

RIO TINTO PLC
Form 20-F
March 04, 2019
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549
FORM 20-F

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

or

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended: 31 December 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from: _____ to _____

or

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report _____

Commission file number: 001-10533

Rio Tinto plc

(Exact Name of Registrant as Specified in Its Charter)

England and Wales

(Jurisdiction of Incorporation or Organisation)

6 St. James s Square
London, SW1Y 4AD, United Kingdom
(Address of Principal Executive Offices)

Commission file number: 001-34121

Rio Tinto Limited
ABN 96 004 458 404

(Exact Name of Registrant as Specified in Its Charter)

Victoria, Australia

(Jurisdiction of Incorporation or Organisation)

Level 7, 360 Collins Street
Melbourne, Victoria 3000, Australia
(Address of Principal Executive Offices)

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Julie Parent, T: 514-848-8519, E: julie.parent@riotinto.com

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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

<u>Title of Each Class</u>	<u>Name of Each Exchange</u>	<u>On Which Registered</u>	<u>Title of Each Class</u>	<u>Name of Each Exchange</u>	<u>On Which Registered</u>
American Depositary Shares*	New York Stock Exchange			New York Stock Exchange	
Ordinary Shares of 10p each**	New York Stock Exchange			New York Stock Exchange	
3.750% Notes due 2025	New York Stock Exchange		3.750% Notes due 2025	New York Stock Exchange	
7.125% Notes due 2028	New York Stock Exchange		7.125% Notes due 2028	New York Stock Exchange	
5.200% Notes due 2040	New York Stock Exchange		5.200% Notes due 2040	New York Stock Exchange	
4.750% Notes due 2042	New York Stock Exchange		4.750% Notes due 2042	New York Stock Exchange	
4.125% Notes due 2042	New York Stock Exchange		4.125% Notes due 2042	New York Stock Exchange	

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

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

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

Title of Class

Title of Class Shares

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period

covered by the annual report:

<u>Title of each class</u>	<u>Rio Tinto plc - Number</u>	<u>Rio Tinto Limited - Number</u>	<u>Title of each class</u>
Ordinary Shares of 10p each	1,287,659,651	371,216,214	Shares
DLC Dividend Share of 10p	1	1	DLC Dividend Share
Special Voting Share of 10p	1	1	Special Voting Share

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

Yes No

If this report is an annual or transition report, indicate by check mark if the registrants are not required to file reports pursuant to

Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Note Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities

Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrants: (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities

Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrants were required to file such

reports), and (2) have been subject to such filing requirements for the past 90 days:

Yes No

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Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during

the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the registrants are large accelerated filers, accelerated filers, or non-accelerated filers. See definition

of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Large Accelerated
Filer

Accelerated Filer

Non-Accelerated Filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark

if the registrant has elected not to use the extended transition period for complying with any new or revised

financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

US GAAP

International Financial Reporting Standards as issued by the International Accounting Standards

Board

Other

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the

registrants have elected to follow:

Item 17

Item 18

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

Yes No

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This document comprises the annual report on Form 20-F and the annual report to shareholders for the year ended 31 December 2018 of Rio Tinto plc and Rio Tinto Limited (2018 Form 20-F). Pursuant to Rule 12b-23(a) of the Securities Exchange Act of 1934, as amended, the information for the 2018 Form 20-F of Rio Tinto set out below is being incorporated by reference from the Annual report 2018 included as exhibit 15.2 to this 2018 Form 20-F (Annual report 2018).

Only (i) the information set out below with the reference to specific pages of the Annual report 2018, including any page references incorporated in the incorporated material unless specifically noted otherwise (ii) the cautionary statement concerning forward-looking statements on page 300 of the Annual report 2018, and (iii) the Exhibits, shall be deemed to be filed with the Securities and Exchange Commission for any purpose, including incorporation by reference into the Registration Statement on Form F-3 File No. 333-217778, and Registration Statements on Form S-8 File Nos. 333-184397, 333-147914, 333-156093, 333-202546, 333-202547 and 333-224907 and any other documents, including documents filed by Rio Tinto plc and Rio Tinto Limited pursuant to the Securities Act of 1933, as amended, which purport to incorporate by reference the 2018 Form 20-F. Any information herein which is not referenced in the 2018 Form 20-F or the Exhibits themselves, shall not be deemed to be so incorporated by reference. The Annual report 2018 contains references to our website. Information on our website or any other website in the Annual report 2018 is not incorporated into this document and should not be considered part of this document. We have included any website as an inactive textual reference only.

All reference in the 2018 Form 20-F to we , our , the company or the Group mean Rio Tinto plc and Rio Tinto Limited.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

3.A Selected financial data

The information set forth under the headings:

2018 at a glance on pages 4 and 5;

Financial review on pages 26 to 31;

Five-year review on page 73; and

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Shareholder information-Dual listed companies structure on pages 292 and 293;
of the Annual report 2018 is incorporated herein by reference.

