah, Saudi Arabia since October 2008

Member of the UK Prime Minister s Council of Science and Technology from 2004 to 2007

## Lord Kerr of Kinlochard GCMG, MA, age 67

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 2003. He was re-elected by shareholders in 2007. (notes a, d and e).

*Skills and experience:* Lord 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. Previous postings included being principal private secretary to two Chancellors of the Exchequer, serving in the Soviet Union and Pakistan, and spells 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):

Deputy Chairman of Royal Dutch Shell plc since 2005

Director of The Scottish American Investment Trust plc since 2002

Chairman of the Court and Council of Imperial College, London since 2005

Advisory Board member, Scottish Power (Iberdrola) since 2007

Advisory Board member, BAE Systems since 2008

Director of The Shell Transport and Trading Company plc from 2002 to 2005

Trustee of the Rhodes Trust since 1997, The National Gallery since 2002, and the Carnegie Trust for the Universities of Scotland since 2005

Secretary General, European Convention (Brussels) from 2002 to 2003

#### David Mayhew age 68

*Appointment and election:* Director of Rio Tinto plc and Rio Tinto Limited since 2000. He was last re-elected by shareholders in 2006. David is standing for re-election for a further term of office in 2009. It is anticipated that he will retire at the conclusion of the 2010 annual general meeting. (note c).

*Skills and experience:* David joined Cazenove in 1969 from Panmure Gordon. In 1972 he became the firm s dealing partner and was subsequently responsible for the Institutional Broking Department. From 1986 until 2001 he was the partner in charge of the firm s Capital Markets Department. He became Chairman of Cazenove on incorporation in 2001 and Chairman of JPMorgan Cazenove in 2005.

## External appointments (current and recent):

Chairman of Cazenove Group Limited (formerly Cazenove Group plc) since 2001

Chairman of Cazenove Capital Holdings Limited since 2005 Chairman of JPMorgan Cazenove Holdings Limited (formerly Cazenove Group plc) since 2005

#### Paul Tellier age 69

*Appointment and election*: Director of Rio Tinto plc and Rio Tinto Limited since 2007. Paul was elected by shareholders at the 2008 annual general meetings. (notes a, b and e).

*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):

Director of McCain Foods since 1996

Director of Bell Canada since 1996

Director of BCE Inc since 1999

Member of the Advisory Board of General Motors of Canada since 2005

Trustee, 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

President and Chief Executive Officer of Bombardier Inc. from 2003 to 2004

Non executive director of Alcan Inc. from 1998 to 2007

## Directors who left the Group during 2008 or 2009

Sir Richard Sykes BSc (Microbiology), PhD (Microbial Biochemistry), DSc, Kt, FRS, FMedSci

Appointment and election: Director of Rio Tinto plc and Rio Tinto Limited since 1997. Sir Richard was senior non

executive director and chairman of the *Remuneration committee* until his retirement at the conclusion of the 2008 annual general meetings.

*Skills and experience*: Sir Richard read microbiology at the University of London and obtained doctorates in microbial chemistry and in science from the University of Bristol and the University of London respectively.

## External appointments (current and recent) upon leaving the Group:

Director of Eurasian Natural Resources Corporation plc since 2007

Director of Lonza Group Limited since 2003, Deputy Chairman since 2005

Chairman of the Healthcare Advisory Group (Apax Partners Limited) since 2002

Chairman of Metabometrix Ltd since 2004

Chairman of Merlion Pharmaceuticals Pte Limited since 2005 Chairman of OmniCyte Ltd since 2006

Chairman of Circassia Ltd since 2007

Director of Abraxis BioScience Inc from 2006 to 2007 Director of Bio\*One Capital Pte Ltd since 2003 Rector of Imperial College London since 2001

Chairman of GlaxoSmithKline plc between 2000 and 2002

Trustee of the Natural History Museum, London between 1996 and 2005 and of the Royal Botanic Gardens, Kew between 2003 and 2005

#### Jim Leng

*Appointment and election*: Director of Rio Tinto plc and Rio Tinto Limited and chairman designate from January 2009 until February 2009. Jim resigned from the boards of Rio Tinto prior to his election at the 2009 annual general meetings.

*Skills and experience*: Jim is chairman of Tata Steel Europe and deputy chairman of Tata Steel of India, following the Corus takeover by Tata in 2007. He is Chairman of Doncasters Group Ltd, an international specialist engineering company. He is also non executive director of Alstom SA where he chairs the nominations and remuneration committees, a Senior Adviser of HSBC and a member of their European Advisory Council and chairman of the European Advisory Board of AEA, a New York based Private Equity Partnership. Past directorships include Hanson PLC, where he was the senior independent director, Pilkington plc and IMI plc. In an executive capacity, he was CEO of Laporte plc, an international specialty chemical company from 1995 until 2001 and prior to joining Laporte he was the CEO of Low & Bonar plc. His early business years were spent at John Waddington where he was responsible for a number of subsidiary companies.

#### External appointments (current and recent):

Independent Director of TNK-BP since January 2009

Deputy Chairman of Tata Steel of India since 2007

Chairman of Tata Steel Europe Limited since November 2008

Chairman of Doncasters Group Limited since 2006

Non executive director of Alstom SA since 2003 and chairman of its nomination and remuneration committees

Chairman of of Tata Steel UK Limited from January 2008 to November 2008

Director of Corus Group Limited from 2001 to 2008

## Notes

(a) Audit

committee (Sir David Clementi, Vivienne Cox, Jan du Plessis, Michael Fitzpatrick, Lord Kerr and Paul Tellier)

(b) Remuneration committee
(Sir David Clementi, Michael
Fitzpatrick, Richard
Goodmanson, Andrew Gould, and Paul
Tellier) (c) Nominations committee (Sir Rod Eddington, Yves Fortier, Andrew Gould, David Mayhew, Paul Skinner) (d) Committee on social and environmental accountability (Sir Rod Eddington, Yves Fortier, Richard Goodmanson and Lord Kerr) (e) Independent (Sir David Clementi, Vivienne Cox, Jan du Plessis, Sir Rod Eddington, Michael Fitzpatrick, Yves Fortier, Richard

> Goodmanson, Andrew Gould, Lord Kerr and Paul Tellier)

#### **Executive Committee Members**

#### Hugo Bague MA (Linguistics), age 48

*Skills and experience:* Hugo Bague joined Rio Tinto as global head of Human Resources in 2007. Previously he worked for six years 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 out of Switzerland, France and Germany.

## External appointments (current and recent):

Member of the Advisory Council of United Business Institutes in Brussels, Belgium since 1995

**Preston Chiaro** BSc (Hons) (Environmental Engineering), MEng (Environmental Engineering), age 55 *Skills and experience*: Preston was appointed chief executive of the Energy group in 2003 and also assumed responsibility for the Industrials Minerals group in 2007. 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. He was chief executive of Rio Tinto Borax from 1999 to 2003.

#### External appointments (current and recent):

Director of the World Coal Institute since 2003 (chairman from 2006 to 2008)

Director of Rössing Uranium Limited since 2004

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

Bret Clayton BA (Accounting), age 47

*Skills and experience*: Bret was appointed chief executive of the Copper group in 2006 and also assumed responsibility for the Diamonds group in 2007. He joined the Group in 1995 and has held a series of management positions, including chief financial officer of Rio Tinto Iron Ore and president and chief executive officer of Rio Tinto Energy America. Prior to joining the Group, Bret worked for PricewaterhouseCoopers for nine years, auditing and consulting to the mining industry.

## External appointments (current and recent):

Director of Ivanhoe Mines Limited since 2007

Member of the executive committee of the International Copper Association since 2006

Member of the Coal Industry Adviser Board to the International Energy Agency between 2003 and 2006

Member of the board of directors of the US National Mining Association between 2002 and 2006

## Jacynthe Côté BChem, age 51

*Skills and experience:* Jacynthe became chief executive, Rio Tinto Alcan from 1 February 2009. She joined Alcan in 1988. Her earlier roles in Alcan included plant management and senior positions in business planning, human resources and health, safety and the environment. In 2005, she was named president and chief executive officer of the Bauxite and Alumina business. In 2007, following the acquisition of Alcan, Jacynthe was named president and chief executive officer of Rio Tinto Alcan s Primary Metal business.

## External appointments (current and recent):

Member of the Quebec Council of Manufacturers since April 2008.

Grant Thorne BSc (Hons), PhD, FAus IMM (CP), FATSE, age 59

*Skills and experience:* Grant was appointed Group executive Technology & Innovation during 2007. After tertiary study in mineral processing and metallurgy at the University of Queensland, he joined the Group in 1975 and has held senior operational roles in base metals, aluminium and coal. He was Vice-president of Research and Technology for Comalco from 1994 to 1995. His service has included appointments in Australia, Indonesia, Papua New Guinea and the UK. Prior to his current appointment, he was Managing Director of Rio Tinto s coal business in Australia. Grant is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy.

## External appointments (current and recent):

Fellow of Australian Academy for Technological Science and Engineering since 2008 Member of the Coal Industry Advisory Board to the International Energy Agency from 2002 to 2006 Managing Director of Coal and Allied Industries from 2004 to 2006

President of the Queensland Resources Council from 2002 to 2004

Sam Walsh B Com, age 59

*Skills and experience*: Sam was appointed chief executive of the Iron Ore group in 2004. 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 managing director of Comalco Foundry Products, CRA Industrial Products, Hamersley Iron Sales and Marketing, Hamersley Iron Operations, vice president of Rio Tinto Iron Ore (with responsibility for Hamersley Iron and Robe River) and from 2001 to 2004 chief executive of the Aluminium group. Rio Tinto 2008 Form 20-F 136

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.

## External appointments (current and recent):

Chair of WA chapter of Australian Business Arts Foundation since 2008

Director of Western Australian Newspaper Holdings Limited since December 2008

Director of the Committee for Perth Ltd since 2006 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

#### Debra Valentine BA (History) JD, age 55

*Skills and experience*: Debra joined Rio Tinto as global head of Legal in January 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 2004 to 2007

Tom Albanese, Guy Elliott and Dick Evans were also, members of the Executive committee in 2008 through their positions as chief executive, finance director and product group chief executive for Rio Tinto Alcan respectively. Their biographies are shown on page 131.

## Executive Committee Member During 2008 Who Leaves The Group In July 2009

Keith Johnson BSc (Mathematics), MBA, age 47

*Skills and experience:* Keith was appointed Group executive Business Resources during 2007 having been chief executive, Diamonds since 2003. He holds degrees in mathematics and management and is a Fellow of the Royal Statistical Society. Prior to joining Rio Tinto he worked in analytical roles in the UK Treasury, private consulting and the oil industry. He joined Rio Tinto in 1991 and has held a series of management positions including head of Business Evaluation and managing director of Rio Tinto Aluminium Mining and Refining (formerly Comalco Mining and Refining). It has been announced that Keith will leave the Company on 31 July 2009.

## External appointments (current and recent):

None

## **Company Secretaries**

## Ben Mathews BA (Hons), FCIS, age 42

*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, two of them 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.

*External appointments* (current and recent): None

## Stephen Consedine B Bus, CPA, age 47

*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 bachelor of business degree and is a certified practising accountant.

## External appointments (current and recent):

None

## Employees

Information on the Group s employees including their costs, is in notes 4 and 36 to the 2008 Financial statements.

#### Remuneration

The Remuneration report to shareholders dated 6 March 2009 has been reproduced below, except that the page numbers have been revised to reflect those in this combined Annual report on Form 20-F, Tables 3, 4 and 5 have been augmented to show share interests as at the latest practicable date.

#### **REMUNERATION REPORT**

This Remuneration report forms part of the Directors report and covers the following information: description of the *Remuneration committee* and its duties;

description of the policy on directors, executives and the company secretaries remuneration;

summary of the terms of executives service contracts and non executive directors letters of appointment;

details of each executive s remuneration and awards under long term incentive plans and the link to corporate performance;

details of executives interests in Rio Tinto shares; and

graphs illustrating Group performance, including relative to the HSBC Global Mining Index.

## **INTRODUCTION**

Rapid change characterised the environment faced by Rio Tinto in 2008. While focused work continued throughout the year on the integration of Alcan, and the industry experienced strong commodity prices well into the third quarter, the sharp global and industry downturn in the fourth quarter necessitated quick action to compensate for the sharp change in revenues and significant fixed costs. The year also proved challenging due to the unsolicited pre-conditional offer from BHP Billiton, which occupied eleven months of the year and created significant uncertainty for employees. It also constrained Rio Tinto s ability to take actions to enhance the alignment between the remuneration structure and business and people priorities, which are key to shareholder value creation.

Rio Tinto has pursued a divestment strategy during 2008 which was hampered by the global credit crisis. A significant number of employees are in businesses that have been identified for divestment, which presents a unique human resources challenge when the divestment process is extended over many months.

As announced at the end of 2008, Rio Tinto is continuing to rationalise its workforce and its assets in response to the downturn, and to use cash flows to repay the existing level of debt. In close collaboration with management, Rio Tinto is working to establish the delicate balance that is required between the needs of Rio Tinto employees and their families, the communities in which its people and assets are located, and its shareholders. Rio Tinto continues to believe that our people are amongst its most important assets, and to treat them with respect is in the best interests of everyone and consistent with its profile as a world class organisation.

Consistent with the challenging economic environment, the Company took steps to conserve cash in 2009 including granting no increases in salary at the executive director and product group chief executive level and minimal increases below this level. Despite the economic conditions, the Company achieved near target earnings for 2008. To enhance alignment of executives with shareholders and to support retention in the current environment, the committee introduced a 100 per cent mandatory deferral of any bonus payable into shares at the product group chief executive level and above and a 50 per cent deferral for other senior executives.

#### **Remuneration committee**

The following independent, non executive directors were members of the committee during 2008: Andrew Gould (chairman from 24 April 2008)

Sir Richard Sykes (chairman until 24 April 2008)

Sir David Clementi

Michael Fitzpatrick

**Richard Goodmanson** 

Paul Tellier

The committee met seven times during 2008 and members attendance is set out on page 167. The committee s responsibilities are set out in its terms of reference which have been approved by the Board and may be viewed in the corporate governance section of the website. They include:

recommending executive remuneration policy to the board;

reviewing and determining the terms of service, including remuneration and any termination arrangements, for the chairman, executive directors, product group chief executives and the company secretary of Rio Tinto plc;

reviewing and confirming the remuneration and conditions of employment strategy for other senior managers;

recommending share-based long term incentive plans to the board; and

monitoring the effectiveness and appropriateness of executive remuneration policy and practice. The global head of Human Resources, Hugo Bague, and Jane Craighead, global practice leader, Total Rewards attended

committee meetings in an advisory capacity. The chairman, Paul Skinner and the chief executive, Tom Albanese, participated in meetings at the invitation of the committee during 2008, but were not present when their own individual remuneration was discussed. Ben Mathews, the company secretary of Rio Tinto plc, acts as secretary to the committee, but was not present when his own remuneration was discussed.

The committee appointed Deloitte LLP in 2008 to provide it with independent advice on executive remuneration matters. Deloitte LLP also provides taxation advice to the Group mainly related to Rio Tinto s share plans as well as providing unrelated taxation and consulting advice. To carry out its duties in accordance with its terms of reference, the committee monitors global remuneration trends and developments and draws on a range of external sources of data, in addition to that supplied by Deloitte LLP, including publications by other remuneration consultants such as Towers Perrin, Hay Group, Mercer and Watson Wyatt.

#### **Corporate governance**

The committee reviewed its terms of reference in 2008 and concluded that, in the course of its business, it had covered the duties set out in the Combined Code on Corporate Governance, published by the UK Financial Reporting Council the Code), complied with Principle 8 of the revised Australian Securities Exchange Corporate Governance Principles and Recommendations (the ASX Principles), and was constituted in accordance with the requirements of the Code and the ASX Principles. The performance of the committee was evaluated in 2008 which confirmed that it had satisfactorily performed the duties set out in its terms of reference.

## **EXECUTIVE REMUNERATION**

Rio Tinto is subject to a number of different reporting requirements for the contents of this Remuneration report. Whilst UK disclosure requirements relate to the directors, the Australian Corporations Act and regulations both require disclosures for key management personnel. The Australian Corporations Act also requires disclosures in respect of the five highest paid executives below board level.

The board has considered the definition of key management personnel and has decided that, in addition to the executive and non executive directors, they comprise the product group chief executives and the Group executive Business Resources.

The board also considered the definition of five highest paid executives below board level and has decided that, based on the criteria to determine this group of senior management, these executives will be selected from a population comprising key management personnel and members of the Rio Tinto executive committee. In addition to the key management personnel, the following members of senior management are therefore included in this report: Hugo Bague, global head of Human Resources, Debra Valentine, global head of Legal and Grant Thorne, Group executive Technology and Innovation.

Throughout this report, the executive directors, product group chief executives, Group executive Business Resources and the five highest paid executives below board level will collectively be referred to as the executives.

This represents a change to the normal ranking of remuneration observed in prior years in which the product group chief executives and Group executive Business Resources were both the key management personnel and the five highest paid executives below board level. 2008 was an unusual year in that the fall in the share price since November 2008 resulted in a negative adjustment to the IAS 24 values for share awards under the Mining Companies Comparative Plan (MCCP). The most senior executives experienced the largest negative accounting adjustment hereby resulting in a re-ordering of the senior executives in terms of total remuneration based on the IAS 24 valuation.

During the period since year end, Rio Tinto has announced senior management changes which affect the executive group defined above. On 12 January 2009, Dick Evans, executive director and chief executive Rio Tinto Alcan, indicated his intention to retire on 20 April 2009. He will continue to act as an adviser to the Company for the remainder of his contract to 31 December 2009 and to assist with the transition and integration of Rio Tinto Alcan. Jacynthe Côté was named as chief executive, Rio Tinto Alcan on 1 February 2009. In addition, from 1 February 2009, the responsibilities of the Business Resources function were incorporated into other functions and the Group executive Business Resources, Keith Johnson will be leaving the Group.

#### **Board policy**

Rio Tinto operates in global, as well as local markets, where it competes for a limited resource of talented executives. It recognises that, to achieve its business objectives, the Group needs high quality, committed people. Rio Tinto has

therefore designed an executive remuneration policy to support its business goals by enabling it to attract, retain and appropriately reward executives of the calibre necessary to deliver very high levels of performance. This policy is regularly reviewed to take account of changing market, industry and economic circumstances, as well as developing Group requirements. The main principles of the Group s executive remuneration policy are:

to provide total remuneration which is competitive in structure and quantum with Global comparator companies practices;

to achieve clear alignment between total remuneration and delivered business and personal performance, with particular emphasis on both short term business performance and long term shareholder value creation and performance relating to health, safety and the environment;

to link variable elements of remuneration to the achievement of challenging performance criteria that are consistent with the best interests of the Group and shareholders over the short, medium and long term;

to provide an appropriate balance of fixed and variable remuneration; and

to provide internal equity between executives within Rio Tinto and to facilitate the movement of executives within Rio Tinto to meet the needs of the Group.

Consistent with the Company s business strategy to have high quality long term mining assets, the Company seeks to achieve a remuneration mix which best reflects the long term nature of the business. Rio Tinto aims to move towards a greater portion of remuneration being in long term incentives. The Company deferred bringing a proposal to shareholders to enhance the variable components of pay as a percentage of total remuneration due to the economic environment and the challenges facing the mining industry in particular, and implemented a bonus deferral programme instead. The Company will continue to review the remuneration structure to improve its alignment with the business strategy.

The composition of total remuneration packages is designed to provide an appropriate balance between fixed and variable components. This is in line with Rio Tinto s objective of aligning total remuneration with personal and business performance. Details of the executives remuneration are set out in Table 1 on pages 152 and 154. The Group s return to shareholders over the last five years is set out in the table on page 146.

#### **Remuneration components**

#### **Base salary**

Base salaries are reviewed annually against a global comparator group for the most senior executives and adjusted as appropriate, taking into account the nature of the individual executive s role, external market trends and business and personal performance. The committee uses a range of international companies of a similar size, global reach and complexity to make this comparison. As stated above, the committee has agreed that for 2009 there would be no increase in the base salaries of the executive directors and product group chief executives with minimal increases below this level.

Executive remuneration is explicitly related to business performance through the following long and short term arrangements:

#### Short term incentive plan (STIP)

STIP is an annual bonus plan, designed to support overall remuneration policy by:

focusing participants on achieving calendar year performance goals which contribute to sustainable shareholder value; and

providing significant bonus differential based on performance against challenging personal, business, and other targets, including safety.

The committee reviews and approves the individual performance of executives against relevant targets and objectives at the end of each year. STIP payments to executive directors, the Group executive Business Resources, the global head of Human Resources, and the global head of Legal are linked to three performance criteria: Group financial performance, Group safety performance and personal performance. In the case of Dick Evans, the applicable criteria are product group financial performance, Group and product group safety performance as well as personal performance. STIP payments for the other product group chief executives and the Group executive of Technology and Innovation are linked to Group and product or business support group financial and safety performance, as appropriate, as well as personal performance.

The target level of annual bonus for executive directors, product group chief executives and group executives for 2009 is 60 per cent of salary, the same as 2008. The targets for the global head of Human Resources and the global head of Legal are 50 per cent and 55 per cent respectively in 2008. Executives may receive up to twice their target (eg up to 120 per cent of base salary in the case of the executive directors and product group executives) for outstanding performance against all criteria. Rio Tinto applies the following guidelines in the calibration of threshold (90 per cent probability of achievement), target (70 per cent probability of achievement) and outstanding (20 per cent probability of achievement).

Details relating to STIP awards for 2008 are on pages 146 to 149.

#### Long term incentives

Shareholders approved two long term incentive plans at the annual general meetings in 2004, the Share Option Plan and the Mining Companies Comparative Plan. These plans are intended to provide the committee with a means of

linking executives rewards to Group performance. Total shareholder return (TSR) was, at the time of their introduction, considered the most appropriate measure of company performance and continues to be used for 2008. Long term incentives are not pensionable.

### Share Option Plan (SOP)

Each year, the committee considers whether a grant of options should be made under the SOP and, if so, at what level. In arriving at a decision, the committee takes into consideration the personal performance of each executive as well as competitive benchmarking. The maximum face value grant under the SOP is three times the base salary of the executive. Under the SOP, options are granted to purchase shares at an exercise price based on the share price at time of grant. No options are granted at a discount and no amount is paid or payable by the recipient upon grant of the options. Grants made to executives are set out in Table 5 on pages 161 to 165.

No options will become exercisable unless the Group has met stretching TSR performance conditions. In addition, before approving any vesting and regardless of performance against the respective performance conditions, the committee retains discretion to satisfy itself that the TSR performance is a genuine reflection of the value available to shareholders.

Under the SOP, vesting is subject to Rio Tinto s TSR equalling or outperforming the HSBC Global Mining Index over a

three year performance period. Rio Tinto s TSR is calculated as a weighted average of the TSR of Rio Tinto plc and Rio Tinto Limited. If TSR performance equals the index, the higher of one third of the actual grant or 20,000 options may vest. The full grant may vest if the TSR performance is equal to or greater than the HSBC Global Mining Index plus five per cent per annum. Between these points, options may vest on a sliding scale, with no options becoming exercisable for a three year TSR performance below the index.

Options granted under the 2004 SOP before 31 December 2006 are subject to a single fixed base re-test five years after grant if they do not vest after the initial three year performance period. Options granted after 31 December 2006 are not subject to any re-test and will lapse if they do not vest at the conclusion of the initial three year performance period. There are no outstanding options that are subject to a retest of performance.

Prior to any options vesting (subject to the committee s discretion described above), the Group s TSR performance against the criteria relevant to the SOP is calculated independently by Watson Wyatt.

If Rio Tinto were subject to a change of control or a company restructuring, options would vest subject to the satisfaction of the performance condition at the time of the change of control or restructuring.

Depending on the circumstances, the committee has the discretion to adjust the performance condition to ensure a fair measure of performance and to consider the impact of a potentially truncated performance period or other factors on the validity of the original performance condition. The committee may at its discretion, and with the agreement of participants, determine that options will be replaced by equivalent new options over shares of the acquiring company. If a performance period is deemed to end during the first 12 months after the conditional award is made, that award will be reduced pro-rata.

Options may, upon exercise, be satisfied by treasury shares, the issue of new shares or the purchase of shares in the market. Currently it is Rio Tinto plc s intention to satisfy exercises by issuing new shares and Rio Tinto Limited s intention to satisfy exercises by way of the transfer of existing shares purchased on the open market.

# Mining Companies Comparative Plan (MCCP)

Rio Tinto s performance share plan, the MCCP, provides participants with a conditional right to receive shares. The maximum face value conditional award under the MCCP is two times the base salary of individual participants. Awards made to executives are set out in Table 4 on pages 157 to 160.

The conditional awards will only vest if the performance condition set by the committee is satisfied. Prior to the vesting of conditional awards, the Group s TSR performance against the performance condition contained in the MCCP is calculated independently by Watson Wyatt. In addition, the committee retains discretion to satisfy itself that performance is a genuine reflection of the value available to shareholders and adjust vesting levels accordingly.

In the event of a change of control or a company restructure, the awards would only vest subject to the satisfaction of the performance condition measured at the time of the change of control or restructure. Depending on the circumstances, the committee has the discretion to adjust the performance condition to ensure a fair measure of performance and to consider the impact of a potentially truncated performance period or other factors on the validity of the original performance condition. If a performance period is deemed to end during the first 12 months after the conditional award is made, the award will be reduced pro-rata.

The performance condition compares Rio Tinto s TSR with the TSR of a comparator group of other international mining companies over the same four year period. The composition of this comparator group is reviewed regularly by he committee to ensure that it continues to be relevant in a consolidating sector. The comparator group for the 2005 conditional award (which vests in 2009) contains ten companies: Alcoa, Anglo American, Barrick Gold, BHP Billiton, Freeport-McMoRan Copper & Gold, Grupo Mexico, Newmont, Rio Tinto, Teck Cominco and Xstrata. The size and nature of the comparator group is largely the same for the 2006, 2007, 2008 and 2009 awards.

The following table shows the percentage of each conditional award made in 2005 which will be received by those participants who were in executive director and product group chief executive roles at the date of grant. The vesting is based on Rio Tinto s four year TSR performance relative to the comparator group for conditional awards made in 2005:

Ranking in the remaining ten company
comparator group

1st	2nd	3rd	4th	5th	6th-10th	

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Percentage vesting	150	121.3	92.5	63.8	35	0

The historical ranking of Rio Tinto in relation to the relevant comparator group for each four year period (based on the calendar year) is reflected in the table below.

The members of the comparator group for each conditional award are determined by the committee prior to making the conditional award. Comparator companies for the 2008 conditional award at time of grant were: Alcoa, Anglo American, Barrick Gold, BHP Billiton, Freeport-McMoRan Copper & Gold, Newmont, Rio Tinto, Vale and Xstrata

Awards are released to participants as either Rio Tinto plc or Rio Tinto Limited shares or as an equivalent amount in cash. In addition, for conditional awards made after 1 January 2004, a cash payment equivalent to the dividends that would have accrued on the vested number of shares over the four year period is made to those participants who were in executive director and product group chief executive roles at the date of grant.

Ranking of Rio Tinto versus comparator companies

Period

1994 97	
1995 98	
1996 99	
1997 00	
1998 01	
1999 02	
2000 03	
2001 04	
2002 05	
2003 06	
2004 07	
2005 08	

Awards may, upon vesting, be satisfied by treasury shares, the issue of new shares or the purchase of shares in the market. Currently it is Rio Tinto plc s intention to satisfy exercises by issuing new shares and Rio Tinto Limited s intention to satisfy exercises by way of the transfer of existing shares purchased on the open market.

#### Management Share Plan (MSP)

The Company also has the Management Share Plan, which was created in 2007. Directors are not eligible to participate in the MSP. This plan is designed to support the Group s ability to attract and retain key staff in an increasingly tight and competitive labour market. Under the MSP, certain senior management may receive a conditional award of shares which is subject to service-based and/or performance-based vesting condition(s) depending upon the nature of the award. Shares to satisfy the awards are purchased in the market and no new shares will be issued to satisfy awards under this plan. Where applicable, participants are allocated shares to approximate the cash amount of dividends that would have been received had the recipient owned the shares between the grant date and the vesting date.

In the case of a change of control, awards vest on the date of the change of control but, in the case of an award which is subject to a performance condition, only to the extent that the performance condition has been satisfied. Depending on the circumstances, the committee has the discretion to adjust the performance condition to ensure a fair measure of performance and to consider the impact of a potentially truncated performance period or other factors on the validity of the original performance condition. The directors may decide that the award is reduced pro rata to reflect the acceleration of vesting. Awards made to executives are set out in Table 4 on pages 157 to 160.

#### Post employment benefits executive directors

Executives may participate in post employment benefit arrangements offered by the Group. No post employment benefits are provided to non executive directors. Guy Elliott and Tom Albanese participate in the UK non contributory Rio Tinto Pension Fund (the Fund ), a funded occupational pension plan approved by HM Revenue & Customs. The Fund provides both defined benefit and defined contribution benefits. In April 2005, the defined benefit section of the Fund was closed to new participants.

Members of the defined benefit section of the Fund who retire early may draw a pension reduced by approximately four per cent a year for each year of early payment. Executives can take their pension benefits unreduced for early payment from the age of 60. Spouse and dependants pensions are also provided. Pensions paid from this section are guaranteed to increase annually in line with increases in the UK Retail Price Index subject to a maximum of ten per cent per annum. Increases above this level are discretionary.

During 2008, there was no requirement for company cash contributions to be paid into the Rio Tinto Pension Fund, although cash contributions are required if the Company wishes to enhance the benefits for many individual member. Company contributions to the Rio Tinto Pension Fund will recommence from 1 January 2009.

Ranking

Rio Tinto reviewed its pension policy in light of the legislative changes introduced from April 2006. The Rio Tinto Pension Fund was amended to incorporate a fund specific limit to pensionable salary equivalent to the statutory earnings cap for all members previously affected; unfunded benefits continue to be provided, where already promised, on pensionable salary above the fund specific limit.

Guy Elliott is accruing a pension of 2.3 per cent of basic salary for each year of service with the Company to age 60. The unfunded arrangements described above will be utilised to deliver this promise to the extent not provided by the Fund.

Tom Albanese is accruing a pension payable from normal retirement age of 60 of two thirds of basic salary, subject to completion of 20 years service with the Group, inclusive of benefits accrued under the US pension arrangements. Proportionally lower benefits are payable for shorter service or, if having attained 20 years service, retirement is taken prior to the age of 60. His benefits under the Rio Tinto Pension Fund are restricted to the fund specific limit, with the balance provided through unfunded arrangements.

Dick Evans was offered membership in the Rio Tinto International Pension Fund, a funded occupational pension plan based in the UK. His membership was to be effective from the commencement of his employment on 25 October 2007. Subsequent to this offer, and prior to Dick Evans joining the Fund, it was identified that the proposed arrangement would not comply with the requirements of US Internal Revenue Code. As a result, the same retirement benefit was delivered at no additional expense to the Company in the form of an annuity to be purchased with an external third party at the time of his retirement. As a result, no contributions were paid to the Rio Tinto International Pension Fund in Dick Evans respect.

Dick Evans also participates in the Alcan Employee Savings Plan (Canada). This Plan comprises two types of plans: the Registered Retirement Savings Plan, a tax sheltered arrangement up to prescribed legal limits, and the Employee Profit Sharing Plan. The Company pays a contribution of 50 per cent, 60 per cent or 70 per cent, determined by credited service with the Company, of any regular contribution of up to four per cent of basic salary paid by the employee. The Company percentage in respect of Dick Evans is 60 per cent. The Company s contribution is paid into the Employee Profit Sharing Plan and vests

immediately. Employees may request lump sum withdrawals in cash at any time. On termination of employment or retirement employees may request one or more of a lump sum payment in cash, a transfer of tax sheltered amounts to another registered plan or the purchase of a qualified annuity with the tax sheltered amounts.

Details of executive directors pension entitlements are set out in Table 2 on page 155.

#### Performance and non performance related remuneration

Total remuneration is a combination of fixed and performance related elements, each of which is described in this report. In addition, some executives have specific arrangements for remuneration outside these core elements and which are detailed in the service contracts table on page 144. The total remuneration for executives shown in Table 1 includes these non performance related items, which are specific to the circumstances of each executive, as well as one-time special bonuses or awards, such as engagement awards.

The performance related, or variable, elements are the short and long term incentive plans which are linked to achievement of business and personal performance goals and are, therefore, at risk . The rest of the elements of the package are fixed and are not at risk. Excluding post employment benefits, non-monetary benefits and other cash-based benefits, the proportion of total direct remuneration provided by way of variable components, assuming target levels of performance is set out in the table below. Fixed pay is represented by base salary and the values of the share based awards not related to company performance including the Management Share Plan (MSP). Variable components comprise the Short Term Incentive Plan, the Share Option Plan and the Mining Companies Comparative Plan (STIP, SOP, and MCCP respectively). One time awards have been excluded from the estimation of remuneration mix to provide a better representation of the balance between fixed and variable in the regular remuneration package. The next table demonstrates the significant emphasis that is placed on at-risk versus fixed remuneration as a percentage of total direct remuneration.

		At-risk as	Options as
Remuneration mix	Fixed as %	%	%
	of 2008	of 2008	
	total	total	of total
Tom Albanese	32	68	16
Guy Elliott	37	63	13
Dick Evans	32	68	16
Hugo Bague	52	48	
Preston Chiaro	32	68	16
Bret Clayton	32	68	16
Keith Johnson	37	63	13
Grant Thorne	48	52	
Debra Valentine	50	50	
Sam Walsh	37	63	13

#### Share based remuneration not dependent on performance

In 2008, the Company made use of the MSP (in conjunction with the MCCP) as a component of the annual grant for all executives below the product group chief executive level. Grants of conditional shares vest based on service on 31 December 2010 and subject to the committee approving the vesting. These grants for the relevant executives are disclosed in Table 1 and their holdings in Table 4.

In August 2007, Hugo Bague received a one time grant of 20,000 Rio Tinto plc shares as part of the terms of his engagement and related to remuneration that was forfeited at resignation from his previous employer. The first half of these shares vested, based on service, 12 months after his commencement date. The second half will vest, also based on service, 24 months after the commencement date. In January 2008, Debra Valentine received a one time grant of 10,000 Rio Tinto plc shares as a part of the terms of her engagement and to establish retention during a period of high uncertainty due to the unsolicited pre-conditional bid from BHP Billiton. Half of the shares vest on the third

anniversary of her employment and the remainder vest on the fourth anniversary.

Executives may participate in share and share option plans that are available to all employees at particular locations and for which neither grant nor vesting is subject to the satisfaction of a performance condition. These plans are consistent with standard remuneration practice whereby employees are offered participation in such plans as part of their employment to encourage alignment with the long term performance of the Company.

Executives employed in the Rio Tinto plc part of the Group may participate in the Rio Tinto plc Share Savings Plan, a savings-related share option plan which is open to employees in the UK and elsewhere. Under the plan, participants can save up to £250 per month, or equivalent in local currency, for a maximum of five years. At the end of the savings period participants may exercise an option over shares granted at a discount of up to 20 per cent to the market value at the time of grant. The number of options to which participants are entitled is determined by the option price, the savings amount and the length of the savings contract. No consideration is paid or payable by the participant on receipt of the options. The UK section of this plan is approved by HM Revenue & Customs (HMRC). Grants made to executives are set out in Table 5 on pages 161 to 165.

Eligible UK employees, including some of the executives, may also participate in the Rio Tinto Share Ownership Plan, an HMRC approved share incentive plan which was introduced in 2002. Under this plan, eligible employees may receive an annual award of shares up to a maximum of five per cent of their salary, subject to a cap of £3,000. For the 2008 awards to be settled in 2009, in recognition of the challenging economic environment, the Company has reduced the annual award of shares up to a maximum of two and a half per cent of salary, subject to a cap of £1,500. In addition, participating employees can save

up to  $\pounds 125$  per month, which the plan administrator invests in Rio Tinto plc shares. The Company matches these purchases on a one for one basis. The Rio Tinto Share Ownership Plan includes restrictions on transfer of shares while the shares are subject to the plan.

Executives employed in the Rio Tinto Limited part of the Group may elect to participate in the Rio Tinto Limited Share Savings Plan, introduced in 2001, which is similar to the Rio Tinto plc Share Savings Plan. Grants made to executives are set out in Table 5 on pages 161 to 165.

Executives, other than executive directors, may be eligible to participate in the MSP as described on page 142. The terms of each award are set by the committee at the time of grant. Awards may be service based and/or performance based depending on the nature of the award. Specific non performance based awards are described on page 143.

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.

# **Service contracts**

The following table details the key aspects of each executive s employment contract.

	Tom anese	Guy Elliott	Dick Evans	Hugo Bague	Bret Clayton	Preston Chiaro	Keith Johnson	Grant Thorne	Debra Valentine	Sam Walsh
and	CEO I	Finance Director 19/6/02) (2	ED & CEO Rio Tinto AlcanR 25/10/07)	esources		& Minerals	Group Executive 2 BusinesTe Resources (1/6/07)I	echnology &	Global Head of Legal (15/1/08)	CEO Iron Ore (1/11/04)
(current contact)(con disc		19/6/02	25/10/07	25/3/07	1/6/06	30/9/03	12/3/04	25/5/06	12/11/07	3/8/04
Years of service completed	27	28	1	1	14	17	17	33	1	17
StandardPension or superannuation fund participation.contractSalary subject to annual review.conditionsEligible for Rio Tinto Long Term Incentive Plans (LTIP).Eligible for employee car scheme in accordance with policy applicable in country of assignment.Eligible for medical benefits programmes applicable to employees generally in country of origin.Where applicable, receives expatriate secondment packages which may include a housing benefit, repatriation and tax equalization.								of origin.		

Term It is the Group s policy that executives service contracts generally have no fixed term, but are capable of termination giving no less than the notice set out below. Dick Evans contract has a term of 27 months (not 24 months as incorrectly stated in 2007) and ends on 31 December 2009.

Notice	12	12	12	12	12	12	12	6	12	12
	months	months	months	months	months	months	months	months	months	months
			or							
		re	emaining							
			term							
			after							
			31/12/08							

Resignation Outstanding Long Term Incentive awards under the SOP, MCCP and MSP are forfeited as is any pro-rata STIP.

Retirement Pro rata STIP paid based on portion of performance period worked. LTIPs subject to performance test at completion of normal performance period and options or performance shares may vest at that time to the extent provided by the performance condition. Options or performance shares held for less than 12 months at date of termination are reduced pro rata. MSP awards vest pro-rata upon retirement.

Termination by Rio Tinto has retained the right to pay executives in lieu of notice. Given the wide variety of circumstances leading to early termination, the executive s service contracts do not provide company general including explicitly for compensation but, in the event of early termination, including redundancy, it is the Group s policy to act fairly in all circumstances. Pre-existing entitlements may apply under redundancy redundancy policies generally applicable to employees in particular regions. Notice may be worked or fully or partly paid in lieu, at Company discretion, and additional capped service-related payments may apply. Compensation would not provide reward for poor performance. In the event of termination except for cause, STIP would be paid based on the portion of the performance period worked. LTIP s would be subject to a performance test at completion of the normal performance period. Options and performance shares may vest at that time to the extent provided by the performance condition. Options or performance shares that have been held for less that 12 months at the date of termination would be reduced pro-rata. MSP awards vest pro-rata upon termination for reasons other than cause.

Termination for Employment may be terminated by the Company without notice and without payment of any salary or compensation in lieu of notice. Outstanding awards under the SOP, MCCP and MSP are forfeited as is any pro-rata STIP.

Change of control Contractual entitlements to severance are not triggered by a change of control. LTIP rules in the event of a change of control apply to all plan participants and are set out in the sections of the report on pages 140 to 143 that deal with each of LTIP vehicle including the SOP, MCCP and MSP

#### **Performance evaluation**

Rio Tinto conducts an annual performance management, development and evaluation 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 executives objectives and Rio Tinto s business strategy.

Provide a consistent, transparent and balanced approach to measure, recognise and reward executive performance.

Engage executives through regular two way communication on their performance.

Build further capability through aligning development decisions with business and employee needs. There is a three-step annual cycle conducted according to the following schedule:

- i) Set annual performance objectives as part of the annual planning process at the end and into the beginning of the new calendar year;
- ii) Interim review completed by end of August; and

iii) Annual performance review completed during early January of the following year.

All executives were evaluated according to this process in 2008. The results related to individual and business performance are detailed on pages 147 to 149.

#### **Remuneration Paid in 2008**

#### Performance of Rio Tinto and individual executives

The Company experienced strong share price performance for the duration of 2008 with the exception of performance in the fourth quarter when commodity prices dropped sharply. This was reflected in the share price. 2008 earnings are in line with stretching targets approved by the board earlier in the year, despite the drop in commodity prices and the relatively fixed nature of Rio Tinto s costs making it difficult to realise significant reductions in costs within a short window of a few months. To illustrate the performance of the Company s share price relative to markets, graphs showing the performance of Rio Tinto plc in terms of TSR over the last five years, compared to the FTSE 100 Index and Rio Tinto Limited compared to the ASX All Ordinaries Index are reproduced above. A graph showing Rio Tinto s performance relative to the HSBC Global Mining Index is also included to illustrate the performance of Rio Tinto relative to other mining companies.

TSR (£) - Rio Tinto plc vs FTSE 100 Total return basis Index 2003 = 100	FTSE 100	Rio Tinto plc
2003	100	100
2004	111	102
2005	134	181
2006	154	193
2007	165	384
2008	118	109
TSR (A\$) - Rio Tinto Limited vs ASX All Share	ASX All	Rio Tinto
Total return basis Index 2003 = 100	Share	Limited

2003	100	100
2004	128	108
2005	154	194
2006	193	212
2007	228	388
2008	136	112

TSR (US\$) - Rio Tinto Group vs HSBC Global Mining Index Total return basis Index 2003 = 100	HSBC Global Mining Index	Rio Tinto DLC
2003	100	100
2004	112	111
2005	159	178
2006	220	213
2007	349	436
2008	145	93

The effect of this performance on shareholder wealth, as measured by TSR, is detailed in the table on the next page. The relationship between TSR and executive remuneration is discussed in the Executive remuneration and Remuneration components sections appearing earlier in the report. TSR on an annual basis is based on a comparison of the opening and closing share prices plus dividends. Given this methodology, even though the share price exceeded the market average for over 11 months in 2008, it would not be reflected in the TSR calculation due to the sudden decline in share price in the last month of the year.

#### **Rio Tinto shareholder return** 2004-2008

Year	Dividends per share paid		are price Tinto plc	Share price Rio Tinto Limited		Tota	l sharehold	er return (TSR)
	during the year		£ (pence)		A\$			
	(US cents					plc	Ltd	Group
	per share)	1 Jan	31 Dec	1 Jan	31 Dec	%	%	%
2008	152.0	5.317	1.490	133.95	38.0	(71.5)	(71.1)	(71.3)
2007	116.0	2,718	5,317	74.30	133.95	99.5	82.9	91.8
2006	191.5	2,655	2,718	69.00	74.30	6.3	12.2	7.6
2005	83.5	1,533	2,655	39.12	69.00	77.5	81.3	78.4
2004	66.0	1,543	1,533	37.54	39.12	1.7	7.4	3.0

Rio Tinto Group and product group performance during 2008, and over the performance periods of the long term incentive plans which ended on 31 December 2008, affected executives remuneration as follows: Share based awards

SOP Rio Tinto TSR growth over the three years ending 31 December 2008 achieved the level required by the applicable performance condition for the 2006 award to vest 100 per cent. In addition, TSR performance for the five year period ending 31 December 2008 for the 2004 option re-test achieved the level required to vest 100 per cent. The vesting of the last option grant subject to a re-test provision will occur in March 2009 based on performance for the performance period ending 31 December 2008. Outstanding awards do not have a re-test provision and there is no provision in the plan currently for a re-test on future awards.

MCCP Rio Tinto ranked third in the ten company comparator group at the completion of the four year performance period ending 31 December 2008, resulting in 92.5 per cent vesting of the conditional award made (61.6 per cent of the maximum opportunity) to executives who were directors or product group chief executives at the date of the conditional award. This group included Tom Albanese, Guy Elliott, Preston Chiaro, Keith Johnson and Sam Walsh. The vesting shown in Table 4 on pages 157 to 161, is in accordance with the performance condition applicable to the 2005 award and represents 92.5 per cent of the original awards for those who were in executive director or product group chief executive roles at the time of grant of the conditional award.

### Annual bonus (STIP)

STIPs have been determined for 2008 awards based on business performance, safety and the achievement of personal performance objectives. The committee determined that in order to conserve cash and to create alignment between management and shareholders, a 100 per cent bonus deferral for the executive directors and product group chief executives and a 50 per cent bonus deferral for the other executives would be implemented for any bonus due in respect of 2008. All bonus deferrals are into Rio Tinto shares valued on the date of grant. In the case of the executive directors and product group chief executives, the shares vest 100 per cent on the basis of service at the end of 2011. In the case of the other executives, an amount equal to 25 per cent of salary has been added to the amount of the bonus deferral to provide enhanced retention in a challenging period. The shares vest on the basis of service with 50 per cent vesting at the end of 2010 and the remaining 50 per cent at the end of 2011. Executives who leave due to retirement with the Company s consent or are deemed redundant will receive their bonus deferral at departure and, for those below product group chief executive level, pro rata vesting based on time of the 25 per cent of salary portion that has been contributed by the company. Consistent with the retention aspect of the deferral, executives who resign prior to vesting will forfeit the bonus deferral as well as the 25 per cent of salary portion, if applicable.

2008 STIP amounts are set out in Table 1 on pages 152 to 154. The deferred portion (either 100 per cent or 50 per cent) appears in the deferred share column. The 50 per cent of the bonus that is not deferred and paid in cash to executives below the product group chief executives appears in the cash bonus column.

Financial performance was assessed against underlying earnings targets for the Group and product groups, as relevant, and established by the committee earlier in the year. The potential impact of fluctuations in exchange rates and some prices are outside the control of the Group. The committee therefore compares, on an equal weighting basis, both actual results (unflexed) and underlying performance flexed for prices and exchange rates. The committee retains discretion to consider underlying business performance in deciding STIP awards. The committee did not exercise its discretion to offset the effect of the sharp decline in performance late in the fourth quarter.

