

## 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 2.

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 approximately 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 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 93. Further details of the strategic partnership with Chinalco are set out on page 14.

**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.

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 27.

**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 100.

**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.

## Risk factors continued

### **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

US\$ millions	2008	2007	2006	2005	2004
Expected return on plan assets	1,000	550	326	306	263
Actual return on plan assets	(2,910)	442	664	529	650
Difference between the expected and actual return on plan assets: (Loss)/gain (US\$ million)	(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 estimated 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.

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

**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

contributions to these pension plans.

Actual investment returns achieved compared to the amounts assumed within the Group's reported pension expense was as follows:

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

## Risk factors continued

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 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 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.