Financial review

This section contains our financial results and in depth discussion

Platform for growth

Two ports and three terminals on Australia's west coast are linked to 11 iron ore mines by a 1,300km rail network built and owned by Rio Tinto Iron Ore

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 Full 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 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 stabilise earnings and cash flow.

The Group has a diverse portfolio of commodities and markets, which have varying responses to the economic cycle. The relationship between commodity prices and the currencies of most of the countries in which the Group operates provides further natural protection in the long term. Production of minerals is an important contributor to the Gross Domestic Products of Australia and Canada, countries in which the Group has a large presence. As a consequence, the Australian and Canadian currencies have historically tended to strengthen when commodity prices are high. In addition, the Group's policy of borrowing primarily at floating US dollar interest rates 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 *Full 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 24 to 28.

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 164.

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.

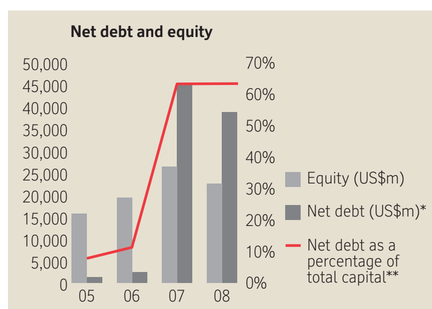
The unified credit status of the Group is maintained through cross guarantees whereby contractual obligations of Rio Tinto plc and Rio Tinto Limited are automatically guaranteed by the other. In December 2008, Moody's downgraded the long-term ratings of the Group from A3 to Baa1 and S&P downgraded its 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. 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.

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.



* 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 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 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.

As at 31 December 2008, the Group had contractual cash obligations arising in the ordinary course of business as follows:

Contractual cash obligations	Total US$m	Less than 1 year US$m	Between 1 and 3 years US$m	Between 3 and 5 years US$m	After 5 years US$m
Expenditure commitments in relation to:					
Operating leases	1,561	336	565	345	315
Other (mainly capital Commitments)	4,354	3,568	487	228	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

(a) Debt obligations include bank borrowings repayable on demand.

(b) Interest payments have been projected using the interest rate applicable at 31 December 2008, including the impact of 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 *Full 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 *Full 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.

Earnings sensitivities – exchange rates

	Average exchange rate for 2008	Effect on net and underlying earnings of 10% change in full year average +/- US$m
Australian dollar (a)	US 86 cents	502
Canadian dollar (a)	US 94 cents	214
Euro	US 147 cents	34
Chilean peso	US$1 = 522 pesos	17
New Zealand dollar	US 71 cents	29
South African rand	US 12 cents	47
UK sterling	US 186 cents	22

(a) 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 *Full 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 *Full 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.

Earnings sensitivities – exchange on financial assets/liabilities

	Closing exchange rate US cents	Effect on net earnings of 10% strengthening of US$ US$m	Of which amount impacting underlying earnings US$m	Effect of items impacting directly on equity US$m
Functional currency of business unit:				
Australian dollar	69	(12)	78	5
Canadian dollar	82	159	193	56
South African rand	11	13	19	–
Euro	141	249	28	2
New Zealand dollar	58	21	2	–

(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:

Net assets' sensitivities – exchange on translation

	Closing exchange rate US cents	2008 Effect on net assets of 10% change in closing rate +/- US$m
Australian dollar	69	1,264
Euro	141	621
Canadian dollar	82	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 *Full 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:

Earnings sensitivities – commodity prices (b)	Unit	Average market price for 2008 US$	Effect on underlying and net earnings of 10% change in full year average +/- US$m
Copper	pound	3.20	389
Aluminium (a)	pound	1.18	739
Gold	ounce	872	30
Molybdenum	pound	31	62
Iron ore	dmtu	N/A	829

(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 were entered into and continue to be held for the purpose of the receipt or delivery of the non financial item in accordance with the business unit's expected purchase, sale or usage requirements.

These sensitivities should be used with care. The relationship between currencies and commodity prices is a complex one and changes in exchange rates can influence commodity prices and vice versa.

Earnings sensitivities – commodity price on financial assets/liabilities Products	Effect on net earnings of 10% increase from year end price US$m	Effect of items impacting directly on Rio Tinto share of equity of 10% increase from year end price US$m
Copper	–	(13)
Coal	–	(8)
Aluminium	(62)	(16)
Total	(62)	(37)

Sales revenue

Commodity	Source	Unit	**2008 US$**	2007 US$	2006 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
Iron ore	Australian benchmark (fines) (a)	dmtu (b)	**1.29**	0.79	0.71
Molybdenum	Metals Week: quote for dealer oxide price	pound	**31**	30	25

(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 *Full 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 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 revenues 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 *Full 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 *Full 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 *Full financial statements* disclose the effect of the adjustments to consolidated EU 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 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.

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 *Full 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.

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 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.

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 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 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 proved 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)	**1.98**	1.99	2.04	**1.24**	1.32	1.36
Grasberg Joint Venture (2015) (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 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 open 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 EU IFRS with effect from 1 January 2004, deferred tax was provided in respect of fair value adjustments on acquisitions in previous years. No other adjustments were made to the assets and liabilities recognised in such prior year acquisitions and, accordingly, shareholders' funds were reduced by US$720 million on transition to EU IFRS primarily as a result of deferred tax on fair value adjustments to mining rights. In general, these mining rights are not eligible for income tax allowances. In such cases, the provision for deferred tax was based on the difference between their carrying value and their nil income tax base. The existence of a tax base for capital gains tax purposes was not taken into account in determining the deferred tax provision relating to such mineral rights because it is expected that the carrying amount will be recovered primarily through use and not from the disposal of the mineral rights. Also, the Group is only entitled to a deduction for capital gains tax purposes if the mineral rights are sold or formally relinquished.

For acquisitions after 1 January 2004 provision for such deferred tax on acquisition results in a corresponding increase in the amounts attributed to acquired assets and/or goodwill under EU 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

	EU 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)

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 *Full 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 EU 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 above table only show the impact on underlying and net earnings. Changing the assumptions would also have an impact on the balance sheet.

Further information on pensions and other post retirement benefits is given in note 49 to the 2008 *Full 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 EU 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 inferred resources to form a basis for the impairment review. The review is based on a status report regarding the Group's intentions for development of the undeveloped project. In some cases, the undeveloped projects are regarded as successors to orebodies, smelters or refineries currently in production 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 *Full 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.