Safety measures included Group or relevant product group safety. The 25 per cent weighting comprises 15 per cent allocated to improving the All injury frequency rate (AIFR) and ten per cent allocated to a reduction in critical risk scores as determined by the application of the Semi-quantitative risk assessment (SQRA) approach. Threshold, target and outstanding measures were set relative to previous year s performance according to the following:

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Performance level	Threshold	Target	Outstanding
Excellent	No AIFR detorioraion + SQRA complete	5% AIFR improvement + zero fatalities +10% reduction In critical risk score	<ul><li>10% AIFR improvement</li><li>+ zero fatalities</li><li>+ 20% reduction in</li><li>critical risk score</li></ul>
Good	No AIFR detorioraion + SQRA complete	10% AIFR improvement + zero fatalities +10% reduction In critical risk score	20% AIFR improvement + zero fatalities + 20% reduction in critical risk score
Fair	No AIFR detorioraion + SQRA complete	20% AIFR improvement + zero fatalities +10% reduction In critical risk score	40% AIFR improvement + zero fatalities + 20% reduction in critical risk score

These measures reflect the number one priority of safety at all Rio Tinto operations including corporate offices. Corporate offices receive a safety score based on the combined safety scores of the product groups. Safety scores are subject to additional adjustment downward should a significant number of incidents, especially the incidence of fatalities, occur during the year. In 2008, Rio Tinto experienced eight fatal incidents globally resulting in 18 deaths. Discretion was exercised to further adjust the scores downward to recognize the magnitude of the loss of life in accidents in 2008.

Personal performance targets and objectives were established for each executive at the start of the performance period. These comprise a balanced set of measures for each individual (as discussed in the following section) that reflect current operational performance, as well as progress on initiatives and projects designed to align with the business priorities of each business, product group and Rio Tinto.

To achieve a strong linkage between business/financial and personal performance and remuneration, the business/financial performance factor is multiplied by the personal factor as set out below and applied to the target STIP percentage, which ranges from 50 to 60 per cent of salary depending on the executive:

	Business/financia target 100%, ou		Personal threshold 25%, target 100%, outstanding 150%		
	Group financial	Product group financial	Group/PG safety	Personal performance objectives*	
Executive directors**,	50% flexed earnings	-	25%	75%	
Group executives, global heads	50% unflexed earnings				
Product group CEO	20% flexed earnings 20% unflexed earnings	30% flexed earnings 30% unflexed earnings	25%	75%	

The only exceptions to this template are for Rio Tinto Alcan where the business performance metrics for the product group chief executive were driven by 80 per cent upstream earnings (50 per cent flexed/ 50 per cent unflexed) and 20

per cent downstream EVA per the former Alcan bonus plan, and in the case of the Group executive Technology & Innovation (T&I), where safety reflects measures applicable to T&I led projects and Group safety performance.

Strong markets for much of the year followed by a severe global downturn during the fourth quarter made 2008 an unusual year. The impact of the downturn on earnings was further exacerbated by a simultaneous increase in the costs of many inputs. Earnings performance for the Group as a whole measured against stretching targets resulted in a STIP score of 87 per cent of target for business performance. Product group performance varied from zero (Copper & Diamonds) to 109 per cent of target (Energy & Minerals). The committee did not exercise its discretion to adjust for the sharp downturn in commodity prices at the end of the year and the impact this had on performance.

Group safety performance resulted in the committee approving a score of 49 per cent of target. Product group safety varied with scores ranging from 18 per cent of target (Copper & Diamonds) to 89 per cent of target (Rio Tinto Alcan).

Consequently, total STIP awards for executives, including personal STIP scores detailed below, ranged from 29 per cent to 107 per cent of target (14 per cent to 53 per cent of maximum), or a range of 17 per cent to 64 per cent of salary, depending upon the executive. The executive directors, product group chief executives and Group executives have target STIP awards of 60 per cent of salary. Target STIP is 55 and 50 per cent of salary for Debra Valentine and Hugo Bague, respectively.

#### Tom Albanese

Based on record earnings in a challenging year overall, the committee assessed personal performance including Group safety as 99 per cent of target. The overall STIP award is 86 per cent of target (43 per cent of maximum) which is 52 per cent of salary (43 per cent of maximum). 100 per cent of the bonus payment has been deferred into Rio Tinto shares.

# **Guy Elliott**

Based in personal performance targets related to work occasioned by the unsolicited pre-conditional offer by BHP Billiton, the divestments programme, the efficiency and effectiveness of the finance function and the additional portfolio responsibilities taken in the second half of 2008 for the management of the downstream aluminium businesses, the committee assessed personal performance including Group safety as 87 per cent of target. The overall STIP award is 76 per cent of target (38 per cent of maximum) which is 46 per cent of salary. 100 per cent of the bonus payment has been deferred into Rio Tinto shares.

# Dick Evans

Based on personal performance targets related to on-time and on-budget completion of the Sohar Aluminum smelter, progress with the Gove and Yarwun II construction projects, the development of feasibility studies for new and expansion projects, leadership of the Rio Tinto Alcan integration programme, work occasioned by the unsolicited pre-conditional offer by BHP Billiton, business sustainability and the environment and succession planning, the committee assessed personal performance including product group safety as 89 per cent of target. The overall STIP award is 62 per cent of target (31 per cent of maximum) which is 37 per cent of salary. 100 per cent of the bonus payment has been deferred into Rio Tinto shares until his retirement on 31 December 2009.

### Hugo Bague

Based on personal performance targets related to human resources transformation projects, Rio Tinto Alcan integration and leadership of the human resources function including work occasioned by the unsolicited pre-conditional offer from BHP Billiton, the committee assessed personal performance including Group safety as 98 per cent of target. The overall STIP award is 85 per cent of target (43 per cent of maximum) which is 43 per cent of salary. 50 per cent of the bonus payment has been deferred into Rio Tinto shares.

### **Preston Chiaro**

Based on personal performance targets related to growth projects, particularly the progression of feasibility studies for thermal coal and uranium projects, support to the divestment processes, significant supply chain improvements in the Hunter Valley, Australia, and initiatives related to climate change, the committee assessed personal performance including product group safety as 101 per cent of target. The overall STIP award is 102 per cent of target (51 per cent of maximum) which is 60 per cent of salary. 100 per cent of the bonus payment has been deferred into Rio Tinto shares.

# Bret Clayton

Based on personal performance targets related to both the Diavik and Argyle expansion projects, the progression of pre-feasibility studies and feasibility studies on new projects including Oyu Tolgoi, La Granja, Resolution and Sulawesi, and business sustainability including talent development and joint venture management, the committee assessed personal performance including product group safety as 82 per cent of target. The overall STIP award is 29 per cent of target (14 per cent of maximum) which is 17 per cent of salary. 100 per cent of the bonus payment has been deferred into Rio Tinto shares.

# Keith Johnson

Based on the progress of the One Rio Tinto project including the continued roll-out of the Aligning Business Systems project, the achievement of objectives set within each of the Business Resources Areas including Exploration, Marine, Rio Tinto Procurement, Business Services and the global marketing centre, and Rio Tinto Alcan integration, the committee assessed personal performance including Group safety as 100 per cent of target. The overall STIP is 87 per cent of target (44 per cent of maximum) which is 52 per cent of salary. Keith Johnson s bonus payment has not been deferred as he is leaving the Group on 31 July 2009.

# **Grant** Thorne

Based on the progress of the expansion projects under the management of Technology & Innovation including Argyle, Kestrel, Clermont and QIT Madagascar Minerals, progress on key technology initiatives (including Autonomous trucks and underground development), Rio Tinto Alcan integration and leadership of the Technology & Innovation group, the committee assessed personal performance including T&I safety as 110 per cent of target. The overall STIP award is 96 per cent of target (48 per cent of maximum) which is 56 per cent of salary. 50 per cent of the bonus payment has been deferred into Rio Tinto shares.

# Debra Valentine

Based on leadership of the legal function including establishment of a global legal function, and significant contribution to the unsolicited pre-conditional offer by BHP Billiton, the committee assessed personal performance including Group safety as 107 per cent of target. The overall STIP award is 93 per cent of target (47 per cent of maximum) which is 51 per cent of salary. 50 per cent of the bonus payment has been deferred into Rio Tinto shares. Rio Tinto 2008 *Form 20-F* **148** 

### Sam Walsh

Based on personal performance related to on-time and on-budget completion of key expansion projects in the Pilbara, the progression of feasibility studies for global projects including Corumba, IOC and Simandou, business sustainability items related to technology development including progress on the automated trains and automated drills, marketing effectiveness and work occasioned by the unsolicited pre-conditional offer by BHP Billiton, the committee assessed personal performance including product group safety as 107 per cent of target. The overall STIP award is 107 per cent of target (53 per cent of maximum) which is 64 per cent of salary. 100 per cent of the bonus payment has been deferred into Rio Tinto shares.

# **Other payments during 2008**

### Retention

In 2007, Rio Tinto introduced a retention programme for certain senior Rio Tinto employees, with the exception of the executive directors and the product group chief executives. The programme was designed to further support the Group s ability to retain key staff in a competitive labour market and during a period of significant uncertainty due to the unsolicited pre-conditional offer from BHP Billiton. This uncertainty combined with a buoyant market for senior professionals in the resources sector in the early part of 2008 magnified the risk to Rio Tinto of losing key senior employees with direct impacts on business performance. On 1 December 2008, Hugo Bague received a retention award equal to US\$350,000 under this programme.

# **Integration bonus**

Dick Evans received an integration bonus of US\$1,350,000 (68 per cent of target; 45 per cent of maximum) based on a maximum integration bonus of US\$2,992,500 as set out in the 2007 Remuneration report. The bonus was based on actual performance against plan, where plan was the achievement of explicit integration synergy targets in 2008, the establishment of Rio Tinto Alcan within the wider Rio Tinto Group (including adoption of the One Rio Tinto model) and the readiness of a successor for Rio Tinto Alcan by the end of 2009.

Dick Evans is eligible for a Rio Tinto Alcan integration bonus in 2009 of 426 per cent of salary (US\$6,397,500) at target and 640 per cent of salary (US\$9,596,250) at maximum. Again for 2009, this bonus will be payable based on the achievement of synergy targets and the integration of Rio Tinto Alcan.

The integration bonus potential in both 2008 and 2009 was provided as part of his remuneration arrangements to maintain the remuneration he was entitled to at Alcan at the time of the acquisition.

#### Long term incentives granted in 2008

Options over either Rio Tinto plc or Rio Tinto Limited shares, as appropriate, were granted to each executive under the SOP on 10 March 2008. The committee reviewed the performance condition applicable to this grant and confirmed that vesting will be dependent on Rio Tinto s TSR relative to the HSBC Global Mining Index over a three year performance period. Details of all options outstanding under the SOP are included in Table 5 on pages 161 to 165.

A conditional award of performance shares in either Rio Tinto plc or Rio Tinto Limited shares was made to each executive under the MCCP on 10 March 2008. The committee reviewed the performance condition applicable to the conditional award and determined that vesting will be dependent on Rio Tinto s TSR relative to eight other mining companies.

For retention reasons, the MSP awards were used broadly as part of the 2008 long term incentive programme for executives below product group chief executive level. The awards are service-based and vest subject to continuous employment on 31 December 2010.

#### **Bonuses and grants**

The percentages of maximum bonuses made to executives in respect of 2008 and long term incentive grants vested in respect of performance periods which ended on 31 December 2008, as well as the percentages forfeited because the relevant company or individual did not meet the performance criteria required for full vesting, are as follows: **Bonuses and grants made during or in respect of 2008** 

Bonus <sup>1</sup>	SOP Options <sup>2</sup>	MCCP Shares <sup>3</sup>	MSP Shares
--------------------	--------------------------	--------------------------	------------

	% of maximum vested	% of maximum forfeited	% vested	% forfeited	% vested	% forfeited	% vested	% forfeited
Tom Albanese	42.9	57.1	100		92.5	7.5	n/a	
Guy Elliott	38.1	61.9	100		92.5	7.5	n/a	
Dick Evans	48.9	51.1	n/a		n/a		n/a	
Hugo Bague	42.6	57.4	n/a		n/a		100	
Preston Chiaro	50.8	49.2	100		92.5	7.5	n/a	
Bret Clayton	14.3	85.7	100		83.3	16.7	n/a	
Keith Johnson	43.5	56.5	100		92.5	7.5	n/a	
Grant Thorne	47.9	52.1	100		83.3	16.7	n/a	
Debra Valentine	46.7	53.3	n/a		n/a		n/a	
Sam Walsh	53.3	46.7	100		92.5	7.5	n/a	
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#### Notes

- 1. Cash paid and deferred shares granted in March 2009 in respect of 2008, including STIP and integration bonus
- 2. Vesting of the 2004 and 2006 SOP options in April and March 2009 respectively for the performance period ending 31 December 2008
- Vesting of 2005 conditional award in February 2009 for the performance period ending 31 December 2008
   OTHER DISCLOSURES

Significant award to a former director

In accordance with Schedule 7A (14) of the UK Companies Act 1985, the Company is required to disclose details of any significant award made in respect of loss of office to former directors. Oscar Groeneveld, a director of Rio Tinto between 1998 and 2004, left employment during 2008 after 34 years service with the Group in a range of senior positions. He received a A\$4.045m redundancy payment during 2008.

# Shareholding policy for executives

The Company recognises the importance of aligning directors and 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 and product group chief executives should aim to achieve this over five years. Details of executives share interests in the Group are set out in Table 3 on page 156.

# Share dealing policy

Executives participate in long term incentive plans which involve the awarding of Rio Tinto securities at a future date. The board has a policy prohibiting an executive from limiting his or her exposure to risk in relation to the securities. This is contained in the Rules for dealing in Rio Tinto securities which is available in the corporate governance section of the website. All employees subject to the Rules receive regular training and information about this prohibition. The grants of shares and options under the plans are conditional upon compliance with the Rules.

#### **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 and they are not allowed to take on the chairmanship of another FTSE 100 company or equivalent. Consequently, where there is no likelihood that such directorships will give rise to a conflict of interest, the board will normally give consent to the appointment. The executive is permitted to retain the fees earned. In the course of the year the following executives received fees from external appointments: Guy Elliott received US\$89,000 (2007: US\$47,000), Dick Evans US\$120,000, and Sam Walsh A\$10,000 in respect of their non Rio Tinto related directorships.

#### **Company secretary remuneration**

The remuneration policy described above 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 personal measures. 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 DIRECTOR REMUNERATION

#### **Remuneration policy**

Remuneration for non executive directors is structured with a fixed fee component, details of which are set out on the next page. The board as a whole determines non executive directors fees, although non executive directors do not vote on any changes to their own fees. Fees reflect the responsibilities and time spent by the directors on the affairs of Rio Tinto. Current fee levels are set out in the table on the page below.

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 and he does not participate in the Group s incentive plans or pension arrangements.

# 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, prior to the annual general meeting and at the meeting itself. Each non executive director is appointed subject to subsequent election and periodic re-election by shareholders as detailed on page 167. There are no provisions for compensation payable on termination of any non executive director s appointment.

The chairman s letter of appointment summarises his duties as chairman of the Group and was agreed by the committee. It stipulates that he is expected to dedicate three days per week on average to carry out his duties, including attending all board and committee meetings. The chairman receives a base fee and no additional committee or attendance fees. He is provided with private medical insurance and participates in the Rio Tinto accident policy which is disclosed in Table 1 on page 153.

The board announced on 14 January 2009 that Paul Skinner had expressed a preference to retire on 20 April 2009. Following the resignation of the chairman designate, Jim Leng, on 9 February 2009, he agreed to remain as chairman until mid 2009, by which time it is anticipated that a successor will be appointed. The terms of his existing letter of appointment will remain in place over that period.

### **Shareholding policy**

In 2006, the board recommended that non executive directors be encouraged to build up a shareholding equal in value to one year of the director base fee within three years of their appointment. To help facilitate this, the Group put in place a non executive directors share purchase plan through which non executive directors could elect to invest a proportion of their fees net of tax on a regular basis to acquire shares on the open market. During the year no directors purchased shares using these arrangements as purchases were suspended following the unsolicited pre-conditional offer from BHP Billiton. This suspension was lifted following the announcement of the 2008 annual results and the strategic partnership with Chinalco.

#### **Remuneration components**

The following table sets out the annual fees payable to the chairman and the non executive directors in  $\pounds/A$ , as appropriate. These are unchanged from 31 December 2007.

Rio Tinto does not pay retirement benefits or allowances to the chairman or non executive directors, nor do any of them participate in any of the Group s incentive plans. Where the payment of statutory minimum superannuation contributions for Australian non executive directors is required by the Australian superannuation guarantee legislation, these contributions are deducted from the directors overall fee entitlements.

	As at
	31 Dec 2008
Base fees:	
Chairman	£693,000
Other directors	£70,000
	A\$160,000
Additional fees:	
Senior independent director	£35,000
Audit committee chairman	£30,000
Audit committee member	15,000
	\$37,500
Remuneration committee chairman	£20,000
Remuneration committee member	£10,000
	A\$25,000
Nominations committee member	£7,500
Committee on social and environmental accountability chairman	£20,000
Committee on social and environmental accountability member	£7,500
	A\$18,750
Overseas meeting allowances:	
Long distance (flights over	£4,000

Long distance (flights over	£4,000
10 hours per journey)	A\$10,000
Medium distance (flights of	£2,000
5-10 hours per journey)	A\$5,000

#### Note

No additional fee is payable to the chairman of the Nominations committee.

# **Remuneration paid during 2008**

Details of each element of remuneration paid to the chairman and non executive directors during 2008 is set out in Table 1 on page 152. No post employment, long term or termination payments were paid and no share based payments made.

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#### Auditable information

Under Part 3 of Schedule 7A to the UK Companies Act 1985, the information included in respect of the non executive directors and the directors short term employee benefits and termination benefits in Table 1, and the information included in respect of the directors accrued benefits, transfer values and defined contribution pension in Table 2, Table 4 and Table 5 are all auditable.

The Australian Securities Investment Commission issued an order dated 27 January 2006 (and amended on 22 December 2006) 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, 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 2009 annual general meetings. By order of the board

# Ben Mathews Secretary

Remuneration committee 6 March 2009

# Table 1 Executives and non executive directors remuneration

			Short term employee benefits Other long term benefits				long term	Long term employee benefits
		Base salary	Cash bonus 4		Non nonetary benefits 6	Total	Deferred shares 9	Value of share based awards <sup>5</sup> MCCP MSP SOP Others 10 11 12 13
<b>Stated in US\$</b> Chairman Paul Skinner <sup>11</sup>	2008	1,310		31	197	1,538		
	2007	1,282		34	236	1,552		
Non executive	director	rs <sup>12</sup>						
Ashton Calvert	2007	121		42	26	189		
Sir David	2007	121		42	20	109		
Clementi	2008	196		7	2	205		
	2007	174		16		190		
Vivienne Cox	2008	158		7	21	186		
	2007	154		16		170		
Jan du								
Plessis <sup>15</sup>	2008	53				53		
Sir Rod								
Eddington	2008	155		24	11	190		
	2007	133		15	2	150		
Michael								
Fitzpatrick	2008	175		24	2	201		
	2007	164		46	12	222		
Yves Fortier	2008	158		26	37	221		
	2007	32				32		
Richard	2008	186		26	15	227		
Goodmanson Andrew	2007	184		28		212		
Gould	2008	231		11		242		
	2007	204		8		212		
Lord Kerr	2008	200		11	54	265		
	2007	174		8		182		
	2008	158		7	26	191		

David												
Mayhew <sup>16</sup>												
	2007	150		8		158						
Sir Richard												
Sykes	2008	99		4	54	157						
	2007	236		24	25	285						
Paul Tellier <sup>14</sup>	2008	177		22	41	240						
	2007	35				35						
<b>Executive dire</b>	ctors											
Tom												
Albanese <sup>3</sup>	2008	1,664		10	329	2,003		169	(2,837)		1,327	5
	2007	1,494	1,277	49	314	3,134	477		6,556		758	8
Leigh Clifford	2007	1,401	1,008	718	608	3,735	1,582		103		911	3
Guy Elliott	2008	1,239		28	166	1,433		111	(2,518)		840	9
	2007	1,213	1,005	30	52	2,300			5,855		625	13
Dick Evans	2008	1,500	1,350		413	3,263		139	<b>48</b>		621	
	2007	281		25	54	360						
Other key man	agemen	t person	nel									
Hugo Bague	2008	663	462	107	216	1,448		32	8	835	44	3
Preston												
Chiaro	2008	714		21	693	1,428		110	(2,092)		717	2
	2007	650	422	21	536	1,629			5,015		557	2
Bret Clayton	2008	680			651	1,331		30	(698)		484	1
	2007	570	541		1,075	2,186			1,583		199	
Oscar												
Groeneveld	2007	1,261	877		86	2,224	478		5,292		528	4
Keith Johnson	2008	774	317	24	30	1,145			(1,655)		551	8
	2007	781	558	33	23	1,395			3,730		423	11
Andrew												
N T 1 17												
Mackenzie <sup>17</sup>	2007	861	111	12	28	1,012			3,575		436	13
Grant Thorne	2007 <b>2008</b>	861 773	111 <b>178</b>	12 <b>4</b>	28 1	1,012 <b>956</b>		52	3,575 ( <b>763</b> )	125	436 <b>136</b>	13 <b>3</b>
Grant Thorne Debra	2008	773	178		1	956			(763)			
Grant Thorne Debra Valentine	2008 2008	773 548		4	1 721	956 1,415		43	(763) 18	125 281	136	3
Grant Thorne Debra	2008	773	178		1	956			(763)			

# Table 1 Executives and non executive directors remuneration (continued)

Post employment	Termin-	Total	Currency of
benefits <sup>14</sup>	ation	remun-	actual
	benefits	eration	payment

	Pension	Other
	and	post
	superann	employment
Stated in US\$ 000	uation	benefits

Chairman					
Paul Skinner <sup>13</sup>			1,538	2008	£
			1,552	2007	£
Non executive directors					
Ashton Calvert			189	2007	A\$
Sir David Clementi			205	2008	£
			190	2007	£
Vivienne Cox			186	2008	£
			170	2007	£
Jan du Plessis <sup>14</sup>			53	2008	£
Sir Rod Eddington			190	2008	<b>A\$</b>
			150	2007	A\$
Michael Fitzpatrick			201	2008	<b>A\$</b>
			222	2007	A\$
Yves Fortier			221	2008	£
			32	2007	£
Richard Goodmanson			227	2008	£
			212	2007	£
Andrew Gould			242	2008	£
			212	2007	£
Lord Kerr			265	2008	£
			182	2007	£
David Mayhew <sup>15</sup>			191	2008	£
			158	2007	£
Sir Richard Sykes			157	2008	£
			285	2007	£
Paul Tellier			240	2008	£
			35	2007	£
Executive directors					
Tom Albanese	1,443		2,110	2008	£
	1,706		12,639	2008	£
Leigh Clifford	364	817	7,515	2007	£ £
Leigh Chilord	JUT	017	7,010	2007	£

Guy Elliott	534		409	2008	£
	560		9,353	2007	£
Dick Evans	338		4,409	2008	US\$
	63		423	2007	US\$
Other key management personnel					
Hugo Bague	46		2,416	2008	£
Preston Chiaro	177	8	350	2008	US\$
	190	7	7,400	2007	US\$
Bret Clayton	79	2	1229	2008	US\$
-	82	3	4,053	2007	US\$
Oscar Groeneveld	281		8,807	2007	A\$
Keith Johnson	384		433	2008	£
	422		5,981	2007	£
Andrew Mackenzie	518		5,554	2007	£
Grant Thorne	195		704	2008	<b>A\$</b>
Debra Valentine	123	8	1,888	2008	US\$
Sam Walsh	327		137	2008	<b>A\$</b>
	290		7,686	2007	A\$

Table 1ExecutivesNotes to Table 1	and non executive directors	remuneration (continued)
1. The total		
remuneration is		
reported in US		
dollars. The		
amounts, with		
the exception of		
the annual cash		
bonus, can be		
converted into		
sterling at the		
rate of US\$1 =		
$\pm 0.5370 \text{ or}$		
alternatively into		
Australian		
dollars at the rate		
of US\$1 =		
A\$1.1680, each		
being the average		
exchange rate for		
2008. The annual		
cash bonus is		
payable under the		
STIP and this		
may be converted		
at the 2008 year		
end exchange		
rate of $US$1 =$		
$\pm 0.6923$ to		
ascertain the		
sterling		
equivalent or		
alternatively,		
US\$1 =		
A\$1.4469 to		
calculate the		
Australian dollar		
value.		
2. 2008 base fees		
for Paul Skinner		
includes two		
months of		
backdated pay		
increase for		
November and		
December 2007.		
3. Tom Albanese		

3. Tom Albanese was appointed

chief executive with effect from May 2007. The base salary paid to him in 2008 reflects his first full year in that role.

Cash bonus 4. includes STIP and other special one-off bonuses as described on page 147. The Committee has approved a 100 per cent bonus deferral for the executive directors and product group chief executives and a 50 per cent bonus deferral for the other executives. All bonus deferrals are in the form of **Rio Tinto shares** and are disclosed under Deferred Shares . In the case of Keith Johnson, who leaves the Group on 31 July 2009, bonus deferral did not apply and his STIP was paid in cash. 5. The Other cash

5. The Other cash based benefits for non executive directors comprise overseas meeting allowances only. Other cash based benefits for executives include cash in lieu of a car and fuel. For Hugo Bague only, it also includes a cash supplement equal to 20 per cent of the amount by which his Contributory Salary exceeds the Earning Cap as defined in the **Rio** Tinto Pension Fund. Non monetary benefits includes for executives, as applicable, healthcare, the provision of a car, and secondment costs, comprising housing, education, professional advice, tax equalisation and relocation payments. For executives and non executive directors it also includes the cost of accompanied travel in 2008 and the comparative figures for 2007 which have been restated. In the cases of Tom Albanese, Paul Skinner and Guy Elliott, it also includes the proportionate value of company provided transport. In the

6.

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case of Sir Richard Sykes, it includes the value of a retirement gift. For Guy Elliott, it includes the value of personal tax advice received. For Paul Skinner, it includes medical insurance premiums. Rio Tinto provides accident cover for employee members of the **Rio Tinto** Pension Fund. Some of the executive directors and key management personnel are members of the **Rio Tinto** Pension Fund, the total premium paid in 2008 was £7,000. Rio Tinto plc provides accident cover for non executive directors; the total premium paid in 2008 was £3,000. Total short term benefits represents the short term benefits total required under schedule 7A of

the UK Companies Act 1985 (UK) and total remuneration under the

7.

**Corporations Act** 2001 and applicable accounting standards. The value of 8. share based awards has been determined in accordance with the recognition and measurement requirements of IFRS2 Share based Payment . The fair value of awards granted under the Share **Option Plan** (SOP), the Management Share Plan (MSP) and the Share Savings Plan (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 2008. The fair value of

Australian

awards granted under the Mining Companies Comparative Plan (the MCCP) has been calculated using a Monte Carlo valuation model based on the market price of shares and their relative TSR performance at 31 December 2008. Over 2008, the fall in Rio Tinto s share price combined with a reduction in Rio Tinto s TSR performance relative to the comparator group has led to a significant decrease in the value attached to the MCCP under the IFRS2 accounting standard. The decrease in the fair values from 1 January to 31 December 2008 has contributed to the negative MCCP compensation amounts arising for certain individuals. Further details of the valuation methods and assumptions used for these awards are included in note 48 (Share

**Based Payments**) in the 2008 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 plans. 9. Deferred shares represents the deferral of the 2008 bonus under STIP into Rio Tinto shares. 10. The number of conditional shares awarded to executives under the MCCP for the twelve month period ending 31 December 2008 is shown in Table 4 of this report. Other long term employee benefits in 2007 have been restated to exclude company contributions under the 401k arrangements for Preston Chiaro and Bret Clayton. This was already included in Pension and superannuation . 11. MSP values

include regular awards and

engagement awards made to Hugo Bague and Debra Valentine as described on page 143. 12. The award of options to executives under the SOP during the twelve month period up to 31 December 2008 is shown in Table 5 of this report. 13. Under the Share **Ownership** Plan UK executives are beneficiaries of free shares up to a maximum value of £3,000 (US\$5,587) and may also contribute to purchase additional shares where the Company will match their personal contributions up to a maximum of £1,500 (US\$2,793) per annum. Under these plans, Guy Elliott and Keith Johnson each received a total of £4,500 (US\$8,380) and Tom Albanese a total of £3,000 (US\$5,587). 14. 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, or notional amount for Dick Evans, contributed in the year by the Company. The 2007 cost for Dick Evans has been restated to include the Alcan Employee Savings Plan. American product group chief executives enjoy a Company matching of personal contribution for shares under the 401K arrangements up to a maximum of US\$13,800. The Company matched personal contributions to the following values: Preston Chiaro US\$13,800 and Bret Clayton US\$13,800. 15. Jan du Plessis

- 15. Jan du Plessis was appointed director with effect from 1 September 2008.
- 16. David Mayhew s fees for the full year were paid to JPMorgan

Cazenove. The fees disclosed above include £15,000 (US\$27,935) paid to JPMorgan Cazenove for David Mayhew s attendance at Audit committee meetings in his capacity as adviser. 17. Andrew Mackenzie commenced his notice period on

November 2007 and ceased employment on 15 November 2008.

# Table 2Directorspension entitlements (as at 31 December 2008)Defined Benefit pensions

					Accrued benefits			Transfer values			
		Years	At		Change	Change					
	Age	of	31	At 31	in	in	At 31	At 31	Change,	Transfer	
		servi	cember D	December	accrued	accruedDe	cember D	ecember	net of	value of change	
	co	ompleted	2007	2008	benefits	benefit	2007	2008	personal	in	
					during						
					the	net of			contributi	accrued	
					•	nflation <sup>1</sup>			ons	benefit	
					ended						
				г	31					net of	
				L	December 2008					inflation <sup>1</sup>	
					2008						
			£ 000								
			pa	. pa	pa	pa	£ 000	£ 000	f = 1000	£ 000	
		p	ension	pension	pension	pension					
UK directors											
Tom Albanese <sup>2,3</sup>	51	27	183	286	103	102	1,634	2,836	1,202	1,496	
Guy Elliott <sup>2</sup>	53	28	381	434	53	49	5,602	6,728	1,126	764	

**Defined Contribution pension** 

Company contributions

Years At Age of 31 At 31 serviDecember December completed 2007 2008

US\$ 000 US\$ 000 pension pension

### **UK directors**

### Notes to Table 2

1. Price inflation is calculated as the increase in the relevant retail or consumer price index over the year to 31 December 2008.

- 2. Transfer values are calculated in a manner consistent with Retirement Benefit Schemes -Transfer Values (GN11) published by the Institute of Actuaries and the Faculty of Actuaries.
- Tom Albanese 3. became a director of Rio Tinto plc and **Rio Tinto** Limited with effect from 7 March 2006. He accrued pension benefits in the US plans for service up to 30 June 2006, and in the UK fund for subsequent service. The transfer value of his 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.

4. Dick Evans became a director of Rio Tinto plc and Rio Tinto Limited with effect from 25 October 2007 and has an unfunded notional defined contribution benefit. The 2007 company contributions have been restated to include the Alcan Employee Saving Plan.

### Table 3 Executives and non executive directors beneficial interests in Rio Tinto shares

		Rio	Tinto plc	Rio Tinto Limited Exercise				Movement	
	1 Jan	31 Dec	20 Mar	1 Jan	31 Dec	20 Mar	of	Compen-	Other <sup>5</sup>
	2008 1	2008 <sup>2</sup>	2009 <sup>2</sup>	2008 1	2008 <sup>2</sup>	2009 <sup>2</sup>	options 3	sation <sup>4</sup>	
Directors									
Tom Albanese <sup>6</sup> Sir David	44,970	57,079	88,469					43,125	374
Clementi	454	454	454						
Vivienne Cox	826	826	826						
Jan du Plessis			5,000						5,000
Sir Rod			-,						-,
Eddington									
Guy Elliott	49,024	60,719	62,192				1,431	10,790	947
Dick Evans		,	40,000				,	,	40,000
Michael			,						,
Fitzpatrick				2,100	2,100	4,100			2,000
Yves Fortier					·				·
Richard									
Goodmanson	2,307	2,307	2,307						
Andrew Gould	1,000	1,000	1,000						
Lord Kerr	3,000	3,000	7,000						4,000
David Mayhew	2,500	2,500	2,500						
Paul Skinner	5,696	5,795	9,795						4,099
Sir Richard Sykes	2,614	2,632	n/a						18
Paul Tellier			6,000						6,000
Executives									
Hugo Bague		5,900	5,900						5,900
Preston Chiaro <sup>6,7</sup>	64,755	64,849	64,922						167
Bret Clayton <sup>6</sup>	8,096	8,502	11,863						3,767
Keith Johnson	18,924	25,330	25,358					6,434	
Grant Thorne					7,213	16,096	1,875	14,114	107
Debra Valentine									
Sam Walsh				42,814	43,033	43,033			219
Notes to Table 3 1. Or date of appointment if									

appointment if later.

2. Or date of retirement, or resignation, if earlier.

- 3. 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.
- 4. Shares obtained through the Rio Tinto Share Ownership Plan and/or vesting of awards under the Mining Companies Comparative Plan.
- 5. Share

movements due to sale or purchase of shares, shares received under the Dividend Reinvestment Plan, shares purchased/sold through the Rio into America Savings Plan or non executive directors share purchase plan.

6. The

shareholdings of Tom Albanese, Preston Chiaro and Bret Clayton include Rio Tinto plc ADRs held through the Rio Tinto America Savings Plan.

Preston Chiaro s 31
December 2007
balance was understated in the 2007
Remuneration report by 2,170
Rio Tinto plc shares.

8. Trading restrictions due to close periods, the unsolicited pre-conditional offer from BHP Billiton and the Chinalco strategic partnership have prevented executives from dealing for most of 2008 and

2009.

### Table 4 Executives awards under long term incentive plans

						terms and c	onditions
					Date		
Conditional	Market	1 Jan Aw	arded Lapsed/	Vested	Petriberance of	Market	Monetary
			-				value
award	price at	2008	cancelled		2008periodesting	price at	of
granted	award <sup>2</sup>				concludes	vesting	vested
							award
							US\$ 000

<b>Rio Tinto</b>	plc Min	ing Comp	anies Comp	arative Plan					
	- 09						31	17	
Tom	Mar						Dec	Feb	
Albanese	05 £	18.39	55,951	4,197	51,754		08	09 £	18.97
	07						31		
	Mar						Dec		
	06 £	26.30	45,007			45,007	09		
	13						31		
	Mar						Dec		
	07 £	26.81	44,124			44,124	10		
	10						31		
	Mar						Dec		

Mar 08 £ 52.58 49,040 49,040

145,082 49,040 4,197 51,754 138,171

11

Hugo Bague	13 Mar 07 £ 10	26.81	6,035		31 Dec 6,035 10 31	
	Mar 08 £	52.58		11,672	Dec 11,672 11	

6,035 11,672 17,707

	09					31	19			
Preston	Mar					Dec	Feb			
Chiaro	05 £	18.39	42,351	3,177	39,174	08	09	£	20.00	1,132
	07					31				
	Mar					Dec				
	06 £	26.30	34,182			34,182 09				
	13					31				
	Mar					Dec				
	07 £	26.81	25,679			25,679 10				

1,418

			Edgar	Filing: RIC		LTD - For	m 20-F				
	10 Mor							31 Daa			
	Mar 08 £	52.58		19,569			19,569	Dec 11			
			102,212	19,569	3,177	39,174	79,430				
	09							31	17		
Bret	Mar							Dec	Feb		
Clayton	05 £	18.39	11,539		1,928	9,611		08	09 £	18.97	263
	07							31			
	Mar							Dec			
	06 £	26.30	10,767				10,767	09			
	13 Mar							31 Dec			
	07 f	26.81	22,566				22,566	10			
	10		,				,	31			
	Mar							Dec			
	08 £	52.58		18,894			18,894	11			
				10.004	1	0.614					
			44,872	18,894	1,928	9,611	52,227				
	09							31	17		
	Mar							Dec	Mar		
Guy Elliot	t 05 £	18.39	51,081		3,832	47,249		08	09 £	21.01	1,434
	07							31			
	Mar	26.20	40 (70				40 (70	Dec			
	06 £ 13	26.30	40,670				40,670	09 31			
	Mar							Dec			
	07 £	26.81	30,837				30,837				
	10							31			
	Mar							Dec			
	08 £	52.58		25,552			25,552	11			
			122,588	25,552	3,832	47,249	97,059				
			122,300	23,332	5,052	т <i>,2</i> т)	71,059				

Dick Evans	10 Mar 08 £	52.58	40,489	31 Dec 40,489 11
			40,489	40,489

2,517 31,039

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£

18.39

33,556

863

£ 19.25

Keith Johnson	09 Mar 05 07 Mar								31 Dec 08 31 Dec	16 Feb 09
	06 13 Mar	£	26.30	26,508				26,508	09 31 Dec	
	07 10 Mar	£	26.81	19,805				19,805	10 31 Dec	
	08	£	52.58		15,887			15,887	11	
				79,869	15,887	2,517	31,039	62,200		
	10								31	
Debra Valentine	Mar 08	£	52.58		11,539			11,539	Dec 11	
					11,539			11,539		

Rio Tinto	Limite	d Mining C	Companies	Comparat	ive Plan						
	09							31	16		
Grant	Mar							Dec	Feb		
Thorne	05	A\$47.39	10,665		1,782	8,883		08	09	A\$50.80	312
	07							31			
	Mar							Dec			
	06	A\$69.60	14,568				14,568	09			
	13							31			
	Mar		10.005				10.005	Dec			
	07	A\$134.00	13,037				13,037	10			
	10							31			
	Mar	106 106 10		16 650			16 650	Dec			
	08	A\$126.48		16,658			16,658	11			
			38,270	16,658	1,782	8,883	44,263				
			50,270	10,020	1,702	0,000	11,205				
	09							31	17		
	Mar							Dec	Feb		
Sam Wals	h 05	A\$47.39	41,176		3,089	38,087		08	09	A\$50.07	1,318
	07							31			
	Mar							Dec			
	06	A\$69.60	33,655				33,655	09			
	13	A\$134.00	25,103				25,103	31			
	Mar							Dec			

07 10 Mar 08	A\$126.48		21,366			10 31 Dec 21,366 11
		99,934	21,366	3,089	38,087	80,124 Rio Tinto 2008 <i>Form 20-F</i>

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### Table 4 Executives awards under long term incentive plans (continued)

			Р	lan terms and co	onditions
				Date	
Market	1 Jan	Awarded Lapsed/ Vested	2DeMarmance	of Markel	Monetary
				price	value
price at	2009	cancelled	2009 <sup>1</sup> period	vesting at	of
award			concludes	vesting	vested
					award
					US\$ 000
	price at	price at 2009	price at 2009 cancelled	Market1 JanAwarded Lapsed/ Vested2DeMarmanceprice at2009cancelled20091 period	Market1 JanAwarded Lapsed/ Vested2DeMarmanceof Marketprice at2009cancelled20091period vestingat

Rio Tinto pl		ining	Compani	es Compara	tive Plan		
Tom	07 Mar						31 Daa
Tom Albanese	Mar 06	£	26.30	45,007		45,007	Dec 09
mounese	13	~	20.50	15,007		-13,007	31
	Mar						Dec
	07	£	26.81	44,124		44,124	10
	10						31
	Mar	_					Dec
	08	£	52.58	49,040		49,040	11
	17 Mar						31 Dec
	09	£	19.52		39,669	39,669	12
	07	£	17.52		57,007	57,007	12
				138,171	39,669	177,840	
	13						31
Hugo	Mar						Dec
Bague	07	£	26.81	6,035		6,035	10
	10						31
	Mar						Dec
	08	£	52.58	11,672		11,672	11
				17,707		17,707	
	07						31
Preston	Mar						Dec
Chiaro	06	£	26.30	34,182		34,182	09
	13						31
	Mar	c	• • • • •				Dec
	07	£	26.81	25,679		25,679	10
	10 Mar	£	52.58	19,569		19,569	31 Daa
	Mar						Dec

	08 17 Mar 09	£	19.52	79,430	17,269 17,269	17,269 96,699	11 31 Dec 12
Bret Clayton	07 Mar 06 13	£	26.30	10,767		10,767	31 Dec 09 31
	Mar 07 10 Mar	£	26.81	22,566		22,566	Dec 10 31 Dec
	08 17 Mar	£	52.58	18,894		18,894	11 31 Dec
	09	£	19.52		16,673	16,673	12
				52,227	16,673	68,900	
Jacynthe Côté	10 Mar 08 17	£	52.58	18,422		18,422	31 Dec 11 31
	Mar 09	£	19.52		19,651	19,651	Dec 12
				18,422	19,651	38,073	
Guy Elliott	07 Mar 06 13	£	26.30	40,670		40,670	31 Dec 09 31
	Mar 07 10	£	26.81	30,837		30,837	Dec 10 31
	Mar 08 17	£	52.58	25,552		25,552	Dec 11 31
	Mar 09	£	19.52		29,528	29,528	Dec 12

				97,059	29,528	126,587	
Dick Evans	10 Mar 08 17	£	52.58	40,489		40,489	31 Dec 11 31
	Mar 09	£	19.52		35,729	35,729	Dec 12
				40,489	35,729	76,218	
Keith Johnson	07 Mar 06 13	£	26.30	26,508		26,508	31 Dec 09 31
	Mar 07 10	£	26.81	19,805		19,805	Dec 10 31
	Mar 08	£	52.58	15,887		15,887	Dec 11
				62,200		62,200	
Debra Valentine	10 Mar 08	£	52.58	11,539		11,539	31 Dec 11
				11,539		11,539	

Rio Tinto	Limited	Mining Com	panies Comparative Plan		
	07				31
Grant	Mar				Dec
Thorne	06	A\$69.60	14,568	14,568	09
	13				31
	Mar				Dec
	07	A\$134.00	13,037	13,037	10
	10				31
	Mar				Dec
	08	A\$126.48	16,658	16,658	11
			44,263	44,263	

	07 Mar					31 Dec
Sam Walsh	06	A\$69.60	33,655		33,655	09
	13					31
	Mar					Dec
	07	A\$134.00	25,103		25,103	10
	10					31
	Mar					Dec
	08	A\$126.48	21,366		21,366	11
	17					31
	Mar					Dec
	09	A\$52.01		26,670	26,670	12
			80,124	26,670	106,794	

### Table 4 Executives awards under long term incentive plans (continued)

						Plan te	erms and c	onditions
						Date		
Conditional	Market	1 Jan	AwardedLapsed/	Vested	Performance	of	Market	Monetary
								value
award	price at	2008	cancelled		2008 <sup>1</sup> periodve	sting	price at	of
granted	award				concludes		vesting	vested
								award
								US\$ 000
granted	award				•	U		award

Rio Tinto <sub>I</sub>		ement Sha	re Plan							
	9						31	1		
Hugo	Sep						Jul	Aug		
Bague	07 £	26.81	10,000		10,000		08	08	£ 50.47	729
	9						31			
	Sep						Jul			
	07 £	26.81	10,000			10,000	09			
	10						31			
	Mar						Dec			
	08 £	52.58		1,509		1,509	10			
			•••••		10.000					
			20,000	1,509	10,000	11,509				
	10						25			
	10						25			
T d	Mar	50 50		11.007		11.007	Jan			
Jacynthe	08 £ 10	52.58		11,987		11,987	09 25			
	Mar						23 Oct			
Côté	08 f	52.58		17,982		17,982	10			
Cole	10 L	52.58		17,982		17,962	31			
	Mar						Dec			
	08 f	52.58		6,028		6,028	10			
	00 2	52.50		0,020		0,020	10			
				35,997		35,997				
				·		·				
	10						31			
Debra	Mar						Dec			
Valentine	08 £	52.58		1,504		1,504	10			
	10						15			
	Mar						Jan			
	08 £	52.58		5,000		5,000	11			
	10 £	52.58		5,000		5,000	15			
	Mar						Jan			

			Lugai			111 20 1				
	08						12			
				11,504		11,504				
Rio Tinto		Management	t Share Pl	an			21			
Grant	10 Mar						31 Dec			
Thorne	07 10	A\$134.00	2,750			2,750	09 31			
	Mar 08	A\$126.48		2,056		2,056	Dec 10			
			2,750	2,056		4,806				
									erms and co	onditions
<b>C</b> 1	P.C. 1		1 T	A 1 17 1/	. 1	<b>7</b> 00 NCI		Date		<b>F</b> .
Cond	litional	Market	1 Jan	AwardedLapsed/	vested	<b>29@11%bar</b> m	ance	of	Market	Monetary value
	award	price at	2009	3çancelled		2009 pe	eriodve	esting	price at	of
g	granted	award <sup>2</sup>				concl		C	vesting	vested award US\$ 000
										035 000
<b>Rio Tinto</b>		anagement Sł	hare Plan							
	9						31			
Hugo Bague	Sep 07 10	£ 26.81	10,000			10,000	Jul 09 31			
	Mar						Dec			
	08	£ 52.58	1,509			1,509	10			
	17						31 D			
	Mar 09	£ 19.82		13,853		13,853	Dec 11			
			11,509	13,853		25,362				
	10						25	25		
Jacynthe	Mar 08	£ 52.58	11,987		11,987		Jan 09	Jan 09	£15.23	264
Jacynuie	10	L J2.J0	11,70/		11,707		09 25	09	213.23	204
	Mar						Oct			
Côté		£ 52.58	17,982			17,982	10			
	10 Mor						31 Daa			

Mar

08 £

52.58

6,028

Dec

10

6,028

			35,997		11,987	24,010	
	10						
Dahaa	10 Mar						31 Daa
Debra Valentine	08	£ 52.5	8 1,504			1,504	Dec 10
varentine	10	~ 52.5	0 1,501			1,501	15
	Mar						Jan
	08	£ 52.5	8 5,000			5,000	11
	10						15
	Mar	6 50 5	0 5 000			5 000	Jan
	08 17	£ 52.5	8 5,000			5,000	12 31
	Mar						Dec
	09	£ 19.8	2	15,785		15,785	11
			11,504	15,785		27,289	
			11,304	15,765		27,209	
Rio Tinto L		Manage	ement Share	Plan			
<b>C</b> (	10						31
Grant Thorne	Mar 07	A\$134.0	0 2,750			2,750	Dec 09
mome	10	Αφ134.0	0 2,750			2,750	31
	Mar						Dec
	08	A\$126.4	8 2,056			2,056	10
	17						31
	Mar	1 <b>4 5 3</b> 0	1	14.000		14.000	Dec
	09	A\$52.0	1	14,293		14,293	11
			4,806	14,293		19,099	

### Table 4 Executives awards under long term incentive plans (continued)

	onal ward nted		Market price at award	1 Jan 2009	Awarded	Lapsed/ cancelled	Vested	20Petiform 2009 <sup>1</sup> p conc		Date of	ms and co Market M price at vesting	
Rio Tinto plc		us D	Deferral	Plan								
Tom Albanese	17 Mar 09	£	19.82		23,361			23,361	31 Dec 11			
					23,361			23,361				
Hugo Bague	17 Mar 09 17 Mar 09	£	19.82 19.82		4,165 4,166			4,165 4,166	31 Dec 10 31 Dec 11			
					8,331			8,331				
Preston Chiaro	17 Mar 09	£	19.82		15,764			15,764	31 Dec 11			
					15,764			15,764				
Bret Clayton	17 Mar 09	£	19.82		4,320			4,320	31 Dec 11			
					4,320			4,320				
		£	19.82		13,783			13,783				

			Edgar Filing: RIO TINTO LT	D - Form 20-F	
Jacynthe Côté	17 Mar 09				31 Dec 11
			13,783	13,783	
Guy Elliott	17 Mar 09	£ 19.82	15,402	15,402	31 Dec 11
			15,402	15,402	
Dick Evans	17 Mar 09	£ 19.82	19,925	19,925	31 Dec 11
			19,925	19,925	
Debra	17 Mar				31 Dec
Valentine	09 17	£ 19.82	5,192	5,192	10 31
	Mar 09	£ 19.82	5,193	5,193	Dec 11
			10,385	10,385	
Rio Tinto Lii		Bonus Defe	rral Plan		21
Grant Thorne	17 Mar 09 17	A\$52.01	4,911	4,911	31 Dec 10 31
	Mar 09	A\$52.01	4,912	4,912	Dec 11

9,823

9,823

	17				31
	Mar				Dec
Sam Walsh	09	A\$52.01	19,022	19,022	11

19,022

19,022

Not	es to Table 4
1.	Or the date of
	retirement or
	resignation if
	earlier.
2.	Awards
	denominated in
	sterling were for
	Rio Tinto plc
	ordinary shares
	of 10p each and
	awards
	denominated in
	Australian
	Dollars were for
	Rio Tinto
	Limited
	ordinary shares.
	ordinary shares.
3.	The weighted
	average fair
	value of
	conditional
	awards under
	the Mining
	Companies
	Comparative
	Plan granted in
	2008 was
	£48.07 for Rio
	Tinto plc and
	A\$107.04 for
	Rio Tinto
	Limited. The
	weighted
	average fair
	value of
	conditional
	awards under
	the Management
	Share Plan
	granted in 2008
	was £55.15 for
	Rio Tinto plc
	and A\$129.37

for Rio Tinto Limited.

- 4. Conditional awards are awarded at no cost to the recipient and no amount remains unpaid on any shares granted.
- 5. The value of the vested awards have been based on share prices, being the respective closing share prices for Rio Tinto plc and Rio Tinto Limited ordinary shares on the day of vesting.
- 6. The amount in US dollars has been converted from sterling at the rate of 1US\$ = £0.6923 and Australian dollars at the rate of 1US = A\$1.4469, being the year end exchange rate used elsewhere in the annual report.

### Table 5 Executives options to acquire Rio Tinto shares

		Vested			
				Value	
		and		of	
	e	exercisable		optionMa	rket
				p	orice Date
	Vested	on		exercised	on from
					datewhich
1 Jan Granted	during Lapsed <sup>8</sup> /	<b>31 Dec</b>	31 Dec	<b>Option</b> during	of firstxpiry
2008 2,6	2008 rcisechcelled	<b>2008</b> <sup>5</sup>	<b>2008</b> <sup>1</sup>	price <sup>4</sup> 20 <b>98e</b> r	<b>xeise</b> isable date

## **Rio Tinto plc - Share Savings Plan**

Tom Albanese	791		791 £ 20.68	1 30 Jan Jun 2012 2012
Hugo Bague Preston Chiaro	298	238	238 £ 32.17 298 £ 20.88	1 30 Jan Jun 2012 2012 1 6 Jan Jan 2009 2009
		304	304 £ 20.50	1 16 Jan Jan 2011 2011
Bret Clayton	163		163 £ 35.57	1 5 Jan Jan 2010 2010
Guy Elliott	1,431		1,431 £ 11.07	1 30 Jan Jun 2009 2009
		520	520 £ 32.17	1 30 Jan Jun 2014 2014

Dick Evans			
Keith Johnson	456	456 £ 20.68	1 31 Aug Jan 2009 2010
Debra Valentine	304	304 £ 20.50	1 17 Jan Jan 2011 2011
Rio Tinto plc - S	Share Option Plan		

Tom Albanese	102,718		102,718	102,718	£12.656	6 6 Mar Mar 2005 2011 13 13
	125,336		125,336	125,336	£14.586	Mar Mar 2005 2012 7 7
	139,165		139,165	139,165	£12.630	Mar Mar 2006 2013 22 22
	84,020			84,020	£13.290	Apr Apr 2009 2014 9 9
	83,926	83,926	83,296	83,926	£18.262	Mar Mar 2008 2015 7 7
	67,511			67,511	£27.112	Mar Mar 2009 2016 13 13
	66,186			66,186	£27.012	Mar Mar 2010 2017 10 10
		73,561		73,561	£ 57.232	Mar Mar 2011 2018
Hugo Bague	8,835			8,835	£ 34.506	9 9 Sep Sep 2010 2017
Preston Chiaro	37,160		37,160	37,160	£12.630	7 7 Mar Mar

							2006 2013 22 22
	70,490				70,490	£13.290	Apr Apr 2009 2014 9 9
	63,527		63,527	63,527	63,527	£ 18.262	Mar Mar 2008 2015 7 7
	51,274				51,274	£27.112	Mar Mar 2009 2016 13 13
	38,519				38,519	£27.012	Mar Mar 2010 2017 10 10
		29,354			29,354	£ 57.232	Mar Mar 2011 2018
							22 22
Bret							22 22 Apr Apr
Clayton	13,315				13,315	£13.290	2009 2014 9 9
	11,539		11,539	11,539	11,539	£18.262	Mar Mar 2008 2015 7 7
	10,767				10,767	£27.112	Mar Mar 2009 2016 13 13
	33,850				33,850	£27.012	Mar Mar 2010 2017
		28,342			28,342	£ 57.232	10 10 Mar Mar 2011 2018
						Rio Tinto 20	08 Form 20-F 161

### Table 5 Executives options to acquire Rio Tinto shares (continued)

		Vested				
		and			Value of	
		exercisable			options	Market
						pricDate
	Vested	on			exercised	ofrom
						which
1 Jan Granted	during Lapsed	<sup>18</sup> / 31 Dec	<b>31 Dec</b>	Option	during	date off <b>Est</b> piry
2008 2,6	200BxeCcissadell	ed $2008^5$	<b>2008</b> <sup>1</sup>	price <sup>4</sup>	2008	eexeenciiseabledate

### **Rio Tinto plc - Share Option Plan**

Guy Elliott	61,703			61,7	703 6	51,703	£	14.586	13 13 MarMar 200 <b>2</b> 012 7 7 MarMar
	97,387			97,2	387 9	97,387	£	12.630	200 <b>2</b> 013 22 22 AprApr
	73,700				7	73,700	£	13.290	200 <b>2</b> 014 9 9 MarMar
	72,972		72,972	72,9	972 7	72,972	£	18.262	200 <b>8</b> 015 7 7
	58,100				5	58,100	£	27.112	MarMar 200 <b>2</b> 016 13 13
	44,052				4	4,052	£	27.012	MarMar 201 <b>0</b> 017 10 10
		36,503			3	36,503	£	57.232	MarMar 201 <b>2</b> 018
Dick Evans		60,733			6	50,733	£	57.232	10 10 MarMar 201 <b>2</b> 018
Keith Johnson	43,500				4	13,500	£	13.290	22 31 AprJuly 200 <b>2</b> 010 9 31 MarJuly
	47,937		47,937	47,9	937 4	17,937	£	18.262	200 <b>8</b> 010

		7 31
		MarJuly
37,869	37,869 £ 27.112	200 <b>2</b> 010
		13 13
		MarMar
28,294	28,294 £ 27.012	2010011
		10 10
		MarMar
22,696	22,696 £ 57.232	2012012

Debra Valentine

### **Rio Tinto Limited - Share Savings Plan**

							1 30
Grant					A\$	A\$	A\$ Jan Jun
Thorne	1,875	1,875	1,875		25.57	203,306.25	134.002008008
							1 30
					A\$		Jan Jun
	567			567	79.27		201 <b>2</b> 013
							1 30
Sam					A\$		Jan Jun
Walsh	601			601	40.92		200 <b>2</b> 009
							1 30
					A\$		Jan Jun
		505		505	82.19		2012/014

# **Rio Tinto Limited - Share Option Plan**

						13 13
Grant					A\$	MarMar
Thorne	939			939	39.8708	200 <b>2</b> 012
						77
					A\$	MarMar
	11,159			11,159	33.3360	200@013
						22 22
					A\$	AprApr
	10,462			10,462	34.4060	200 <b>2</b> 014
						99
					A\$	MarMar
	10,665	10,665	10,665	10,665	47.0420	2008015
	14,568			14,568	A\$	77
					71.0600	MarMar

	13,037			13,037	A\$ 74.5880	200 <b>2</b> 016 13 13 MarMar 201 <b>0</b> 017
						22 22
Sam					A\$	AprApr
Walsh	54,400			54,400	34.4060	200 <b>2</b> 014
						9 9
					A\$	MarMar
	58,823	58,823	58,823	58,823	47.0420	2008015
						7 7
					A\$	MarMar
	48,079			48,079	71.0600	200 <b>2</b> 016
						13 13
					A\$	MarMar
	35,861			35,861	74.5880	2010017
						10 10
					A\$	MarMar
		30,523		30,523	134.1760	2012018
					Die	Tinto 2008 Earm 20 E 162

### Table 5 Executives options to acquire Rio Tinto shares (continued)

		e	Vested and xercisable			Value of options Market
		Vested	on			pricDate exercised offrom
	1 Jan Granted 2009 2, 6		20 Mar 2009 <sup>5</sup>	20 Mar 2009 <sup>1</sup>	Option price <sup>4</sup>	which during date o <b>ffEst</b> piry 2009 œxœnciiseabledate
Rio Tinto pl	c - Share Savings	Plan				
Tom Albanese	791			791	£ 20.68	1 30 Jan Jun 201 <b>2</b> 012
Hugo Bague	238			238	£ 32.17	1 30 Jan Jun 201 <b>2</b> 012
Preston Chiaro	298	298 298			£ 20.88	1 6 Jan Jan £ (1,054.92) £ 17.34200 <b>2</b> 009 1 16
	304			304	£ 20.50	Jan Jan 201 <b>2</b> 011
Bret Clayton	163			163	£ 35.57	1 5 Jan Jan 201 <b>0</b> 010
Jacynthe Côté						
Guy Elliott	1,431	1,431 1,431			£ 11.07	1 30 Jan Jun £ 11,118.87 £ 18.84200 <b>2</b> 009 1 30 Jan Jun
	520			520	£ 32.17	201 <b>2</b> 014

### Dick Evans

Keith Johnson	456		456 £ 20.68

			1 17
Debra			Jan Jan
Valentine	304	304 £ 20.50	2012011

### **Rio Tinto plc - Share Option Plan**

Tom	102 719		102 718	102 719	£ 12.656	6 6 MarMar 200 <b>2</b> 011
Albanese	102,718		102,718	102,718	£ 12.030	13 13
	125,336		125,336	125,336	£ 14.586	MarMar 200 <b>2</b> 012
						77 MarMar
	139,165		139,165	139,165	£12.630	200 <b>6</b> 013 22 22
	84,020			84 020	£13.290	AprApr 200 <b>2</b> 014
	01,020			01,020	≈ 15.290	9 9 MarMar
	83,926		83,296	83,926	£18.262	2008015
						77 MarMar
	67,511	67,511	67,511	67,511	£27.112	200 <b>2</b> 016 13 13
	66,186			66,186	£27.012	MarMar 201 <b>0</b> 017
						10 10 MarMar
	73,561			73,561	£ 57.232	201 <b>2</b> 018 17 17
		50 504		50 504	6.20.010	MarMar
		59,504		39,304	£20.010	201 <b>2</b> 019
						9 9
Hugo	0 025			0 0 2 5	6 24 506	SepSep
Bague	8,835	12,982			£ 34.506 £ 20.010	2010017

1 31

Aug Jan 200**2**010

17 17 MarMar 201**2**019

Preston Chiaro	37,160		37,160	37,160 £12.630	7 7 MarMar 200 <b>6</b> 013 22 22
	70,490			70,490 £13.290	AprApr 200 <b>2</b> 014
	63,527		63,527	63,527 £18.262	9 9 MarMar 200 <b>8</b> 015 7 7
	51,274	51,274	51,274	51,274 £27.112	MarMar 200 <b>2</b> 016 13 13
	38,519			38,519 £27.012	MarMar 2010017 10 10
	29,354			29,354 £ 57.232	MarMar 201 <b>2</b> 018 17 17
		25,903		25,903 £20.010	MarMar 201 <b>2</b> 019

### Table 5 Executives options to acquire Rio Tinto shares (continued)

			Vested				
			and			Value of	
		ex	ercisable			options	Market
							priceDate
	Vested		on			exercised	onfrom
							datwhich
1 Jan Granted	during	Lapsed <sup>8</sup> /	20 Mar	20 Mar	Option	during	of fi <b>ils</b> kpiry
2009 2,6	20 <b>0</b> %ei	r <b>Eisen</b> telled	2009 <sup>5</sup>	2009 <sup>1</sup>	price <sup>4</sup>	2009	e <b>xexuisi</b> sable date

### **Rio Tinto plc Share - Option Plan**

Bret Clayton	13,315 11,539		11,539		£ 13.290 £ 18.262	22 22 Apr Apr 20092014 9 9 Mar Mar 20082015
	10,767	10,767	10,767	10,767	£27.112	7 7 Mar Mar 20092016 13 13 Mar Mar
	33,850			33,850	£27.012	20102017 10 10
	28,342			28,342	£ 57.232	Mar Mar 20112018 17 17
		25,010		25,010	£20.010	Mar Mar 20122019
Jacynthe Côté		29,476		29,476	£ 20.010	17 17 Mar Mar 20122019
Guy Elliott	61,703		61,703	61,703	£ 14.586	13 13 Mar Mar 20052012 7 7
	97,387		97,387	97,387	£12.630	Mar Mar 20062013 22 22
	73,700			73,700	£13.290	Apr Apr 20092014

	72,972			72,972	72,972	£ 18.262	9 9 Mar Mar 20082015 7 7
	58,100		58,100	58,100	58,100	£27.112	Mar Mar 20092016 13 13
	44,052				44,052	£27.012	Mar Mar 20102017 10 10
	36,503				36,503	£ 57.232	Mar Mar 20112018 17 17
		44,292			44,292	£ 20.010	Mar Mar 20122019
Dick Evans	60,733					£ 57.232	10 10 Mar Mar 20112018 17 17 Mar Mar
		53,594			53,594	£20.010	20122019
Keith Johnson	43,500				43,500	£13.290	22 31 Apr July 20092010 9 31
	47,937			47,937	47,937	£ 18.262	Mar July 200&2010 7 31
	37,869		37,869	37,869	37,869	£27.112	Mar July 20092010 13 13
	28,294				28,294	£27.012	Mar Mar 20102011 10 10
	22,696				22,696	£ 57.232	Mar Mar 20112012
Debra Valentine		11,201			11,201	£20.010	17 17 Mar Mar 20122019

567

# **Rio Tinto Limited - Share Savings Plan**

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Grant Thorne					A\$ 79.27		1 30 Jan Jun 20132013
							1 30
Sam					A\$	A\$	A\$ Jan Jun
Walsh	601	601	601		40.92	3,804.33	47.25 20092009
							1 30
					A\$		Jan Jun
	505			505	82.19		20142014
					Ric	o Tinto 2008	Form 20-F <b>164</b>

### Table 5 Executives options to acquire Rio Tinto shares (continued)

				Vested				
						Value		
				and		of		
	exercisable					optionMarket		
						- 1	price Date	
		Vested		on		exercised	on from	
							datewhich	
1 Jan	Granted	during	Lapsed <sup>8</sup> /	20 Mar	20 Mar	Optionduring	of firsExpiry	
2009	2, 6	2009er	ciseancelled	2009 <sup>5</sup>	<b>2009</b> <sup>1</sup>	price <sup>4</sup> 200exa	xxiseisable date	

## **Rio Tinto Limited - Share Option Plan**

Grant					A\$	13 13 Mar Mar
Grant Thorne	939			939	А\$ 39.8708	2005 2012
Thorne	939			939	39.8708	2003 2012
					A\$	Mar Mar
	11,159			11,159	33.3360	2006 2013
						22 22
					A\$	Apr Apr
	10,462			10,462	34.4060	2009 2014
						99
					A\$	Mar Mar
	10,665		10,665	10,665	47.0420	2008 2015
						7 7
					A\$	Mar Mar
	14,568	14,568	14,568	14,568	71.0600	2009 2016
						13 13
					A\$	Mar Mar
	13,037			13,037	74.5880	2010 2017
						17 17
					A\$	Mar Mar
		13,724		13,724	49.56	2012 2019
						22 22
Sam					A\$	Apr Apr
Walsh	54,400			54,400	34.4060	2009 2014
	·					99
					A\$	Mar Mar
	58,823		58,823	58,823	47.0420	2008 2015
						7 7
					A\$	Mar Mar
	48,079	48,079	48,079	48,079	71.0600	2009 2016
	35,861			35,861		

		A\$	13 13
		74.5880	Mar Mar
			2010 2017
			10 10
		A\$	Mar Mar
30,523	30,523	134.1760	2011 2018
			17 17
		A\$	Mar Mar
40,005	40,005	49.56	2012 2019

# Notes to Table 5

- 1. Or at date of retirement or resignation if earlier.
- 2. 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. The date of grant was 10 March 2008. The performance conditions for the SOP are detailed on pages 140 to 141.
- The closing price of Rio Tinto plc ordinary shares at 31 December 2008 was £14.90

(2007: £53.17) and the closing price of Rio Tinto Limited shares at 31 December 2008 was A\$ 38.00 (2007: A\$ 133.95). The high and low prices during 2008 of Rio Tinto plc and Rio Tinto Limited shares were £70.78 and £10.49 and A\$ 156.00 and A\$ 32.00 respectively.

- 4. The option price represents the exercise price payable on the options. No amounts are unpaid on any shares allocated on the exercise of the options.
- 5. Under the plans no options would be vested and unexercisable at the reporting date. The exercise of options is subject to restrictions contained in the Rules for dealing in Rio Tinto Securities . Trading restrictions due to close periods, the unsolicited

pre-conditional offer from BHP Billiton and the Chinalco strategic partnership have prevented executives from dealing for most of 2008 and 2009.

The fair value 6. per option, granted during 2008, at date of grant was as follows: Rio Tinto plc Share Savings Plan two year contract £3.46; three year contract 94p; four year contract £1.92 and five year contract 90p; Rio Tinto Limited Share Savings Plan three year contract A\$ 5.14 and five year contract A\$ 5.17. Rio Tinto plc Share **Option Plan** £20.63; Rio Tinto Limited Share Option Plan A\$ 44.04.

7. The value of options exercised is calculated by multiplying the number of options

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exercised by the difference between the market price and the option price on date of exercise.

8. No options lapsed for failure to satisfy a performance condition.

# **Corporate governance GOVERNANCE OF RIO TINTO**

The board of Rio Tinto believes that high standards of corporate governance are essential to their objective of maximising the overall long term return to shareholders through a strategy of investing in large, low cost competitive mines and businesses. Given its dual listed company status and its structure as a single economic entity, Rio Tinto has adopted a common approach to corporate governance to comply with the regulatory obligations associated with its three main stock exchange listings in London, Australia and New York.

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). Statements of compliance with the requirements of these codes are on pages 174 to 175.

In addition Rio Tinto s website contains further corporate governance information which can be found in the Shareholders section: www.riotinto.com/shareholders.

# **BOARD**

Rio Tinto plc and Rio Tinto Limited have a common board of directors which are collectively responsible for the success of the Group and are accountable to shareholders for the performance of the business.

# Membership

The board currently consists of 15 directors: the chairman, three executive directors and eleven non executive directors, of whom ten are deemed independent (see pages 132 to 135). On 17 March 2009 Rio Tinto announced that Jan du Plessis will be appointed as Chairman of the board on the retirement of Paul Skinner with effect from the conclusion of the Annual General Meeting of Rio Tinto Limited on 20 April 2009. Andrew Gould was appointed the senior independent non executive director on 24 April 2008 following the retirement of Sir Richard Sykes, and he is proposed for re-election by shareholders at the 2009 annual general meetings. The Nominations committee continually assesses the balance of executive and non executive directors and the composition of the board in terms of the skills and diversity required to ensure it remains relevant in the current environment. The names, skills, experience and expertise of each director together with their terms in office are shown in the biographical details on pages 132 to 135. **Role and responsibilities** 

The role of the board is to oversee the Group with good governance and strategic direction. The board also reviews the Group s control and accountability framework. The directors have agreed a formal schedule of matters specifically reserved for decision or consideration by the board, including strategy, major investments and acquisitions. This schedule is available in the corporate governance section of the website.

The board is ultimately accountable to shareholders for the performance of the business. Responsibility for day-to-day management of the business rests with the executive team, with the board agreeing annual performance targets for management against the Group s financial and non-financial plan. The process for the evaluation of the performance of the executive directors and other senior executives is discussed in the Remuneration report. The performance of the senior executives was assessed in accordance with that process during 2008.

The board meets regularly and, in 2008, had eight scheduled meetings and ten meetings at short notice. This reflects the considerable focus required by the board on the pre-conditional offer made by BHP Billiton for Rio Tinto which was eventually withdrawn in November 2008 and the effects of the global economic downturn towards the end of 2008. Details of directors attendance at all of these board and committee meetings is set out on page 168.

The board has regular scheduled discussions on aspects of the Group s strategy, as well as two separate strategy review meetings, one half day and one two day meeting, which are dedicated to in-depth discussions on Group strategy.

Directors receive timely, regular and appropriate management and other information to enable them to fulfill their duties and have access to the advice and services of both company secretaries. The board has agreed a procedure for directors to obtain independent professional advice at the Group s expense.

In addition to these formal processes, directors are in regular communication with senior executives from the product and global support groups, at both formal and informal meetings, to ensure the regular exchange of

knowledge and experience between management and non executive directors. To continue building on the formal induction programmes, which all new non executive directors undertake, they are encouraged to take every opportunity to make site visits to the Group s operations and to meet local employees. In 2008 directors visited the Group s operations in Australia, the US and Canada. The board also takes the opportunity to combine attendance at the annual general meeting in Australia and at the two day strategy review meeting with site visits.

The chairman holds regular meetings with non executive directors without the executive directors being present. **Board performance** 

The board completes a formal annual process to evaluate its effectiveness and that of the board committees and individual directors. Each non executive director s performance is appraised personally by the chairman and, in a meeting chaired by the senior independent non executive director, the non executive directors assess the chairman s performance, taking into

consideration the views of executive colleagues.

The evaluation process completed in 2008 was overseen by the chairman and chairmen of the board committees with the support of the company secretary. For the board it took the form of a detailed questionnaire circulated to all directors for a response and inviting comments on a number of areas, including board dynamics, board capability, board process, board structure, corporate governance, strategic clarity and alignment, and the performance of individual committees and directors. For the board committees, a similar, detailed questionnaire was produced and circulated to each committee member and regular attendees for a response. This questionnaire invited comments on a number of areas, including the role and responsibilities of the committee, its organisation and effectiveness and the qualifications of its members. The results of the questionnaires were collated and presented for discussion and debate at a board meeting, at meetings of the Audit and Remuneration committees and the Committee on social and environmental accountability. Actions were agreed from this process, for example, the provision of further training for non executive directors in the areas of risk management and reserves booking procedures, are in the course of being implemented.

During 2008, taking into account the views of other board members, the senior independent director led the review of the performance of the chairman. The review concluded that the chairman was continuing to demonstrate strong leadership of the board and was making a significant contribution to Rio Tinto, in particular during the BHP Billiton pre-conditional offer for the Group.

The directors believe that, through this evaluation process, they comply with the requirements of Clause A.6 of the Code, Principle 2 of the ASX Principles, and the NYSE Standards.

# Independence

The tests of director independence 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 directors. This policy, which contains the materiality thresholds approved by the board, is in the corporate governance section of the website. Among the key criteria are independence from management and the absence of any business relationship which could materially interfere with the director s independence of judgement 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 interest 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 Rio Tinto s or the other parties consolidated gross revenue per annum, although the test also takes other circumstances into account. Applying these criteria, the board is satisfied that the majority of directors, including the following non executive directors, are independent: Sir David Clementi, Vivienne Cox, Jan du Plessis, Sir Rod Eddington, Michael Fitzpatrick, Yves Fortier, Richard Goodmanson, Andrew Gould, Lord Kerr and Paul Tellier.

One non executive director, David Mayhew, who is chairman of one of Rio Tinto plc s stockbrokers, is not considered independent in accordance with the Code.

Paul Skinner, upon his appointment as chairman in 2003, was an independent non executive director under the Code. He continues to satisfy the tests for independence under the ASX Principles and the NYSE Standards.

The directors biographies are set out on pages 131 to 135.

# **Directors** conflicts of interest

During 2008 a new statutory regime was introduced in the UK whereby the board may 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. At the 2008 annual general meeting of Rio Tinto plc, shareholders approved changes to the Company s articles of association to give directors the authority under this regime. The board has in place procedures for ensuring that its powers to authorise conflicts operate effectively. For this purpose, a register of conflicts and any authorisation is maintained by the company secretary and reviewed by the board before the interim and final results announcements.

# Executive directors other directorships

Executive directors may 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 full details see page 150.

# Election and re-election

Directors are elected by shareholders at the first annual general meetings after their appointment and, after that, offer themselves for re-election at least once every three years. Non executive directors are normally expected to serve at least two terms of three years and, except in special circumstances, would not normally serve more than three such terms. David Mayhew has served three terms of three years. To assist the board during a period of corporation transition, at the request of the board, he as agreed to stand for re-election. Under provision A.7.2 of the UK Combined Code on Corporate Governance, directors who serve for longer than nine years must stand for re-election every year. It is anticipated that he will retire at the conclusion of the 2010 annual general meetings.

# Chairman and chief executive

The roles of the chairman and chief executive are separate and the division of their respective responsibilities has been formally approved by the board.

# **Board committees**

There are five board committees: the *Audit committee*, *Remuneration committee*, *Nominations committee*, the *Committee on social and environmental accountability* and the *Chairman s committee*. Each committee plays a vital role in ensuring that high standards of corporate governance are maintained throughout the Group. Committee terms of reference are reviewed annually by the board and the committees to ensure they continue to be at the forefront of best practice. These can be viewed in the corporate governance section of the website. Minutes of all committee meetings are made available to the board.

# **Board Committee membership**

	Audit committee	Remuneration committee	Committee on social and environmental accountability	Nominations committee	Chairman s committee
Chairmen	Sir David Clementi	Andrew Gould	Richard Goodmanson		Paul Skinner
Members	Vivienne Cox	Sir David Clementi	Sir Rod Eddington	Sir Rod Eddington	Tom Albanese
	Jan du Plessis	Michael Fitzpatrick	Yves Fortier	Yves Fortier	Guy Elliott
	Michael	Richard	Lord Kerr	David Mayhew	
	Fitzpatrick	Goodmanson			
	Lord Kerr	Paul Tellier		Sir Richard	
				Sykes	
	Paul Tellier				

# Notes

- 1. Sir Richard Sykes was chair of the *Remuneration committee* and a member of the *Nominations committee* until his retirement on 24 April 2008.
- 2. Upon Sir Richard Sykes retirement on 24 April 2008, Andrew Gould

was appointed senior independent director, chairman of the *Remuneration committee* and a member of the *Nominations committee*.

- 3. Sir David Clementi assumed the chairmanship of the *Audit committee* on 24 April 2008 from Andrew Gould.
- 4. Jan du Plessis was appointed a non executive director on 1 September 2008 and also joined the *Audit committee*.
- 5. David Mayhew attends the *Audit committee* in an advisory capacity.

# Directors attendance at board and committee meetings during 2008

								Comm	nittee				
									on				
_		_				_							
B	oard			A	Audit H	Remunera	tion e	environm	ental	Nomina	tions	Chairi	nan s
Sched	uled			Comm	ittee	commi	ttee a	accountal	oility	Comm	nittee	Comm	ittee
А	В	А	В	А	А	А	В	А	В	А	В	А	В
8	8	10	8									19	17
8	8	10	7	8	8	7	7						
	Sched A	8 8	Scheduled n A B A 8 8 10	Scheduled Short notice A B A B 8 8 10 8	Scheduled Short Notice Comm	Scheduled Short A B A B A A 8 8 10 8	Scheduled Short Notice Committee commi A B A B A A A 8 8 10 8	Scheduled Short A B A B A A A B 8 8 10 8	Board       Board       Audit Remuneration environm         Short       Short         Scheduled       notice       Committee         A       B       A       B       A         A       B       A       B       A       A         8       8       10       8       8       10       8	BoardBoard Short noticeAudit CommitteeRemuneration committeesocial and environmental socialABABCommitteecommitteeaccountabilityABABAABAB88108AAABA	NominaBoardBoardAuditRemunerationenvironmentalNominaSchedulednoticeCommitteecommitteeaccountabilityCommitABABAABABA8810881081010	BoardBoard ShortAudit Remunerationenvironmental environmentalNominations NomitteeABABAABABABABABAABABABAB881083333333333	Board       Board       Audit       Remuneration       environmental       Nominations       Chaire         Scheduled       notice       Committee       committee       accountability       Committee       Committee         A       B       A       B       A       B       A       B       A       B         8       8       10       8       10       8       10       19

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Sir David Clementi														
Vivienne Cox	8	8	10	9	8	7								
Jan du Plessis	3	3	7	5	2	2								
Sir Rod														
Eddington	8	7	10	8					4	2	6	5		
Guy Elliott	8	8	10	10									19	15
Dick Evans	8	8	10	10										
Michael														
Fitzpatrick	8	8	10	10	8	5	7	6						
Yves Fortier	8	8	10	10					4	4	6	6		
Richard														
Goodmanson	8	8	10	7			7	7	4	4				
Andrew Gould	8	8	10	8	4	3	7	7			4	4		
Lord Kerr	8	8	10	10	8	8			4	4				
David Mayhew	8	8	10	9							6	6		
Paul Skinner	8	8	10	10							6	6	19	18
Sir Richard														
Sykes	3	3	1				2	2						
Paul Tellier	8	8	10	8	8	8	7	7						

# Notes

A = maximum number of meetings the director could have attended

B = Number of meetings attended

# Audit committee

The *Audit committee* is governed by terms of reference which the committee reviews and assesses each year and which are approved by the board. The terms of reference are available in the corporate governance section of the website and are summarised below.

The primary function of the *Audit committee* is to assist the board in fulfilling its responsibilities by reviewing: The financial information that will be provided to shareholders and the public;

The systems of internal control that the board and management have established;

The Group s auditing, accounting and financial reporting processes.

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;

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, 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 policy. Its responsibilities also include the review of corporate governance practices of Group sponsored pension funds.

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 Group s finance director, other senior financial management, external and internal auditors are available to attend all meetings.

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

# **Report of the Audit committee**

The *Audit committee* met eight times in 2008. It continued to monitor developments in corporate governance in the UK, Australia and the US, to ensure the Group continues to apply high and appropriate standards.

The Audit committee terms of reference were reviewed in 2008. No significant changes were recommended.

The committee reviewed the independence of the external auditors and their effectiveness to ensure that the Group continues to receive an efficient and unbiased service from them. The committee advised the directors that it is satisfied that the provision of non audit services by the external auditors during 2008 is compatible with the general standard of independence for auditors and the standards imposed by the Australian Corporations Act 2001. In addition, as part of its responsibility to foster open communication, the committee met separately with management, the external auditors and the internal auditor during the year.

The committee reviewed the 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. The committee recommended to the board that Michael Fitzpatrick, Jan du Plessis and Sir David Clementi be identified as the committee s financial experts in the 2008 Annual report. The committee has also concluded that Michael Fitzpatrick, Jan du Plessis and Sir David Clementi be identified as the committee s financial experts in the 2008 Annual report. The committee has also concluded that Michael Fitzpatrick, Jan du Plessis and Sir David Clementi have recent and relevant financial experience to qualify for the purpose of the Code.

The committee has reviewed and discussed with management the Group s audited financial statements for the year ended 31 December 2008.

The committee discussed with the external auditors the matters described in the American Institute of Certified Public Accountant Auditing Standard No. 90, Audit Committee communications, and in the International Standard on Auditing (UK and Ireland) 260, Communication of Audit Matters with those charged with governance (ISA 260), including their judgements regarding the quality of the Group s accounting principles and underlying estimates.

The committee has discussed with the external auditors their independence, and received and reviewed their written disclosures, as required by the Public Company Accounting Oversight Board Rule 3526 Communication with Audit Committees Concerning Independence .

Based on the reviews and discussions referred to above, the committee has recommended to the board of directors that the financial statements referred to above be approved.

On behalf of the Audit committee

Sir David Clementi (chairman) 6 March 2009

# **Remuneration committee**

The *Remuneration committee* is responsible for determining the policy for executive remuneration and for the remuneration and benefits of individual executive directors and product group chief executives. The report of the Remuneration committee can be found in the Remuneration report on pages 138 to 151, together with details of the Group s remuneration policies. These policies include a remuneration structure for the chairman and non executive directors comprising a fixed fee only. The Group does not pay retirement benefits, other than required statutory superannuation, to non executive directors.

# Nominations committee

The *Nominations committee* is governed by terms of reference which the committee regularly reviews and assesses and which are approved by the board. The terms of reference are available in the corporate governance section of the website and are summarised below.

The *Nominations committee* is chaired by the chairman of Rio Tinto. The committee is responsible, on behalf of the board, for ensuring that a suitable process is in place to meet the recruitment requirements of the board. It reviews the mix, structure and experience of the board and the desired profiles of potential candidates for membership. In consultation with external search consultants it oversees the review and recruitment process to fill vacancies as they arise. 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 and monitors succession planning.

The committee further reviews the time required to be committed to Group business by non executive directors and assesses whether non executive directors are devoting sufficient time to carry out their duties.

The members of the Nominations committee are independent with the exception of David Mayhew. The chairman is considered independent under the ASX Principles. 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.

#### **Report of the Nominations committee**

There were six meetings of the *Nominations committee* during 2008. Its activities covered executive and non executive succession and appointments. External consultants were engaged to assist the committee in the identification of new non executive directors. As a result of that engagement and following a formal assessment by the committee and recommendations to the board, Jan du Plessis and Jim Leng (chairman designate) were appointed as independent non-executive directors on 1 September 2008 and 14 January 2009 respectively. Jim Leng subsequently resigned on 9 February 2009. The current chairman has not participated in processes to identify his successor, which have been led by the senior independent director.

The Nominations committee is managing the process to appoint a new chairman.\*

It is expected that Paul Skinner will retire from the boards of Rio Tinto in mid 2009, once a successor has been appointed.

As part of his annual performance assessment of individual directors, the chairman of the committee has also reviewed the time committed by directors to Group business and confirmed this to be appropriate in each case. On behalf on the *Nominations committee* 

Paul Skinner (chairman)

6 March 2009 \* On 17

March 2009 Rio Tinto announced that Jan du Plessis will be appointed as Chairman of the board on the retirement of Paul Skinner with effect from the conclusion of the Annual General Meeting of Rio Tinto Limited on 20 April 2009.

# Committee on social and environmental accountability

The *Committee on social and environmental accountability* is governed by terms of reference which it reviews and assesses each year and which are approved by the board. The terms of reference are available in the corporate governance section of the website and are summarised below.

The committee ensures that management has in place policies, standards, systems and people required to meet Rio Tinto s social and environmental commitments. The committee reviews the effectiveness of management policies and procedures in place to deliver those standards in our statement of business practice, *The way we work*, which are not covered by the other board committees and, in particular, those relating to occupational health, safety, communities, employment, environment, human rights, land access, political involvement and sustainable development.

# Chairman s committee

This committee 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.

# MANAGEMENT

On behalf of the board, the chief executive has delegated authority for the day to day management of the Group s operations. The chief executive, finance director 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 achieving 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 determining the Group s strategy and direction for endorsement by the board. The members of the committee are: the chief executive, the finance director, the product group chief executives, the Group executive Technology & Innovation, the global head of Legal, and the global head of Human Resources.

# **Closure committee**

This committee oversees the closure management programme in place to manage the significant financial, reputational and operational risk of site closures. The members of the committee are: the global head of Health, Safety & Environment, global head of Legal, Controller and the Group executive, Technology & Innovation.

# **Continuous disclosure committee**

The committee is chaired by the finance director and has ultimate responsibility for determining the information that requires 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 finance director, company secretary of Rio Tinto plc, managing director of Rio Tinto Australia, head of Business Development, and head of Investor 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 approved by the *Audit committee* and currently include the company secretary,

Controller, head of Compliance, head of Corporate Assurance and the global head of Health, Safety and Environment. **Finance committee** 

The Finance committee is responsible, under the leadership of the finance director, to review and advise on issues that arise in the day-to-day workings within the functional areas of the finance director s direct reports. The members of the committee are: finance director, Controller, head of Treasury, head of Tax, head of Investor Relations, head of Economics, head of Business development, head of Business evaluation and Group counsel Strategic projects.

# **Investment committee**

The purpose of the Investment committee is to review proposals for major capital decisions by the board and by Group companies to ensure that they accord with the strategic objectives established by the board. The members of the committee are the chairman, executive directors and the Group executive Technology and Innovation.

# 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: Group executive Technology and Innovation, Controller, global practice leader, Strategic Production Planning, chief adviser evaluation, chief adviser orebody knowledge, chief adviser resources and reserves, general manager RTCA mine planning and Rio Tinto consulting geologist Exploration.

# 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 form part of the Corporate governance standards posted on its website. 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, the 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. Full advantage is taken of the annual general meetings to inform shareholders of recent developments and to give shareholders the opportunity to ask questions. The chairs of the Audit, Remuneration and Nomination committees are generally available to answer questions, and all directors are expected to attend where possible. Rio Tinto s external auditor, PricewaterhouseCoopers attends the annual general meeting and is available to answer shareholder questions about the conduct of the audit and the preparation and content of the auditor s report. Rio Tinto Limited s shareholders may also submit written questions regarding the statutory audit report to the auditors via the Company. Any questions received and answers provided are made available to members at the Rio Tinto Limited annual general meeting.

The main channels of communication with the investment community are through the chairman, chief executive and finance director, who have regular meetings with the Companies major shareholders. The senior independent director and other non executive directors are also available, as appropriate. The Group organises regular investor seminars which provide a two-way communication opportunity with investors and analysts; the valuable 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 advisors on a regular basis.

# **BUSINESS PRACTICE**

#### Statement of business practice

The way we work is Rio Tinto s worldwide statement of business practice. It contains principles and standards of conduct which reaffirm the Group s commitment to corporate responsibility. It provides the directors and all Group employees with a summary of the core policies and controls in place to help ensure that high governance and business standards are communicated and maintained throughout the Group. Group businesses then put them into practice through local codes of conduct and report on their implementation.

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 and guidance notes 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, listed in *The way we work*, include: access to land; business integrity; communities; Corporate governance; employment; environment; human rights; internal controls & reporting; occupational health; political involvement; safety; sustainable development and transparency. These are supported by policies in the areas of risk, information management and security. Each policy is supported by standards expanding on the minimum expectations on topics such as antitrust, continuous disclosure, compliance, cultural heritage and health, safety and the environment. Many of these standards are supplemented by guidance notes. 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.

The way we work and many of the supporting policies and standards are undergoing an extensive review process taking into account the significant number of new policies and standards introduced during the five years since its original release.

# Whistle blowing programme

Rio Tinto has a Groupwide whistle blowing programme called Speak-OUT. Employees are encouraged to report any concerns, including any suspicion of a violation of the Group s financial reporting or environmental procedures, through an independent third party and without fear of recrimination. A process has been established for the investigation of any matters reported with clear lines of reporting and responsibility in each Group business.

# Sustainable development

Rio Tinto s report on Sustainable development follows the guidelines of the Association of British Insurers and is set out in the 2008 Annual report. In addition the performance of the Group and of its separate businesses has been disclosed on the website in accordance with the Global Reporting Initiative guidelines.

## **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. Clearance is not given 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 can be viewed in the corporate governance section of the website.

# **Risk management**

Rio Tinto s overriding objective is to maximise the overall long term return to shareholders through a strategy of investing in large, cost competitive mines and businesses. The directors recognise that creating shareholder return is the reward for taking and accepting risk.

A description of some of the material business risks that could affect Rio Tinto is in Risk factors on pages 6 to 11. **Risk management policies and approach** 

Rio Tinto recognises that risk is an integral and unavoidable 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.

# **Roles and responsibilities**

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 supporting roles and infrastructure, the framework makes up the complete Rio Tinto approach to risk analysis and management.

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 mitigation of risks. This includes reviewing financial, operational and compliance controls and risk management procedures and their

effectiveness. The directors confirm that they have completed their annual review for 2008. The responsibility for identifying and managing risks rests with Rio Tinto s business leaders at all levels within the organisation. The Group has defined two specific roles to lead the management of risk: the board Risk sponsor and the Group Risk sponsor at Executive committee level. In addition, other roles throughout the Group include Risk champions in each Rio Tinto entity.

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 2008 information was reported by management to the *Audit committee* to enable its members to assess the effectiveness of the internal controls and the management of material business risk. In addition, the board and its committees monitor the Group s material business risks on an ongoing basis. These reports and risk management processes satisfy the internal control requirements of the Code and Recommendation 7.2 of the ASX Principles.

Assurance functions, including internal auditors and sustainable development auditors, perform reviews of control activities and provide regular written and oral reports to directors and management committees.

# Internal risk control systems

The directors have established a process for identifying, evaluating and managing the material business risks faced by the Group. This process was in place during 2008 and up to and including the date of approval of the 2008 Annual report and 2008 Financial statements. The process is reviewed annually by the directors and accords with the guidance set out in the UK Financial Reporting Council s Internal Control: Guidance for Directors on the Combined Code.

Due to the limitations inherent in any risk management system, it 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 mitigated 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.

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 take prompt action, as appropriate. The results of this process are reviewed by the Executive committee, then presented to the *Audit committee* and the board as a further part of their review of the Group s internal controls. This process is continually reviewed and strengthened, as appropriate.

Specialist risk staff in the corporate Risk Competence Centre manage a risk training strategy. Rio Tinto provides a range of tools and other forms of support to assist the implementation of the risk analysis and management approach. AUDITORS AND INTERNAL ASSURANCE

#### Auditor independence

Rio Tinto has adopted policies designed to uphold the independence of the Group s principal external auditors by prohibiting their engagement to provide a range of 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 finance director 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 US dollar 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 finance director 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 US\$250,000 then the chairman of the *Audit committee* must approve the engagement.

The remuneration of the Group s principal auditors for audit services and other services, as well as remuneration payable to other accounting firms, has been set out in note 43 to the 2008 Financial statements.

The board has established a policy that the principal auditors engagement partners will rotate every five years. **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 ideas and recommendations to improve those systems. The function has adopted international auditing standards set by the Institute of Internal Auditors Inc.

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 has an external service provider. 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 Institute of Internal Auditor s International 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

# Internal control over financial reporting

Management s report on internal controls over financial reporting has been included under Item 15 in this Form 20-F. **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 Part 3 of Schedule 7A to the UK Companies Act 1985 and the Australian Corporations Act 2001.

The directors are responsible for maintaining proper accounting records, in accordance with the UK Companies Act 1985 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 judgement 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 2008 Financial statements present a true and fair view and have been prepared in accordance with applicable accounting standards, using the most appropriate accounting policies for Rio Tinto s business and supported by reasonable judgements and estimates. The accounting policies have been consistently applied. The directors have received a written statement from the chief executive and the finance director 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 compliance and controls which implements the policies adopted by the board and confirms that the Group s risk management and internal compliance and control systems are operating efficiently and effectively in all material respects.

# **Disclosure controls and procedures**

Management, with the participation of the chief executive and finance director, has evaluated the effectiveness of the design and operation of the Group s disclosure controls and procedures as of the end of the period covered by this report and have concluded that these disclosure controls and procedures were effective at a reasonable assurance level. **COMPLIANCE STATEMENTS** 

# The Code

By virtue of its UK listing, Rio Tinto is required to state how it has applied the principles set out in Section 1 of the Code and which relate to its directors, remuneration, accountability and audit and relations with shareholders. This Annual report provides a statement to satisfy that obligation. Rio Tinto is also required to disclose whether it has complied with the provisions set out in Section 1 of the Code and to provide an explanation where it does not. Rio Tinto confirms that it has

continued to comply fully with the detailed provisions of Section 1 of the Code throughout 2008.

# **ASX Principles**

The Listing Rules of the ASX require Rio Tinto to report the extent to which it complies with the good practice recommendations in the ASX Principles and the reasons for any non compliance. Rio Tinto confirms that it has continued to comply fully with the ASX Principles throughout 2008.

# **NYSE Standards**

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 and 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 pages 169 to 170. 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.

# New Zealand Stock Exchange

Rio Tinto Limited is also listed on the New Zealand Stock Exchange (NZX) which has a Corporate Governance Best Practice Code (the NZX Code). As an overseas listed issuer on the NZX, Rio Tinto Limited is deemed to comply generally with the NZX Listing Rules, including the NZX Code, while it remains listed on the ASX. Whilst the ASX Principles and the NZX Code are substantially the same, there may be some ASX Principles or other ASX corporate governance rules which differ materially from the NZX s corporate governance rules or the NZX Code. The ASX Principles and other corporate governance rules can be found on the ASX website: www.asx.com.au.

# Item 7. Major Shareholders and Related Party Transactions MAJOR SHAREHOLDERS

As far as is known, Rio Tinto plc is not directly or indirectly owned or controlled by another corporation or by any government or natural person. As of 20 March 2009, the total amount of the voting securities owned by the directors of Rio Tinto plc as a group was 225,543 ordinary shares of 10p each representing less than one per cent of the number in issue.

As far as is known, Rio Tinto Limited, with the exception of the arrangements for the dual listed companies merger described on pages 181 to 183, is not directly or indirectly owned or controlled by another corporation or by any government. As of 20 March 2009, the only person known to Rio Tinto Limited as beneficially owning more than five per cent of its shares was Tinto Holdings Australia Pty Limited, which is an indirect wholly owned subsidiary of Rio Tinto plc, with 171,072,520 shares, representing 37.48 per cent of its issued capital. Rio Tinto Limited does not know of any arrangements which may result in a change in its control. As of 20 March 2009 the total amount of the voting securities owned by the directors of Rio Tinto Limited as a group was 4,100 shares representing less than one per cent of the number in issue.

Directors interests in Group voting securities are shown in Table 3 on page 156. Their total beneficial interest in the Group amounts to less than one per cent.

Except as provided under the DLC Merger Sharing Agreement as explained on pages 181 to 183, the Group s major shareholders have the same voting and other rights as other shareholders.

As at 20 March 2009 there were 280 shareholders who had registered addresses in the US holding 293,949 shares in Rio Tinto plc, and 277 who had registered addresses in the US holding 327,732 shares in Rio Tinto Limited. **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. Excluding the interest held by Tinto Holdings Australia Pty Limited in Rio Tinto Limited, 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
	12 Jul		
Barclays PLC	2006	42,129,019	4.02
	13 Jun		
The Capital Group Companies, Inc	2006	41,031,494	3.90
	6 Nov		
Legal & General plc	2008	45,879,555	4.59
	29 Jan		
AXA S.A.	2008	48,493,873	4.86
	2 Feb		
Shining Prospect Pte. Ltd	2008	119,705,134	12.00
Rio Tinto Limited	Date of	Number of	Percentage
	notice	shares <sup>1</sup>	of issued

share capital <sup>1</sup>

#### Shining Prospect Pte. Ltd

4 Feb 2008

# Notes

Shining 1. 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 a result of the proposed arrangements between Rio Tinto and Chinalco announced to the Australian Securities Exchange on 12

February 2009, Rio Tinto and Chinalco have become associates in relation to Rio Tinto Limited, giving (by reason of that association) Rio Tinto the same voting power in Rio Tinto Limited as Chinalco and Chinalco the same voting power as Tinto Holdings Australia Pty Limited in Rio Tinto Limited and in the Rio Tinto Group on a joint decision matter. Tinto Holdings Australia Pty Limited may only vote its shares in Rio Tinto Limited to give effect to the DLC voting arrangements. 2. As far as it is known, Rio Tinto is not directly or indirectly owned or controlled by another corporation or by any government.

 Rio Tinto is not aware of any arrangement which may result in a change of control.

# ANALYSIS OF ORDINARY SHAREHOLDERS

As at 20 March 2009

	No of	%	Rio Tinto plc Shares %		No of %		Rio Tinto Limi Shares	
	accounts	,-		, -	accounts	,-		%
1 to 1,000								
shares	38,598	75.31	13,488,485	1.34	128,356	86.75	35,841,324	7.85
1,001 to 5,000 shares	10,182	19.87	20,233,190	2.01	17,544	11.86	34,209,666	7.49
5,001 to 10,000	10,102	17.07	20,233,170	2.01	17,344	11.00	34,207,000	7.47
shares	894	1.74	6,172,276	0.61	1,317	0.89	9,116,233	2.00
10,001 to	40.1	0.07		0.55	10.6	0.04		1.60
25,000 shares 25,001 to	491	0.96	7,736,949	0.77	496	0.34	7,286,784	1.60
125,000 shares	552	1.08	32,770,291	3.26	171	0.12	8,466,040	1.85
125,001 to			,,_,_,_				-,,	
250,000 shares	196	0.38	36,161,229	3.60	27	0.02	4,909,048	1.07
250,001 to 1,250,000 shares	220	0.44	124 470 507	12.20	20	0.02	16 020 410	2 (0
1,250,000 shares	228	0.44	124,470,597	12.39	30	0.02	16,839,418	3.69
2,500,000	47	0.09	86,323,754	8.59	6	0.00	11,106,971	2.43
2,500,001 and								
over	63	0.12	594,765,635	59.21	9	0.01	157,967,939	34.58
ADRs	1	0.00	76,422,586	7.61				
Publicly held shares	51,252	100	998,544,992	99.41	150,547	100	285,743,423	62.55
Shares held in	51,252	100	996,344,992	99.41	130,347	100	263,745,425	02.33
treasury			5,884,513	0.59				
Tinto Holdings A	ustralia Pty							
Limited							171,072,520	37.45
				100.00		100		100.00
			1,004,429,505	100.00		100	456,815,943	100.00

Number of holdings less than marketable parcel of<br/>A\$500.4,709TWENTY LARGEST REGISTERED SHAREHOLDERS4,709

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	Tinto Holdings Australia Pty Limited	171,072,520	37.45
2	HSBC Custody Nominees (Australia) Limited	57,490,473	12.59
3	JP Morgan Nominees Australia Limited	36,636,832	8.02
4	National Nominees Limited	31,621,128	6.92
5	Citicorp Nominees Pty Limited	11,532,412	2.52
6	ANZ Nominees Limited	10,358,360	2.27
7	Cogent Nominees Pty Limited	4,108,261	0.90
8	AMP Life Limited	3,592,056	0.79
9	HSBC Custody Nominees (Australia) Limited	2,628,417	0.58
10	UBS Wealth Management Australia Nominees Pty Ltd	2,442,275	0.53
11	Australian Foundation Investment Company Limited	2,343,414	0.51
12	UBS Nominees Pty Ltd	1,651,458	0.36
13	Queensland Investment Corporation	1,589,473	0.35
14	Argo Investments Limited	1,569,534	0.34
15	Citicorp Nominees Pty Limited	1,510,817	0.33
16	Perpetual Trustee Company Limited	1,231,713	0.27
17	RBC Dexia Investor Services Australia Nominees Pty Limited	1,149,484	0.25
18	Tasman Asset Management Ltd	899,358	0.20
19	RBC Dexia Investor Services Australia Nominees Pty Limited	830,600	0.18
20	Australian Reward Investment Alliance	826,811	0.18

345,085,396 75.54

#### Notes

- 1. Tinto Holdings Australia Pty Limited is a wholly owned subsidiary of Rio Tinto plc.
- 2. Other large registered shareholders are nominees who hold securities on behalf of beneficial

shareholders.

# **RELATED PARTY TRANSACTIONS**

Information about material related party transactions of the Rio Tinto Group is set out in note 44 to the 2008 Financial statements.

# Item 8. Financial Information 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 2008 Financial statements.

# 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 181.

# **Dividend policy**

The aim of Rio Tinto s progressive dividend policy is to increase the US dollar value of ordinary dividends over time, without cutting them during economic downturns.

The rate of the total annual dividend, in US dollars, is determined taking into account the results for the past year and the outlook for the current year. The interim dividend is set at one half of the total ordinary dividend for the previous year. Under Rio Tinto s dividend policy, the final ordinary dividend for each year 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. Shareholders requiring further information should contact Computershare.

# 2008 dividends

The 2008 interim and final dividends were determined at 68.0 US cents and at 68.0 US cents per share respectively and the applicable translation rates were US\$1.8759 and US\$1.46885 to the pound sterling and US\$0.8791 and US\$0.6701 to the Australian dollar.

Final dividends of 46.29 pence per share and of 101.48 Australian cents per share will be paid on 8 April 2009. A final dividend of 272 US cents per Rio Tinto plc ADR (each representing four shares) will be paid by JPMorgan Chase Bank NA to ADR holders on 9 April 2009.

The charts below set out the amounts of interim, final and special cash dividends paid or payable on each share or ADS in respect of each financial year, but before deduction of any withholding tax.

Rio Tinto Group	US cents per share	2008	2007	2006	2005	2004
Interim Final Special		68.0 68.0	52.0 84.0	40.0 64.0	38.5 41.5 110.0	32.0 45.0
Total		136.0	136.0	104.0	190.0	77.0

Rio Tinto plc UK pence per share	2008	2007	2006	2005	2004
Interim Final Special	36.25 46.29	25.59 43.13	21.42 32.63	21.75 23.35 61.89	17.54 23.94
Total	82.54	68.72	54.05	106.99	41.48
Rio Tinto Limited Australian cents per share	2008	2007	2006	2005	2004
Interim Final Special	77.35 101.48	60.69 93.02	52.48 82.84	50.56 54.86 145.42	45.53 58.29
Total	178.83	153.71	135.32	250.84	103.82
Rio Tinto plc US cents per ADS	2008	2007	2006	2005	2004
Interim Final Special	272 272	208 336	160 256	154 166 440	128 180
Total	544	544	416	760	308
			Rio Tin	to 2008 Form	20-F <b>178</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. See page 187 for an explanation of the tax consequences. Due to local legislation the DRP cannot be extended to shareholders in the US, Canada and certain other countries. Please contact Computershare for further information.

# POST BALANCE SHEET EVENTS

On 12 February 2009 the Group announced that the Boards are recommending a transaction with Aluminium Corporation of China ( Chinalco ) to the shareholders. Under the terms of the transaction Chinalco will invest US\$12.3 billion in certain aluminium, copper and iron ore joint ventures and a further US\$7.2 billion in subordinated convertible bonds. In total there will be four convertible bonds issued: two that are convertible into shares of Rio Tinto plc at a price of US\$45 and US\$60 respectively and two that are convertible into shares of Rio Tinto Limited at a price of US\$45 and US\$60 respectively. The transaction is subject to approval by the shareholders, governments and other regulators. If the Boards withdraw their recommendation or recommend a competing proposal to the shareholders there is a break fee of US\$195 million payable. The proceeds will be used in part for the repayment of debt.

In January 2009, Rio Tinto reached an agreement to sell its Brazilian iron ore operation. The completion of the sale of these assets, from which proceeds of US\$750 million will be received, is subject to regulatory approvals which are expected during the second half of 2009.

On 5 February 2009 the Group announced the completion of the sale of the of its undeveloped potash assets to Companhia Vale do Rio Doce (Vale) for a cash consideration of US\$850 million. The transaction is comprised of the Potasio Rio Colorado potash project in Argentina and the Regina exploration assets in Canada. The proceeds from this divestment have been used to pay down debt.

On 9 March 2009, Rio Tinto reached an agreement to sell Jacobs Ranch coal mine to Arch Coal, Inc for a cash consideration of US\$761 million. The completion of the sale is subject to regulatory approvals.

# Item 9. The Offer and Listing

# MARKET LISTINGS AND SHARE PRICES

#### **Rio Tinto plc**

The principal market for Rio Tinto plc shares is the London Stock Exchange (LSE).

As a constituent of the Financial Times Stock Exchange 100 index (FTSE 100), Rio Tinto plc 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.

Use of the order book is not mandatory but all trades, regardless of size, executed over the SETS system are published immediately. The only exception to this is where a Worked Principal Agreement (WPA) is entered into for trades greater than eight times Normal Market Size (NMS). Rio Tinto plc has an NMS of 100,000 shares.

Publication of trades entered under a WPA is delayed until the earlier of 80 per cent of the risk position assumed by the member firm taking on the trade being unwound or the end of the business day.

Closing LSE share prices are published in most UK national newspapers and are also available during the day on the Rio Tinto and other websites.

Rio Tinto plc has a sponsored American Depositary Receipt (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 and as further amended and restated on 18 February 2005 when JPMorgan became Rio

Tinto plc s depository. The ADRs evidence Rio Tinto plc American Depositary Shares (ADS), each representing four ordinary shares. 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 RTP.

Rio Tinto plc shares are also listed on Euronext.

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, and the highest and lowest sale prices of the Rio Tinto plc ADSs as reported on the NYSE composite tape.

As at 20 March 2009, there were 51,252 holders of record of Rio Tinto plc s shares. Of these holders, 280 had registered addresses in the US and held a total of 293,949 Rio Tinto plc shares, representing 0.029 per cent of the total number of Rio Tinto plc shares issued and outstanding as at such date. In addition, 76,422,586 Rio Tinto plc shares were registered in the name of a custodian account in London which represented 7.61 per cent of the publicly held Rio Tinto plc shares issued and outstanding.

These shares were represented by 19,105,646 Rio Tinto plc ADSs held of record by 49,389 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**

ADR holders may instruct JPMorgan as to how the shares represented by their ADRs should be voted.

ADR holders can receive annual reports, financial statements and interim reports on request.

Rio Tinto is subject to the US Securities and Exchange Commission (SEC) reporting requirements for foreign companies and is required to file annual reports on Form 20-F. Rio Tinto s Form 20-F and other filings can be viewed on the Rio Tinto website as well as the SEC web site at www.sec.gov

	Pence per Rio Tinto plc share High Low			US\$ per Rio Tinto plc ADS High Low		
2004 2005 2006 2007 2008	1,574 2,657 3,322 5,784 7,078	1,212 1,472 2,352 2,505 1,049	119.39 183.29 253.33 478.35 554.93	86.42 111.57 176.09 193.60 60.72		
Aug 2008 Sep 2008 Oct 2008 Nov 2008 Dec 2008 Jan 2009 Feb 2009 Mar 2009 (to 20 March)	5,259 5,010 3,487 3,135 1,558 1,927 2,000 2,101	4,535 3,310 2,050 1,550 1,049 1,380 1,506 1,619	394.52 339.99 254.24 200.10 98.75 117.20 122.70 121.95	346.76 226.50 138.69 98.50 60.72 79.17 88.91 89.61		
2007 First quarter Second quarter Third quarter Fourth quarter	2,940 3,916 4,228 5,784	2,505 2,888 2,929 4,050	230.60 311.50 343.40 478.35	193.60 230.60 234.65 334.30		
2008 First quarter Second quarter Third quarter Fourth quarter	5,850 7,078 5,764 3,487	4,159 5,233 3,310 1,049	464.00 554.93 468.24 254.24	331.31 419.75 226.50 60.72		

# **Rio Tinto Limited**

Rio Tinto Limited shares are listed on the Australian Securities Exchange (ASX) and the New Zealand Securities Exchange. The ASX is the principal trading market for Rio Tinto Limited shares. The ASX is a national stock exchange operating in the capital city of each Australian State with an automated trading system.

Closing ASX share prices are published in most Australian newspapers and are also available during the day on the Rio Tinto and other websites.

The table below sets out, for the periods indicated, 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.

As at 20 March 2009, there were 147,956 holders of record of Rio Tinto Limited shares. Of these holders, 277 had registered addresses in the US, representing approximately 0.072 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.

	Rio Tinto Li	A\$ per mited share
	High	Low
	8	
2004	40.20	31.98
2005	69.10	38.82
2006	87.97	65.38
2007	146.90	69.50
2008	156.10	32.00
Aug 2008 Sep 2008	127.50 124.96	110.79 84.50
Oct 2008	95.00	62.62
Nov 2008	86.60	42.01
Dec 2008	42.70	32.00
Jan 2009	46.93	37.25
Feb 2009	52.00	42.15
Mar 2009 (to 20 March)	52.02	43.47
2007 First quarter	80.11	69.50
Second quarter	101.15	77.20
-		

	Rio Tinto High	A\$ per Limited share Low
Third quarter	108.22	81.16
Fourth quarter	146.90	104.43
2008	137.10	101.00
First quarter	156.10	124.17
Second quarter Third quarter Fourth quarter	136.10 137.50 95.00	84.50 32.00

#### **Investment warning**

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. **Item 10. Additional Information** 

#### **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 and it now stands at approximately 37.5 per cent.

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 is 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. When matters may involve a conflict of interests between the shareholders of each Company they must be approved under the Class Rights Action approval procedure.

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 Share 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 separate decisions will be announced to the stock exchanges, published on the Rio Tinto website and advertised in the Financial Times and The Australian newspapers.

#### **Rio Tinto plc**

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. **Rio Tinto Limited** 

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, together with the Rio Tinto Limited ordinary shares held by Tinto Holdings Australia, 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. Tinto Holdings Australia and the holder of the Special Voting Share are 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.

As part of the DLC merger, the memorandum and 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 voting rights of all the shares held by the public shareholders 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 and also agree that no member of the Rio Tinto Group shall accept a third party offer for Rio Tinto Limited shares unless such acceptance is approved by a Joint Decision of the public shareholders of both Companies.

#### 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 demand 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.

#### MEMORANDUM AND ARTICLES OF ASSOCIATION

Rio Tinto plc adopted new Articles of Association by special resolution passed on 11 April 2002 and, amended on 14 April 2005, 13 April 2007 and 17 April 2008. 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 and 24 April 2008.

## Introduction

As explained on pages 181 to 183 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 Law this principle is reflected in the Memorandum and Articles of Association of Rio Tinto plc and in the Constitution of Rio Tinto Limited. The summaries below include descriptions of material rights of the shareholders of both Rio Tinto plc and Rio Tinto Limited. Unless stated otherwise the Memorandum and Articles of Association of and Constitution are identical.

Rio Tinto plc is incorporated under the name Rio Tinto plc and is registered in England and Wales under company number 719885 and Rio Tinto Limited is incorporated under the name Rio Tinto Limited and is registered in Australia under ABN 96 004 458 404.

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 are set out in the fourth clause of its Memorandum of Association and the objects of Rio Tinto Limited are set out in the second clause of its Constitution. Included in these objects is 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 and a Deed Poll Guarantee.

Other objects of Rio Tinto plc include provisions:

to carry on as an Investment Holding Company;

to subscribe for, sell, exchange or dispose of any type of security or investment;

to purchase any estate or interest in property or assets;

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to borrow and raise money to secure or discharge any debt or obligation of or binding on the Company;

to draw, make or deal in negotiable or transferable instruments;

to amalgamate with and co-operate with or assist or subsidise any company, firm or person and to purchase or otherwise acquire or undertake all or any part of the business property or liabilities of any person, body or company carrying on any business which this Company is authorised to carry on;

to promote the Company;

to lend money and guarantee contracts or obligations of the Company and to give all kinds of indemnities;

to sell, lease, grant licences and other rights over any part of the Company;

to procure the registration of the Company outside England;

to subscribe or guarantee money to any national, charitable, benevolent, public, general or exhibition which may further the objects of the Company or the interest of its members;

to grant pensions or gratuities to employees, ex-employees, officers and ex-officers;

to establish any scheme or trust which may benefit employees;

to lend money to employees to purchase Company shares;

to purchase and maintain insurance for employees and to carry on the objects of the Company in any part of the world either as principals, agents, contractors, trustees or otherwise.

Other objects of Rio Tinto Limited include the powers:

to prospect for, explore, quarry, develop, excavate, dredge for, open, work, win, purchase or otherwise obtain all minerals, metals and substances;

to carry on business as proprietors of and to purchase, take on, lease or in exchange or otherwise acquire and control mineral and other properties, lands and hereditaments of any tenure, mines and other rights or options thereon;

to raise, win, get, quarry, crush, smelt, calcine, refine, dress, amalgamate, manipulate and otherwise treat, prepare, sell and deal in ores, metals and other products of mines;

to carry on business as ship owners, railway proprietors, motor car, lorry and coach proprietors, and garage proprietors, carriers and hauliers, bankers, storekeepers, wharfingers, cartage, storage, building and general contractors and to buy and sell or otherwise deal in real or personal property of any kind;

to carry on business as manufacturers of and dealers in and exporters and importers of goods and merchandise of all kinds and merchants generally; and

to guarantee the payment of premiums on any sinking fund or endowment policy or policies taken out by any company having objects similar to the objects of the Company.

#### Directors

Under Rio Tinto plc s Articles of Association a director may not vote in respect of any proposal in which he or any

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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 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 138 to 151 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.

Directors are required to retire in accordance with statutory age limits. Directors who were elected or re-elected a director in the third year before each annual general meeting are required to retire by rotation and such further directors

(if any) shall retire by rotation as would bring the number retiring by rotation up to one third of the number of directors in office at the date of the notice of meeting (or, if their number is not a multiple of three, the number nearest to but not greater than one third). These further directors required to retire shall be selected from the other directors subject to retirement by rotation who have been longest in office since their last re-election and where directors were re-elected on the same day then, unless they otherwise agree amongst themselves, they will be selected by the alphabetical order of their names. In addition any director appointed by the directors since the last annual general meeting is also required to retire. A retiring director shall be eligible for re-election.

In the absence of an independent quorum, the directors are not competent to vote compensation to themselves or to any members of their body.

#### **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, being a written vote, 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 at a general meeting has one vote regardless of the number of shares held. On a poll, every shareholder who is present in person or by proxy has one vote for every ordinary share or 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 at the meeting;

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 at the meeting;

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; 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 persons and for a Rio Tinto Limited general meeting is two persons carrying a right to vote upon the business to be transacted, whether present in person or by proxy.

Matters are transacted at general meetings by the proposing and passing of resolutions, of which there are three kinds:

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 Memorandum and 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; and

an extraordinary resolution, which includes resolutions modifying 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 and extraordinary 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 entitled to cast the deciding vote in addition to any other vote he may have.

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 181 to 182.

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 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. The days of delivery or receipt of the notice are not included. The notice must specify the nature of the business to be Rio Tinto 2008 *Form 20-F* **185** 

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 is to be the number of persons (which must be two or more) who hold or represent by proxy not less than one third in nominal value of the issued shares of the class.

The Sharing Agreement provides for the protection of the public shareholders of both Companies and so any variations of rights would be dealt with as Class Rights Actions that require the separate approval of the shareholders of both Companies.

#### **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 182.

## 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 Memorandum and 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.

#### **MATERIAL CONTRACTS**

#### **Recent developments** Chinalco strategic partnership

On 12 February 2009 the Rio Tinto board announced they are unanimously recommending to shareholders a transaction with Aluminum Corporation of China (Chinalco), a leading Chinese diversified resources company.

A summary has been provided under Recent developments Chinalco strategic partnership on pages 59 to 62.

## **Facility Agreement** Rio Tinto plc, Rio Tinto Canada Holding Inc. and Rio Tinto Finance plc entered into a facility agreement dated 12 July 2007 (the Facility Agreement ) with Credit Suisse, Deutsche Bank AG, London Branch, The Royal Bank of Scotland plc and Société Générale. The Facility Agreement comprises two term facilities and two revolving facilities (including a swingline facility) up to a total amount of US\$40 billion. The funds made available under the Facility Agreement will be used, among other things, to finance or refinance, directly or indirectly the consideration or other amounts payable in respect of the Group s purchase for cash of all the outstanding shares of Alcan Inc.

Advances under the term and revolving facilities bear interest at rates 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) plus LIBOR plus any mandatory cost.

The Facility Agreement contains covenants and restrictions on the Group, including that it be required to observe certain customary covenants including but not limited to (i) maintenance of authorisations; (ii) compliance with laws; (iii) change of business; (iv) negative pledge (subject to certain carve outs); (v) environmental laws and licences; and (vi) subsidiaries incurring financial indebtedness.

The term facilities are to be repaid on the termination of their respective 364 day (subject to exercise of the extension option), and five year and one business day terms. No amounts repaid by the Group under the term facilities may be re-borrowed. Facilities B and C will cease to be available one month prior to their respective three year and five year termination dates. All loans made under Facilities B and C are to be repaid on their respective termination dates.

## **EXCHANGE CONTROLS**

## **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 memorandum and 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 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 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 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 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. **TAXATION** 

## UK resident individuals shareholdings in Rio Tinto plc

#### **Taxation of dividends**

Dividends carry a tax credit equal to one ninth of the dividend. Individuals who are not liable to income tax at the higher 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 a further tax liability of 25 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 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.

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 Rio Tinto 2008 Form 20-F 187

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, including stamp duty, 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 resident individuals**

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 ADSs 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 United States, 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 authorized to control all substantial decisions of the trust.

This section applies to US holders only if the Group s ADSs and shares 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 the Group s ADSs and shares 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 the laws of the United Kingdom ans Australia all currently in effect, as well as on the convention between the United States of America and United Kingdom, and the convention between the United States of America 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.

US holders should consult their own tax adviser regarding the US federal, state and local and foreign and other tax consequences of owning and disposing of the Group s ADSs and shares in their particular

#### circumstances.

For the purposes of the conventions between the United States of America and the United Kingdom and between the United States of America and Australia, 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 do not suffer deductions of 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% provided that, in the case of the Group s ADSs or shares you hold the Group s ADSs or shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date. Dividends the Group pays with respect to the Group s ADSs or shares 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 Pounds sterling/US dollar rate (in the case of Rio Tinto plc) or the spot Australian dollar/US dollar rate (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 United States 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 Group s ADSs or shares and thereafter as capital gain.

Subject to certain limitations, any Australian tax withheld in accordance with the convention between United States of America and Australia 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% tax rate.

Dividends will be income from sources outside the United States. Dividends will, depending on your circumstances, be either passive or general 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 ADSs or shares. Capital gain of a non corporate US holder that is recognised in taxable years beginning before 1 January 2011 is generally taxed at a maximum rate of 15% 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 United States for foreign tax credit limitation purposes.

## Passive Foreign Investment Company (PFIC) rules

We believe that the Group s ADSs or shares should not be treated as stock of a 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 Group s ADSs or shares are marketable stock and a US holder elects to be taxed annually on a mark-to-market basis with respect to the Group s ADSs or shares gain realised on the sale or other disposition of the Group s ADSs or shares 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 rateably over your holding period for the Group s ADSs or shares 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.

## **DOCUMENTS ON DISPLAY**

Rio Tinto plc and Rio Tinto Limited file reports and other information with the SEC. You may 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, United States of America. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

#### Item 11. Quantitative and Qualitative Disclosures about Market Risk

The Rio Tinto Group s quantitative and qualitative disclosures about market risk, its policies for currency, interest rate and commodity price exposures, and the use of derivative financial instruments are discussed in the financial review on pages 115 to 124. The discussion regarding market risk contains certain forward looking statements and attention is drawn to the Cautionary statement on page 11.

**Item 12. Description of Securities other than Equity Securities** Not applicable.

## PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

There are no defaults, dividend arrearages or delinquencies.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

There are no material modifications to the rights of security holders.

## **Item 15. Controls and Procedures**

#### **Disclosure controls and procedures**

The Group maintains disclosure controls and procedures as such term is defined in Exchange Act Rule 13a-15(e). The common management of each of Rio Tinto plc and Rio Tinto Limited, with the participation of their common chief executive and finance director, have 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 have 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 for Rio Tinto plc and Rio Tinto Limited. The Companies internal control over financial reporting is a process designed under the supervision of their common chief executive and finance director 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 managemement 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 by Rio Tinto plc and Rio Tinto Limited as of 31 December 2008, 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.

Our independent registered public accounting firms, PricewaterhouseCoopers LLP and PricewaterhouseCoopers, the auditors of Rio Tinto plc and Rio Tinto Limited respectively, audited the financial statements included in the Form 20-F and audited the effectiveness of internal control over financial reporting as of 31 December 2008. Their audit report on internal control over financial reporting is included on page A-72.

#### Changes in internal control over financial reporting

There were no changes in the internal controls over financial reporting that occurred during the period covered by this Annual report on Form 20-F 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.

## Item 16A. Audit Committee Financial Expert

See Report of the Audit committee on page 169 for information regarding the identification of the *Audit committee* financial expert.

## Item 16B. Code of Ethics

*The way we work*, Rio Tinto s statement of business practice, summarises the Group s principles and policies for all directors and employees.

*The way we work* and the supplementary guidance documents are discussed more fully under Corporate governance on page 172. They can be viewed on Rio Tinto s website: www.riotinto.com and will be provided to any person without charge upon written request received by one the company secretaries.

#### Item 16C. Principal Accountant Fees and Services

The remuneration of the Group s principal auditors including audit fees, audit related fees, tax fees and all other fees, as well as remuneration payable to other accounting firms, has been set out in note 43 to the 2008 Financial statements.

Rio Tinto has adopted policies designed to uphold the independence of the Group s principal auditors by prohibiting their engagement to provide a range of 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 finance director 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 US dollar 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 finance director 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 US\$250,000 then the chairman of the *Audit committee* must approve the engagement.

The *Audit committee* adopted policies for the pre approval of permitted services provided by the Group s principal auditors during 2003. All of the engagements for services provided by the Group s principal auditors since the adoption of these policies 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.

## **Item 16D. Exemptions from the Listing Standards for Audit Committees** Not applicable.

## Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

		F	Rio Tinto plc		Rio T	into Limited	
		(b)	(c) Total		(b)	(c) Total	(d)
Period	(a) Total	Average	number	(a) Total	Average	numberA	pproximate
							dollar
	number of	price	of shares	number of	price	of shares	value of
		paid per	purchased		paid per	purchased	shares
	shares	share	as part	shares	share	as part	that may
			of			of	yet be
	purchased		publicly	purchased		publicly	purchased
			announced			announced	under the
			plans			plans	plans
			or			or	or
			programmes			programmes p	-
		US\$			US\$		US\$m
••••							
2008				202.004	106 50		
1 Jan to 31 Jan				283,994	106.59		
1 Feb to 28 Feb 1 Mar to 31 Mar				502,744	121.19		
	015 055	110 56		97,041 507.062	113.41		
1 Apr to 30 Apr	215,855	118.56		597,963	127.51		
1 May to 31				249 601	142 77		
May 1 Jun to 30 Jun				248,601 73,842	143.77 126.71		
1 Jul to 31 Jul	8,795,496	0.00		4,575	120.71		
1 Aug to 31 Aug	17,535,221	0.00		4,373	106.23		
1 Sep to 30 Sep	10,890,294	0.00		8,752	93.13		
1 Oct to 31 Oct	24,794,875	0.70		341,130	71.47		
1 Nov to 30 Nov	6,155,870	0.00		14,806	45.98		
1 Dec to 31 Dec	0,155,070	0.00		3,693	27.75		
1 200 10 51 200				5,075	21.15		
Total	68,387,611	0.63		2,195,028	114.78		
	, ,-			, - ,			
2009							
1 Jan to 31 Jan				26,530	27.36		
1 Feb to 28 Feb				175,937	31.68		
1 Mar to 20 Mar				77,018	31.48		
Rio Tinto p	lc						

ordinary shares

of 10p each; Rio

- Notes Tinto Limited
- 1. shares.
- 2.

The average prices paid have been translated into US dollars at the exchange rate on the day of settlement. 3. The share buyback programme was suspended upon the announcement of the Alcan Inc acquisition on 12 July 2007 and did not operate in 2008. Shares 4. purchased by the Companies registrars in connection with the dividend reinvestment plans and employee share plans are not deemed to form part of any publicly announced plan or programme. 5. Shares purchased by Rio Tinto plc in line with the Group s internal capital management programme. These purchases do not form part of any publicly announced plan or programme.

### Item 16F. Change in Registrant s Certifying Accountant

Not applicable.

#### **Item 16G. Corporate Governance**

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 and 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 pages 169 to 170. 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 2008 *Form 20-F* **193** 

## PART III

#### **Item 17. Financial Statements**

Not applicable.

## **Item 18. Financial Statements**

The 2008 Financial statements of the Rio Tinto Group and the separate 30 June 2008 Financial statements of Minera Escondida Limitada (Rio Tinto: 30 per cent), which exceeded certain tests of significance under Rule 3-09 of Regulation S-X, are included as the A pages in this Annual report on Form 20-F.

## Item 19. Exhibits

Exhibits marked \* have been filed as exhibits to this Annual report on Form 20-F and other exhibits have been incorporated by reference as indicated.

## INDEX

## Exhibit

#### Number Description

- 1.1 Memorandum and Articles of Association of Rio Tinto plc (adopted by special resolution passed on 11 April 2002 and amended on 14 April 2005, 13 April 2007 and 17 April 2008) (incorporated by reference to Exhibit 4.1 to the Registration statement on Form S-8 filed on 12 December 2008, File No. 333-156093)
- 1.2 Constitution of Rio Tinto Limited (ACN 004 458 404) (as adopted by special resolution passed on 24 May 2000 and amended by special resolution on 18 April 2002, 29 April 2005, 27 April 2007 and 24 April 2008) (incorporated by reference to Exhibit 4.2 to the Registration statement on Form S-8 filed on 12 December 2008, File No. 333-156093)
- Facility Agreement, dated 12 July 2007, among Rio Tinto, Credit Suisse, Deutsche Bank AG, London Branch, The Royal Bank of Scotland plc, and Societe Generale (incorporated by reference to Exhibit (b)(1) to the Schedule TO-T filed by Rio Tinto plc and Rio Tinto Canada Holding Inc. on 24 July 2007, File No. 1-10533)
- 2.2 Cooperation and Implementation Agreement dated 12 Febrary 2009 between Rio Tinto and Aluminum Corporation of China (Chinalco), a company incorporated in China (incorporated by reference to Exhibit 99.1 to Form 6-K filed on 13 February 2009, File No. 1-10533)
- 3.1 DLC Merger Implementation Agreement, dated 3 November 1995 between CRA Limited and The RTZ Corporation PLC relating to the implementation of the DLC merger (incorporated by reference to Exhibit 2.1 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 1995, File No. 1-10533)
- 3.2 DLC Merger Sharing Agreement, dated 21 December 1995 and amended on 29 April 2005 between CRA Limited and The RTZ Corporation PLC relating to the ongoing relationship between CRA and RTZ following the DLC merger (incorporated by reference to Exhibit 4.23 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2004, File No. 1-10533)
- 3.3 RTZ Shareholder Voting Agreement, dated 21 December 1995 between The RTZ Corporation PLC, RTZ Shareholder SVC Pty. Limited, CRA Limited, R.T.Z. Australian Holdings Limited and The Law Debenture Trust Corporation p.l.c. (incorporated by reference to Exhibit 2.3 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 1995, File No. 1-10533)
- 3.4 CRA Shareholder Voting Agreement, dated 21 December 1995 between CRA Limited, CRA Shareholder SVC Limited, The RTZ Corporation PLC and The Law Debenture Trust Corporation p.l.c., relating to the RTZ Special Voting Share (incorporated by reference to Exhibit 2.4 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 1995, File No. 1-10533)

- 4.01 Service Agreement dated 4 May 2007 between Mr T Albanese and Rio Tinto London Limited (incorporated by reference to Exhibit 4.01 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2007, File No. 1-10533)
- 4.02 Memorandum effective 1 March 2008 to Service Agreement dated 12 April 2006 between Mr T Albanese and Rio Tinto London Limited (incorporated by reference to Exhibit 4.02 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2007, File No. 1-10533)
- 4.03 Service Agreement dated 19 June 2002 between Mr G R Elliott and Rio Tinto London Limited (incorporated by reference to Exhibit 4.31 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2002, File No. 1-10533)
- 4.04 Memorandum effective 1 March 2008 to Service Agreement dated 19 June 2002 between Mr G R Elliott and Rio Tinto London Limited (incorporated by reference to Exhibit 4.01 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2007, File No. 1-10533)
- 4.05 Service Agreement dated 25 October 2007 between Mr R B Evans and Rio Tinto plc (incorporated by reference to Exhibit 4.07 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2007, File No. 1-10533)
- 4.06 Novation dated 29 January 2008 of Service Agreement dated 25 October 2007 between Mr R B Evans and Rio Tinto plc to Rio Tinto London Limited (incorporated by reference to Exhibit 4.08 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2007, File No. 1-10533)
- 4.07 Memorandum effective 1 March 2008 to Service Agreement dated 25 October 2007 between Mr R B Evans and Rio Tinto London Limited (incorporated by reference to Exhibit 4.09 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2007, File No. 1-10533)
- 4.08\* Termination Agreement dated 30 March 2009 between Mr R B Evans and Rio Tinto.
- 4.09 Rio Tinto plc Share Option Plan 2004 (incorporated by reference to Exhibit 4.3 of Rio Tinto s Registration statement on Form S-8, File No. 333-147914)
- 4.10 Rio Tinto plc Mining Companies Comparative Plan 2004 (incorporated by reference to Exhibit 4.4 of Rio Tinto s Registration statement on Form S-8, File No. 333-147914)
- 4.11 Rio Tinto Limited Share Option Plan 2004 (incorporated by reference to Exhibit 4.6 of Rio Tinto s Registration statement on Form S-8, File No. 333-147914)
- 4.12 Rio Tinto Limited Mining Companies Comparative Plan 2004 (incorporated by reference to Exhibit 4.7 of Rio Tinto s Registration statement on Form S-8, File No. 333-147914)
- 4.13 Medical expenses plan (incorporated by reference to Exhibit 4.67 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2000, File No. 1-10533)
- 4.14 Pension plan (incorporated by reference to Exhibit 4.68 of Rio Tinto plc s Annual report on Form 20-F for the financial year ended 31 December 2000, File No. 1-10533)
- 4.15\* Rules of The Rio Tinto plc 2008 Bonus Deferral Plan
- 4.16\* US Annex to the Rules of the Rio Tinto plc 2008 Bonus Deferral Plan
- 4.17\* Rules of The Rio Tinto Limited 2008 Bonus Deferral Plan
- 4.18\* US Annex to the Rules of the Rio Tinto Limited 2008 Bonus Deferral Plan
- 8.1\* List of subsidiary companies.
- 12.1\* Certifications pursuant to Rule 13a-14(a) of the Exchange Act.
- 13.1\* Certifications furnished pursuant to Rule 13a-14(b) of the Exchange Act (such certifications are not deemed filed for purpose of Section 18 of the Exchange Act and not incorporated by reference in any filing under the Securities Act).
- 15.1\* Consent of Independent Accountants to the incorporation of the audit report relating to the Rio Tinto Group and effectiveness of internal control over financial reporting of the Rio Tinto Group by reference in registration statements on Form F-3 and Form S-8.
- 15.2\*

Consent of Independent Accountants to the incorporation of the audit report relating to Minera Escondida Limitada by reference in registration statements on Form F-3 and Form S-8.

#### Signature

The Registrants hereby certify that they meet all of the requirements for filing on Form 20-F and that they have duly caused and authorised the undersigned to sign this Annual Report on their behalf.

**Rio Tinto plc** 

(Registrant)

**Rio Tinto Limited** (Registrant)

<u>/s/ Ben Mathews</u> Name: **Ben Mathews** Title: Secretary

Date: 2 April 2009

<u>/s/ Ben Mathews</u> Name: **Ben Mathews** Title: Assistant Secretary

Date: 2 April 2009

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#### Glossary

### 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\$
Australian GAAP	Generally accepted accounting principles in Australia
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)
<b>EU IFRS</b>	International Financial Reporting Standards as adopted by the European Union
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards as issued by the IASB
LBMA	London Bullion Market Association
LME	London Metal Exchange
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
<b>Rio Tinto Limited Group</b>	Rio Tinto Limited and its subsidiaries and associated companies
<b>Rio Tinto Limited</b>	The holders of Rio Tinto Limited shares
shareholders	
<b>Rio Tinto Limited share</b>	The ordinary shares in Rio Tinto Limited
<b>Rio Tinto Limited/RTL</b>	The DLC Dividend Share in Rio Tinto Limited
<b>DLC Dividend Share</b>	
<b>Rio Tinto Limited/RTL</b>	The Special Voting Share in Rio Tinto Limited
Special Voting Share	
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 four Rio Tinto plc ordinary shares
Rio Tinto plc Group	Rio Tinto plc and its subsidiaries and associated companies
Rio Tinto plc ordinary	The ordinary shares of 10p each in Rio Tinto plc
shares	
<b>Rio Tinto plc shareholders</b>	The holders of Rio Tinto plc shares
Rio Tinto plc shares	Rio Tinto plc ordinary shares
Rio Tinto plc/RTP	The DLC Dividend Share of 10p in Rio Tinto plc
<b>DLC Dividend Share</b>	
Rio Tinto plc/RTP	The Special Voting Share of 10p in Rio Tinto plc
Special Voting Share	
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.

## NON MINING DEFINITIONS (continued)

Underlying earnings	An additional measure of earnings reported by Rio Tinto with its IFRS results to
	provide greater understanding of the underlying business performance of its
	operations. This measure is explained in greater detail in the financial statements
US dollars US GAAP	United States currency. Abbreviates to dollars, \$ or US\$ and US cents or USc
MINING AND TECHNICAL I	Generally accepted accounting principles in the United States
WINING AND TECHNICAL I	JEFINITIONS
Alumina	Aluminium oxide. It is extracted from bauxite in a chemical refining process and is subsequently the principal raw material in the electro-chemical 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 $(AL_2O_3, 2H_2O)$ . Principal ore of alumina, the raw material from which aluminium is made
Beneficiated bauxite	Bauxite ore that has been treated to remove waste material to improve its physical or chemical characteristics
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 electro-winning
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	<ul><li>The product of a physical concentration process, such as flotation or gravity concentration, which involves separating ore minerals from unwanted waste rock.</li><li>Concentrates require subsequent processing (such as smelting or leaching) to break down or dissolve the ore minerals and obtain the desired elements, usually metals</li></ul>
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
FOB	Free on board.
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
Ore	A rock from which a metal(s) or mineral(s) can be economically and legally extracted
Ore milled	The quantity of ore processed

**Pressure oxidation** 

A method of treating sulphide ores. In the case of refractory gold ores, the object is to oxidise the sulphides to sulphates and hence liberate the gold for subsequent cyanide leaching. The technique involves reaction of the ore with sulphuric acid under pressure in the presence of oxygen gas

#### MINING AND TECHNICAL DEFINITIONS (continued)

Probable ore reserves	Reserves for which quantity and grade and/or quality are computed from information similar to that used for proven reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation
Proven ore reserves	Reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established
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 $(TiO_2)$
Steam coal	Also referred to as steaming coal, thermal coal or energy coal. It is used as a fuel source in electrical power generation, cement manufacture and various industrial applications
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 electro-chemical process (electro-winning) 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 ( $ZrSiO_4$ )
CONVERSION OF WEIGHTS	· +
	1 troy ounce = $31.1$ grams

1 troy ounce = 31.1 grams
1 kilogram = 32.15 troy ounces
1 kilogram = 2.2046 pounds
1 metric tonne = 1,000 kilograms
1 metric tonne = 2,204.6 pounds
1 metric tonne = 1.1023 short tons
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					Australian dollars Year ended				
Year ended 31 December	Period end	Average rate	High	Low	31 December	Period end	Average rate	High	Low
2008	1.44	1.86	2.03	1.44	2008	0.698	0.852	0.983	0.607
2007	1.99	2.00	2.11	1.92	2007	0.878	0.839	0.937	0.772
2006	1.96	1.84	1.98	1.72	2006	0.788	0.753	0.791	0.706
2005	1.73	1.82	1.93	1.71	2005	0.734	0.763	0.799	0.727
2004	1.93	1.83	1.95	1.76	2004	0.783	0.737	0.798	0.686

#### Note

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. **FINANCIAL CALENDAR** 

15 January 2009	Fourth quarter 2008 operations review
12 February 2009	Announcement of results for 2008
18 February 2009	Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs quoted ex-dividend
	for 2008 final dividend
20 February 2009	Record date for 2008 final dividend for Rio Tinto plc shares and ADRs
24 February 2009	Record date for 2008 final dividend for Rio Tinto Limited shares
18 March 2009	Plan notice date for election under the dividend reinvestment plan for the 2008 final
	dividend
8 April 2009	Payment date for 2008 final dividend to holders of Ordinary shares
9 April 2009	Payment date for 2008 final dividend for holders of Rio Tinto plc ADR
15 April 2009	Annual general meeting for Rio Tinto plc
16 April 2009	First quarter 2009 operations review
20 April 2009	Annual general meeting for Rio Tinto Limited
16 July 2009	Second quarter 2009 operations review
25 August 2009	Announcement of half year results for 2009
2 September 2009	Rio Tinto plc and Rio Tinto Limited shares and Rio Tinto plc ADRs quoted ex-dividend
	for 2009 interim dividend
4 September 2009	Record date for 2009 interim dividend for Rio Tinto plc shares and ADRs
8 September 2009	Record date for 2009 interim dividend for Rio Tinto Limited shares
10 September 2009	Plan notice date for election under the dividend reinvestment plan for
	the 2009 interim dividend
1 October 2009	Payment date for 2009 interim dividend to holders of Ordinary shares
2 October 2009	Payment date for 2009 interim dividend for holders of Rio Tinto plc ADRs
14 October 2009	Third quarter 2009 operations review

January 2010 February 2010

Fourth quarter 2009 operations review Announcement of results for 2009

# **2008 Financial statements**

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# Group income statement

Years ended 31 December

	Note	2008 US\$m	2007 US\$m	2006 US\$m
Continuing operations				
Consolidated sales revenue		54,264	29,700	22,465
Net operating costs (excluding items shown separately)	3	(37,641)	(20,752)	(13,655)
Impairment charges net of reversals	5	(8,015)	(58)	396
Profit on disposal of interests in businesses	41	2,231	2	5
Exploration and evaluation costs	12	(1,134)	(574)	(283)
Profit on disposal of interests in undeveloped projects (a)	12	489	253	46
Operating profit		10,194	8,571	8,974
Share of profit after tax of equity accounted units	6	1,039	1,584	1,378
Profit before finance items and taxation		11,233	10,155	10,352
Finance items				
Net exchange (losses)/gains on external debt and intragroup				
balances	24	(176)	194	46
Net (losses)/gains on derivatives not qualifying for hedge		(172)	57	25
accounting Interest receivable and similar income	7	(173) 204	57 134	35 106
Interest payable and similar charges	7	(1,618)	(538)	(160)
Amortisation of discount	,	(1,010) (292)	(166)	(139)
		(2,055)	(319)	(112)
Profit before taxation		9,178	9,836	10,240
Taxation	8	(3,742)	(2,090)	(2,373)
Profit from continuing operations Discontinued operations		5,436	7,746	7,867
Loss after tax from discontinued operations	19	(827)		
Profit for the year		4,609	7,746	7,867
- attributable to outside equity shareholders		933	434	429
- attributable to equity shareholders of Rio Tinto (Net earnings)		3,676	7,312	7,438
Basic earnings/(loss) per share				
Profit from continuing operations	9	350.8c	568.7c	557.8c
Loss from discontinued operations	9	( <b>64.4</b> c)		
Profit for the year	9	286.4c	568.7c	557.8c

<b>Diluted earnings/(loss) per share</b> Profit from continuing operations Loss from discontinued operations	9 9	349.2c (64.1c)	566.3c	555.6c
Profit for the year	9	285.1c	566.3c	555.6c
Dividends paid during the year (US\$m) Dividends per share: paid during the year	10	1,933	1,507	2,573
-regular dividend -special dividend Dividends per share: proposed in the announcement of the results	10 10	152.0c	116.0c	81.5c 110.0c
for the year	10	68.0c	84.0c	64.0c
<ul> <li>(a) Gains arising on the disposal of interests in undeveloped projects are stated net of charges of US\$156 million (2007 and 2006: nil), related to such projects.</li> </ul>				

# Group cash flow statement

Years ended 31 December

	Note	2008 US\$m	2007 US\$m	2006 US\$m
<b>Cash flow from consolidated operations (a)</b> Dividends from equity accounted units		19,195 1,473	10,805 1,764	9,196 1,727
Cash flows from operations		20,668	12,569	10,923
Net interest paid Dividends paid to outside shareholders of subsidiaries Tax paid		(1,538) (348) (3,899)	(489) (168) (3,421)	(128) (193) (2,799)
Net cash generated from operating activities		14,883	8,491	7,803
Cash flows from investing activities Net disposals/(acquisitions) of subsidiaries, joint ventures & associates Purchase of property, plant & equipment and intangible assets Sales of financial assets Purchases of financial assets Other funding of equity accounted units Other investing cash flows	41	2,563 (8,574) 171 (288) (334) 281	(37,526) (5,000) 49 (273) (216) 224	(279) (3,992) 293 (167) (47) 103
Cash used in investing activities		(6,181)	(42,742)	(4,089)
Cash flows before financing activities		8,702	(34,251)	3,714
Cash flows from financing activities Equity dividends paid to Rio Tinto shareholders Own shares purchased from Rio Tinto shareholders Proceeds from issue of ordinary shares in Rio Tinto Proceeds from additional borrowings Repayment of borrowings Finance lease repayments Receipts from close out of interest rate swaps Other financing cash flows		(1,933) 23 4,697 (12,667) (10) 710 72	(1,507) (1,648) 37 39,195 (1,017) (17) 54	(2,573) (2,394) 55 483 (1,085) (17) 142
Cash (used in)/from financing activities		(9,108)	35,097	(5,389)
Effects of exchange rates on cash and cash equivalents		(101)	(27)	30
Net (decrease)/increase in cash and cash equivalents		(507)	819	(1,645)
Opening cash and cash equivalents less overdrafts		1,541	722	2,367

#### Edgar Filing: RIO TINTO LTD - Form 20-F Closing cash and cash equivalents less overdrafts 21 1,034 1,541 722 (a) Cash flows from consolidated operations Profit from continuing operations 5,436 7,746 7,867 Adjustments for: Taxation 8 2,090 2,373 3,742 2,055 Finance items 319 112 Share of profit after tax of equity accounted units 6 (1,039)(1,584)(1,378)Profit on disposal of interests in businesses 41 (2,231)(2)(5) Impairment charges/(reversals) 5 8,015 58 (396) Depreciation and amortisation 3,475 2,115 1,509 Provisions (including exchange gains on provisions) 27 265 308 60 Utilisation of provisions 27 (464) (194)(162)Utilisation of provision for post retirement benefits 27 (448) (121)(77)Change in inventories 130 (454)(1,178) Change in trade and other receivables 658 (394)(385)Change in trade and other payables 951 375 116 Other items 57 (42) (82)19,195 10,805 9,196

# Group balance sheet

At 31 December

	Note	2008 US\$m	Restated (a) 2007 US\$m
	Ivoie	US¢III	US¢III
Non-current assets			
Goodwill	11	14,296	21,105
Intangible assets	12	6,285	6,804
Property, plant and equipment	13	41,753	41,968
Investments in equity accounted units	14	5,053	5,744
Loans to equity accounted units	16	264	267
Inventories Trade and other receivables	16 17	166 1,111	178 1,784
Deferred tax assets	17 18	1,111 1,367	585
Tax recoverable	10	220	147
Other financial assets	20	666	578
		71,181	79,160
Current assets			
Inventories	16	5,607	5,397
Trade and other receivables	17	5,401	6,500
Assets held for sale	19	5,325	7,024
Loans to equity accounted units		251	117
Tax recoverable	20	406	206
Other financial assets	20 21	264 1 181	1,042 1,645
Cash and cash equivalents	21	1,181	1,045
		18,435	21,931
Current liabilities			
Bank overdrafts repayable on demand	21	(147)	(104)
Borrowings	22	( <b>9,887</b> ) (7,107)	(8,109)
Trade and other payables	25 19	(7 <b>,197</b> ) (2 <b>,121</b> )	(6,532)
Liabilities of disposal groups held for sale Other financial liabilities	19 26	(2,121) (480)	(2,632) (932)
Tax payable	20	(1,442)	(476)
Provisions	27	(826)	(766)
		(22,100)	(19,551)
Net current (liabilities)/assets		(3,665)	2,380
Non-current liabilities			
Borrowings	22	(29,724)	(38,656)
Trade and other payables	25	(452)	(487)
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Other financial liabilities Tax payable	26	(268) (450)	(496) (361)
Deferred tax liabilities	18	(4,054)	(4,912)
Provision for post retirement benefits	27	(3,601)	(3,233)
Other provisions	27	(6,506)	(7,102)
		(45,055)	(55,247)
Net assets		22,461	26,293
Capital and reserves			
Share capital			
- Rio Tinto plc	28	160	172
- Rio Tinto Limited (excluding Rio Tinto plc interest)	29	961	1,219
Share premium account	30	4,705	1,932
Other reserves	30	(2,322)	2,416
Retained earnings	30	17,134	19,033
Equity attributable to Rio Tinto shareholders	30	20,638	24,772
Attributable to outside equity shareholders	30	1,823	1,521
Total equity		22,461	26,293

(a) The 31 December 2007 balance sheet has been restated for the revisions to Alcan s fair value accounting which was finalised in 2008, and accordingly all balance sheet notes have been restated. See note 41.

# Group statement of recognised income and expense ( SORIE )

Years ended 31 December

		2008	
	Attributable		
	to		
	shareholders of Rio	Outside	
	Tinto	interests	Total
	US\$m	US\$m	US\$m
Currency translation adjustment	(4,943)	(411)	(5,354)
Cash flow hedge fair value gains	31	6	37
Losses on available for sale securities	(173)	(1)	(174)
Cash flow hedge losses transferred to the income statement	245	107	352
Gains on revaluation of available for sale securities transferred to the incom	ne		
statement	(1)		(1)
Actuarial losses on post retirement benefit plans	(1,299)	(20)	(1,319)
Tax recognised directly in equity	299	(36)	263
Net loss recognised directly in equity	(5,841)	(355)	(6,196)
Profit after tax for the year	3,676	933	4,609
Total recognised (loss)/income for the year	(2,165)	578	(1,587)
		2007	

	Attributable to		
	shareholders of Rio	Outside	
	Tinto US\$m	interests US\$m	Total US\$m
Currency translation adjustment	1,886	135	2,021
Cash flow hedge fair value losses Gains on available for sale securities	(201) 49	(223) 2	(424) 51
Cash flow hedge losses transferred to the income statement Gains on revaluation of available for sale securities transferred to the income	89	76	165
statement Actuarial gains on post retirement benefit plans	(16) 135	6	(16) 141
Tax recognised directly in equity	153	40	193
Net income recognised directly in equity Profit after tax for the year	2,095 7,312	36 434	2,131 7,746
Total recognised income for the year	9,407	470	9,877

2006

	Attributable		
	to		
	shareholders	Outside	
	of Rio		
	Tinto	interests	Total
	US\$m	US\$m	US\$m
Currency translation adjustment	824	42	866
Cash flow hedge fair value losses	(178)	(200)	(378)
Gains on available for sale securities	14	5	19
Cash flow hedge losses transferred to the income statement	63	74	137
Gains on revaluation of available for sale securities transferred to the income			
statement	(4)		(4)
Actuarial gains on post retirement benefit plans	338	35	373
Tax recognised directly in equity	19	83	102
Net income recognised directly in equity	1,076	39	1,115
Profit after tax for the year	7,438	429	7,867
Total recognised income for the year	8,514	468	8,982
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#### **Reconciliation with Australian IFRS**

The Group s financial statements have been prepared in accordance with IFRS as adopted by the European Union (EU IFRS), which differs in certain respects from the version of IFRS that is applicable in Australia (Australian IFRS).

#### Outline of dual listed companies structure and basis of financial statements

#### The Rio Tinto Group

These are the financial statements of the Rio Tinto Group (the Group ), formed through the merger of economic interests (merger) of Rio Tinto plc and Rio Tinto Limited, 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 International Financial Reporting Standards as adopted by the European Union ( EU IFRS ). The merger of economic interests of Rio Tinto plc and Rio Tinto Limited 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 balance sheet of the merged Group includes the assets and liabilities of Rio Tinto plc and Rio Tinto Limited at their carrying values prior to the merger, subject to adjustments to achieve uniformity of accounting policies, rather than at their fair values at the date of the merger. For accounting purposes Rio Tinto plc and Rio Tinto Limited are viewed as a single public parent company (with their respective public shareholders being the shareholders in that single

company). As a result the amounts attributable to both Rio Tinto plc and Rio Tinto Limited public shareholders are included in the amounts attributed to equity shareholders on the balance sheet, income statement and statement of recognised income and expense.

#### **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 27 January 2006 (as amended on 22 December 2006). The main provisions of the order are that the financial statements are:

- to be made out in accordance with IFRS as adopted by the European Union (  $\ EU$  IFRS  $\ );$  and

- to include a reconciliation from EU IFRS to the Australian equivalents of IFRS (see above).

For further details of the ASIC Class Order relief see page A-71.

# Notes to the 2008 Financial statements1PRINCIPAL ACCOUNTING POLICIES

#### **Corporate information**

The financial statements of the Group were authorised for issue in accordance with a directors resolution on 6 March 2009. The financial statements in the 20-F were authorised for issue by the board of directors on 2 April 2009. 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 5 Aldermanbury Square, London, EC2V 7HR, United Kingdom (registered number: 719885). 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 aluminium, copper, diamonds, coal, uranium, gold, industrial minerals (borax, titanium dioxide, salt, talc), and iron ore. 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 2008 are set out below.

The financial statements for the year ended 31 December 2008 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 periods ended 31 December 2008, and in accordance with applicable United Kingdom law, applicable Australian law as amended by the Australian Securities and Investments Commission Order dated 27 January 2006 (as amended on 22 December 2006) and Article 4 of the European Union IAS regulation.

IFRIC 11 (IFRS 2) Group and Treasury share transactions

*IFRIC 14 (IAS 19) The limit on a defined benefit asset, minimum funding requirements and their interaction.* 

The Group has early adopted IFRIC 14. The effect of adopting IFRIC 11 and IFRIC 14 is not material to Group earnings or to shareholders funds in the current or prior periods. Therefore, prior period information has not been restated.

*IFRIC 12 Service concession arrangements* is mandatory for 2008. Adoption would not be material to Group earnings or to shareholders funds in the current or prior periods.

The Group has not applied the following pronouncements: those which are expected to be most relevant to the Group are IFRS 8 and IAS 27 (revised).

*IFRS 8 Operating Segments* - mandatory for year 2009. The segmental information reported under the standard is that which the chief operating decision maker uses internally for evaluating the performance of operating segments and allocating resources to those segments.

IAS 1 Presentation of financial statements (revised) - mandatory for year 2009

IFRS 2 (Amendment) Share based payment - Vesting conditions and cancellations mandatory for year 2009

IFRIC 13 Customer Loyalty programmes - mandatory for year 2009

IFRIC 15 Agreements for the construction of real estate - mandatory for year 2009

IFRIC 16 Hedges of a net investment in a foreign operation - mandatory for year 2009

Amendment to IAS 32 and IAS 1 Puttable financial instruments and obligations arising on liquidation - mandatory for year 2009

*Improvements to IFRSs* This standard collates many minor changes to IFRS almost all of which are mandatory in 2009. The amendments most relevant to the Group relate to the classification of derivatives which are not hedges by maturity rather than as short term and the imputation of interest on government grants.

*IAS 27 (revised) Consolidated and separate financial statements* - mandatory for year 2010. 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.

IFRS 3 (Amendment) Business combinations - mandatory for year 2010

Amendments To IFRS 1 First-time Adoption of International Financial Reporting Standards and IAS 27 Consolidated and Separate Financial Statements - Cost of an investment in a subsidiary, jointly controlled entity or associate mandatory for year 2009

Eligible Hedged Items (an amendment to IAS 39 Financial Instruments: Recognition and Measurement) - mandatory for year 2010

IFRIC 17 Non cash distributions to owners - mandatory for year 2010

*IFRIC 18 Transfers of assets from customers* - mandatory for transfers of assets from customers on or after 1 July 2009.

The Group is evaluating the impact of the above pronouncements. The revision to IAS 27 would have a material effect on the income statement in 2009 if early adopted and if applied to the Chinalco strategic partnership. The Chinalco strategic partnership is subject to approval by the shareholders of Rio Tinto, governments and other regulators. The Group does not currently expect to early adopt the revision to IAS 27. Otherwise, the above changes are not expected to be material to the Group s earnings or to shareholders funds.

#### Notes to the 2008 Financial statements

#### **1 PRINCIPAL ACCOUNTING POLICIES CONTINUED**

#### Judgements in applying accounting policies and key sources of estimation uncertainty

Many of the amounts included in the financial statements involve the use of judgement and/or estimation. These judgements 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 judgements 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 judgement 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 A-6).
- Review of asset carrying values and impairment charges and reversals note 1(e) and (i), note 5 and note 11
- Revision of provisional fair values allocated on acquisition note 41
- 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)
- Capitalisation of exploration and evaluation costs -note 1(f)
- Identification of functional currencies note 1(d)
- The definition of Underlying earnings note 2

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
- Recoverability of potential deferred tax assets note 1 (m) and note 18 (d)
- Estimation of liabilities for post retirement costs note 49

#### (a) Accounting convention

The financial information included in the financial statements for the year ended 31 December 2008, and for the related comparative period, has been prepared under the historical cost convention, except for derivative financial instruments, available for sale investments and assets held for sale, which have been measured at fair value as 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. 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 intercompany transactions as noted above.

For partly owned subsidiaries, the net assets and net earnings attributable to outside shareholders are presented as Amounts attributable to outside equity shareholders in the consolidated balance sheet and consolidated 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 associate s results less any impairment of goodwill and any other changes to the associate s net assets such as dividends. 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, 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.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

#### Acquisitions

On the acquisition of a subsidiary, the purchase 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 twelve months of the acquisition date.

When part or all of the amount of purchase consideration is contingent on future events, the cost of the acquisition initially recorded includes a reasonable estimate of the fair value of the contingent amounts expected to be payable in the future. The cost of the acquisition is adjusted when revised estimates are made, with corresponding adjustments made to goodwill until the ultimate outcome is known.

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 and taken out of the financial statements from the date on which control, joint control or significant influence ceases.

#### 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 balance sheet with the related assets and liabilities being presented as a single asset and a single liability respectively. Comparative balance sheet 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.

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.

#### (c) Sales revenue

Sales revenue comprises sales to third parties at invoiced amounts, with most sales being priced ex works, free on board (f.o.b.) or cost, insurance and freight (c.i.f.). 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. Co product revenues are included in sales revenue.

- 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.

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 quotational period stipulated in the contract. For this purpose, the selling price can be measured reliably for those products, such as copper, for which there exists an active and freely traded commodity market such as the London Metals Exchange and the value of product sold by the Group is directly linked to the form in which it is traded on that market.

The marking to market of provisionally priced sales contracts is recorded as an adjustment to sales revenue.

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#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

#### (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. Monetary assets and liabilities denominated in foreign currencies are retranslated at year end exchange rates.

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. Balance sheet 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 recognised income and expense.

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.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

#### (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 prefeasibility 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 exploration 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 ore bodies, 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 intial 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.

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 ore bodies, rather than from a single ore body.
- 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. As this 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.

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. 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 preproduction 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.

If the Group were to expense production stage stripping costs as incurred, there would be greater volatility in the year to year results from operations and excess stripping costs would be expensed at an earlier stage of a mine s operation.

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.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

#### (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. 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

<i>Land and Buildings</i> Land Buildings	Not depreciated 5 to 50 years
<i>Plant and equipment</i> Other plant and equipment Power assets	3 to 35 years 25 to 100 years

Capital work in progress

Not depreciated

Residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet 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 ore body 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 ore body are depreciated over the estimated life of the ore body.

#### 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 normally 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 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, including that related to equity accounted units, and indefinite-lived intangible assets are reviewed for impairment annually or at any time during the year if an indicator of impairment is considered to exist. Goodwill acquired through business combinations is allocated to groups of cash-generating units that are expected to benefit from the related business combination. The 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 IAS 14 Segment Reporting .

When an impairment review is undertaken, 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) 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 discounted cash flow techniques, the resulting estimates are based on detailed 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 are based on best estimates of expected future revenues and costs, including the future cash costs of production, capital expenditure, close down, 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.

Where the recoverable amount of a cash generating unit is dependent on the life of its associated ore body, 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 ore body, 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 mine plan is therefore the basis for forecasting production output in each future year and for forecasting production costs.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

The Group s cash flow forecasts are based on estimates of future commodity prices, which assume market prices will revert to the Group s assessment of the long term average price, generally over a period of three to five years. These long term commodity prices, for most commodities, are derived from an analysis of the marginal costs of the producers of these commodities. These assessments often differ from current price levels and are updated periodically.

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 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.

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.

#### (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.

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.

#### (k) Provisions for close down and restoration and for environmental clean up costs

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Close down and restoration costs include the dismantling and demolition of infrastructure and the removal of residual materials and remediation of disturbed areas. 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.

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.

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.

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.

Where rehabilitation is conducted systematically over the life of the operation, rather than at the time of closure, provision is made for the estimated outstanding continuous rehabilitation work at each balance sheet date and the cost is charged to the income statement.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

Provision is made for the estimated present value of the costs of environmental clean up obligations outstanding at the balance sheet 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 unwind 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.

As noted above, the ultimate cost of environmental remediation 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. As a result there could be significant adjustments to the provision for close down and restoration and environmental clean up, which would affect future financial results.

#### (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 balance sheet date it is included within non current assets. Work in progress inventory includes ore stockpiles and other partly processed material. Quantities are assessed primarily through surveys and assays.

#### (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 balance sheet 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 balance sheet 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 unwind 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 more likely than not that they will be recovered. 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 balance sheet. 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 recognised income and expense. 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. 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.

The values attributed to plan liabilities 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.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

#### (o) Cash and cash equivalents

For the purposes of the balance sheet, cash and cash equivalents comprise cash on hand, deposits held on call with banks and short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value. 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 balance sheet.

#### (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 as current assets. 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 are non derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are classified as current assets or non current assets based on their maturity date. Loans and receivables comprise trade and other receivables , other financial assets and cash and cash equivalents in the balance sheet. 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 balance sheet 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 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 balance sheet date.

#### (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 above.

All other derivatives are initially recognised at their fair value on the date the derivative contract is entered into and are subsequently remeasured subject to IAS 39 at their fair value at each balance sheet 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.

#### Notes to the 2008 Financial statements

#### 1 PRINCIPAL ACCOUNTING POLICIES continued

*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 to the underlying asset or liability or firm commitment, the fair values of the derivative assets and liabilities are shown separately in the balance sheet 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 .

*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. 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 its remaining life. Derivatives that do not qualify for *hedge accounting:* Any derivative contracts that do not qualify for hedge accounting, are marked to market at the balance sheet date. In respect of currency swaps, the gain or loss on the swap and the 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 line net gains on derivatives not qualifying for hedge accounting . 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 (losses)/gains 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.

(i) 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.

(ii) The fair values of medium and long term borrowings is calculated as the present value of the estimated future cash flows using an appropriate market based yield curve. The carrying value of the borrowings is amortised cost.
(iii) 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. The full fair value of a derivative that qualifies for hedge accounting is classified as a non current asset or liability if the remaining maturity of the hedged item is more than 12 months, and as a current asset or liability, if the remaining maturity of the hedged item is less than 12 months.

#### (v) Impairment of financial assets

#### Available-for-sale financial assets

The group assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets is impaired. 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.

#### Notes to the 2008 Financial statements

# 1 PRINCIPAL ACCOUNTING POLICIES continued

# (vi) De-recognition of financial assets and liabilities

#### Financial assets

A financial asset is derecognised when its 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 de-recognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in the income statement.

#### (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.

#### (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 e.g. relative Total Shareholder Return (TSR) performance. Fair values are subsequently remeasured 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 buyback. 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 Total Shareholder Return). The Group uses fair values provided by independent actuaries calculated using a lattice based option valuation model.

Non market based versting conditions (e.g. 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.

Further information about the treatment of individual share based payment plans is provided in note 48.

#### (r) Contingencies

Contingent liabilities are not recognised in the financial statements but are disclosed by way of note unless their occurrence is remote.

Contingent assets are not recognised in the financial statement but they are disclosed by way of note if they are deemed probable.

#### (s) 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 Rio Tinto s equity shareholders. 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 equity shareholders.

## Notes to the 2008 Financial statements

#### 2 RECONCILIATION OF NET EARNINGS TO UNDERLYING EARNINGS

			OutsidDis	continued	Net	Net	Net
Exclusions from Underlying earnings	Pre-tax (h) 2008 US\$m	Taxation 2008 US\$m	interestøpe 2008 US\$m	rations(h) 2008 US\$m	amount 2008 US\$m	amount 2007 US\$m	amount 2006 US\$m
Profits less losses on disposal of interests in businesses (a) Net impairment charges (b) (note 5) Impairment of discontinued operations (b) Exchange differences and gains/(losses) on derivatives:	2,231 (8,030)	(761) 438	13	(827)	1,470 (7,579) (827)	1 (113)	3 44
<ul> <li>Exchange gains/(losses) on US dollar net debt and intragroup balances (c)</li> <li>(Losses)/gains on currency and interest rate derivatives not qualifying for hedge</li> </ul>	(140)	1,105	(5)		960	156	(14)
accounting (d), (e)	(24)	5	(3)		(22)	34	30
- Losses on commodity derivatives not qualifying for hedge accounting (f) Other exclusions (g)	(158) (678)	62 139	1 5		(95) (534)	(209)	37
Total excluded from Underlying earnings	(6,799)	988	11	(827)	(6,627)	(131)	100
Net earnings	9,178	(3,742)	(933)	(827)	3,676	7,312	7,438
Underlying earnings	15,977	(4,730)	(944)		10,303	7,443	7,338

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 Rio Tinto shareholders.

Items (a) to (g) below are excluded from Net earnings in arriving at Underlying earnings.

- (a) Gains arising on the disposal of interests in businesses relate principally to sale of the Cortez gold mine and the Greens Creek mine. Gains arising on the disposal of interests in undeveloped projects are not excluded from Underlying earnings.
- (b) Charges relating to impairment of goodwill and other non-current assets other than undeveloped projects but including discontinued operations (net amount US\$8,406 million).

2008 includes impairment charges of US\$15 million relating to equity accounted units (2007 and 2006: nil).

(c) Exchange gains and losses on US dollar debt and intragroup balances.

The tax on exchange gains and losses on external

debt and intragroup balances includes a benefit of US\$254 million through recovery of tax relating to prior years. It also includes tax relief for losses on US dollar denominated debt. The pre-tax loss is offset by gains on intragroup balances which are largely not subject to tax.

- (d) Valuation changes on currency and interest rate derivatives which are ineligible for hedge accounting, other than those embedded in commercial contracts.
- (e) 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) 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. These costs totalled US\$270 million (net of tax) in 2008 and have been excluded from Underlying earnings. Other charges excluded from Underlying earnings comprise costs relating to non-recurring acquisitions, disposals and similar corporate projects.

 (h) Exclusions from Underlying earnings relating to equity accounted units and discontinued operations are stated after tax.

# **3** NET OPERATING COSTS

		2008	2007	2006
	Note	US\$m	US\$m	US\$m
Raw materials and consumables		16,248	6,096	3,207
Amortisation of intangible assets	12	429	114	27
Depreciation of property, plant & equipment	13	3,046	2,001	1,482
Employment costs	4	6,603	3,827	2,459
Repairs and maintenance		1,960	1,393	1,257
Shipping costs		2,495	1,874	1,149
Other freight costs		815	509	333
(Increase)/decrease in finished goods and work in progress		(163)	110	(139)
Royalties		1,946	1,093	1,004
Amounts charged by jointly controlled entities mainly for				
toll processing		2,473	1,362	1,196
Net foreign exchange (gains)/losses		(379)	(45)	7
Other external costs		2,230	2,391	1,929
Provisions (including exchange gains on provisions)	27	265	308	60
Research and development		307	69	15
Costs included above qualifying for capitalisation		(259)	(78)	(69)
Other operating income		(375)	(272)	(262)
Net operating costs (excluding items shown separately)		37,641	20,752	13,655

Information on auditors remuneration is included in note 43.

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# Notes to the 2008 Financial statements

# 4 EMPLOYMENT COSTS

	Note	2008 US\$m	2007 US\$m	2006 US\$m
Employment costs				
- Wages and salaries		6,414	3,618	2,337
- Social security costs		113	106	83
- Net post retirement cost (a)	49	502	240	189
- Share option (credit)/charge (b)	48	(22)	220	32
		7,007	4,184	2,641
Less: charged within provisions		(404)	(357)	(182)
	3	6,603	3,827	2,459

- (a) Post retirement costs include the aggregate service and interest cost of providing post retirement benefits under defined benefit plans, net of the related expected return on plan assets. Additional detail of the amount charged to the income statement in respect of post retirement plans, and the treatment of
  - treatment of actuarial gains and losses, is shown in note 49.
- (b) Further details of the Group s share options and other share based payment

plans are given

#### in note 48.

#### 5 IMPAIRMENT (CHARGES) / REVERSALS

Cash generating unit	Pre-tax 2008 US\$m	Taxation 2008 US\$m	Outside interests 2008 US\$m	Net amount 2008 US\$m	Net amount 2007 US\$m	Net amount 2006 US\$m
Upstream Aluminium (a) Downstream Aluminium	(6,131)	4		(6,127)		
(excluding Packaging) (b)	(1,210)	230		(980)		
Hismelt (c)	(1,210) (254)	72		(182)		
Argyle Diamonds (d)	()			()	(328)	(289)
Palabora (e)					100	(2)
Tarong coal mine (f)					134	(152)
Kennecott Utah Copper (KUC)						
(g)						381
Iron Ore Company of Canada						
(IOC) (h)						111
Other	(420)	132	13	(275)	(19)	(5)
	(8,015)	438	13	(7,564)	(113)	44

- (a) Details of the impairment review relating to Upstream Aluminium are set out in note 11.
- (b) The annual review of the goodwill allocated to Downstream Aluminium (excluding Packaging) resulted in a pre-tax impairment charge of US\$1,210 million, of which US\$493 million was applied in writing off the attributed goodwill, and the balance to property, plant and equipment.

Downstream Aluminium is part of the Alcan group that was acquired in October 2007, and forms part of the Aluminium product group. It manufactures engineered or fabricated aluminum products and is also a full-service packaging supplier with a worldwide presence. The Group s intention is to sell Downstream Aluminium. As such, the recoverable amount has been estimated by reference to fair value less costs to sell. Such estimates were derived by applying multiples to forecasts of earnings for the Downstream Aluminium businesses. The multiples were derived from statistics relating to publicly traded companies in the various sectors in which the Downstream Aluminium businesses operate.

The main circumstances that

led to impairment were the adverse change in capital markets, making it difficult to fund acquisitions of companies generally; the global economic downturn and the adverse trading performance of Downstream Aluminium s operations. The specific details of the impairment review relating to Packaging are set out in note 19. (c) Full provision was made against the carrying value of the HIsmelt operation, which is within the Iron ore product group. Operations at the Kwinana plant have been suspended and the Group s future role in developing this technology is under review, leading to doubt about the recoverability of

(d) Large increases in the estimated capital cost of Argyle s underground project triggered an assessment of

the amount invested.

its recoverable amount during 2007. Impairment of property, plant and equipment was assessed by reference to fair value less costs to sell. The determination of fair value less costs to sell was based on the estimated amount that would be obtained from sale in an arm s length transaction between knowledgeable and willing parties. This estimate was derived from discounting projections of cash flows, using valuation assumptions that a buyer might be expected to apply. (e) An increase in the Group s long term copper price assumption triggered an assessment of the recoverable

Group s long term copper price assumption triggered an assessment of the recoverable amount of Palabora during 2007. The value in use was based on cash flows forecast in real terms and discounted at a pre-tax rate of 12 per cent. This led to a full reversal of the remainder of the impairment provision previously recognised.

 (f) An announcement of the sale of Tarong led to full reversal in 2007 of the remainder of the impairment provision previously recognised.

(g) In 2006, an increase in the Group s long term copper price assumption triggered an assessment of the recoverable amount of KUC. The value in use was based on cash flows forecast in relat terms and discounted at a pre-tax rate of 8 per cent. This led to a full reversal of the remainder of the impairment provision recognised in 2002.

(h) In 2006, an increase in the Group s long term iron ore price assumption triggered an assessment of the recoverable amount of IOC. The value in use was based on cash flows forecast in relat terms and discounted at a pre-tax rate of 8

per cent. This led to a full reversal of the impairment provision recognised in 2002, which had aligned the carrying value with the value negotiated between shareholders during that year as part of a financial restructuring exercise.

 (i) Total impairment charges in 2008 excluded from Underlying earnings includes impairment charges of US\$15 million relating to equity accounted units. (2007 and 2006: nil).

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### Notes to the 2008 Financial statements

# **6** SHARE OF PROFIT AFTER TAX OF EQUITY ACCOUNTED UNITS

	2008	2007	2006
	US\$m	US\$m	US\$m
Sales revenue (a)	3,801	3,818	2,975
Operating costs	(2,158)	(1,261)	(771)
Profit before finance items and taxation Exchange gains on net debt Losses on currency and interest rate derivatives not qualifying for hedge	1,643 37	2,557 7	2,204 3
accounting Net interest payable Amortisation of discount Share of profit after tax of equity accounted units	(19) (45) (17) 36	(5) (49) (9)	(45) (14)
Profit before taxation	1,635	2,501	2,148
Taxation	(596)	(917)	(770)
Profit for the year (Rio Tinto share)	1,039	1,584	1,378

- (a) The sales
  - revenue of equity accounted units excludes charges by jointly controlled entities to Group subsidiaries.

# 7 INTEREST RECEIVABLE AND PAYABLE

	Note	2008 US\$m	2007 US\$m	2006 US\$m
Interest receivable and similar income from:				
- Equity accounted units		43	28	27
- Other investments (a)		107	101	69
		150	129	96
Other interest receivable		54	5	10
Total interest receivable and similar income		204	134	106
Interest payable and similar charges (b) Amounts capitalised	13	(1,821) 203	(660) 122	(220) 60

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Total interest payable and similar charges		(1,618)	(538)	(160)
<ul> <li>(a) Interest income from other investments comprises US\$72 million (2007: US\$80 million; 2006: US\$58 million) of interest income from bank deposits and US\$35 million (2007: US\$21 million; 2006: US\$11 million) from other financial assets.</li> </ul>				
<ul> <li>(b) Interest payable and similar charges comprises US\$1,875 million (2007: US\$685 million; 2006: US\$175 million) of interest on bank loans and other borrowings and a US\$54 million gain (2007: US\$25 million gain; 2006: US\$45 million loss) from interest rate swaps.</li> <li>8 TAX ON PROFIT</li> </ul>				
	Note	2008 US\$m	2007 US\$m	2006 US\$m

UK taxation			
Corporation tax at 28% (2007 and 2006: 30%)			
- Current			14
- Deferred	(46)	(150)	27

			(46)	(150)	41
Australian taxation Corporation tax at 30%				1.000	
- Current - Deferred			3,005 (812)	1,396 (18)	1,517 (97)
			2,193	1,378	1,420
Other countries taxation - Current - Deferred			1,711 (116)	897 (35)	896 16
			1,595	862	912
<b>Total taxation charge</b> - Current - Deferred		18	4,716 (974)	2,293 (203)	2,427 (54)
			3,742	2,090	2,373
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#### Notes to the 2008 Financial statements 8 TAX ON PROFIT continued

Prima facie tax reconciliation	2008 US\$m	2007 US\$m	2006 US\$m
Profit before taxation	9,178	9,836	10,240
Deduct: share of profit after tax of equity accounted units	(1,039)	(1,584)	(1,378)
Parent companies and subsidiaries profit before tax	8,139	8,252	8,862
Prima facie tax payable at UK rate of 28% (2007 and 2006: 30%)	2,279	2,476	2,659
Higher rate of taxation on Australian earnings	226		
Impact of items excluded in arriving at Underlying earnings (c)	919	(28)	201
Additional recognition of deferred tax assets (a)			(335)
Utilisation of previously unrecognised deferred tax assets	(160)		(140)
Adjustments to deferred tax liabilities following changes in tax rates (b)	(25)	(392)	(46)
Other tax rates applicable outside the UK and Australia	206	271	242
Resource depletion and other depreciation allowances	(129)	(173)	(187)
Research, development and other investment allowances	(72)	(81)	(21)
Unrecognised current year operating losses	163	70	
Foreign exchange differences	197	11	1
Withholding taxes	95	46	32
Other items	43	(110)	(33)
Total taxation charge (c)	3,742	2,090	2,373

(a) The Additional recognition of deferred tax assets of US\$335 million in 2006 reflected improved prospects for future earnings from the Group s US operations.

# (b) The

Adjustments to deferred tax liabilities following changes in tax rates, totalling US\$392 million in 2007 resulted largely from a reduction in Canadian tax rates.

 (c) An analysis of the impact on the tax reconciliation of items excluded in arriving at Underlying earnings is given below:

	2008	2007	2006
	US\$m	US\$m	US\$m
Impairment charges Disposal of interests in businesses Exchange losses on external debt, intragroup balances and derivatives not	1,806 136	(1)	157
designated as hedges	(1,074)	(19)	55
Other exclusions	51	(8)	(11)
	919	(28)	201

(d) This tax

reconciliation relates to the parent companies, subsidiaries and proportionally consolidated units. The Group s share of profit of equity accounted units is net of tax charges of US\$596 million (2007: US\$917 million; 2006: US\$770 million).

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# Notes to the 2008 Financial statements

#### 9 EARNINGS/(LOSS) PER ORDINARY SHARE

	Earnings 2008 US\$m	Weighted average number of shares 2008 (millions)	Per share amount 2008 (cents)
Basic earnings per share attributable to ordinary shareholders of Rio Tinto continuing operations	4,503	1,283.5	350.8
Basic loss per share attributable to ordinary shareholders of Rio Tinto discontinued operations	(827)	1,283.5	(64.4)
Total basic earnings per share profit for the year (b)	3,676	1,283.5	286.4
Diluted earnings per share attributable to ordinary shareholders of Rio Tinto continuing operations	4,503	1,289.3	349.2
Diluted loss per share attributable to ordinary shareholders of Rio Tinto discontinued operations	(827)	1,289.3	(64.1)
Total diluted earnings per share profit for the year (c)	3,676	1,289.3	285.1
Underlying earnings per share attributable to ordinary shareholders			
(a) - Basic (b) - Diluted (c)	10,303 10,303	1,283.5 1,289.3	802.7 799.1
	Earnings 2007 US\$m	Weighted average number of shares 2007 (millions)	Per share amount 2007 (cents)
Basic earnings per share attributable to ordinary shareholders of Rio Tinto continuing operations	7,312	1,285.8	568.7

Basic loss per share attributable to ordinary shareholders of Rio discontinued operations Tinto

Total basic earnings per share profit for the year (b) ` 7,312 568.7 1,285.8

Diluted earnings per share attributable to ordinary shareholders of Rio Tinto continuing operations 7,312 1,291.3

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Diluted loss per share attributable to ordinary shareholders of Rio Tinto discontinued operations

Total diluted earnings per share profit for the year (c)	7,312	1,291.3	566.3
Underlying earnings per share attributable to ordinary shareholders (a) - Basic (b) - Diluted (c)	7,443 7,443	1,285.8 1,291.3	578.9 576.4

	Earnings 2006 US\$m	Weighted average number of shares 2006 (millions)	Per share amount 2006 (cents)
Basic earnings per share attributable to ordinary shareholders of Rio Tinto continuing operations	7,438	1,333.4	557.8
Basic loss per share attributable to ordinary shareholders of Rio Tinto discontinued operations			
Total basic earnings per share profit for the year (b)	7,438	1,333.4	557.8
Diluted earnings per share attributable to ordinary shareholders of Rio Tinto continuing operations	7,438	1,338.8	555.6
Diluted loss per share attributable to ordinary shareholders of Rio Tinto discontinued operations			
Total diluted earnings per share profit for the year (c)	7,438	1,338.8	555.6
Underlying earnings per share attributable to ordinary shareholders			
(a) - Basic (b)	7,338	1,333.4	550.3
- Diluted (c)	7,338	1,338.8	548.1
<ul> <li>(a) Underlying         earnings per         share is         calculated from         Underlying         earnings,         detailed</li> </ul>			

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information on which is given in note 2. (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 997.8 million (2007: 1,000.1 million; 2006: 1,047.7 million) plus the average number of Rio Tinto Limited shares outstanding not held by Rio Tinto plc of 285.7 million (2007 and 2006: 285.7 million). (c) For the purposes

of calculating diluted earnings per share, the effect of dilutive securities of 5.8 million shares in 2008 (2007: 5.5 million shares; 2006: 5.4 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 48.

#### Notes to the 2008 Financial statements 10 DIVIDENDS

	2008 US\$m	2007 US\$m	2006 US\$m
Rio Tinto plc previous year Final dividend paid	838	646	442
Rio Tinto plc previous year Special dividend paid			1,171
Rio Tinto plc Interim dividend paid	679	518	417
Rio Tinto Limited previous year Final dividend paid	228	198	118
Rio Tinto Limited previous year Special dividend paid			312
Rio Tinto Limited Interim dividend paid	188	145	113
Dividends paid during the year	1,933	1,507	2,573

	Dividends per share 2008	Dividends per share 2007	Dividends per share 2006
Rio Tinto plc previous year Final and Special (pence)	43.13p	32.63p	85.24p
Rio Tinto plc Interim (pence)	36.25p	25.59p	21.42p
Rio Tinto Limited previous year Final and Special fully franked at 30%		-	-
(Australian cents)	93.02c	82.84c	200.28c
Rio Tinto Limited Interim fully franked at 30% (Australian cents)	77.35c	60.69c	52.48c

	Number of shares 2008 (millions)	Number of shares 2007 (millions)	Number of shares 2006 (millions)
Rio Tinto plc previous year Final	997.7	1,007.3	1,063.9
Rio Tinto plc Interim	998.1	996.7	1,042.7
Rio Tinto Limited previous year Final fully franked at 30%	285.7	285.7	285.7
Rio Tinto Limited Interim fully franked at 30%	285.7	285.7	285.7

The dividends paid in 2008 are based on the following US cents per share amounts: 2007 final 84.0 cents, 2008 interim 68.0 cents (2007 dividends paid: 2006 final 64.0 cents, 2007 interim 52.0 cents; 2006 dividends paid: 2005 final 41.5 cents, 2006 special 110 cents, 2006 interim 40.0 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 68.0 cents per share on 12 February 2009. This is expected to result in payments of US\$872 million (Rio Tinto plc: US\$678 million, Rio Tinto Limited

US\$194 million). The dividends will be paid on 8 April 2009 to Rio Tinto plc shareholders on the register at the close of business on 20 February 2009 and to Rio Tinto Limited shareholders on the register at the close of business on 24 February 2009.

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 2009.

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 2008 (after deducting franking credits expected to be utilised on the 2008 final dividend declared), is US\$6,727 million.

#### 11 GOODWILL

		Restated
	2008	2007
Net book value	US\$m	US\$m
At 1 January	21,105	841
Adjustment on currency translation	(196)	114
Additions	8	20,150
Impairment charges	(6,621)	
At 31 December	14,296	21,105
- cost	21,123	21,366
- accumulated impairment	(6,827)	(261)
At 1 January		
- cost	21,366	1,077
- accumulated impairment	(261)	(236)
Impairment Tests for Goodwill		
At 31 December 2008, goodwill has been allocated as follows:		
Net book value		US\$m

Upstream Aluminium13,563Australian Iron Ore345Other388

#### 14,296

## **Upstream Aluminium**

The majority of the Group s goodwill has been allocated to cash-generating units within the Upstream Aluminium group of cash-generating units (Upstream Aluminium), which includes both Alcan and the aluminium activities previously owned by Rio Tinto, which are now managed as a single business.

A large component of Upstream Aluminium s carrying value relates to the former Alcan businesses purchased in 2007. Upstream aluminium s annual impairment review resulted in an impairment of US\$6,131 million (US\$6,127 million after taxation). All but a small portion of this impairment was attributed to goodwill. The recoverable amount has been assessed by reference to value in use as, in the current market environment, it is considered that fair value does not exceed value in use. The acquisition price of Alcan anticipated significant growth in smelter and refinery capacity; but, following the recent significant weakening in economic and market circumstances, many of these growth projects have been deferred. These deferrals, together with increases in input costs, have resulted in the impairment charge.

In arriving at value in use, a pre-tax discount rate of 8 per cent has been applied to the pre-tax cash flows expressed in real terms.

Value in use was determined by estimating cash flows for a period of ten 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 tenth year, incorporating an annual real term growth rate of one quarter of one percent. Upstream 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 industralisation will support demand for aluminium.

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#### Notes to the 2008 Financial statements

### 11 GOODWILL continued

The key assumptions to which the calculation of value in use for Upstream Aluminium is most sensitive are the long term aluminium price; the Canadian dollar, Australian dollar and Euro exchange rates against the US dollar; operating costs; discount rates; and the real term rate of growth incorporated in the terminal value. Cash flows for the periods included in the projections were translated into the functional currency at the spot exchange rates at the date of the assessment. Future selling prices and operating costs have been estimated in line with the policy in note 1(i). 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. The aluminium prices used in the value in use calculations are within the range of analysts consensus forecasts current around the date of the goodwill assessment. For the long term aluminium price, this range is from US\$2,000 per tonne to US\$2,925 per tonne, with an average of US\$2,420 per tonne in real terms. The operating cost levels included in the value in use assessment are calculated based on Upstream 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, two thirds of the capacity of Rio Tinto Alcan s aluminium production network is located in the first quartile of the industry cash cost curve, with another 20 per cent located in the second quartile. Upstream Aluminium s intention is to maintain and, where possible, improve its relative position on the industry cash cost curve.

As a result of the impairment charge, the carrying amount of goodwill allocated to Upstream Aluminium at the date of the goodwill impairment test is equal to its recoverable amount and, therefore, any unfavourable change in the value assigned to the key assumptions described above will result in further impairment charges. It is estimated that adverse changes in key assumptions would lead to the following decreases in value in use:

**US\$ millions** 

1% increase in discount rate applied to pre-tax cash flows	(4,600)
5% decrease in Aluminium price	(6,100)
5% weakening of US dollar	(2,800)
5% increase in operating costs	(5,400)
Decrease in terminal growth rate by one quarter of one percentage point	(900)

Each of the sensitivities above was determined assuming the relevant key assumption moved in isolation, except where modifying the Aluminium price directly affects the price assumption for certain input costs and that there is no mitigating action by management.

#### **Australian Iron Ore**

The recoverable amount of the goodwill relating to Australian Iron Ore has been assessed by reference to value in use. Valuations are based on cash flow projections that incorporate best estimates of selling prices, ore grades, production rates, future sustaining capital expenditure and production costs over the life of each mine. 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 each commodity. Forecasts of operating costs are based on detailed mine plans which take account of all relevant characteristics of the ore body.

Goodwill relating to Australian Iron Ore has been reviewed applying a discount rate of 6.5 per cent to the post-tax cash flows expressed in real terms. If assessed based on pre-tax cash flows expressed in real terms, the equivalent pre-tax discount rate would be around 9 per cent.

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 value in use, using assumptions consistent with those described above. In most cases, recoverable amounts were determined to be in excess of carrying value. Where this was not the case, impairment has been recognised and is presented as part of the Other section of the table in note 5. The amount of impairment is not significant, and there are no reasonably possible changes in key assumptions that would cause the remaining goodwill to be impaired by a significant amount.

## Notes to the 2008 Financial statements 12 INTANGIBLE ASSETS

Exploration	Trademarks, patented and non	Contract based	Other	
and	patented	intangible	intangible	
evaluation		assets		
<i>(a)</i>	technology	<i>(b)</i>	assets	Total
US\$m	US\$m	US\$m	US\$m	US\$m
152	568	5,500	584	6,804
(10)	(9)	(6)	(69)	(94)
			105	105
	(44)	(230)	(155)	(429)
	(57)	(69)	(3)	(129)
(9)	(14)	13	38	28
133	444	5,208	500	6,285
133	565 (121)	5,532 (324)	829 (329)	7,059 (774)
	and evaluation (a) US\$m 152 (10) (9) 133	$\begin{array}{c} patented\\ patented\\ and\\ non\\ and\\ patented\\ evaluation\\ (a)\\ technology\\ US$m\\ US$m\\ US$m\\ \end{array}$	$\begin{array}{c cccc} patented \\ exploration & and & based \\ non & \\ and & patented & intangible \\ evaluation & assets \\ (a) & technology & (b) \\ US$m & US$m & US$m \\ \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

		Trademarks, patented	Contract		
	Exploration	and non	based	Other	
	and evaluation	patented	intangible	intangible	Restated
	<i>(a)</i>	technology	assets	assets	Total
Year ended 31 December 2007	US\$m	US\$m	US\$m	US\$m	US\$m
Net book value					
At 1 January 2007	196			188	384
Adjustment on currency translation Acquisition of subsidiary (note 41)	9	12	7	22	50
(restated)	9	564	5,522	266	6,361
Expenditure during the year	194			209	403
Amortisation for the year		(8)	(28)	(78)	(114)
Impairment				(21)	(21)
Disposals, transfers and other movements	(256)		(1)	(2)	(259)
At 31 December 2007 (restated)	152	568	5,500	584	6,804
- cost	152	576	5,529	820	7,077
- accumulated amortisation		(8)	(29)	(236)	(273)

# At 1 January 2007

- cos - acc	t umulated amortisation	196	310 (122)	506 (122)
	Exploration and evaluation: useful life not determined until transferred to property, plant & equipment. See note 1(e) for useful lives relating to the other categories of intangible assets.			
	The Group acquired Alcan Inc. on 23 October 2007. Alcan Inc. benefits from certain intangible assets 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			

the amounts in the column of the above table entitled Contract based intangible assets . Intangible assets with indefinite lives were provisionally valued at acquisition based on the advice of expert valuation consultants and subsequently this valuation was finalised within twelve months of the acquisition date. The amounts in the table have been restated accordingly. The carrying values will be reviewed for impairment annually or at any time an indicator of impairment is considered to exist. They are reviewed for impairment as part of the cash-generating units to which they relate. The water rights have been allocated to cash generating units within Upstream Aluminium.

rights constitute the majority of In 2008, the recoverable amount of these cash-generating units was determined based on value in use, 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 2008, as the value in use 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:

200820072006US\$mUS\$mUS\$m

Cash expenditure in the year (a) (b) Changes in accruals (c) Amount capitalised during the year	440 205	576 (61) (194)	345 (36) (72)
Charge for the year	645	321	237
<ul> <li>(a) Exploration and evaluation costs are stated net of gains on disposal of interests in undeveloped projects totalling US\$489 million (2007: US\$253 million; 2006: US\$46 million).</li> </ul>			
<ul> <li>(b) Cash expenditure <ul> <li>is stated net of</li> <li>proceeds of</li> <li>US\$673 million</li> <li>(2007:</li> <li>US\$171 million;</li> <li>2006: US\$23</li> <li>million) on</li> <li>disposal of</li> <li>undeveloped</li> <li>projects.</li> </ul> </li> </ul>			
<ul> <li>(c) Changes in accruals includes impairment of undeveloped projects of US\$156 million (2007 and 2006: nil) and non-cash proceeds on disposal of undeveloped projects.</li> </ul>			
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# Notes to the 2008 Financial statements 13 PROPERTY, PLANT AND EQUIPMENT

	Mining	Land	Plant	Capital works	
	properties and leases	and	and	in	
	<i>(a)</i>	buildings	equipment	progress	Total
Year ended 31 December 2008	US\$m	US\$m	US\$m	US\$m	US\$m
Net book value					
At 1 January 2008 (restated)	7,131	5,384	23,955	5,498	41,968
Adjustment on currency translation	(1,075)	(374)	(2,787)	(1,050)	(5,286)
Capitalisation of additional closure costs					
(note 27)	380			13	393
Interest capitalised (b) (note 7)	13			190	203
Additions	234	296	1,861	6,581	8,972
Depreciation for the year	(517)	(336)	(2,178)	(15)	(3,046)
Impairment charges	(99)	(219)	(792)	(112)	(1,222)
Disposals		(16)	(64)	(15)	(95)
Disposal of subsidiaries	(48)	(4)	(56)	(6)	(114)
Transfers and other movements (c)	99	975	2,173	(3,267)	(20)
At 31 December 2008	6,118	5,706	22,112	7,817	41,753
- cost	9,496	7,894	35,140	8,091	60,621
- accumulated depreciation	(3,378)	(2,188)	(13,028)	(274)	(18,868)
Fixed assets held under finance leases (d)		21	19		40
Other fixed assets pledged as security (e)	20		1,400	7	1,427

	Mining	Land	Plant	Capital works	
	properties and leases	and	and	in	Restated
	<i>(a)</i>	buildings	equipment	progress	Total
Year ended 31 December 2007	US\$m	US\$m	US\$m	US\$m	US\$m
Net book value					
At 1 January 2007	6,127	2,540	10,839	2,701	22,207
Adjustment on currency translation	511	261	1,163	266	2,201
Capitalisation of additional closure costs					
(note 27)	284			9	293
Interest capitalised (b) (note 7)			91	31	122
Acquisition of subsidiary (note 41)					
(restated)	229	2,810	9,735	1,829	14,603
Additions	207	169	1,754	2,462	4,592
Depreciation for the year (a)	(496)	(191)	(1,314)		(2,001)

# Table of Contents

Impairment (charges)/reversals Disposals	(203) (12)	11 (33)	297 (38)	(189)	(84) (83)
Transfers and other movements (c)	484	(183)	1,428	(1,611)	118
At 31 December 2007 (restated)	7,131	5,384	23,955	5,498	41,968
- cost	10,911	7,347	36,265	5,858	60,381
- accumulated depreciation	(3,780)	(1,963)	(12,310)	(360)	(18,413)
At 1 January 2007					
- cost	9,166	4,454	21,553	2,835	38,008
- accumulated depreciation	(3,039)	(1,914)	(10,714)	(134)	(15,801)
Fixed assets held under finance leases (d)		30	42		72
Other fixed assets pledged as security (e)	31		1,792		1,823
(a) Mining properties include					

- deferred stripping costs of US\$820 million (2007: US\$718 million). Amortisation of deferred stripping costs of US\$35 million (2007: US\$34 million; 2006: US\$40 million) is included within Depreciation for the year .
- (b) 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 3.9% (2007 and 2006: 5%).
- (c) Transfers and other movements includes reclassifications between categories.
- (d) The finance leases under which these assets are held are disclosed in note 23.
- (e) Excludes assets held under finance leases. Fixed assets pledged as security

represent amounts pledged as collateral against US\$234 million (2007: US\$291 million) of loans, which are included in note 22.

(f) At 31 December 2008 the net balance sheet amount for land and buildings includes freehold US\$5,557 million (2007 restated:US\$5,216 million); long leasehold US\$76 million (2007: US\$163 million); and short leasehold US\$73 million (2007: US\$5 million).

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# Notes to the 2008 Financial statements 14 INVESTMENTS IN EQUITY ACCOUNTED UNITS

Summary balance sheet (Rio Tinto share)	2008 US\$m	Restated 2007 US\$m
Rio Tinto s share of assets		
Non current assets	7,733	8,168
Current assets	1,921	1,643
	9,654	9,811
Rio Tinto s share of liabilities		
Current liabilities	(1,551)	(1,154)
Non current liabilities	(3,050)	(2,913)
	(4,601)	(4,067)
Rio Tinto s share of net assets	5,053	5,744
(a) Further details of		
investments in		
jointly controlled		
entities and		
associates are set		
out in notes 38 and		
39.		
(b) At 31		
December 2008, the		
quoted value of the		
Group s share in		
associates having		
shares listed on		
recognized stock		
exchanges was US\$149 million		
(2007:		
US\$410 million).		
(c) Investments in		

 (c) Investments in equity accounted units at 31 December 2008 include goodwill of US\$1,582 million (2007 restated: US\$1,851 million).

# 15 NET DEBT OF EQUITY ACCOUNTED UNITS (EXCLUDING AMOUNTS DUE TO RIO TINTO)

	Rio Tinto percentage 2008 %	Rio Tinto share of net debt 2008 US\$m	Rio Tinto percentage 2007 %	Rio Tinto share of net debt 2007 US\$m
Jointly controlled entities				
Minera Escondida Limitada	30.0	427	30.0	285
Sohar Aluminium Company L.L.C.	20.0	336	20.0	205
Queensland Alumina Limited (QAL)	80.0	(13)	80.0	29
Halco Mining Inc.	45.0	28	45.0	39
Alcan Ningxia Aluminum Company Limited	50.0	45	50.0	39
Associates				
Tisand (Pty) Limited	49.0	50	49.0	100
Port Waratah Coal Services	27.6	184	27.6	150
Mineração Rio do Norte S.A.	12.5	29	12.5	23
Other equity accounted units		(93)		(157)
		993		713

(a) In accordance with IAS 28 and IAS 31, the Group includes its net investment in equity accounted units in its

> consolidated balance sheet. This investment is net of the Group s share of the net debt of such units, which is set out above.

- (b) Some of the debt of equity accounted units is subject to financial and general covenants.
- (c) US\$292 million of the debt shown

above is with recourse to Rio Tinto at 31 December 2008 (2007: US\$255 million). 16 INVENTORIES

		Restated
	2008	2007
	US\$m	US\$m
Raw materials and purchased components	1,100	1,078
Consumable stores	1,108	1,054
Work in progress	1,800	1,727
Finished goods and goods for resale	1,765	1,716
	5,773	5,575
Comprising:		
Expected to be used within one year	5,607	5,397
Expected to be used after more than one year	166	178
	5,773	5,575

Inventory write downs amounting to US\$280 million (2007: US\$4 million; 2006: US\$3 million) were recognised during the year.

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## Notes to the 2008 Financial statements 17 TRADE AND OTHER RECEIVABLES

			Restated	Restated
	Non		Non	
	current	Current	current	Current
	2008	2008	2007	2007
	US\$m	US\$m	US\$m	US\$m
Trade receivables		3,792		4,927
Provision for doubtful debts		(71)		(70)
Trade receivables net		3,721		4,857
Amounts due from equity accounted units		253		249
Other debtors	166	962	219	921
Pension surpluses (note 49)	137	23	674	31
Prepayment of tolling charges to jointly controlled				
entities (a)	435		555	
Other prepayments	373	442	336	442
	1,111	5,401	1,784	6,500

(a) Rio Tinto

Aluminium 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.

- (b) There is no material element of trade and other receivables that is interest bearing.
- (c) Due to their short term maturities, the fair value of trade and other

receivables approximates their carrying value.

As of 31 December 2008, trade and other receivables of US\$71 million (2007: US\$70 million) were impaired. The amount of impairment was US\$71 million (2007: US\$70 million). The majority of these receivables were over 90 days overdue.

As of 31 December 2008, trade and other receivables of US\$427 million (2007: US\$364 million) were past due but not impaired. The ageing of these receivables is as follows:

	2008 US\$m	2007 US\$m
less than 30 days overdue	242	270
between 30 and 60 days overdue	101	62
between 60 and 90 days overdue	40	29
greater than 90 days overdue	44	3

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. The provision for doubtful trade receivables increased by US\$1 million in 2008 (2007: US\$44 million), of which US\$7 million was from net increases in provisions charged within other external costs offset by US\$6 million from currency translation gains.

#### Notes to the 2008 Financial statements 18 DEFERRED TAXATION

	2008	Restated 2007
	US\$m	US\$m
At 1 January	4,327	2,114
Adjustment on currency translation	(287)	278
Deferred tax of acquired companies		2,380
Credited to the income statement	(974)	(203)
Credited to SORIE (a)	(205)	(203)
Other movements (b)	(174)	(39)
At 31 December	2,687	4,327
Comprising:		
- deferred tax liabilities (c)	4,054	4,912
- deferred tax assets (c)	(1,367)	(585)

Deferred tax balances for which there is a right of offset within the same jurisdiction are presented net on the face of the balance sheet as permitted by IAS 12. The closing deferred tax liabilities and assets, prior to this offsetting of balances, are shown below.

	UK tax US\$m	Australian tax US\$m	Other countries tax US\$m	Total 2008 US\$m	Restated Total 2007 US\$m
Deferred tax liabilities arising from:					
Accelerated capital allowances	105	1,337	5,026	6,468	6,982
Post retirement benefits	28	1		29	151
Unremitted earnings		1	339	340	513
Unrealised exchange losses		478	15	493	373
Other temporary differences		161		161	19
	133	1,978	5,380	7,491	8,038
Deferred tax assets arising from:					
Capital allowances		(79)	(123)	(202)	
Provisions	(3)	(293)	(1,172)	(1,468)	(1,795)
Post retirement benefits	(68)	(52)	(1,009)	(1,129)	(939)
Tax losses	(246)	(160)	(493)	<b>(899</b> )	(868)
Unrealised exchange losses		(1,064)	(12)	(1,076)	(76)
Other temporary differences	(5)		(25)	(30)	(33)
	(322)	(1,648)	(2,834)	(4,804)	(3,711)

(Credited)/charged to the income					
statement					
(Decelerated)/accelerated capital					
allowances	7	22	(161)	(132)	(92)
Provisions	17	33	153	203	(219)
Post retirement benefits	22	4	74	100	59
Tax losses	(90)	(13)	123	20	(105)
Tax on unremitted earnings		(3)	25	22	34
Unrealised exchange losses		(823)	(216)	(1,039)	(40)
Other temporary differences	(2)	(32)	(114)	(148)	160
	(46)	(812)	(116)	(974)	(203)

- (a) The amounts credited directly to the SORIE 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) Other movements include deferred tax recognised by subsidiary holding companies that is presented in these accounts as part of the tax charge on the profits of the equity accounted unit to which it relates.
- (c) The deferred tax liability of US\$4,054 million (2007 restated: US\$4,912 million) includes US\$3,866 million (2007 restated: US\$4,664 million) due in more than one year. The deferred tax asset of US\$1,367 million (2007: US\$585 million) includes US\$594 million (2007: US\$240 million) receivable in more than one year.
- (d) US\$1,311 million (2007 restated: US\$809 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\$32 million of these potential assets (2007: nil). US\$1,067 million (2007: US\$681 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.
- (e) Deferred tax is not recognised on the unremitted earnings of overseas 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\$1,130 million (2007: US\$1,921 million) would be payable.
- (f) There is a limited time period for the recovery of US\$187 million (2007:US\$62 million ) of tax losses which have been recognised as deferred tax assets in the financial statements.

# Notes to the 2008 Financial statements

# **19 ASSETS HELD FOR SALE**

At 31 December 2008, assets and liabilities held for sale comprise Alcan s Packaging group (Packaging). In the announcement of Rio Tinto s offer for Alcan on 12 July 2007, it was stated that Rio Tinto and Alcan had agreed to divest Packaging. As Packaging was acquired with a view to resale, its results are excluded from the Group s income from continuing operations.

An impairment of US\$827 million relating to Packaging has been recognised within discontinued operations on the Group income statement. As required by *IFRS 5 Non-current Assets Held-for-Sale and Discontinued Operations*, the amount of this impairment was determined by reference to Packaging s fair value less costs to sell. The main circumstances that led to the impairment were:

- The adverse change in capital markets, which made it difficult for potential buyers to fund acquisitions of companies like Packaging.
- The global economic downturn.

- The adverse trading performance of companies in Packaging s markets.

Packaging s fair value less costs to sell represents the Group s best estimate of the expected proceeds to be realised on sale of Packaging, less an estimate of remaining costs to sell. This estimate is consistent with estimates of fair value less costs to sell, which were determined using the Income Approach and the Market Approach valuation techniques.

The Income Approach provided an estimation of Packaging s fair value based on the cash flows it is expected to generate in the future. A discount rate of 9 per cent was applied to Packaging s post-tax cash flows expressed in nominal terms.

Under the Market Approach, an estimate of Packaging s fair value was determined based on a comparison of Packaging to comparable publicly traded companies and transactions in its industry.

Packaging s impairment reduced the Assets held for sale line of the Group s balance sheet. OTHER FINANCIAL ASSETS

#### Restated Restated Non Non current Current Current current 2008 2008 2007 2007 US\$m US\$m US\$m US\$m Currency and commodity contracts: designated as 38 hedges 60 34 100 Derivatives and embedded derivatives not related to net debt: not designated as hedges (a) 87 480 Derivatives related to net debt 3 39 US Treasury bonds 21 Equity shares and quoted funds 150 111 53 321 Other investments, including loans 478 96 2 467 Other liquid resources (non cash equivalent) 4 6

20

Edgar Filing: RIO TINTO	D LTD - Form	1 20-F		
	666	264	578	1,042
(a) Derivatives and embedded derivatives not designated as he US\$117 million) which mature beyond one year.	edges include	amounts of US	5\$21 million (200	)7:
Detailed information relating to other financial assets is gi 21 CASH AND CASH EQUIVALENTS	ven in note 34			
			2008	2007
			US\$m	US\$m
Cash at bank and in hand			629	579
Short term bank deposits			552	1,066
			1,181	1,645
Bank overdrafts repayable on demand (unsecured)			(147)	(104)
Balance per Group cash flow statement			1,034	1,541
(a) Cash and cash equivalents include US\$97 million (2007	: US\$93 milli	on) for which	there are restriction	ons on

(a) Cash and cash equivalents include US\$97 million (2007: US\$93 million) for which there are restrictions on remittances.

#### Notes to the 2008 Financial statements 22 BORROWINGS

Borrowings at 31 December	Note	Non-current 2008 US\$m	Current 2008 US\$m	Restated Non-current 2007 US\$m	Current 2007 US\$m
Syndicated bank loans (a)		19,050	8,846	33,263	4,466
Other bank loans			582	97	1,749
Commercial paper			90		644
Other loans					
Finance leases	23	61	28	104	19
Rio Tinto Finance (USA) Limited Bonds 2.625% 2008 (d)(f)					596
Rio Tinto Finance (USA) Limited Bonds 7.125% 2013 (f)		100		100	
Rio Tinto Finance (USA) Limited Bonds 5.875% 2013 (f)		2,664			
Rio Tinto Finance (USA) Limited Bonds 6.5% 2018 (f)		1,953			
Rio Tinto Finance (USA) Limited Bonds 7.125% 2028 (f)		912	0	22	0
Colowyo Coal Company L.P. Bonds 9.56% 2011		23	9	32	8
Colowyo Coal Company L.P. Bonds 10.19% 2016		100		100	• • •
Alcan Inc. Debentures 6.25% due 2008		44.0		41.5	203
Alcan Inc. Debentures 6.45% due 2011		410		415	
Alcan Inc. Global Notes $4.875\%$ due $2012$ ( <i>d</i> )		497		489	
Alcan Inc. Global Notes 4.50% due 2013		481		476	
Alcan Inc. Global Notes 5.20% due 2014		493		492	
Alcan Inc. Global Notes $5.00\%$ due $2015$ ( <i>d</i> )		496		479	
Alcan Inc. Debentures 7.25% due 2028		109		110	
Alcan Inc. Debentures 7.25% due 2031		439		441	
Alcan Inc. Global Notes 6.125% due 2033		737		736	
Alcan Inc. Global Notes 5.75% due 2035		281		280	-
European Medium Term Notes (c)		<b>295</b>	40	384	76
Other secured loans		310	10	346	27
Other unsecured loans		313	322	312	321
Total borrowings		29,724	9,887	38,656	8,109

(a) In support of its acquisition of Alcan Inc., the Group arranged for US\$40 billion in term loans and revolving credit facilities, which were fully underwritten and subsequently syndicated (the Syndicated bank loans ). The Syndicated bank loans are divided into four facilities, as follows:

	Facility A (b)	Facility B	Facility C	Facility D
Facility amount (US\$ billions)	15	10	5	10
Туре	Term Loan	Revolving	Revolving	Term Loan
Due				

	October 2009	October	October	December
	(b)	2010	2012	2012
Repayment	Bullet	Bullet	Bullet	Bullet
Undrawn facilities (US\$ billions)				
At 31 December 2008		0.9	5	
At 31 December 2007			2	

The amounts outstanding under these facilities are shown net of the unamortised costs of obtaining the facilities. In addition, there is US\$2.2 billion of unused committed bilateral banking facilities.

Facilities A and B are subject to mandatory prepayment and cancellation to the extent of the net proceeds from disposals of assets and from the raising of funds through equity or capital markets, subject to specific thresholds and conditions. Any such net proceeds must first be applied in prepayment of the amounts outstanding under Facility A. The net proceeds must then be applied in cancellation of any undrawn amount under Facility B, and finally in prepayment of any amounts outstanding under Facility B.

The main financial covenant to which the Group is subject is the covenant contained in the Alcan facilities which requires it to maintain a ratio of net borrowings to EBITDA of no greater than 4.5 times. A compliance certificate must be produced for this ratio on a semi annual basis. In addition, the Facility Agreement contains restrictions on the Group, including that it be required to observe certain customary covenants including but not limited to (i) maintenance of authorisations; (ii) compliance with laws; (iii) change of business; (iv) negative pledge (subject to certain carve outs); (v) environmental laws and licences; and (vi) subsidiaries incurring financial indebtedness.

- (b) The original maturity of Facility A was October 2008, with an option for the Group to extend up until October 2009. The Group has exercised this option.
- (c) Rio Tinto has a US\$10 billion (2007: US\$10 billion) European Medium Term Note (EMTN) programme for the issuance of debt, of which approximately US\$0.3 billion was drawn down at 31 December 2008 (2007: US\$0.4 billion). The Group s EMTNs are swapped to US dollars. The fair value of currency swaps at 31 December 2008 was a US\$99 million liability (2007: US\$7 million liability). Details of the major currency swaps are shown in note 34(d). At 31 December 2007, other EMTNs of US\$31 million related to Alcan Inc.
- (d) As at 31 December 2008 none of the fixed rate borrowings shown were swapped to floating rates (2007: US\$1.2 billion). At 31 December 2007 the fair value of the interest rate swaps was a gain of US\$31million.
- (e) The Group s borrowings of US\$39.6 billion (2007 restated: US\$46.8 billion) include some US\$4.6 billion (2007: US\$4.7 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 2008.
- (f) Rio Tinto Finance (USA) is a wholly owned subsidiary of Rio Tinto Limited and the bonds issued by it have been fully and unconditionally guaranteed by Rio Tinto plc and Rio Tinto Limited.

#### 23 CAPITALISED FINANCE LEASES

	2008 US\$m	2007 US\$m
<b>Present value of minimum lease payments</b> Total minimum lease payments	97	129
Effect of discounting	(8)	(6)

	89	123
Payments under capitalised finance leases		
Due within one year	28	19
Between 1 year and 5 years	21	67
More than 5 years	40	37
	89	123
A 21		

#### Notes to the 2008 Financial statements 24 CONSOLIDATED NET DEBT

		Restated
	Net Debt	Net Debt
	2008	2007
	US\$m	US\$m
Analysis of changes in consolidated net debt		
At 1 January	(45,191)	(2,437)
Adjustment on currency translation	1,296	(223)
Exchange (losses)/gains (charged)/credited to the income statement (a)	(1,701)	136
Gains on derivatives related to net debt	105	11
Debt of acquired companies		(5,504)
Cash movements excluding exchange movements	6,864	(37,332)
Other movements	(45)	158
At 31 December	(38,672)	(45,191)
Reconciliation to balance sheet categories		
Borrowings (note 22)	(39,611)	(46,765)
Bank overdrafts repayable on demand (note 21)	(147)	(104)
Cash and cash equivalents (note 21)	1,181	1,645
Other liquid resources (note 20)	4	6
Derivatives related to net debt (note 34)	(99)	27
	(38,672)	(45,191)
	2008	2007
	2008 US\$m	2007 US\$m
	US¢m	USφIII
Exchange (losses)/gains on US dollar net debt and intragroup balances		
Exchange (losses)/gains on US dollar net debt (a)	(1,675)	163
Exchange gains on intragroup balances	1,523	11
Exchange losses on loans from equity accounted units	(36)	(2)
Exchange gains on settlement of dividends	12	22
(Charged)/credited to income statement	(176)	194

(a) Exchange (losses)/gains that have been (charged)/credited 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 on Financial Instruments.

25 TRADE AND OTHER PAYABLES

Restated Restated

	Non current 2008 US\$m	Current 2008 US\$m	Non current 2007 US\$m	Current 2007 US\$m
Trade creditors		2,875		3,145
Amounts owed to equity accounted units	11	269		219
Other creditors (a)	243	641	176	575
Employee entitlements		770		915
Royalties and mining taxes		471		325
Accruals and deferred income	79	2,130	110	1,346
Government grants deferred	119	41	201	7
	452	7,197	487	6,532

(a) Other creditors include deferred consideration of US\$318 million (2007: US\$209 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.

(b) Due to their short term maturities, the fair value of trade and other payables approximates to their carrying value.
 26 OTHER FINANCIAL LIABILITIES

#### Restated Non Non current Current Current current 2008 2008 2007 2007 US\$m US\$m US\$m US\$m 490 Forward commodity contracts: designated as hedges 173 84 283 Derivatives related to net debt 95 4 6 9 Other derivatives and embedded derivatives: not designated as hedges 355 591 Other financial liabilities 37 49 268 **480** 496 932

Detailed information relating to other financial liabilities is given in note 34.

#### Notes to the 2008 Financial statements 27 PROVISIONS (NOT INCLUDING TAXATION)

	Pensions and post retirement healthcare	Other employee entitlements	Close down and restoration/ environmental	Other	Total 2008	Restated Total 2007
	(a) US\$m	(b) US\$m	(c), (d), (e) US\$m	(f) US\$m	2008 US\$m	2007 US\$m
At 1 January Adjustment on currency	3,313	749	6,228	811	11,101	4,668
translation Amounts capitalised Acquisition of subsidiary	(262)	(118)	(553) 393	(26)	(959) 393	320 293
(note 41) Disposal of subsidiary Charged/(credited) to profit:	(5)	4	(25)	(16)	(42)	5,721
<ul> <li>new provisions</li> <li>increases to existing</li> </ul>		33	2	18	53	19
provisions - unused amounts reversed	306	176 (111)	80 (36)	67 3	629 (144)	498 (209)
<ul> <li>exchange gains on provisions</li> <li>Amortisation of discount</li> <li>Utilised in year</li> <li>Transfer to liabilities of</li> <li>disposal groups held for</li> </ul>	(448)	(5) 1 (187)	(240) 292 (130)	(28) 4 (147)	(273) 297 (912)	166 (283)
sale Liability incurred as a result of acquisition						(136) 189
Actuarial losses/(gains) recognised in equity Transfers and other	809				809	(87)
movements		(19)			(19)	(58)
At 31 December	3,713	523	6,011	686	10,933	11,101
<b>Balance sheet analysis:</b> Current Non current	112 3,601	298 225	235 5,776	181 505	826 10,107	766 10,335
Total	3,713	523	6,011	686	10,933	11,101

(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 49.

- (b) The provision for other employee entitlements includes a provision for long service leave of US\$142 million (2007:US\$107 million), based on the relevant entitlements in certain Group operations. It also includes the provisions relating to the Group s cash-settled share-based payment plans of US\$43 million (2007: US\$219 million), which are described in note 48.
- (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 1 to over 50 years with an average, weighted by closure provision, of around 18 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\$6,011 million (2007 restated: US\$6,228 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 five 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\$8.2 billion (2007: US\$8.1 billion).
- (d) Some US\$495 million (2007: US\$214 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) In 1995, Kennecott Utah Copper (KUC) agreed with the US Environmental Protection Agency (EPA) and the State of Utah to complete certain source control projects and perform specific environmental studies regarding contamination of ground water in the vicinity of the Bingham Canyon mine. A remedial investigation and feasibility study on the South Zone ground water contamination, completed in March 1998, identified a range of alternative measures to address this issue. Additional studies were conducted to refine the workable alternatives. A remedial design document was completed in 2002. A joint proposal and related agreements with the State of Utah Natural Resource Damage Trustee, the State of Utah and the Jordan Valley Water Conservancy District were approved in 2004. KUC entered into a formal agreement with the EPA in 2007 on the remedial action. 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 cleanup is adequately initiated and financial assurance is in place to assure completion of the work.

The provision was reduced by US\$101 million in 2007 following a reassessment of the expected cost of remediation and the expected timing of the expenditure to reflect recent experience. The ultimate cost of remediation remains uncertain, being dependent on the responsiveness of the contamination to pumping and acid neutralisation.

(f) Other provisions deal with a variety of issues and include US\$103 million (2007 restated: US\$163 million) relating to the Rio Tinto Alcan Foundation commitment in Canada, involving payments of C\$200 million over a five year period.

#### Notes to the 2008 Financial statements 28 SHARE CAPITAL RIO TINTO PLC

	2008 Number	2007 Number	2006 Number	2008	2007	2006
	(m)	(m)	(m)	US\$m	US\$m	US\$m
<b>Issued and fully paid up share capital</b> At 1 January Ordinary shares issued (a) Own shares purchased and cancelled (b)	1,071.80 0.18 (67.88)	1,071.49 0.31	1,071.02 1.27 (0.80)	172 (12)	172	172
At 31 December	1,004.10	1,071.80	1,071.49	160	172	172
<ul> <li>Special Voting Share of 10p (d)</li> <li>DLC Dividend Share of 10p (d)</li> <li>shares repurchased and held in treasury (b)</li> <li>shares held by public</li> </ul>	1 only 1 only 5.91 998.19	1 only 1 only 74.55 997.25	1 only 1 only 47.82 1,023.67			
Shares held by public						
At 1 January Ordinary shares issued (a) Own shares purchased and cancelled (b) Shares reissued from treasury (b) Shares repurchased and held in treasury	997.25 0.18 0.76	1,023.67 0.31 0.97 (27.70)	1,068.42 1.27 (0.80) 1.12 (46.34)			
At 31 December	998.19	997.25	1,023.67			
<b>Unissued share capital</b> Ordinary shares of 10p each Equalisation Share of 10p (d)	417.13 1 only	349.43 1 only	349.74 1 only	63	51	51
Total authorised share capital	1,421.23	1,421.23	1,421.23	223	223	223
<ul> <li>(a) 183,714 Ordinary shares were issued, and 763,919 Ordinary shares reissued from treasury during the year resulting from the exercise of options under Rio Tinto plc employee share based</li> </ul>						

payment plans with exercise prices between £8.09p and £35.57p per share (2007: 1,280,893 shares issued with exercise prices between £8.09p and £27.99p per share; 2006: 2,382,591 shares issued at prices between £8.09p and £19.25p). (b) At the 2007 annual general meeting, the shareholders

renewed the general authority for the Company to buy back up to ten per cent of its Ordinary shares of 10p each for a further period of 12 months. The share buyback programme was suspended on 12 July 2007 at the time the Alcan offer was announced. This authority was renewed at the 2008 annual general meeting. During the year to 31 December 2008, no shares were bought back and held in treasury (2007: 27,700,000 shares at an average buy back price of £30.05p per share; 2006: 46,340,000 shares at an average buy back price of £27.27 per share). No shares were cancelled during

the year ended 31 December 2008 (2007: none; 2006: 800,000 shares bought back at an average buy back price of £27.36 and cancelled). The total consideration paid in 2007 was US\$1,648 million (2006: US\$2,394 million). 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 new shares issued during 2008 was US\$6 million

(2007: US\$13 million; 2006: US\$31 million). The aggregate consideration received for treasury shares reissued was US\$25 million (2007: US\$24 million; 2006: US\$24 million). (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. (e) Information relating to share options and other share based incentive schemes is given in note 48

on share based payments.

#### 29 SHARE CAPITAL RIO TINTO LIMITED

2008	2007	2006	2008 US\$m	2007 US\$m	2006 US\$m

	Number (m)	Number (m)	Number (m)			
<b>Issued and fully paid up share capital</b> At 1 January Adjustment on currency translation	285.75	285.75	285.75	1,219 (258)	1,099 120	1019 80
At 31 December	285.75	285.75	285.75	961	1,219	1,099
<ul> <li>Share capital held by Rio Tinto plc</li> <li>Special Voting Share of 10p (c)</li> <li>DLC Dividend Share of 10p (c)</li> </ul>	171.07 1 only 1 only	171.07 1 only 1 only	171.07 1 only 1 only			
Total share capital (c)	456.82	456.82	456.82			

- (a) The share buyback programme was suspended on 12 July 2007 at the time the Alcan acquisition was announced. This authority was renewed at the 2008 annual general meeting. No shares were bought back during the year to 31 December 2008 (2007 and 2006: nil). (b) No new shares were issued during 2008 (2007 and 2006: nil).
- (c) 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. (d) Share options exercised during

exercised during the year to 31 December 2008 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.

(e) Information relating to share options and other share based incentive schemes is given in note 48 on share based payments.

# Notes to the 2008 Financial statements30 CHANGES IN EQUITY, SHARE PREMIUM AND RESERVES

	Year end	led 31 Decem	ıber 2008	Year end	led 31 Decen	Restated aber 2007
Att	tributable		Att	ributable		
	to			to		
sha	reholders	Outside	sha	reholders	Outside	
	of Rio	_		of Rio	_	
	Tinto	Interests	Total	Tinto	Interests	Total
Summary statement of changes in equity	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
Opening balance	24,772	1,521	26,293	18,232	1,153	19,385
Total recognised (loss)/income for the year	(2,165)	578	(1,587)	9,407	470	9,877
Dividends (note 10)	(1,933)	(348)	(2,281)	(1,507)	(164)	(1,671)
Own shares purchased from Rio Tinto						
shareholders:						
- Under capital management programme				(1,372)		(1,372)
- To satisfy share options	(128)		(128)	(64)		(64)
Ordinary shares issued	31		31	37		37
Outside interests in acquired companies					24	24
Shares issued to outside interests		72	72		38	38
Employee share options charged to income						
statement	61		61	39		39
Closing balance	20,638	1,823	22,461	24,772	1,521	26,293

Year ended 31 December 2006

	Attributable		
	to		
	shareholders	Outside	
	of Rio		
	Tinto	Interests	Total
Summary statement of changes in equity	US\$m	US\$m	US\$m
Opening balance	14,948	791	15,739
Total recognised income for the year	8,514	468	8,982
Dividends (note 10)	(2,573)	(193)	(2,766)
Own shares purchased from Rio Tinto shareholders:			
- Under capital management programme (a)	(2,658)		(2,658)
- To satisfy share options	(49)		(49)
Ordinary shares issued	31		31
Shares issued to outside interests		69	69
Employee share options charged to income statement	23		23
Other movements	(4)	18	14

18,232

1,153

19,385

#### **Closing balance**

(a) The charge to equity for shares bought back in 2006 included US\$288 million in respect of a commitment entered into before the financial year end to purchase, from a bank, Rio Tinto plc shares that the bank could buy in the market during the period up to the preliminary announcement of the Group s results. The commitment was settled during 2007.

US\$m         US\$m         US\$m           Share premium account         1,932         1,919         1,888	
•	
•	
1,000 1,010 1,000	
Premium on issues of ordinary shares <b>6</b> 13 31	
Premium on issue of own shares held in treasury, subsequently	
repurchased and cancelled 2,767	
At 31 December       4,705       1,932       1,919	
Retained earnings (a)	
At 1 January <b>19,033</b> 14,401 11,893	
Parent and subsidiariesprofit for the year <b>3,879</b> 7,0587,440	
Equity accounted units retained (loss)/profit for the year (203) 254 (2)	)
Actuarial (losses)/gains (1,299) 135 338	
Dividends (1,933) (1,507) (2,573)	)
Own shares purchased from Rio Tinto shareholders under capital	
management programme (1,372) (2,658)	)
Employee share options charged to income statement341912	
Own shares purchased and cancelled (2,767)	
Tax recognised directly in statement of recognised income and expense36521(45)	)

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Edgar Filing: RIO TINTO LTD - Form 20-F						
Ordinary shares held in treasury, reissued to satisfy share options Other movements	25	24	(4)			
At 31 December	17,134	19,033	14,401			
A-35						

#### Notes to the 2008 Financial statements

# 30 CHANGES IN EQUITY, SHARE PREMIUM AND RESERVES continued

	2008 US\$m	2007 US\$m	2006 US\$m
Capital redemption reserve (b)			
At 1 January			
Own shares purchased and cancelled	12		
At 31 December	12		
Hedging reserves (c)			
At 1 January	(174)	(133)	(77)
Parent and subsidiaries net cash flow hedge fair value gains/(losses)	28	(197)	(178)
Equity accounted units cash flow hedge fair value gains/(losses) Parent and subsidiaries net cash flow hedge losses transferred to the	3	(4)	
income statement	245	89	63
Tax on the above	(88)	71	59
At 31 December	14	(174)	(133)
Available for sale revaluation reserves (d)			
At 1 January	57	31	20
(Losses)/gains on available for sale securities	(173)	49	14
Gains on available for sale securities transferred to the income statement	(1)	(16)	(4)
Tax on the above	10	(7)	1
At 31 December	(107)	57	31
<b>Other reserves</b> (e)			
At 1 January	19	8	42
Own shares purchased from Rio Tinto shareholders to satisfy share options	(128)	(64)	(49)
Employee share options: value of services	27	20	11
Deferred tax on share options	(87)	55	4
At 31 December	(169)	19	8
Foreign currency translation reserve (f)			
At 1 January	2,514	735	(9)
Currency translation adjustments	(4,468)	1,796	748
Exchange losses	(215)	(30)	(8)
Currency translation reclassified on disposal Tax on exchange adjustments	(2) 99	13	4

		1		
At	31 December	(2,072)	2,514	735
Tot	al other reserves per balance sheet	(2,322)	2,416	641
(a)	Retained profit and movements in reserves of subsidiaries include those arising from the Group s share of proportionally consolidated units.			
(b)	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 2008 reflects the amount by which the company s issued share capital is diminished in accordance with section 162.			
(c)	The hedging reserve records gains or losses on cash flow hedges that are recognised initially in equity, as			

described in note 1(p).

 (d) The available for sale revaluation reserves record fair value gains or losses relating to available for sale securities, as described in note 1(p).

(e) Other reserves record the cumulative amount recognised 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 estimated effect of unexercised options to acquire shares in Rio Tinto plc is recorded in retained earnings.

(f) Exchange

differences arising on the translation of the Group s net investment in foreign controlled

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companies are taken to the foreign currency translation reserve, as described in note 1(d), (net of translation adjustments relating to Rio Tinto Limited share capital). The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.

#### Notes to the 2008 Financial statements

# 31 PRIMARY SEGMENTAL ANALYSIS (BY PRODUCT GROUP)

Sales revenue	2008 %	2007 %	2006 %	2008 US\$m	2007 US\$m	2006 US\$m
Iron Ore	30.5	31.0	32.3	16,527	9,193	7,264
Energy & Minerals	19.4	23.9	28.3	10,539	7,096	6,366
Aluminium Copper & Diamonds	42.2 7.8	23.9 21.1	15.6 23.3	22,939 4,227	7,105 6,258	3,515 5,234
Other	0.1	0.1	0.4	4,227	48	3,234 86
Consolidated sales revenue	100.0	100.0	100.0	54,264	29,700	22,465
Consolidated profit before finance items and taxation						
Iron Ore (c) $\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{i=1}^{n} \sum_{$	89.3	48.0	43.2	9,101 4 275	4,113	3,878
Energy & Minerals (c), (d) Aluminium (c)	42.9 (61.0)	15.3 9.5	12.2 11.9	4,375 (6,219)	1,309 813	1,096 1,069
Copper & Diamonds (c), (d)	31.8	35.3	37.0	3,242	3,026	3,318
Exploration and evaluation not				,	,	,
attributed to product groups	(1.5)	0.7	(1.1)	(158)	58	(101)
Other	(1.5)	(8.8)	(3.2)	(147)	(748)	(286)
<b>Operating profit (segment result)</b>	100.0	100.0	100.0	10,194	8,571	8,974
Share of profit after tax of equity accounted units Copper & Diamonds Other				838 201	1,542 42	1,271 107
Profit before finance items and taxation				11,233	10,155	10,352
Depreciation and amortisation (excluding share of equity accounted units)						
Iron Ore	20.3	25.8	25.6	705	546	387
Energy & Minerals Aluminium	16.5 45.5	24.9 21.5	31.1 9.5	573 1 582	527 455	470 143
Copper & Diamonds	45.5 15.0	21.5 25.1	9.5 31.5	1,582 522	455 531	143 476
Exploration and evaluation	0.1	0.2	0.2	2	4	3
Other	2.6	2.5	2.1	91	52	30
Product group total	100.0	100.0	100.0	3,475	2,115	1,509

(a) The product groups shown above reflect the Group s management structure and are the Group s primary segments in accordance with IAS 14. The analysis deals with: the sales revenue, profit before finance costs and taxation, and depreciation and amortisation, for subsidiary companies and proportionally consolidated units. Inter-segment sales are insignificant The amounts presented for each product group exclude equity accounted units, but include the amounts attributable to outside equity shareholders. The product groups are consistent with those identified in the financial information by business unit data included in note 50. However, that information includes the results of equity accounted units and presents different financial measures. The Alcan businesses are included within the Aluminium product group except for

Packaging which is classified as a discontinued operation and is held for sale at the year end. Dampier Salt was reclassified from the Energy & Minerals product group to the Iron Ore group, and accordingly information for 2007 has been reclassified.

- (b) As detailed below, the analysis of profit before finance costs and taxation includes the profit on disposal of interests in businesses (including investments) and impairment (charges)/reversals, which are excluded from Underlying earnings.
- (c) An analysis of net impairment (charges)/reversals reported in the operating income of each product group is shown below:

	Pre-tax	Pre-tax	Pre-tax
	2008	2007	2006
	US\$m	US\$m	US\$m
<b>Impairment (charges)/reversals by product group</b> Iron Ore Energy & Minerals Aluminium Copper & Diamonds Other	(365) (94) (7,341) (205) (10)	145 (9) (194)	298 (188) 297 (11)

		(8,015)	(58)	396
(d)	Of the			
	US\$2,231 million			
	gain on disposal			
	of businesses			
	US\$2,166 million			
	related to the			
	Copper &			
	Diamonds			
	segment and			
	US\$65 million to			
	the Energy &			
	Minerals segment.			
	-	-37		

#### Notes to the 2008 Financial statements

# 31 PRIMARY SEGMENTAL ANALYSIS (BY PRODUCT GROUP) continued

				Restated
	2008	2007	2008	2007
Segment assets (subsidiaries and proportionally consolidated units)	%	%	US\$m	US\$m
Iron Ore	17.8	16.2	13,386	13,634
Energy & Minerals	13.1	11.9	9,858	10,028
Aluminium	57.8	62.0	43,472	52,095
Copper & Diamonds	9.2	8.2	6,903	6,879
Other	2.1	1.7	1,581	1,353
Product group total	100.0	100.0	75,200	83,989
Equity accounted units (a)				
Copper & Diamonds	30.2	30.6	1,684	1,873
Aluminium	67.0	66.5	3,733	4,074
Other	2.8	2.9	151	181
Equity accounted units total	100.0	100.0	5,568	6,128
Assets held for sale			5,325	7,024
Deferred tax assets			1,367	585
Current tax recoverable			626	353
Pension surpluses			160	705
Derivative assets			185	656
Cash and liquid resources			1,185	1,651
Total assets			89,616	101,091
(a) The analysis of				
the Group s				
investment in				
equity				
accounted units				
includes loans				
to equity				
accounted units,				
which are				
shown				
separately on				
the face of the				
balance sheet.				
				Restated
	2000	2007	2000	2007

	2008	2007	2008	2007
Segment liabilities (subsidiaries and proportionally consolidted units)	%	%	US\$m	US\$m

Iron Ore Energy & Minerals Aluminium Copper & Diamonds Other	17.3 17.7 47.5 12.7 4.8	15.9 14.2 51.4 12.2 6.3	(2,574) (2,642) (7,077) (1,889) (724)	(2,358) (2,115) (7,643) (1,808) (932)
Product group total	100.0	100.0	(14,906)	(14,856)
Liabilities of disposal groups held for sale Borrowings and bank overdrafts Current tax payable Deferred tax liabilities Derivative liabilities Provision for post retirement benefits			(2,121) (39,758) (1,892) (4,054) (711) (3,713)	(2,632) (46,869) (837) (4,912) (1,379) (3,313)
Total liabilities			(67,155)	(74,798)

	2008 %	2007 %	2006 %	2008 US\$m	Restated 2007 US\$m	2006 US\$m
Capital additions (a)						
Iron Ore	36.1	9.3	47.2	3,491	2,465	2,248
Energy & Minerals	19.3	4.5	20.3	1,868	1,198	966
Aluminium	25.2	81.9	5.3	2,436	21,591	253
Copper & Diamonds	15.7	2.8	21.1	1,515	726	1,007
Other	3.7	1.5	6.1	363	394	289
Total capital additions	100.0	100.0	100.0	9,673	26,374	4,763

	Note			
Analysis of capital additions				
Property, plant & equipment				
cash expenditure		8,466	19,191	3,800
Capitalised closure costs and				
other provisions	13	393	293	619
Capitalised interest	13	203	122	60
Intangible assets cash				
expenditure		108	6,561	120
Exploration & evaluation				
capitalised	12		203	72
Finance leases taken out				2
Movement in payables for				
capital expenditure		503	4	90
Capital additions per above		9,673	26,374	4,763

(a)

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Capital additions represent the total cost incurred during the period to acquire the non current assets shown above, measured on an accruals basis, in accordance with IAS 14. Capital additions include the relevant non current assets of the acquired companies at the date of acquisition. These figures exclude capital additions of equity accounted units.

# Notes to the 2008 Financial statements32 SECONDARY SEGMENTAL ANALYSIS (GEOGRAPHICAL)

	2008	2007	2006	2008	2007	2006
	%	%	%	US\$m	US\$m	US\$m
Gross sales revenue by destination						
North America (a)	22.4	22.6	21.9	12,984	7,582	5,575
Europe	24.3	19.8	17.2	14,127	6,641	4,378
Japan	15.2	16.8	19.6	8,825	5,633	4,986
China	18.6	18.0	16.0	10,803	6,021	4,062
Other Asia	11.3	12.2	13.5	6,584	4,105	3,438
Australia and New Zealand	3.2	5.6	5.8	1,877	1,892	1,477
Other	5.0	5.0	6.0	2,865	1,644	1,524
Total	100.0	100.0	100.0	58,065	33,518	25,440
Less: share of equity accounted units						
sales revenue				(3,801)	(3,818)	(2,975)
Consolidated sales revenue				54,264	29,700	22,465
Consolidated sales revenue by						
destination						
North America (a) `	23.5	24.5	23.9	12,751	7,262	5,358
Europe	24.0	20.3	17.5	13,025	6,027	3,929
Japan	15.1	16.9	19.6	8,206	5,012	4,402
China	18.7	18.0	16.2	10,134	5,342	3,648
Other Asia	11.0	10.9	12.0	5,990 1,976	3,238	2,691
Australia and New Zealand Other	3.5 4.2	6.0 3.4	6.3 4.5	1,876 2,282	1,771 1,048	1,412 1,025
				·		
Total	100.0	100.0	100.0	54,264	29,700	22,465
Gross sales revenue by country of						
origin North America (a)	28.5	29.8	29.6	16,570	9,992	7,529
Australia and New Zealand	20.5 42.5	29.8 45.5	29.0 49.9	24,652	9,992 15,243	12,703
South America	4.7	- <u>-</u> .5 9.5	10.5	2,731	3,195	2,679
Africa	4.0	5.9	5.7	2,731	1,975	1,461
Indonesia	0.1	1.4	1.6	53	461	396
Europe and other countries	20.2	7.9	2.7	11,764	2,652	672
Total	100.0	100.0	100.0	58,065	33,518	25,440
Less: share of equity accounted units sales revenue				(3,801)	(3,818)	(2,975)

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#### **Consolidated sales revenue**

**54,264** 29,700 22,465

Restated         Copmit matrixes           2008         2007         2008         2007         2006           Assets and capital additions by location (excluding equity accounted units)         USSm         USS SSm         USSm		Segment assets			Capital additions		
2008       2007       2008       2007       2006         USSm       USSm       USSm       USSm       USSm       2006         Assets and capital additions by location (excluding equity accounted units)       1,430       39,310       2,599       13,770       1,430         Australia and New Zealand       26,059       28,212       5,426       6,301       2.993         South America       2,402       2,140       602       500       204         Indonesia       591       669       42       76       49         Europe       9,724       13,268       564       5.188       68         Other countries       807       371       169       258       68         Indonesia       1,240       1,498       9,673       26,374       4,763         Investments in equity accounted units (b)       1,367       994       4ustralia and New Zealand       1,884       2,148         South America       1,240       1,498       0ther countries       1,367       5568       6,128         Assets held for sale       5,325       7,024       566       266       353         Deferred tax assets       1,367       185       6,561       566       28<					-	additions	
USSm         USSm         USSm         USSm         USSm         USSm         USSm           Assets and capital additions by location (excluding equity accounted units)         34,904         39,310         2,599         13,770         1,430           North America (a)         34,904         39,310         2,599         13,770         1,430           Australia and New Zealand         26,059         28,212         5,426         6,301         2,993           South America (a)         34,904         20,140         602         500         204           Indonesia         591         669         42         76         49           Europe         9,724         13,208         564         5,188         68           Other countries         807         371         169         228         77           North America (a)         1,087         994         4,763         4,763           Australia and New Zealand         1,884         2,148         5046         6,128         4,763           Other countries         1,357         1,488         2,148         566         20,943         4,943           South America (a)         1,847         5,168         6,128         4,514         51		2008		2008		2006	
Assets and capital additions by location (excluding equity accounted units)         14.304         39.310         2.599         13.770         1.430           Australia and New Zealand         26,059         28,212         5,426         6,301         2.993           Australia and New Zealand         26,059         28,212         5,426         6,301         2.993           Africa         2,402         2,140         602         500         204           Indonesia         591         669         42         76         49           Curope         9,724         13,268         564         5,188         686           Other countries         807         371         169         258         76           North America (a)         1,087         994         4,763         4,763           North America (a)         1,087         994         4,148         0,148         2,148           South America (a)         1,240         1,498         0,147         585         6,128           Current can xecoverable         626         353         70.24         566         635           Deferred tax assets         1,367         585         6,128         565         635         636							
(excluding equity accounted units)           North America (a)         34,904         39,310         2,599         13,770         1,430           Australia and New Zealand         26,059         28,212         5,426         6,301         2,993           South America         873         724         271         281         19           Africa         2,402         2,140         602         500         204           Indonesia         591         669         42         76         49           Europe         9,724         13,268         564         5,188         68           Other countries         807         371         169         258         76           North America (a)         1,087         994         4xstralia and New Zealand         1,884         2,148           South America (a)         1,087         994         4xstralia and New Zealand         1,884         2,148           South America         1,357         1,488         2,148         South America         1,240         1,498           Other countries         1,357         7,024         246         353         245           Deferred tax assets         1,367         585         255		US¢m	ΟΒφίπ	US¢m	USφin	USφm	
(excluding equity accounted units)           North America (a)         34,904         39,310         2,599         13,770         1,430           Australia and New Zealand         26,059         28,212         5,426         6,301         2,993           South America         873         724         271         281         19           Africa         2,402         2,140         602         500         204           Indonesia         591         669         42         76         49           Europe         9,724         13,268         564         5,188         68           Other countries         807         371         169         258         76           North America (a)         1,087         994         4xstralia and New Zealand         1,884         2,148           South America (a)         1,087         994         4xstralia and New Zealand         1,884         2,148           South America         1,357         1,488         2,148         South America         1,240         1,498           Other countries         1,357         7,024         246         353         245           Deferred tax assets         1,367         585         255	Assets and capital additions by location						
North America (a)       34,904       39,310       2,599       13,770       1,430         Australia and New Zealand       26,059       28,212       5,426       6,301       2,993         South America       873       724       271       281       19         Africa       2,402       2,140       602       500       204         Indonesia       591       669       42       76       49         Europe       9,724       13,268       564       5,188       66         Other countries       807       371       169       258       258         Tos,360       84,694       9,673       26,374       4,763         Investments in equity accounted units (b)       North America (a)       1,087       994         Australia and New Zealand       1,884       2,148       2,148       2,144       3041       Australia and New Zealand       1,357       1,488         Other countries       1,357       1,488       2,148       31,451       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       31,551       3							
Australia and New Zealand       26,059       28,212       5,426       6,301       2,993         South America       873       724       271       281       19         Artica       2,402       2,140       602       500       204         Indonesia       591       669       42       76       49         Europe       9,724       13,268       564       5,188       68         Other countries       807       371       169       258       76         Investments in equity accounted units (b)       994       4,694       9,673       26,374       4,763         North America (a)       1,087       994       4,218       50th America       1,240       1,498         Other countries       1,357       1,488       2,148       5568       6,128         Current tax recoverable       626       353       355       566       565       2353       7,024       565       566       566       566		34,904	39.310	2,599	13,770	1,430	
South America         873         724         271         281         19           Africa         2,402         2,140         602         500         204           Indonesia         591         669         42         76         49           Europe         9,724         13,268         564         5,188         68           Other countries         807         371         169         258         4,763           Investments in equity accounted units (b)         North America (a)         1,087         994         4,1498           North America (a)         1,087         994         4,1498         0,1498         0,049         9,073         26,374         4,763           North America (a)         1,087         994         4,1498         0,1498         0,1498         0,049         0,0673         26,374         4,763           Deterrot ax asets         1,357         1,488         0,1498         0,047         1,498         0,047         1,498         0,047         1,498         0,047         1,498         0,047         1,498         0,047         1,498         0,041         1,498         0,041         1,498         0,041         1,498         0,165         1,1651         1,165<		· · · · · · · · · · · · · · · · · · ·			,	-	
Africa       2,402       2,140       602       500       204         Indonesia       591       669       42       76       49         Europe       9,724       13,268       564       5,188       68         Other countries       807       371       169       258       53         Investments in equity accounted units (b)       75,360       84,694       9,673       26,374       4,763         North America (a)       1,087       994       4       34       4,763         Australia and New Zealand       1,884       2,148       5000       47,63         Other countries       1,357       1,488       5,568       6,128         Assets held for sale       5,325       7,024       5,568       5,565         Deferred tax assets       1,367       585       5,565       565         Current tax recoverable       626       353       1,651       51         Total assets       89,616       101,091       4       4       4         (a) The United       States of       3,636       101,091       4       4       4         (a) The United       States of       Geographical       segment, having       segment, h	South America						
Indonesia       591       669       42       76       49         Europe       9,724       13,268       564       5,188       68         Other countries       807       371       169       258       68         Investments in equity accounted units (b)       75,360       84,694       9,673       26,374       4,763         Investments in equity accounted units (b)       794       1,884       2,148       2,148       2,049       4,763         North America (a)       1,087       994       4,4763       4,763       4,763         Other countries       1,240       1,488       2,148       2,148       5,014       4,763         Other countries       1,357       1,488       2,148       3,014       4,763       4,763         Assets held for sale       5,325       7,024       5,568       6,128       5,565							
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Total assets     89,616     101,091       (a) The United States of America and Canada have been combined to form the North America Geographical segment, having regard to the similarity of economic and political							
<ul> <li>(a) The United States of America and Canada have been combined to form the North America Geographical segment, having regard to the similarity of economic and political</li> </ul>	Cash and inquid resources	1,105	1,001				
States of America and Canada have been combined to form the North America Geographical segment, having regard to the similarity of economic and political	Total assets	89,616	101,091				
America and Canada have been combined to form the North America Geographical segment, having regard to the similarity of economic and political	(a) The United						
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Geographical segment, having regard to the similarity of economic and political	to form the						
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segment, having regard to the similarity of economic and political	Geographical						
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similarity of economic and political							
economic and political							
political							

these countries.

 (b) This analysis of investments in equity accounted units represents the Group s share of net assets plus loans to equity accounted units, which are shown separately on the face of the balance sheet.

#### Notes to the 2008 Financial statements

#### 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 may purchase commodities to satisfy customer contracts from time to time 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. Rio Tinto Alcan adopted the Rio Tinto Group policy on trading and hedging from 1 January 2008.

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 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 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 is considered to exist by virtue of the possible non performance of the counterparties to financial instruments held by the Group.

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 partly determined has a positive effect on Rio Tinto s Underlying earnings. Given the dominant role of the US currency in the Group s affairs, the US dollar is the currency in which financial results are presented both internally and externally. It is also the most appropriate currency for borrowing and holding surplus cash, although a portion of surplus cash may also be held in other currencies, most notably Australian dollars, Canadian dollars, dividend payments. The Group finances its operations primarily in US dollar, either directly or using cross currency interest rate swaps. A substantial part of the Group s US dollar debt is located in subsidiaries having a US dollar functional currency.

However, 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, and/or interest rate swaps when required. These have the economic effect of converting fixed rate foreign currency borrowings to floating rate US dollar borrowings. See section B (d) of note 34 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	2008 US\$m	Restated 2007 US\$m
United States dollar	(38,111)	(44,776)
Australian dollar	(351)	(44,770) (256)
South African rand	52	103
UK sterling	(34)	(112)
Euro	(77)	(150)
Canadian dollar	(122)	(62)
Other	(29)	62
Total	(38,672)	(45,191)

# Notes to the 2008 Financial statements33 FINANCIAL RISK MANAGEMENT continued

#### 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 is a legacy of currency forward contracts used to hedge operating cash flow exposures which was acquired with Alcan and the North companies. Refer to section B ((a) to (d)) of note 34 Financial Instruments for the currency forward and option contracts used to manage the currency risk exposures of the Group at 31 December 2008.

#### Foreign exchange sensitivity: Risks associated with exposure to financial instruments

The sensitivities below give the estimated effect of a ten per cent strengthening in the full year closing US dollar exchange rate 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 31 December 2008, 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 2009, and therefore these numbers should be used with care.

#### At 31 December 2008

#### Gains/(losses) associated with 10% strengthening of the US dollar

	Closing exchange	Effect on net	Of which amount impacting Underlying	Impact directly
Functional currency	rate US cents	earnings US\$m	earnings US\$m	on equity US\$m
Australian dollar (a) Canadian dollar South African rand Euro New Zealand dollar	69 82 11 141 58	(27) 53 13 239 21	63 99 19 18 2	3

#### At 31 December 2007

Gains/(losses) associated with 10% strengthening of the US dollar

		Of which	
		amount	
	Effect		
Closing	on	impacting	Impact
exchange	net	Underlying	directly
			on
rate	earnings	earnings	equity

Functional currency	US cents	US\$m	US\$m	US\$m
Australian dollar (a)	88	204	99	(20)
Canadian dollar	101	149	53	
South African rand	15	14	12	(4)
Euro	147	33	14	149
New Zealand dollar	78	(9)	3	

(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.
(b)	The sensitivities indicate the effect of a 10 per cent strengthening of the US dollar against each currency.
(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 2008 for a 10 per cent

strengthening of the US dollar do not include any tax benefit related to this debt because the capital losses generated would not be recognised. If the US dollar weakened below 97 Canadian cents then tax charges would begin to be recognised at 15 per cent.

#### At 31

December 2007 tax charges would have begun to be recognised if the US dollar weakened below 97 Canadian cents. The sensitivities for both years incorporate the effect of an intragroup restructuring in January 2008.

## Notes to the 2008 Financial statements

#### 33 FINANCIAL RISK MANAGEMENT continued

#### (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. 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 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 section B (d) of note 34 Financial Instruments for the details of currency and interest rate contracts relating to borrowings. At the end of 2008, US\$10.6 billion (2007: US\$4.9 billion) of the Group s debt was at fixed rates after taking into account interest rate swaps and finance leases.

During December 2008 the Group unwound interest rate swaps with a principal of US\$5.9 billion to take advantage of market conditions and generated approximately US\$800 million in cash, of which US\$90 million is included in the interest line in the cash flow statement. The funds were used to pay down debt. As a result of the unwinding of the swaps, the ratio of fixed to floating rate debt moved to 73 per cent floating / 27 per cent fixed. If the swaps had remained in place the ratio would have been 88 per cent floating /12 per cent fixed. The Group continues to maintain a preference for floating rate debt but will continue to actively manage its ratio of fixed to floating rate debt. A monthly Treasury report is provided to senior management which summarises corporate debt exposed to currency risks and, where applicable, the offsetting derivatives. See section B (d) of note 34 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 2008.

Based on the Group s net debt and other floating rate financial instruments outstanding as at 31 December 2008, 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 a reduction of US\$100 million (2007: US\$158 million). These balances will not remain constant throughout 2009, 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. The Group may hedge certain commitments with some of its customers or suppliers. Details of commodity derivatives held at 31 December 2008 are set out in note 34 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 annually 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 2008, the Group had 183 million pounds of copper sales (2007: 270 million pounds) that were provisionally priced at US 133 cents per pound (2007: US 304 cents per pound). The final price of these sales will be determined during the first half of 2009. A ten per cent change in the price of copper realised on the provisionally priced sales would increase or reduce net earnings by US\$15 million (2007: US\$58 million).

#### 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 2008, but excluding the impact of commodity and embedded derivatives held by equity accounted units. 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 nonfinancial 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 and changes in exchange rates can influence commodity prices and vice versa.

#### At 31 December 2008

#### 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 Coal Aluminium		21	(13) (8) (16)
Total		21	(37)
	A-42		

## Notes to the 2008 Financial statements

## 33 FINANCIAL RISK MANAGEMENT continued

At 31 December 2007

Losses associated with 10% increase from year end price

		Effect directly on
	Effect on	equity
	net	attributable to Rio
	earnings	Tinto
Products	US\$m	US\$m
Copper		(40)
Coal		(25)
Aluminium	(41)	(50)
Total	(41)	(115)

#### (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.

#### Credit risks related to receivables

Customer credit risk is managed by each business unit subject to Rio Tinto s established policy, procedures and controls relating to customer credit risk management. Credit limits are established for all customers based on internal or external rating criteria. Where customers are rated by an independent credit rating agency, these ratings are used to set credit limits. In circumstances where no independent credit rating exists, the credit quality of the customer is assessed based on an extensive credit rating scorecard. Outstanding customer receivables are regularly monitored and any credit concerns highlighted to senior management. High risk shipments to major customers are generally covered by letters of credit or other forms of credit insurance.

At 31 December 2008, the Group had approximately 86 customers (2007: 140 customers) that owed the Group more than US\$5 million each and these balances accounted for approximately 75 per cent (2007: 81 per cent) of all receivables owing. There were 21 customers (2007: 33 customers) with balances greater than US\$20 million accounting for just over 49 per cent (2007: 48 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 A-49. 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 Rio Tinto s shareholders funds plus funds attributable to outside equity shareholders plus net debt, and amounted to US\$61 billion at 31 December 2008 (2007: US\$71 billion).

The Group s over-riding 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 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. In December 2008, Moody s downgraded the long-term ratings of the Group from A3 to Baa1 and S&P downgraded its long-term ratings from BBB+ to BBB and its short-term corporate credit ratings from A- 2 to A-3. Ratings agencies have retained a negative outlook in respect of their ratings. In the medium term the Group aims to restore its long term credit rating to a single A credit rating in order to enhance its ability to access the credit markets on more favourable terms. Credit ratings are not a recommendation to purchase, hold or sell securities, and are subject to revision or withdrawal at any time by the ratings organisation.

The Alcan acquisition was financed under syndicated bank facilities of up to US\$40 billion at floating interest rates, of which US\$38 billion was drawn down in connection with the acquisition. At 31 December 2008, US\$28 billion was drawn down under the syndicated bank facilities. The syndicated bank facilities are split into two term facilities (Facilities A and D), which are fully drawn and two revolving facilities (Facilities B and C), which are available for utilisation until shortly before their respective maturity dates. Facility C may also be used as a swingline facility. Term Facility A was originally for an amount of US\$15 billion, of which US\$8.9 billion remained outstanding at 31 December 2008. The maturity date for Facility A was originally October 2008, but with an extension option to October 2009, which has been exercised. Revolving Facility B is for an amount of up to US\$10 billion, of which US\$9.1 billion was drawn at 31 December 2008. The maturity date for Facility B is October 2010. Revolving Facility C is for an amount of up to US\$5 billion, all of which is undrawn. The maturity date for Facility C is December 2012. Term Facility D was originally for an amount of US\$10 billion, the full amount of which remains outstanding at 31 December 2008. The maturity date for Facility D is December 2012. Advances under each Facility generally bear interest at rates per annum equal to the margin for that Facility plus LIBOR and any mandatory costs. Facilities A and B are subject to mandatory prepayment and cancellation to the extent of net proceeds received from disposals of assets and from the raising of funds through capital markets, subject to specified thresholds and conditions. Any such net proceeds must first be applied in prepayment of the amounts outstanding under Facility A. Further net proceeds would then be retained by the Group up to a corresponding and cancelled amount of any undrawn commitments under Facility B, and net proceeds beyond this cancellation would finally be applied in prepayment of any amounts outstanding under Facility B. The Group s committed bank standby facilities contain no financial undertakings relating to interest cover and are not affected to any material extent by a reduction in the Group s credit rating. The syndicated bank facilities also contain a financial covenant requiring the maintenance of a ratio of no greater than 4.5 times of net borrowings to EBITDA. A compliance certificate must be produced for this ratio on a semi annual basis. In addition the facility agreement contains restrictions on the Group, including that it be required to observe certain customary covenants including but not limited to (i) maintenance of authorisations; (ii) compliance with laws; (iii) change of business; (iv) negative pledge (subject to certain carve outs); (v) environmental laws and licences; and (vi) subsidiaries incurring financial indebtedness.

#### Notes to the 2008 Financial statements

#### 33 FINANCIAL RISK MANAGEMENT continued

The Group maintains backup liquidity for its commercial paper programme and other short term debt by way of committed bi-lateral bank facilities and syndicated credit facilities related to the US\$40 billion Alcan acquisition facility. At 31 December 2008, the Group has available committed financing of US\$5.0 billion under Alcan Facility C, US\$0.9 billion under Facility B and US\$2.2 billion unused committed bilateral banking facilities. The Group s net debt as a percentage of total capital was 63 per cent at 31 December 2008, unchanged from 31 December 2007.

Rio Tinto does not have a target debt/equity ratio, but has a policy of maintaining a flexible financing structure so as to be able to take advantage of new investment opportunities that may arise. Following the acquisition of Alcan, the Group has publicly stated an objective to reduce its net debt from current levels through a targeted asset divestment programme, capital restructurings and through operating cash flows to a level consistent with a solid investment grade credit rating. This policy is balanced against the desire to ensure efficiency in the debt/equity structure of the Group balance sheet in the longer term through proactive capital management programmes. On 10 December 2008, Rio Tinto announced certain key initiatives and commitments to reduce net debt by US\$10 billion in 2009, including US\$8.9 billion due in October 2009.

In January 2009, Rio Tinto reached an agreement to sell its potash assets and Brazilian iron ore operation for US\$1.6 billion. The sale of potash assets was completed on 5 February 2009 and the US\$850 million cash proceeds have been used to pay down debt. The completion of the sale of the Brazilian iron ore assets, from which proceeds of US\$750 million will be received, is subject to regulatory approvals which are expected during the second half of 2009.

The table below analyses the Group s financial liabilities into relevant maturity groupings based on the remaining period from the balance sheet date to the contractual maturity date. As the amounts disclosed in the table are the contractual undiscounted cash flows, these balances will not necessarily agree with the amounts disclosed in the balance sheet.

## At 31 December 2008

	Trade and other payables US\$m	Borrowings before swaps US\$m	Expected future interest payments US\$m	Derivatives related to net debt US\$m	Other financial liabilities US\$m	Total financial liabilities US\$m
<i>Financial liabilities</i> Within 1 year, or on						
demand	(5,478)	(10,079)	(1,375)		(414)	(17,346)
Between 1 and 2 years		(9,485)	(1,139)	(85)	(129)	(10,838)
Between 2 and 3 years		(417)	(914)		(130)	(1,461)
Between 3 and 4 years		(10,525)	(744)		(113)	(11,382)
Between 4 and 5 years		(3,112)	(486)		(106)	(3,704)
After 5 years		(5,760)	(3,366)		(123)	(9,249)
	(5,478)	(39,378)	(8,024)	(85)	(1,015)	(53,980)
<i>Restated</i> At 31 December 2007						
	Trade	Borrowings	Expected	Derivatives	Other	Total

	and other payables US\$m	before swaps US\$m	future interest payments US\$m	related to net debt US\$m	financial liabilities US\$m	financial liabilities US\$m
<i>Financial liabilities</i> Within 1 year, or on demand Between 1 and 2 years Between 2 and 3 years Between 3 and 4 years Between 4 and 5 years After 5 years	(5,303)	(8,263) (10,628) (10,441) (37) (13,298) (4,394)	(2,310) (1,862) (1,322) (892) (768) (2,084)	(5) (4) (6)	(813) (309) (222) (190) (187) (225)	(16,694) (12,803) (11,991) (1,119) (14,253) (6,703)
(a) Interest	(5,303)	(47,061)	(9,238)	(15)	(1,946)	(63,563)

- payments have been projected using interest rates applicable at 31 December, including the impact of interest rate swap agreements, where
- appropriate.
- (b) Much of the debt is subject to variable interest rates.
   Future interest payments are therefore subject to change in line with market rates.

## Notes to the 2008 Financial statements

#### 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 excludes those of equity accounted units. The information is grouped in the following sections:

- A Financial assets and liabilities by categories
- B Derivative financial instruments
- C Fair values

## (A) Financial assets and liabilities by categories

At 31 December 2008

	Total	Loans and receivables	Available for sale securities	Held at fair value	Other financial assets and liabilities
	US\$m	US\$m	US\$m	US\$m	US\$m
Financial Assets Cash and cash equivalent assets (note					
21) Trade and other receivables (note 17)	1,181	1,181			
(a) Equity shares and quoted funds (note	5,054	5,054			
20) Other investments, including loans (note	261		261		
20)	480	480			
Other liquid resources (note 20) Currency and commodity contracts:	4				4
designated as hedges (note 20) Currency and commodity contracts: not	98				98
designated as hedges (note 20) Loans to equity accounted units	87			87	
including quasi equity loans	1,113	1,113			
Total financial assets	8,278	7,828	261	87	102
Financial liabilities					
Trade and other payables (note 25)(b) Short term borrowings and bank	(5,478)				(5,478)
overdrafts (note 21 and 22) Medium and long term borrowings	(10,034)				(10,034)
(note 22)	(29,724)				(29,724)
Deferred consideration (note 25) Forward commodity contracts:	(318)				(318)
designated as hedges (note 26)	(257)				(257)
Derivatives related to net debt (note 26)	(99)			(99)	
	(355)			(355)	

Other derivatives and embedded derivatives not designated as hedges (note 26)			
Other financial liabilities (note 26)	(37)		(37)
Total financial liabilities	(46,302)	(454)	(45,848)

At 31 December 2007 (restated)

		Loans and	Available for sale	Held at fair	Other financial assets and
	Total US\$m	receivables US\$m	securities US\$m	value US\$m	liabilities US\$m
Financial Assets					
Cash and cash equivalent assets (note					
21)	1,645	1,645			
Trade and other receivables (note 17)					
(a)	6,272	6,272			
US Treasury bonds (note 20)	21		21		
Equity shares and quoted funds (note					
20)	374		374		
Other investments, including loans (note					
20)	563	563			
Other liquid resources (note 20)	6				6
Currency and commodity contracts:	124				124
designated as hedges (note 20)	134				134
Currency and commodity contracts: not	480			480	
designated as hedges (note 20) Derivatives related to net debt (note 20)	480			480	
Loans to equity accounted units	42			42	
including quasi equity loans	746	746			
including quasi equity loans	740	740			
Total financial assets	10,283	9,226	395	522	140
Financial liabilities					
Trade and other payables (note 25)(b)	(5,303)				(5,303)
Short term borrowings and bank					
overdrafts (note 21 and 22)	(8,213)				(8,213)
Medium and long term borrowings					
(note 22)	(38,656)				(38,656)
Deferred consideration (note 25)	(209)				(209)
Forward commodity contracts:					
designated as hedges (note 26)	(773)				(773)
Derivatives related to net debt (note 26) Other derivatives and embedded	(15)			(15)	
derivatives not designated as hedges					
(note 26)	(591)			(591)	

Other financial liabilities (note 26)	(49)		(49)
Total financial liabilities	(53,809)	(606)	(53,203)
<ul> <li>(a) This excludes pension surpluses, prepayment of tolling charges to jointly controlled entities and other prepayments and accrued income.</li> </ul>			
<ul> <li>(b) Trade and other payables includes trade creditors, amounts owed to equity accounted units, other creditors excluding deferred consideration shown separately and accruals.</li> </ul>	A-45		

Notes to the 2008 Financial statements

34 FINANCIAL INSTRUMENTS continued

(B) Derivative financial instruments

The Group s derivatives, including embedded derivatives, as at 31 December 2008, are summarised below:

a) Forward contracts relating to operating transactions: designated as hedges

Assets (note 20)

fair value 2008	Total fair value 2007 US\$m
7 2	34 25
9	59
12	2
21	61
	value 2008 US\$m 7 2 9 12

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 forward contracts

Less than 1 year	25
Total	25

#### Aluminium price exposures embedded in electricity purchase contracts

Less than 1 year	6
1 to 5 years	36
Total	42

#### Coal forward contracts

Less than 1 year Between 1 and 5 years	35	30 8
Total	35	38

Total commodity forward contracts	77	63
Total assets related to forward contracts designated as hedges	98	124

The above aluminium forward contracts are net metal sales derivative contracts which are primarily hedging cashflow exposures associated with underlying variable third party metal sales contracts. These derivatives reduce the Group s exposure to movements in the aluminium price. Coal commodity contracts have been entered into in order to reduce exposure to movements in the coal price.

Liabilities (note 26)

	Total fair value	Total fair value
	2008	2007
Copper forward contracts	US\$m	US\$m
Less than 1 year	(34)	(153)
Between 1 and 5 years	(146)	(344)
More than 5 years		(34)
Total	(180)	(531)
Coal (API #2) forward contracts		
Less than 1 year	(18)	(83)
Between 1 and 5 years	(4)	(39)
Total	(22)	(122)
Coal (GC NewC) forward contracts		
Less than 1 year	(31)	(25)
Between 1 and 5 years		(9)
Total	(31)	(34)
Aluminium forward contracts embedded In electricity purchase contracts Other commodity contracts		(26) (3)
Total liabilities related to forward contracts designated as hedges	(233)	(716)

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.

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.

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#### Notes to the 2008 Financial statements 34 FINANCIAL INSTRUMENTS continued b) Options relating to operating transactions: designated as hedges Assets (note 20)

Bought A\$ call options	Total fair value 2008 US\$m	Total fair value 2007 US\$m
Less than 1 year Between 1 and 5 years		10
Total		10

The above currency option 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. Liabilities (note 26)

	Total fair	Total fair
	value	value
	2008	2007
Aluminium options embedded In electricity purchase contracts	US\$m	US\$m
Less than 1 year	(1)	(7)
Between 1 and 5 years	(23)	(50)
Total	(24)	(57)

Embedded options exist within an electricity purchase contract for a smelter. 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.

Reconciliation to Balance Sheet categories for derivatives designated as hedges

	2008 US\$m	2007 US\$m
- non-current assets (note 20)	38	34
- current assets (note 20)	60	100
- current liabilities (note 26)	(84)	(283)
- non-current liabilities (note 26)	(173)	(490)
Total derivatives designated as hedges, detailed above	(159)	(639)

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

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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 outside interests, for the year to 31 December 2008, comprised cash flow hedge fair value gains of US\$20 million including equity accounted units (2007: losses of US\$102 million) and net cash flow hedge losses reclassified from equity and included in the income statement for the period amounted to US\$168 million (2007: US\$61 million).

The ineffective portion arising from cash flow hedges recognised in the income statement was US\$6 million (2007: US\$(1) million).

# c) Forward and option contracts relating to operating transactions: not designated as hedges Assets

<b>Forward contracts</b> Buy New Zealand dollar; sell US dollar	Total fair value 2008 US\$m	Total fair value 2007 US\$m
Less than 1 year Between 1 and 5 years	15 15	40 63
Total	30	103

The above currency forward contracts relating to the New Zealand dollar were taken out to manage exposures impacting on operating costs.

#### Aluminium forward contracts

Less than 1 year	225
Between 1 and 5 years	17
Total	242

The above aluminium forward contracts (acquired with Alcan) 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.

Buy EUR; sell USD Less than 1 year Buy CBB: sell USD	7
Buy GBP; sell USD Less than 1 year	1
Total	8

#### Notes to the 2008 Financial statements 34 FINANCIAL INSTRUMENTS continued Option contracts

Aluminium options embedded in electricity purchase contracts	Total fair value 2008 US\$m	Total fair value 2007 US\$m
Less than 1 year Between 1 and 5 years More than 5 years	1 26 18	11 56 17
Total	45	84

The above aluminium options embedded in electricity purchase contracts reduce exposure to movements in the aluminium price.

Others:		
Other embedded derivatives	6	13
Other commodity contracts	2	5
Other currency forward contracts and swaps	4	5
Other option contracts		20
Total assets relating to derivatives not designated as hedges (note 20)	87	480

#### Liabilities

	Total fair	Total fair
	value	value
Forward contracts	2008	2007
Aluminium forward contracts	US\$m	US\$m
Less than 1 year Between 1 and 5 years	(158) (7)	(212) (16)
Total	(165)	(228)

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.

Aluminium options embedded in electricity purchase contracts

Less than 1 year	(10)	(53)
Between 1 and 5 years	(79)	(201)

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More than 5 years	(73)	(68)
Total	(162)	(322)

The above aluminium options embedded in electricity purchase contracts reduce exposure to movements in the aluminium price.

Others:		
Other currency derivative contracts	(3)	(5)
Other embedded derivatives	(20)	(26)
Other commodity contracts	(5)	(5)
Other derivatives		(5)
Total liabilities relating to derivatives not designated as hedges (note 26)	(355)	(591)
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## Notes to the 2008 Financial statements 34 FINANCIAL INSTRUMENTS continued

## d) Currency and interest contracts relating to borrowings

Liabilities	Total fair value 2008 US\$m	Restated Total fair value 2007 US\$m
Buy Japanese yen: sell US dollars Less than 1 year		(1)
Buy US dollar: sell GBP 1 to 5 years	(95)	
Other currency swaps	(4)	(6)
Total currency swaps	(99)	(7)
<ul> <li>designated as fair value hedges</li> <li>not designated as hedges</li> </ul>	(99)	(7)
Interest contracts relating to borrowings: assets Interest contracts relating to borrowings: liabilities		42 (8)
Total derivatives related to net debt	(99)	27
Reconciliation to Balance Sheet categories for currency and interest derivatives		
	2008 US\$m	2007 US\$m
<ul> <li>non-current assets (note 20)</li> <li>current assets (note 20)</li> <li>current liabilities (note 26)</li> <li>non-current liabilities (note 26)</li> </ul>	(4) (95)	3 39 (9) (6)
Total currency and interest rate contracts, detailed above	(99)	27

These currency contracts are used to swap the non US dollar denominated external debt to USD floating. The interest rate contracts are used to convert certain fixed rate obligations to a floating rate.

The ineffective portion arising from fair value hedges recognised in the income statement was to US\$91 million (2007: US\$1 million). These relate to interest rate swaps unwound during the year with a principal of US\$5.9 billion which were de-designated as hedges ahead of the unwind.

#### (C) Fair values

The carrying values and the fair values of Rio Tinto s financial instruments, other than trade and other receivables and payables, at 31 December are shown in the following table. The fair values of the Group s cash, short term borrowings

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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 Deci	ember 2008	31 Dec	Restated ember 2007
	Carrying	Fair	Carrying	Fair
	value	value	value	value
	US\$m	US\$m	US\$m	US\$m
		,	, ·	
Primary financial instruments held or issued to finance				
the Group s operations				
US Treasury bonds (note 20)			21	21
Equity shares and quoted funds (note 20)	261	261	374	374
Other investments, including loans (note 20)	480	480	563	563
Cash and cash equivalent assets (note 21)	1,181	1,181	1,645	1,645
Other liquid resources (note 20)	4	4	6	6
Short term borrowings and bank overdrafts (notes 21				
and 22)	(10,034)	(10,059)	(8,213)	(8,225)
Medium and long term borrowings (note 22)	(29,724)	(29,752)	(38,656)	(38,669)
Loans to equity accounted units including quasi equity	1,113	1,113	746	746
Deferred consideration (note 25)	(318)	(318)	(209)	(209)
Other financial liabilities (note 26)	(37)	(37)	(49)	(49)
	(37,074)	(37,127)	(43,772)	(43,797)
Derivatives:				
Forward contracts: cash flow hedge (Section B (a) of note 34) Option contracts: cash flow hedge (Section B (b) of	(135)	(135)	(592)	(592)
note 34) Forward contracts and option contracts not designated	(24)	(24)	(47)	(47)
(Section B (c) of note 34) Currency swaps hedging borrowings (Section B (d) of	(268)	(268)	(111)	(111)
note 34)	(99)	(99)	(7)	(7)
Interest rate swap agreements (Section B (d) of note 34)			34	34
	(37,600)	(37,653)	(44,495)	(44,520)
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# Notes to the 2008 Financial statements35 CONTINGENT LIABILITIES AND COMMITMENTS

	2008 US\$m	2007 US\$m
Capital commitments (excluding those related to joint ventures and associates)		
Contracted capital expenditure: property, plant and equipment (a)	3,247	2,857
Other commitments	18	75
Capital commitments relating to joint ventures and associates (b)		
Capital commitments incurred by the Group	376	238
Capital commitments incurred jointly with other venturers (Rio Tinto share)	713	808
<b>Operating leases</b> The aggregate amount of minimum lease payments under non cancellable operating leases	are as follows:	
	2008	2007
	US\$m	US\$m
Within 1 year	336	283
Between 1 and 5 years	910	985
After 5 years	315	514
	1,561	1,782

#### **Unconditional purchase obligations**

The aggregate amount of future payment commitments for the next 5 years under unconditional purchase obligations outstanding at 31 December was:

	2008 US\$m	2007 US\$m
Within 1 year	1,245	1,525
Between 1 and 2 years	870	814
Between 2 and 3 years	773	757
Between 3 and 4 years	648	561
Between 4 and 5 years	505	518
	4,041	4,175

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 above table excludes payment commitments after 5 years. 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.

2008	2007

	US\$m	US\$m
<b>Contingent liabilities (excluding those relating to joint ventures and associates)</b> Indemnities and other performance guarantees	329	235
<b>Contingent liabilities relating to joint ventures and associates</b> (b) Share of contingent liabilities of joint ventures and associates Incurred in relation to interests in joint ventures Incurred in relation to other venturers contingent liabilities	5 187 67	6 435 63

(a) The Group s commitment to reduce capital expenditure in 2009 has resulted in capital projects being slowed or deferred. As a result US\$472 million of capital commitment contracts, relating to 2009, have been cancelled subsequent to the balance sheet date. However these contracts or equivalent contracts may be renegotiated should the transaction with Chinalco be approved (see note 47).

(b) Amounts

disclosed include those arising as a result of the Group s investments in both jointly controlled assets and jointly controlled entities.

(c) The

disagreement with the Australian tax office relating to certain transactions undertaken in 1997 to acquire franking credits was settled on 14 June 2007, resulting in an additional tax charge of US\$46 million for the year to 31 December 2007.

(d) 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.

# Notes to the 2008 Financial statements36 AVERAGE NUMBER OF EMPLOYEES

	Subsidiaries and proportionally consolidated units			
	<b>2008</b> 2007 200			
The principal locations of employment were:				
Australia and New Zealand	17,875	14,065	11,636	
North America	23,167	13,363	10,201	
Africa	6,329	5,548	4,269	
Europe	16,909	4,623	1,468	
South America	2,909	1,348	874	
Indonesia	2,206	2,125	1,969	
Other countries	942	286	225	
Discontinued operations	28,386	5,680		
	98,723	47,038	30,642	
		Equity acco	ounted units	
		(Rio Tinte	into share) (a)	
	2008	2007	2006	
The principal locations of employment were:				
Australia and New Zealand	2,471	2,289	2,192	
North America	370	376	311	
Africa	1,980	585	521	
Europe	520	367	507	
South America	1,116	905	1,072	
Other countries	605	117		
	7,062	4,639	4,603	
			Group	
			Total	
	2008	2007	2006	
The principal locations of employment were:				
Australia and New Zealand	20,346	16,354	13,828	
North America	23,537	13,739	10,512	
Africa	8,309	6,133	4,790	
Europe	17,429	4,990	1,975	
South America	4,025	2,253	1,946	
Indonesia	2,206	2,125	1,969	
Other countries	1,547	403	225	
Discontinued operations	28,386	5,680		

105,785	51,677	35,245
105,705	51,077	55,275

(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.

(b) Part time

employees are included on a full time equivalent basis. Temporary employees are included in employee numbers.

(c) People employed by contractors are not included.

 (d) Rio Tinto Alcan s employees in 2007 are shown on a pro rata

#### Notes to the 2008 Financial statements 37 PRINCIPAL SUBSIDIARIES At 31 December 2008

Company and country of incorporation/operation	Principal activities	Class of shares held	Proportion of class held %	Group interest %
Australia Argyle Diamond Mines	Mining and processing of diamonds	(a)	100	100
Coal & Allied Industries Limited	Coal mining	Ordinary	75.71	75.71
Dampier Salt Limited Energy Resources of Australia Limited	Salt production Uranium mining	Ordinary Class A	68.40 68.39	68.40 68.39
Hamersley Iron Pty Limited Queensland Coal Pty Limited (b)	Iron ore mining Coal mining	Ordinary Ordinary	100 100	100 100
Rio Tinto Aluminium (Holdings) Limited	Bauxite mining; alumina production; primary aluminium smelting	Ordinary	100	100
<b>Canada</b> Iron Ore Company of Canada Inc.	Iron ore mining; iron ore pellets	Series A & E	58.72	58.72
QIT-Fer et Titane Inc.	Titanium dioxide feedstock;	Common shares	100	100
Rio Tinto Alcan Inc. (c)	high purity iron and steel Bauxite mining; alumina refining; production of specialty alumina; aluminium smelting, manufacturing and recycling; engineered products; flexible and specialty packaging	Class B preference shares Common shares	100 100	100 100
<b>France</b> Talc de Luzenac France S.A.	Mining, refining and marketing of talc	E 15.25	100	100
<b>Indonesia</b> P.T. Kelian Equatorial Mining	Gold mining (now in close down phase)	Ordinary US\$1	90	90
<b>Namibia</b> Rössing Uranium Limited (d)	Uranium mining	B N\$1 C N10c	71.16} 70.59	68.58

## Papua New Guinea

Bougainville Copper Limited	Copper and gold mining	Ordinary 1 Kina	53.58	53.58
(e)				

## South Africa

South Africa				
Palabora Mining Company	Copper mining, smelting and	R1	72.03	57.67
Limited	refining			
Richards Bay Iron and	Titanium dioxide feedstock;	R1	50.50	50
Titanium (Pty) Limited	high purity iron			
United States of America				
Kennecott Holdings	Copper and gold mining,	Common US\$0.01	100	100
Corporation	smelting and refining, land			
(including Kennecott Utah	development and exploration			
Copper,	activities			
Kennecott Minerals, Kennecott				
Land and Kennecott				
Exploration)				
Rio Tinto Energy America Inc.	Coal mining	Common US\$0.01	100	100
U.S. Borax Inc.	Mining, refining and	Common US\$1	100	100

marketing of borates

# (a) This entity is unincorporated.

 (b) Queensland Coal Pty Limited is the main legal entity that owns the shares shown in note 40 of Hail Creek, Blair Athol and Kestrel.

## (c) On 23

October 2007, the Rio Tinto Group acquired a controlling 79.42 per cent interest in the issued share capital of Alcan Inc. The remaining 20.58 per cent was acquired by 14 November 2007. See note 41.

#### (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 46.
- (f) 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.

- (g) The Group s principal subsidiaries are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.
- (h) Companies operate mainly in the countries in which they are incorporated.

#### Notes to the 2008 Financial statements

## 38 PRINCIPAL JOINTLY CONTROLLED ENTITIES At 31 December 2008

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 (g) Leichhardt Coal Limited (b) Queensland Alumina Limited (g)	Aluminium smelting Coal mining Alumina production	153,679,560 20,115,000 1,769,600	Ordinary Ordinary Ordinary	59.4 44.7 80	59.4 44.7 80
<b>Chile</b> Minera Escondida Limitada (c)	Copper mining and refining			30	30
<b>China</b> Alcan Ningxia Aluminium Company Limited (h)	Aluminium smelting, alloy production, aluminium product manufacture	459,500,000	RMBY	50	50
<b>New Zealand</b> New Zealand Aluminium Smelters Limited (g)	Aluminium smelting	24,998,400	Ordinary	79.36	79.36
<b>Norway</b> Sor-Norge Aluminium A.S.	Aluminium smelting	500,000	Ordinary	50	50
<b>Oman</b> Sohar Aluminium Company L.L.C.	Aluminium smelting /power generation	37,500	OMR1	20	20
<b>United Kingdom</b> Anglesey Aluminium Metal Limited (g) Hydrogen Energy	Aluminium smelting Alternative energy	13,387,500 1,187,500	Ordinary £1 Ordinary £1	51 50	51 50
United States of America Decker Coal Company Halco (Mining) Inc. Pechiney Reynolds Quebec Inc.	Coal mining (e) (f)	(d) 4,500 100 1	(d) Common Common Preferred	(d) 45 50} 100	50 45 50.3

(a) 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.

(b) Leichhardt has a 31.4 per cent interest in the Blair Athol 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 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) This operation is unincorporated. The joint venture agreement creates an arrangement that is similar in form to a partnership, and it is therefore classified as a jointly controlled entity.

 (e) 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.

(f) Pechiney Reynolds

> Quebec has a 50.1 per cent interest in the Aluminerie de Becancour aluminium smelter, which is located in Canada.

(g) 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. (h) In January 2009 the Group s interest in Alcan Ningxia was sold for a gross cash consideration of US\$125 million. (i) 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. (j) The Group s principal jointly controlled entities are held by intermediate holding companies and not directly by

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Rio Tinto plc or Rio Tinto Limited. (k) With the exception of

 (e) and (f) above, all jointly controlled
 entities operate mainly in the countries in which they are incorporated.

# Notes to the 2008 Financial statements

# **39 PRINCIPAL ASSOCIATES** At 31 December 2008

Company and country of		Number of	Class of	Proportion of class	Group interest
incorporation/operation	Principal activities	shares held	shares held	held %	%
<b>Brazil</b> Mineração Rio do Norte SA (a)	Bauxite mining	25,000,000 47,000,000	Ordinary Preferred	12.5 } 11.8	12
<b>Cameroon</b> Compagnie Camerounaise de 1 Aluminum	Aluminium smelting	1,623,127	XAF	46.7	46.7
<b>Canada</b> Ivanhoe Mines Ltd (b)	Copper and gold mining	37,333,655	Common	9.95	9.95
South Africa Tisand (Pty) Limited	Ilmenite, rutile and zircon mining	7,353,675	R1	49	50
<ul> <li>(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.</li> </ul>					
(b) Ivanhoe Mines Ltd is accounted for as an associated company because the Group has significant influence through representation on its Board of Directors and participation in the technical					

committee that will be responsible for its Oyu Tolgoi project. Rio Tinto has the ability to increase progressively its stake to 43 per cent over the next four years at predetermined prices involving an additional investment of US\$1.5 billion. (c) On 5 March 2008, the Group completed the sale of its interest 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 will benefit from a deferred bonus payment in the event of a significant discovery of additional reserves and resources at the Cortez mine and also will retain a contingent royalty interest in the future production of the property. See note 41.

 (d) The Group s principal associates are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

(e) 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.

(f) 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.

# 40 PRINCIPAL JOINTLY CONTROLLED ASSETS AND OTHER PROPORTIONALLY CONSOLIDATED UNITS

# At 31 December 2008

Name and country		Group
		interest
of operation	Principal activities	%
Australia		
Tomago Aluminium Joint Venture	Aluminium smelting	51.6
Bengalla (b)	Coal mining	30.3
Blair Athol Coal (c)	Coal mining	71.2
Hail Creek	Coal mining	82
Kestrel	Coal mining	80
Mount Thorley (d)	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	Iron ore mining	53
Hope Downs Joint Venture	Iron ore mining	50

HIsmelt®	Iron technology	60
Brazil Consórcio de Alumínio Maranhão	Alumina production	10
<b>Canada</b> Diavik	Mining and processing of diamonds	60
Indonesia Grasberg expansion	Copper and gold mining	40

(b)	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.

(a) The Group

those

proportionally consolidated units that have a more significant impact on the profit or

operating assets of the Group.

number of

comprises a large

operations, and it is not practical to include all of them in this list. The list therefore only includes

(c) 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. (d) 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. (e) On 16 April 2008, the Group completed the sale of its joint venture interest 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. See note 41.

(f) The Group s proportionally consolidated units are held by intermediate holding companies and not directly by Rio Tinto plc or Rio Tinto Limited.

#### Notes to the 2008 Financial statements

# 41 PURCHASES AND SALES OF SUBSIDIARIES, JOINT VENTURES, ASSOCIATES AND OTHER **INTERESTS IN BUSINESSES**

## **2008** Acquisitions

There were no significant acquisitions in 2008.

## **2007 Acquisitions**

## Alcan acquisition

On 23 October 2007, the Rio Tinto Group acquired a controlling 79.42 per cent interest in the issued share capital of Alcan Inc. The remaining 20.58 per cent was acquired by 14 November 2007. The total purchase price to acquire Alcan Inc. amounted to US\$38.7 billion, which comprised US\$38.5 billion of cash and US\$0.2 billion of liabilities assumed.

Alcan Inc. is the parent company of an international group of companies involved in bauxite mining, alumina refining, aluminium smelting, engineered products, flexible and specialty packaging, as well as related research and development.

At the date of acquisition the Group decided to dispose of Alcan Packaging, which is presented in the balance sheet in the lines: Assets held for sale and Liabilities of disposal groups held for sale. Following a company wide strategic review of the combined Rio Tinto and Alcan assets, on 26 November 2007 the intention to divest the Engineered Products business was announced.

In accordance with IFRS 3 Business Combinations , the provisional price allocations at acquisition have been revised to reflect revisions to fair values determined during the 12 months after acquisition, as shown in the table below. The allocation of the cost of the acquisition was based on the advice of expert valuers.

At 23 October 2007	Provisional fair value to Group US\$m	Further adjustments US\$m	Final fair value to Group US\$m
Intangible assets	7,467	(1,106)	6,361
Property, plant & equipment	18,282	(3,679)	14,603
Equity method investments	4,185	(1,294)	2,891
Inventories	2,856	15	2,871
Assets held for sale	6,984		6,984
Cash	991		991
Deferred tax assets	228		228
Other assets	4,584	156	4,740
Loans and borrowings	(5,465)	(42)	(5,507)
Liabilities of disposal groups held for sale	(2,642)		(2,642)
Deferred tax liabilities	(4,182)	1,574	(2,608)
Provisions for liabilities and charges	(4,638)	(1,083)	(5,721)
Other liabilities	(4,476)	(180)	(4,656)
Minority interest	(55)	31	(24)
Goodwill	14,533	5,608	20,141
Net attributable assets including goodwill	38,652		38,652

Total consideration: Cost of shares	37,996
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Acquisition costs Liabilities assumed Loans to acquired subsidiary	74 132 450
Total consideration Alcan	38,652
Other subsidiaries and equity accounted units acquired	54
Total consideration	38,706
Cash outflow on acquisitions: Total consideration Net cash of acquired companies Liabilities assumed Other (including disposal proceeds of US\$13 million)	38,706 (991) (132) (57)
Net acquisitions per cash flow statement	37,526

# Notes to the 2008 Financial statements

# 41 PURCHASES AND SALES OF SUBSIDIARIES, JOINT VENTURES, ASSOCIATES AND OTHER INTERESTS IN BUSINESSES continued

In accordance with the requirements of IFRS 3, the Group balance sheet as at acquisition has been restated to incorporate the final fair values above. No amendment has been made to the Group income statement for 2007 to take into account the revised depreciation, amortisation and amortisation of discount related to provisions as the effect was not deemed material. Accordingly, the income statement effect has been recorded in 2008 and the further adjustments above also impact the Group balance sheet as at 31 December 2007.

The main adjustments to the provisional fair values relate to:

- The fair value of the Engineered Products business was reduced based on a further assessment of the amount for which such businesses could be sold at the date of the acquisition.
- The fair value attributed to the facilities within Bauxite & Alumina was reduced based on further analysis of the operating capability of related expansion projects.
- Provisions for environmental clean up and closure obligations were increased following a detailed assessment of the costs and timing of closure of smelters, refineries and mines. The timing of closure was assessed having regard to the prospects for continued access to economic sources of power beyond the term of existing contracts.
- The value attributed to water rights in Canada was reduced after a further assessment of the capital investment, which will be required to benefit from these sources of hydro-electric power.

From the date of acquisition to 31 December 2007, Alcan s sales revenue of US\$3,544 million (excluding equity accounted units) and profit after tax of US\$293 million attributable to continuing operations were included in the Groups 2007 income statement.

The following pro forma summary presents the Group as if Alcan Inc. had been acquired on 1 January 2007. The pro forma information includes the results of the acquired group, recognising the depreciation and amortisation of the final fair values attributed to the assets acquired and the interest expense on debt incurred as a result of the acquisition. The pro forma interest charge for the whole of 2007 on the acquisition debt has been based on the one month LIBOR rate as at 31 December 2007, of 4.6 per cent. Pro forma profit for the year also includes the tax effects on foreign exchange gains and losses relating to third party and intercompany debt, which would have resulted from the strengthening of the Canadian dollar during 2007. The pro forma information has been adjusted to reflect the effects of incorporating the final fair values noted above. It does not take account of synergies anticipated as a result of the acquisition; but includes non recurring costs borne by Alcan Inc. relating to the acquisition and suffers the costs of financing assets held for sale. The pro forma information does not necessarily reflect the actual results that would have occurred, nor is it necessarily indicative of future results of operations of the combined companies.

	Restated 31 December 2007 US\$m
Consolidated sales revenue	45,590
Profit for the year (including amounts attributable to outside equity shareholders)	7,473

# 2006 Acquisitions

			Ownership	Date of
Name of operation	Location	Principal activities	acquired %	acquisition
Associates				10
Ivanhoe Mines	Canada	Copper and gold mining	9.95	18 October 2006
Proportionally consolidated units				
Hope Downs Joint Venture	Australia	Iron ore mining	50	16 March 2006
2008 Disposals			Ownership	Date of
Name of operation	Location	Principal activities	disposed of %	disposal
Principal associates		California		5 March
Cortez	USA	Gold mining	40	5 March 2008
Jointly controlled assets Greens Creek	USA	Silver, gold, zinc and lead mining	70.3	16 April 2008

(a) 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 have been excluded from Underlying earnings, as shown in note 2.

(b) The Cash flow statement includes the following relating to acquisitions and disposals of interests in businesses:

- US\$2,563 million in Net disposals/(acquisitions) of subsidiaries, joint ventures & associates , comprising US\$2,572 million in disposal proceeds, net of US\$9 million paid for acquisitions . In accordance with IAS 7, these proceeds were stated net of US\$5 million cash and cash equivalents transferred on sale of subsidiaries.
- (c) Non-cash disposal proceeds of US\$88 million were received during the year.

# **2007** Disposals

There were no significant disposals in 2007.

**2006** Disposals

			Ownership disposed of	Date of
Name of operation	Location	Principal activities	%	disposal
Jointly controlled entities				

Eurallumina SpA	Italy	Alumina production	2 November 56.16 2006
<ul> <li>(a) The aggregate profit on disposal of interests in businesses in 2006 was US\$5 million (US\$3 million net of tax). These gains have been excluded from Underlying earnings, as shown in note 2.</li> </ul>			
US\$303 million paid for	acquisitions, net of US\$ ad net of US\$17 million of	subsidaries, joint ventures and a 24 million of disposal proceeds. of cash and cash equivalents tran al assets .	In accordance with IAS 7,

(c) Non cash disposal

proceeds of US\$23 million were received during the year.

## Notes to the 2008 Financial statements

# 42 DIRECTORS AND KEY MANAGEMENT REMUNERATION

Aggregate remuneration, calculated in accordance with the Companies Act 1985, of the directors of the parent companies was as follows:

	2008 US\$ 000	2007 US\$ 000	2006 US\$ 000
Emoluments Long term incentive plans	10,620 2,647	11,103 9,573	9,852 255
	13,267	20,676	10,107
Pension contributions: defined contribution plans	338	130	60
Gains made on exercise of share options			1,260

The aggregate remuneration incurred by Rio Tinto plc in respect of its directors was US\$13,214,000 (2007: US\$13,678,000; 2006: US\$7,296,800). The aggregate pension contribution to defined contribution plans was US\$338,000 (2007: US\$56,000; 2006: no pension contribution).

The aggregate remuneration, including pension contributions and other retirement benefits, incurred by Rio Tinto Limited in respect of its directors was US\$391,000 (2007: US\$7,128,500; 2006: US\$4,130,600). The aggregate pension contribution to defined contribution plans was nil (2007: US\$74,000; 2006: US\$60,000).

During 2008, two directors (2007: three; 2006: three) accrued retirement benefits under defined benefit arrangements, and one director (2007: one; 2006: 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.

More detailed information concerning directors remuneration, shareholdings and options is shown in the *Remuneration report*, including Tables 1 to 5, on pages 152 to 165.

Aggregate compensation, representing the expense recognised under EU IFRS, of the Group s key management, including directors, was as follows:

	2008 US\$ 000	2007 US\$ 000	2006 US\$ 000
Short term employee benefits and costs	21,086	25,826	20,663
Post employment benefits	3,664	4,480	3,444
Other long term benefits		2,537	737
Termination benefits		817	
Share based payments	(5,360)	41,540	1,631
	19,390	75,200	26,475

The figures shown above include employment costs which comprise of 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\$1,389,000 and although disclosed here, are not included in Table 1 of the Remuneration report.

More detailed information concerning the remuneration of key management is shown in the *Remuneration report*, including Tables 1 to 5 on pages 152 to 165.

# Notes to the 2008 Financial statements

# 43 AUDITORS REMUNERATION

	2008 US\$m	2007 US\$m	2006 US\$m
Group Auditors remuneration (a)			
Audit services pursuant to legislation			
- audit of the Group s annual accounts	3.2	3.0	2.8
- audit of the accounts of the Group s subsidiaries (b)	26.5	27.7	8.0
Audit services in connection with divestment programme (g)	24.4	2.8	
	54.1	33.5	10.8
Other services			
- other services supplied pursuant to legislation (h)			2.4
- services in connection with bid defence	9.4	2.5	
- services in connection with divestment programme	25.8	0.9	
- taxation services (c)	3.3	0.8	0.8
- other services (d)	2.6	4.0	0.9
Total other services	41.1	8.2	4.1
Fees in respect of pension scheme audits			0.1
	95.2	41.7	15.0
<b>Remuneration payable to other accounting firms</b> (e)			
Audit services pursuant to legislation			
- audit of accounts of the Group s subsidiaries (b)	0.2	0.4	0.3
Non audit services			
- taxation services (c)	15.8	3.7	2.8
- financial systems design and implementation	0.2	0.3	0.3
- internal audit	7.1	4.4	4.2
- litigation services		0.1	0.1
- other services (f)	42.0	7.0	7.1
	65.3	15.9	14.8
Fees in respect of pension scheme audits	0.3	0.3	0.2
	65.6	16.2	15.0
	160.8	57.9	30.0

(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) Fees payable for the audit of the accounts of the Group s subsidiaries includes the statutory audit of subsidiaries and other audit work performed to support the audit of the Group financial statements. This includes the full costs relating to the audit of Alcan Inc. and its subsidiaries of US\$15.9 million (2007: US\$18.8 million; 2006: nil).
- (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) In 2007, other services include fees in connection with the acquisition of Alcan Inc.
- (e) Remuneration payable to other accounting firms does not include fees for similar services payable to suppliers of consultancy services other than accountancy firms.
- Other services in respect (f) 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. It also includes costs relating to divestments and similar corporate services, pension fund and payroll administration, advice on accounting matters, secondments of accounting firms staff, forensic audit, advisory services in connection with Section 404 of the Sarbanes-Oxley Act and other consultancy.
- (g) Audit services represent assurance provided in respect of carve-out financial statements.

 (h) Other services supplied pursuant to legislation primarily relates to preparatory work relating to compliance with the Sarbanes-Oxley Act.

#### Notes to the 2008 Financial statements

# 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	2008	2007	2006
	US\$m	US\$m	US\$m
Purchases from equity accounted units	(2,770)	(1,538)	(1,364)
Sales to equity accounted units	3,011	1,338	1,497

Balance sheet items	US\$m	Restated US\$m	
Investments in equity accounted units (note 14) (a)	5,053	5,744	
Loans to equity accounted units	515	384	
Loans from equity accounted units	(195)	(174)	
Trade and other receivables: amounts due from equity accounted units		· · · ·	
(note 17)	688	804	
Trade and other payables: amounts due to equity accounted units (note			
25)	(280)	(219)	
Cash flow statement items	US\$m	US\$m	US\$m
Net funding of equity accounted units	(334)	(216)	(47)

(a) Further information about investments in equity accounted units is set out in notes 38 and 39.

# **Pension funds**

Information relating to pension fund arrangements is disclosed in note 49.

#### **Directors and key management**

Details of directors and key management remuneration are set out in note 42 and in the *Remuneration report* on pages 138 to 165.

#### 45 EXCHANGE RATES IN US\$

The principal exchange rates used in the preparation of the 2008 Financial statements are:

	Annual Average 2008	Annual Average 2007	Annual Average 2006	Year end 2008	Year end 2007	Year end 2006
Sterling	1.86	2.00	1.84	1.44	1.99	1.96
Australian dollar	0.86	0.84	0.75	0.69	0.88	0.79
Canadian dollar	0.94	0.93	0.88	0.82	1.01	0.86
South African rand	0.122	0.142	0.148	0.107	0.147	0.143
Euro	1.47	1.37	1.26	1.41	1.47	1.32

# 46 BOUGAINVILLE COPPER LIMITED ( BCL )

Mining has been suspended at the Panguna mine since 1989. Access to the mine site 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 and these funding requirements cannot be forecast accurately. 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 loss of US\$2 million for the financial year (2007: profit US\$1 million; 2006: profit US\$1 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 2008 was US\$113 million (2007: US\$147 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 2008, the number of shares in BCL held by the Group, multiplied by the share price, resulted in an amount of US\$101 million (2007: US\$281 million).

# 47 EVENTS AFTER THE BALANCE SHEET DATE

On 12 February 2009 the Group announced that the Boards are recommending a transaction with Aluminium Corporation of China ( Chinalco ) to the shareholders. Under the terms of the transaction Chinalco will invest US\$12.3 billion in certain aluminium, copper and iron ore joint ventures and a further US\$7.2 billion in subordinated convertible bonds. In total there will be four convertible bonds issued: two that are convertible into shares of Rio Tinto plc at a price of US\$45 and US\$60 respectively and two that are convertible into shares of Rio Tinto plc at a price of US\$45 and US\$60 respectively. The transaction is subject to approval by the shareholders, governments and other regulators. If the Boards withdraw their recommendation or recommend a competing proposal to the shareholders there is a break fee of US\$195 million payable. The proceeds will be used in part for the repayment of debt.

In January 2009, Rio Tinto reached an agreement to sell its Brazilian iron ore operation. The completion of the sale of these assets, from which proceeds of US\$750 million will be received, is subject to regulatory approvals which are expected during the second half of 2009.

On 5 February 2009 the Group announced the completion of the sale of its undeveloped potash assets to Companhia Vale do Rio Doce (Vale) for a cash consideration of US\$850 million. The transaction is comprised of the Potasio Rio Colorado potash project in Argentina and the Regina exploration assets in Canada. The proceeds from this divestment have been used to pay down debt.

On 9 March 2009, Rio Tinto reached an agreement to sell Jacobs Ranch coal mine to Arch Coal Inc for cash consideration of US\$761 million. The completion of the sale is subject to regulatory approvals.

# Notes to the 2008 Financial statements 48 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			Liability at the	
	2008 US\$m	2007 US\$m	year 2006 US\$m	2008 US\$m	end of the year 2007 US\$m
Equity-settled plans Cash-settled plans	61 (83)	39 181	25 7	43	219
Total	(22)	220	32	43	219

# 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 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 share option plans at 31 December 2008, and changes during the year ended

31 December 2008, is presented below.

		Weighted average exercise	Weighted average remaining	Aggregate intrinsic
Options outstanding at 31 December 2008	Number	price per option £ / A\$	contractual life Years	value 2008 US\$m
Rio Tinto plc Share Savings Plan (£8 - £36)	1,372,165	22.85	2.1	1

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Rio Tinto Limited Share Savings Plan (A\$25 - A\$83)	1,901,417	59.51	2.4	1
Rio Tinto plc Share Option Plan (£8 - £58)	4,665,835	20.88	5.9	6
Rio Tinto Limited Share Option Plan (A\$33 - A\$135)	2,711,678	54.92	6.3	2
	10,651,095			10
As at 31 December 2007 there were 12,366,279 options ou US\$886 million.	tstanding with an agg	regate intrinsic	value of	
Options exercisable at 31 December 2008				
Rio Tinto plc Share Option Plan (£8 - £19)	1,892,539	14.88	4.4	3
Rio Tinto Limited Share Option Plan (A\$33 - A\$48)	809,737	42.04	5.1	1
	2,702,276			4
As at 31 December 2008, there were no options were exerc Limited Share Savings Plans.	isable under either the	e Rio Tinto plc	or the Rio Tin	ito

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## Notes to the 2008 Financial statements

# 48 SHARE BASED PAYMENTS continued

#### **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	Expected	Dividend	Forfeiture	Cancellation	Implied
	rate	volatility	yield	rates	rates (a)	lifetime
	%	%	%	%	%	Years
Awards made in 2008						
- Rio Tinto plc	3.9-4.4	39.0	3.9	5.0	5.0	2.2-5.2
- Rio Tinto Limited	4.6-5.0	31.0	3.1	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

	2008 Number	Weighted average exercise price 2008 £	2007 Number	Weighted average exercise price 2007 £	2006 Number	Weighted average exercise price 2006 £
Options outstanding at 1						
January	1,419,715	18.39	1,497,463	14.26	1,624,492	11.84
Granted	439,837	27.81	324,170	30.47	323,256	20.72
Forfeited	(37,749)	19.53	(32,518)	14.30	(35,953)	14.06
Exercised	(384,451)	12.05	(311,458)	11.12	(376,802)	9.59
Cancellations	(55,016)	26.75	(36,075)	20.13	(25,097)	12.38
Expired	(10,171)	15.50	(21,867)	10.36	(12,433)	11.72
Options outstanding at 31 December	1,372,165	22.85	1,419,715	18.39	1,497,463	14.26

2008	2007	2006
£	£	£
1.87	13.16	7.93

Weighted average fair value, at date of grant, of options granted during the year

Share price, at date of grant, of options granted during the year	20.50	41.31	24.63
Weighted average share price at the time the options were exercised during			
the year	47.75	28.55	27.86

# **Rio Tinto Limited** Share Savings Plan

	2008 Number	Weighted average exercise price 2008 A\$	2007 Number	Weighted average exercise price 2007 A\$	2006 Number	Weighted average exercise price 2006 A\$	
Options outstanding at 1							
January	2,634,607	46.36	2,748,026	36.00	2,786,301	30.56	
Granted	413,271	82.19	548,549	79.27	494,141	56.80	
Forfeited	(285,641)	59.42	(121,590)	37.05	(81,201)	30.85	
Exercised	(797,744)	27.36	(480,955)	27.75	(414,201)	25.65	
Cancellations	(46,602)	80.16	(39,126)	41.75	(36,936)	30.94	
Expired	(16,474)	25.57	(20,297)	27.71	(78)	25.57	
Options outstanding at 31							
December	1,901,417	59.51	2,634,607	46.36	2,748,026	36.00	
				2008	2007	2006	
				2000 A\$	A\$	A\$	
Weighted average fair value	at date of grant	of options gra	nted during				
the year	, at date of grain	, or options gru	inted during	5.15	34.13	23.56	
Share price, at date of grant,	of options grant	ted during the v	ear	66.01	106.28	69.25	
Weighted average share price					•		
during the year		L		128.19	81.13	74.16	
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## Notes to the 2008 Financial statements

# 48 SHARE BASED PAYMENTS continued

## **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	Expected	Dividend	Turnover	Implied
	rate	volatility	yield	rates	lifetime
	%	%	%	%	Years
Awards made in 2008					
- Rio Tinto plc	4.1	37.0	1.5	nil	6.1
- Rio Tinto Limited	6.1	28.0	1.4	nil	7.3

A summary of the status of the Companies performance-based share option plans at 31 December 2008, and changes during the year ended 31 December 2008, is presented below.

# **Rio Tinto plc** Share Option Plan

	2008 Number	Weighted average exercise price 2008 £	2007 Number	Weighted average exercise price 2007 £	2006 Number	Weighted average exercise price 2006 £
Options outstanding at 1						
January	4,960,203	18.75	5,185,847	16.33	6,290,155	13.45
Granted	274,696	57.23	786,002	27.29	931,418	27.11
Forfeited	(126,287)	32.18	(42,211)	24.73	(63,713)	25.16
Exercised	(442,777)	16.31	(969,435)	12.50	(1,972,013)	11.95
Options outstanding at 31						
December	4,665,835	20.88	4,960,203	18.75	5,185,847	16.33
				2000	2007	2006
				2008 £	2007 £	2006 £
				L	L	L
Weighted average fair value	at date of gran	t, of options gra	anted during the			
year	, or gran	,r		20.63	6.25	7.40

Weighted average share price, at date of grant, of options granted during			
the year	55.94	27.48	26.89
Weighted average share price at the time the options were exercised during			
the year	51.16	39.25	29.01

In addition to the equity-settled options shown above, there were 118,317 (2007: 121,131) cash-settled options outstanding at 31 December 2008. The total liability for these awards at 31 December 2008 was less than US\$1 million (2007: US\$7 million).

# **Rio Tinto Limited** Share Option Plan

	2008 Number	Weighted average exercise price 2008 A\$	2007 Number	Weighted average exercise price 2007 A\$	2006 Number	Weighted average exercise price 2006 A\$
Options outstanding at 1 January Granted Forfeited Exercised Expired	3,351,754 63,633 (45,231) (658,478)	50.84 134.18 96.23 38.94	3,540,588 568,638 (20,504) (736,968)	43.53 75.12 71.57 31.88	3,959,472 716,318 (89,041) (1,043,766) (2,395)	36.17 71.06 53.64 33.65 39.87
Options outstanding at 31 December	2,711,678	54.92	3,351,754	50.84 <b>2008</b>	3,540,588 2007	43.53 2006
Weighted average fair value, at date of grant, of options granted during the year Weighted average share price, at date of grant, for options granted during the year			A\$ 44.04 131.20	A\$ 14.37 75.57	A\$ 17.09 70.85	

Weighted average share price at the time the options were exercised during the year 138.10

In addition to the equity-settled options shown above there were 50,471 (2007: 53,369) cash-settled options outstanding at 31 December 2008. The total liability for these awards at 31 December 2008 was less than US\$1 million (2007: US\$3 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 (2007 and 2006: US\$2 million).

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76.64

102.04

#### Notes to the 2008 Financial statements

# 48 SHARE BASED PAYMENTS continued

#### **Mining Companies Comparative Plan**

Awards under this plan are accounted for in accordance with the requirements applying to cash-settled, share based payment transactions. If any awards are ultimately settled in shares, the liability is transferred direct to equity as the consideration for the equity instruments issued. The grant date fair value of the awards made prior to 2008 are taken to be 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 in 2008 were calculated using a Monte Carlo simulation model. In addition, for the valuations after 2005, the market value is reduced 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. In accordance with the method of accounting for cash-settled awards, fair values are subsequently remeasured each year to reflect the market price of shares at the measurement date and the number of awards expected to vest based on the current and anticipated TSR performance. This remeasurement at 31 December 2008 was calculated using a Monte Carlo simulation model.

A summary of the status of the Companies performance-based share plans at 31 December 2008, and changes during the year, is presented below.

<b>Rio Tinto plc</b> Mining Companies Comparative Pla	<b>Rio Tinto plc</b>	Mining Compa	anies Compara	ative Plan
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	2008 Number	Weighted average fair value at grant date 2008 £	2007 Number	Weighted average fair value at grant date 2007 £	2006 Number	Weighted average fair value at grant date 2006 £
Non vested awards at 1 January Awarded Forfeited Failed performance conditions Vested	3,178,073 389,760 (143,445) (441,868) (381,406)	8.60 48.07 16.25 6.45 6.45	2,777,374 719,898 (45,370) (221,656) (52,173)	7.36 12.61 10.39 6.26 6.26	2,276,511 850,126 (60,826) (233,843) (54,594)	6.62 9.02 8.18 6.20 6.22
Non vested awards at 31 December	2,601,114	14.78	3,178,073	8.60	2,777,374	7.36
Weighted-average share price at date of vesting		54.93		27.99 2008 £ 000	2007 £ 000	28.67 2006 £ 000

Total fair value of shares issued in settlement of awards vested during the			
year	6,486	457	529
Total cash payments made in settlement of awards vested during the year Total cash payments made in settlement of awards vested during previous	14,628	1,003	1,035
years			1,374
	2008	2007	2006
Total number of shares issued in settlement of awards vested during the			
year	116,601	16,335	18,443

# Rio Tinto Limited Mining Companies Comparative Plan

	2008 Number	Weighted average fair value at grant date 2008 A\$	2007 Number	Weighted average fair value at grant date 2007 A\$	2006 Number	Weighted average fair value at grant date 2006 A\$
Non vested awards at 1 January	2,209,688	23.04	1,897,008	19.35	1,510,846	17.27
Awarded Forfeited Failed performance	173,086 (33,711)	107.04 54.85	533,225 (39,790)	34.91 31.36	646,637 (83,092)	23.59 19.90
conditions Vested	(318,032) (244,276)	16.44 16.44	(149,044) (31,711)	17.50 17.58	(146,738) (30,645)	16.84 16.84
Non vested awards at 31 December	1,786,755	32.65	2,209,688	23.04	1,897,008	19.35
Weighted-average share price at date of vesting		137.10		77.95		71.65
				2008 A\$ 000	2007 A\$ 000	2006 A\$ 000
Total fair value of shares issu year Total cash payments made in Total cash payments made in years	settlement of aw	vards vested du	ring the year	14,706 19,217 141	879 1,604	1,136 1,060
				2008	2007	2006
				107,266	11,275	15,853

Total number of shares issued in settlement of awards vested during the year

## Notes to the 2008 Financial statements

# 48 SHARE BASED PAYMENTS continued

#### **Management Share Plan**

The Management Share Plan was introduced during 2007 which provides conditional 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 set equal to share price on the day of grant. 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 2008, and changes during the year, is presented below.

#### **Rio Tinto plc** Management Share Plan

	2008 Number	Weighted average fair value at grant date 2008 £	2007 Number	Weighted average fair value at grant date 2007 £
Non vested awards at 1 January Awarded Forfeited Vested Non vested awards at 31 December	344,216 440,784 (47,586) (24,609) 712,805	30.20 55.15 40.32 38.92 44.65	365,670 (19,382) (2,072) 344,216	30.09 28.33 27.15 30.20
Estimated weighted average share price of awards vested during the year	3,804	48.65		43.75

In addition to the equity-settled awards shown above, there were 217,125 (2007: 6,225) cash-settled awards outstanding at 31 December 2008. The total liability for these awards at 31 December 2008 was US\$3 million (2007: less than US\$1 million).

# Rio Tinto Limited Management Share Plan

Weighted	Weighted
average	average fair
fair value	value
at grant	at grant

	2008 Number	date 2008 A\$	2007 Number	date 2007 A\$
Non vested awards at 1 January	271,200	81.89		
Awarded	183,843	129.37	282,565	81.65
Forfeited	(29,015)	93.42	(9,973)	76.02
Vested	(3,357)	81.72	(1,392)	74.84
Non vested awards at 31 December	422,671	101.75	271,200	81.89
Estimated weighted average share price of awards vested during the year	2,894	120.79	1,392	98.69
In addition to the equity-settled awards shown above th				e

at 31 December 2008. The total liability for these awards at 31 December 2008 was less than US\$1 million (2007: less than US\$1 million).

## Notes to the 2008 Financial statements 49 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. A number of defined benefit and defined contribution plans were brought into the Group as a result of the Alcan acquisition in October 2007. Plans sponsored by the Rio Tinto Alcan Packaging business continue to be accounted for as assets or liabilities held for sale, and are not included in this note. **Pension plans** 

The majority of the Group s pension obligations are in Canada, the UK, the US, Australia and Switzerland, with further notable obligations in other European countries.

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.

In Australia, there are two superannuation plans providing defined benefits linked to final pay, typically paid in lump sum form. The main plan contains principally defined contribution liabilities, but is accounted for as a defined benefit plan as it contains characteristics of both types of plan.

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 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 balance sheet date were:

	2008	2007
Equities	52.4%	60.2%
Bonds	35.1%	29.4%
Property	7.7%	7.2%

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Other	4.8%	3.2%
	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\$6 million (2007: US\$44 million).

# Main assumptions (rates per annum)

The main assumptions for the valuations of the plans are set out below.

							Other (mainly
		Australia					Africa)
	UK	(a)	US	Canada	Eurozone	Switzerland	(b)
At 31 December 2008							
Rate of increase in							
salaries	4.4%	3.9%	3.0%	2.7%	2.4%	2.7%	6.2%
Rate of increase in							
pensions	2.7%	1.5%		0.4%	1.6%		4.2%
Discount rate	6.3%	3.3%	6.1%	7.4%	5.6%	3.3%	7.3%
Inflation	2.8%	2.0%	1.5%	1.4%	1.8%	1.5%	4.2%
At 31 December 2007							
Rate of increase in							
salaries	5.0%	5.5%	3.9%	3.4%	2.8%	2.6%	7.5%
Rate of increase in							
pensions	3.1%	2.7%		0.6%	2.3%	0.8%	5.5%
Discount rate	5.9%	5.4%	6.2%	5.5%	5.5%	3.6%	8.1%
Inflation	3.4%	3.6%	2.4%	2.2%	2.3%	1.4%	5.5%

(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.

# Notes to the 2008 Financial statements49 POST RETIREMENT BENEFITS continued

	UK	Australia	US	Canada	Eurozone	Switzerland	Other (mainly Africa) (a)
Long term rate of							
return expected at 1							
January 2008 Equities	7.7%	9.1%	7.7%	7.4%	7.7%	6.6%	11.4%
Bonds	4.9%	5.9%	5.0%	4.4%	4.5%	3.4%	7.9%
Property	6.0%	7.2%	6.0%	5.7%	6.0%	4.9%	9.7%
Other	4.2%	3.7%	3.2%	3.0%	3.0%	2.3%	6.3%
Long term rate of							
return expected at 1							
January 2007							
Equities	7.5%	8.7%	8.1%	7.4%			10.7%
Bonds	4.5%	5.2%	5.2%	4.4%			7.4%
Property	5.8%	6.8%	6.4%	5.7%			9.0%
Other	4.2%	3.5%	3.4%	3.3%			5.8%

(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 actual 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 2008 was 6.4 per cent (2007: 6.9 per cent) and is expected to be 5.9 per cent as at 1 January 2009.

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 before tax recognised in the income statement

	Pension	Other	Total	Total	Total
ha l					C10

	benefits US\$m	benefits US\$m	2008 US\$m	2007 US\$m	2006 US\$m
Current employer service cost for Defined					
Benefits ( DB ) plans	(265)	(19)	(284)	(145)	(102)
Current employer service cost for Defined					
Contribution benefits within DB plans	(133)		(133)	(106)	(74)
Current employer service cost for Defined					
Contribution plans	(62)		(62)	(40)	(21)
Interest cost	(963)	(62)	(1,025)	(516)	(314)
Expected return on assets	1,000		1,000	550	326
Past service cost	(8)	5	(3)	17	(7)
Gains on curtailment and settlement	3	2	5		3
Total expense	(428)	(74)	(502)	(240)	(189)

The above expense is included as an employee cost within net operating costs.

# Total amount recognised in the Statement of Recognised Income and Expense before tax

	2008 US\$m	2007 US\$m	2006 US\$m
Actuarial (loss)/gain Gain on currency translation on plans using US dollar functional	(1,666)	141	373
currency	321		
Loss on application of asset limit	26		
Total (loss)/gain recognised in the Statement of Recognised Income and Expense	(1,319)	141	373
Cumulative amount recognised in the Statement of Recognised Income and Expense at 31 December	(830)	489	348

Actuarial (loss)/gain includes US\$5 million loss related to equity accounted units (2007: US\$4 million loss; 2006: nil).

# Surpluses/(deficits) in the plans

The following amounts were measured in accordance with IAS 19:

	Pension benefits	Other benefits	2008 Total US\$m	<i>Restated</i> 2007 Total US\$m	2006 Total US\$m	2005 Total US\$m	2004 Total US\$m
Total fair value of plan assets	10,505		10,505	16,150	6,031	5,115	4,777
Present value of obligations funded	(12,243) (891)	(893)	(12,243) (1,784)	(16,622) (2,089)	(5,847) (597)	(5,315) (596)	(5,118) (649)

Present value of obligations unfunded							
Present value of obligations total	(13,134)	(893)	(14,027)	(18,711)	(6,444)	(5,911)	(5,767)
Unrecognised past service cost		(12)	(12)	(2)	3		
Effect of asset limit	(19)		(19)	(45)			
Aggregate surplus/(deficit) to be shown in the balance sheet	(2,648)	(905)	(3,553)	(2,608)	(410)	(796)	(990)
Comprising: - Deficits shown in balance sheet - Surpluses shown in balance sheet	(2,808) 160	(905)	(3,713) 160	(3,313) 705	(770) 360	(996) 200	(1,069) 79
Net (deficits)/surpluses on pension plans Unfunded post	(2,648)		(2,648)	(1,519)	48	(324)	(450)
retirement healthcare obligation		(905)	(905)	(1,089)	(458)	(472)	(540)

The surplus amounts shown above are included in the balance sheet as Trade and Other Receivables. See note 17. Deficits are shown in the balance sheet as Post Retirement benefits. See note 27.

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## Notes to the 2008 Financial statements49 POST RETIREMENT BENEFITS continued

#### **Contributions to plans**

Contributions to pension plans totalled US\$615 million (2007: US\$246 million; 2006: US\$172 million). These contributions include US\$52 million (2007: US\$30 million; 2006: US\$26 million) for plans providing purely defined contribution benefits (including 401k plans in the US) and US\$10 million (2007: US\$10 million; 2006: US\$9 million) to industry-wide or multi-employer plans; these are charged against profits and are included in the figures for current employer service cost shown above.

Contributions for other benefits totalled US\$53 million (2007: US\$30 million; 2006: US\$19 million).

Contributions to pension plans for 2009 are estimated to be around US\$150 million higher than for 2008. Healthcare plans are 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 do not correspond directly to the amounts disclosed above in respect of the Group. Pure defined contribution plans and industry-wide plans are excluded from the movements below.

	Pension	Other	Total 2008	Total 2007
	benefits	benefits	US\$m	US\$m
Change in present value of obligation:				
Present value of obligation at start of the year	(17,624)	(1,087)	(18,711)	(6,444)
Current employer service cost	(423)	(19)	(442)	(272)
Interest cost	(963)	(62)	(1,025)	(516)
Contributions by plan participants	(253)		(253)	(190)
Experience gain/(loss)	554	11	565	(62)
Changes in actuarial assumptions gain	1,583	101	1,684	315
Benefits paid	1,097	53	1,150	572
Alcan acquisition (restated)				(11,654)
Inclusion of arrangements	(3)		(3)	
Past service cost	(7)	15	8	22
Curtailment gains	4	2	6	
Settlement gains	28		28	
Currency exchange rate gain/(loss)	2,873	93	2,966	(482)
Present value of obligation at end of the year	(13,134)	(893)	(14,027)	(18,711)
Gains and losses on obligations	2008	2007 20	2005 2005	2004

Experience gains and (losses): (i.e. variances bet the estimate of obligations and the subsequent of Gain/(loss) (US\$m)	itcome)	565	(62)	(89)	139	(148)
As a percentage of the present value of the year obligations	ena	4%	0%	-1%	2%	-3%
Change in assumptions gain/(loss) (US\$m)		1,684	315	124	(180)	(429)
		Pension benefits	Other benefits		Total 2008 US\$m	Total 2007 US\$m
Change in plan assets:						
Fair value of plan assets at the start of the year		16,150 1,000			16,150 1,000	6,031 550
Expected return on plan assets Actuarial loss on plan assets		(3,910)			(3,910)	(108)
Contributions by plan participants		253			253	190
Contributions by employer		586	53		639	263
Benefits paid		(1,097)	(53	)	(1,150)	(572)
Alcan acquisition (restated)						9,380
Inclusion of arrangements		8			8	
Settlement losses		(29)			(29)	416
Currency exchange rate (loss)/gain		(2,456)			(2,456)	416
Fair value of plan assets at the end of the year		10,505			10,505	16,150
Actual return on plan assets					(2,910)	442
	2008	2007	2006		2005	2004
Difference between the expected and actual return on plan assets:						
(Loss)/gain (US\$m)	(3,910)	(108)	338		223	387
As a percentage of year end plan assets	-37%	-1%		%	4%	8%
	A-67	7				

# Notes to the 2008 Financial statements 49 POST RETIREMENT BENEFITS continued 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\$8 million (2007: US\$5 million; 2006: US\$6 million), and increase the benefit obligation for these plans by US\$85 million (2007:US\$89 million; 2006: US\$73 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\$7 million (2007 and 2006:US\$5 million), and decrease the benefit obligation for these plans by US\$75 million (2007 and 2006:US\$5 million), and decrease the benefit obligation for these plans by US\$75 million (2007: US\$77 million; 2006: US\$62 million).

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## Notes to the 2008 Financial statements50Rio Tinto financial information by business unit

Years ended 31 December

	Rio Tinto	Gross revenue (a)			EBIJ	TDA (b)		Net earnings (c)			
	interest	2008	2007	2006	2008	2007	2006	2008	2007	2006	
	micrest %	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	
		Coun	θbψiii	θbψin	COQIII	υbφin	θbψiii	COUM	Öbyin	0 Duli	
<b>Iron Ore</b> Hamersley Iron (including	100.0	11.007	( 155	4 416	7 0 2 0	2 427	0 (11	4 ( 42	0.151	1 (72)	
HIsmelt <sup>®</sup> ) (d)	100.0	11,006	6,155	4,416	7,038	3,427	2,611	4,642	2,151	1,673	
Robe River (e) Iron Ore Company of	53.0	2,728	1,640	1,379	1,983	991	902	1,062	503	461	
Canada	58.7	2,065	943	1,051	1,251	298	441	443	104	145	
Rio Tinto Brasil	100.0	176	61	92	73	(1)	27	44	(12)	13	
Dampier Salt	68.4	377	269	270	95	51	48	40	13	14	
Product group											
operations Evaluation		16,352	9,068	7,208	10,440	4,766	4,029	6,231	2,759	2,306	
projects/other		175	125	56	(228)	(98)	(45)	(214)	(95)	(41)	
		16,527	9,193	7,264	10,212	4,668	3,984	6,017	2,664	2,265	
Aluminium Product group											
operations Evaluation	(f)	23,795	7,309	3,493	4,224	1,729	1,389	1,255	1,119	763	
projects/other		44	50	22	(87)	(28)	(24)	(71)	(22)	(17)	
		23,839	7,359	3,515	4,137	1,701	1,365	1,184	1,097	746	
<b>Copper &amp;</b> <b>Diamonds</b> Kennecott Utah											
Copper	100.0	2,609	3,539	2,829	1,587	2,614	2,111	<b>998</b>	1,649	1,810	
Escondida Grasberg joint	30.0	2,402	3,103	2,575	1,464	2,510	2,105	836	1,525	1,250	
venture	(g)	53	461	373	38	296	258	4	159	122	
Palabora	57.7	560	689	588	167	202	203	49	58	52	
Kennecott											
Minerals	100.0	81	338	277	47	175	139	31	106	105	
Northparkes	80.0	124	371	437	(1)	212	346	(12)	137	229	
Diamonds	(h)	840	1,020	838	395	539	491	137	280	211	

Product group operations Evaluation projects/other		6,669	9,521	7,917	3,697 (403)	6,548 (212)	5,653 (63)	2,043 (285)	3,914	3,779 (41)
projects/other			0.521	7.017					(163)	
		6,669	9,521	7,917	3,294	6,336	5,590	1,758	3,751	3,738
Energy & Minerals										
RTEA Rio Tinto Coal	100.0	1,869	1,560	1,428	397	331	302	147	132	177
Australia Rössing Energy Resources of	(i) 68.6	5,142 548	2,272 486	2,344 229	2,900 260	510 235	920 71	1,721 101	246 95	490 27
Australia	68.4	418	303	239	352	135	79	141	38	17
Rio Tinto Iron and Titanium Rio Tinto	(j)	1,919	1,673	1,449	755	471	428	295	164	152
Minerals	(k)	1,061	965	911	183	176	148	86	71	77
Product group operations Evaluation		10,957	7,259	6,600	4,847	1,858	1,948	2,491	746	940
projects/other		41	144	65	395	(63)	(52)	396	(59)	(42)
		10,998	7,403	6,665	5,242	1,795	1,896	2,887	687	898
Other operations		44	55	86	(63)	30	39	(52)	15	33
		58,077	33,531	25,447	22,822	14,530	12,874	11,794	8,214	7,680
Other items		(12)	(13)	(7)	(355)	(635)	(249)	(337)	(526)	(241)
Exploration and evaluation Net interest					(150)	25	(101)	(124) (1,030)	20 (265)	(84) (17)
<b>Underlying</b> earnings Items excluded from underlying					22,317	13,920	12,524	10,303	7,443	7,338
earnings Less: share of equity accounted units					1,553	(309)	42	(6,627)	(131)	100
sales revenue		(3,801)	(3,818)	(2,975)						

Total	54,264	29,700	22,465	23,870	13,611	12,566	3,676	7,312	7,438
Depreciation									
and amortisation in									
subsidiaries				(3,475)	(2,115)	(1,509)			
Impairment				(0,110)	(_,110)	(1,00))			
charges				(8,030)	(58)	396			
Depreciation									
and amortisation in									
equity									
accounted units				(414)	(310)	(275)			
Taxation and									
finance items in equity									
accounted units				(718)	(973)	(826)			
Profit before finance items									
and taxation				11,233	10,155	10,352			
					10,100	10,002			
			A	-69					

#### Notes to the 2008 Financial statements

## 50 Rio Tinto financial information by business unit (continued)

Years ended 31 December

					Depreciation &		Operating					
	Rio Tinto	Capita	al expen (l)	diture	amortisation		assets	; ( <b>m</b> )	Employees (o)			
	interest	2008	2007	2006	2008	2007	2006	2008	2007	2008	2007	2006
	%	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	US\$m	Number	Number	Number
Iron Ore												
Hamersley												
Iron												
(including	100.0	1.070	1 507	1 700		250	021	<b>5 15</b> 0	( 100	( 201	4706	4 1 6 1
HIsmelt <sup>®</sup> ) (d) Robe River	100.0	1,860	1,597	1,700	466	352	231	5,170	6,133	6,321	4,786	4,161
(e)	53.0	683	241	104	111	104	90	1,622	1,877	1,011	873	678
Iron Ore	55.0	000	211	101		101	20	1,022	1,077	1,011	075	070
Company of												
Canada	58.7	256	163	151	83	78	58	482	869	2,094	1,939	1,886
Rio Tinto												
Brasil	100.0	146	30	18	14	9	8	207	135	841	657	522
Dampier Salt	68.4	27	20	25	21	21	17	154	273	394	376	349
Other		24	34	8	10	3		(3)	24	448	375	
		2,996	2,085	2,006	705	567	404	7,632	9,311	11,109	9,006	7,596
		,	,	,				,	,	,		,
۸ <b>۱</b>		2 (71	(12	226	1 050	(10	200	25 720	42 005	20.226	11 400	4 2 4 7
Aluminium	(f)	2,671	612	236	1,858	618	266	35,730	43,885	39,326	11,428	4,347
Copper &												
Diamonds												
Kennecott Utah Copper	100.0	316	282	295	246	251	151	1,750	1,694	1,915	1,854	1,744
Escondida	30.0	120	170	155	240 98	231 98	96	1,730 849	1,094	1,913 960	876	1,744
Grasberg join		120	170	155	70	70	70	042	1,045	200	070	1,072
venture	(g)	32	76	45	25	24	43	426	410	2,185	2,047	1,781
Palabora	57.7	40	27	18	57	41	40	123	84	2,116	2,072	1,811
Kennecott												
Minerals	100.0	71	84	78	4	24	26	30	236	46	457	409
Northparkes	80.0	105	55	16	15	22	48	187	151	210	208	182
Diamonds	(h)		525	257	175	181	182	1,340	1,241	1,401	1,291	1,354
Other		132	22	57	1	1		831	498	143	162	56
		1,468	1,241	921	621	642	586	5,536	5,359	8,976	8,967	8,409

Energy & Minerals												
RTEA Rio Tinto	100.0	204	226	262	150	131	116	1,090	1,163	2,477	2,435	2,297
Coal Australia	(i)	449	226	251	194	165	170	1,134	1,755	3,206	2,832	2,462
Rössing Energy Resources of	68.6	73	57	38	20	13	6	229	151	1,307	1,175	936
Australia Rio Tinto Iron	68.4	144	80	31	51	50	32	212	296	448	365	366
and Titanium Rio Tinto	(j)	563	494	252	118	119	112	2,122	2,202	4,105	3,854	3,728
Minerals	(k)	63	51	83	68	61	60	792	892	2,580	2,512	2,667
Other		5	17		11	3		60	58	155	135	
		1,501	1,151	917	612	542	496	5,639	6,517	14,278	13,308	12,456
Other												
otner operations Net assets held for sale		192	37	23	13	2	2	560	139	163	203	309
(n) Other items Less: equity accounted		151	144	174	80	54	30	3,204 1,009	4,392 360	28,386 3,547	5,680 3,085	2,128
units		(491)	(302)	(289)	(414)	(310)	(275)					
Total		8,488	4,968	3,988	3,475	2,115	1,509	59,310	69,963	105,785	51,677	35,245
Less: Net debt								(38,672)	(45,191)			
Total Rio Tinto shareholders												
equity								20,638	24,772			

Business units have been classified according to the Group s management structure. Generally, this structure has regard to the primary product of each business unit but there are exceptions. For example, the Copper group includes certain gold operations.

The following changes have been made to the way Rio Tinto presents its financial information by business unit during 2008. Industrial Minerals was combined with Energy to form the Energy & Minerals product group. Diamonds was combined with Copper to form the Copper & Diamonds product group. Dampier Salt was reclassified from the Minerals product group to the Iron Ore product group. Information for 2007 has been reclassified 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.
- (b) EBITDA of subsidiaries and the Group s share of EBITDA relating to equity accounted units represents profit before: tax, net finance items, depreciation and amortisation.

(c)

Net earnings represent profit after tax for the year attributable to the Rio Tinto Group. Earnings of subsidiaries are stated before finance items but after the amortisation of the discount related to provisions. Earnings attributable to equity accounted units include interest charges and amortisation of discount. 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 iron (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 beneficial interest is therefore 53 per cent, net of amounts attributable to outside equity shareholders.
- (f) Includes the Alcan group, excluding Packaging which is shown as an Asset Held for Sale , acquired in 2007 together with the aluminium business previously owned by Rio Tinto.
- (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) Diamonds includes Rio Tinto s interests in Argyle (100 per cent), Diavik (60 per cent) and Murowa (77.8 per cent).
- (i) 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. The Group owns a 40 per cent interest in Bengalla and 80 per cent interest in Mount Thorley through a 75.71 per cent investment in Coal and Allied, giving a beneficial interest to the Group of 30.3 per cent and 60.6 per cent, respectively.
- (j) Includes Rio Tinto s interests in QIT (100 per cent) and Richards Bay Iron and Titanium (Pty) Limited (50 per cent).
- (k) Includes Rio Tinto s interests in Rio Tinto Borax (100 per cent) and Luzenac Talc (100 per cent).
- (1) 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.
- (m) Operating assets of subsidiaries comprise net assets before deducting net debt, less outside shareholders interests which are calculated by reference to the net assets of the relevant companies (i.e. net of such companies debt). For equity accounted units, Rio Tinto s net investment is shown.
- (n) On this line, operating assets deal with Alcan Packaging and other assets held for sale. The remaining data on this line relates only to Alcan Packaging.
- (o) 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. Rio Tinto Alcan s employees in 2007 are shown on a pro rata basis.

#### Australian Corporations Act summary of ASIC relief

Pursuant to section 340 of the Corporations Act 2001 ( Corporations Act ), the Australian Securities and Investments Commission issued an order dated 27 January 2006 (as amended on 22 December 2006) 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 2005 and 31 December 2009 (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 equivalents of International Financial Reporting Standards ( AIFRS ) (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 AIFRS, of the following amounts: consolidated profit for the financial year, total consolidated recognised income for the financial year and total consolidated equity at the end of the financial year (see page A-6).

Those consolidated financial statements must also be audited in accordance with relevant United Kingdom requirements. Rio Tinto Limited must also prepare a *Directors report* which satisfies the content requirements of the Corporations Act (applied on the basis that 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 138 to 165) must include all the information required to be included in a *Remuneration report* under the Corporations Act, as well as the information required by AIFRS (namely, AASB 124 Related Party Disclosures ) dealing with compensation of directors and executives who are key management personnel , and certain other disclosures.

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 required to prepare and lodge parent entity financial statements for itself in respect of each relevant financial year, in accordance with the principles and requirements of AIFRS (other than in respect of

key management personnel compensation disclosures under AASB 124, which as noted above are instead incorporated into the separate *Remuneration report*), and to have those statements audited. Those financial statements are not required to be laid before the Company s AGM or distributed to shareholders as a matter of course. However, Rio Tinto Limited must:

-include in the consolidated financial statements for the Group, as a note, Rio Tinto Limited s parent entity balance sheet, income statement, statement of changes in equity and statement of cashflows, prepared in accordance with AIFRS; and

-make available the full parent entity financial statements free of charge to shareholders on request, and also include a copy of them on the Company s website.

The parent entity financial statements are available for download from the Rio Tinto website at www.riotinto.com. Shareholders may also request a copy free of charge by contacting the Rio Tinto Limited company secretary.

#### **Report of Independent Registered Public Accounting Firm**

#### To the Boards of Directors and Shareholders of Rio Tinto plc and Rio Tinto Limited:

In our opinion, the accompanying consolidated balance sheets and the related consolidated income statements, consolidated statements of cash flows and consolidated statements of recognised income and expense present fairly, in all material respects, the financial position of the Rio Tinto Group at 31 December 2008 and 31 December 2007, and the results of its operations and its cash flows for each of the three years in the period ended 31 December 2008 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board and in conformity with International Financial Reporting Standards as adopted by the European Union. Also in our opinion, the Rio Tinto Group maintained, in all material respects, effective internal control over financial reporting as of 31 December 2008, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Rio Tinto Group s management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in

Management s report on internal control over financial reporting as set out in Item 15 on page 191. Our responsibility is to express opinions on these financial statements and on Rio Tinto Group s internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States) and International Standards on Auditing (UK and Ireland). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting effectiveness of internal control over financial material meterial weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the company s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

#### PricewaterhouseCoopers LLP

London, United Kingdom 2 April 2009 In respect of the Board of Directors and Shareholders of Rio Tinto plc PricewaterhouseCoopers Brisbane, Australia 2 April 2009 In respect of the Board of Directors and Shareholders of Rio Tinto Limited A-72

#### MINERA ESCONDIDA LIMITADA

Financial Statements June 30, 2008, 2007 and 2006

(With Independent Auditor s Report Thereon) A-73

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#### Independent Auditors Report

The Owners

Minera Escondida Limitada:

We have audited the accompanying balance sheets of Minera Escondida Limitada as of June 30, 2008 and 2007, and the related statements of income, equity, and cash flows for the years ended June 30, 2008, 2007 and 2006. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Minera Escondida Limitada as of June 30, 2008 and 2007, and the results of its operations and its cash flows for the years ended June 30, 2008, 2007 and 2006 in conformity with accounting principles generally accepted in the United States of America.

KPMG Auditores Consultores Ltda.

Santiago, Chile September 29, 2008

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#### MINERA ESCONDIDA LIMITADA

Balance Sheets June 30, 2008 and 2007 (in thousands of USD)

	2008	2007
Assets		
Current assets:		
Cash and cash equivalents	50,335	127,299
Trade accounts receivable	1,918,997	1,729,031
Due from related companies	25,076	25,907
Other receivables, including employee receivables	19,931	17,280
Production inventories	317,912	178,485
Supplies and spare parts, net	125,262	79,594
Other current assets	279,040	187,452
Total current assets	2,736,553	2,345,048
Property, plant and mine development, net	3,861,341	3,620,235
Other assets:		
Intangible assets, net	49,611	53,371
Other assets, net	204,787	166,580
Total other assets	254,398	219,951
Total assets	6,852,292	6,185,234
		(Continued)