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The following chart sets out the amounts of interim and final dividends paid or payable on each share or American Depository Shares (ADS) in respect of each financial year, but before deduction of any withholding tax.

		2018	2017	2016	2015	2014
Rio Tinto Group	US cents per share					
Interim		127.00	110.00	45.00	107.50	96.00
Special		243.00	--	--	--	--
Final		180.00	180.00	125.00	107.50	119.00
Total		550.00	290.00	170.00	215.00	215.00
Rio Tinto plc	UK pence per share					
Interim		96.82	83.13	33.80	68.92	56.90
Special		183.55	--	--	--	--
Final		135.96	129.43	100.56	74.21	77.98
Total		416.33	212.56	134.36	143.13	134.88
Rio Tinto Limited	Australian cents per share					
Interim		170.84	137.72	59.13	144.91	103.09
Special		338.70	--	--	--	--
Final		250.89	228.53	163.62	151.89	152.98
Total		760.43	366.25	222.75	296.80	256.07
Rio Tinto plc	US cents per ADS					
Interim		126.79	110.99	44.59	104.94	93.30
Special ^(a)		--	--	--	--	--
Final ^(a)		--	181.15	125.62	106.66	115.76
Total^(a)		--	292.14	170.21	211.60	209.06

(a) The special and final dividend payable to holders of ADSs for the 2018 financial year will be announced on 11 April 2019 when the pounds sterling to US dollar currency conversion rate is determined.

3.B Capitalisation and indebtedness

Not applicable.

3.C Reasons for the offer and use of proceeds

Not applicable.

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3.D Risk factors

Risk management

We are exposed to a variety of risks that can affect our business performance, reputation and licence to operate financially, operationally and in terms of compliance. Creating shareholder value is the reward for taking and accepting risk. Effective management of risk is therefore critical to whether we can achieve our strategic objectives.

The risk landscape in 2018

The geopolitical context remained unsettled during 2018, with rising trade tensions creating increased market volatility. We have, however, generally experienced a favourable market and pricing environment. While there have been inflationary cost pressures affecting the industry, we have focused on delivering continued operational efficiencies through our mine-to-market productivity programme to defend our margins. Our solid cash flows, underpinned by strong prices and cash from divestments, have further strengthened our balance sheet and decreased our liquidity risk. We have also maintained a strong discipline around capital allocation: returning cash to shareholders and investing in high-quality long-term greenfield and brownfield projects.

In 2018, we continued to enhance our controls for managing operational risks. In particular, we are strengthening how we manage the risks of major hazards through a Group-wide improvement programme, and are applying more rigorous cyber-security controls to deal with the evolving and growing threat of cyber attacks and security exposures.

Our trading and sales and marketing teams have continued to develop a more sophisticated market interface with the ongoing expansion of our Commercial division in Singapore. We are building a robust governance, risk and controls framework to support the Commercial team and to manage the strategic, financial and operational risks to which they are exposed.

We also continue to focus on managing risks relating to our relationships with governments, communities and key customers and suppliers. Our partner-to-operate strategy supports the creation and maintenance of mutually beneficial partnerships with key stakeholders, particularly host governments.

Our managed and non-managed joint ventures, particularly operations in places with higher sovereign risk, continue to need close monitoring and active management. Our non-managed joint-venture portfolio is now better aligned with our strategic priorities and appetite for risk, after the sale of our interest in the Grasberg mine in Indonesia. And we are continuing to refine our portfolio for a future carbon-constrained world, with the sale of our Australian coal assets.

You can see changes to our risk profile during 2018 on the following pages. For more detail on movements and the monitoring of these exposures, see pages 34-51 (Business reviews), 76-141 (the Directors' report) and the Notes to the financial statements on page 150 of the Annual report 2018.

Emerging risks

In the near term, we expect to face continued macroeconomic and geopolitical uncertainty. The global economic cycle is expected to weaken due to monetary policy normalisation, the fading impacts of the US stimulus and weakening demand in China. We see the most significant short-term risks to be the impact on market sentiment of continuing global trade tensions, the potential for a sharp and prolonged downward correction in global equities, and a worse-than-expected slowdown in the Chinese economy.

We are also mindful of the ongoing rise of populism in many of the markets in which we operate. This is likely to lead to increasing resource nationalism and pressure from governments, communities and customers for a greater share of the wealth that our business creates. Related to this, we also see a tightening of scrutiny around foreign investments.

In the medium term, we see both threats and opportunities in technological disruption from mining and processing automation to machine learning and artificial intelligence. We aim to use these technologies to improve productivity in increasingly sophisticated markets, while managing the social implications of automation in partnership with our host governments.

In the longer term, we predict increasing demand for sustainable working practices and a growing need to manage environmental and other risks to our licence to operate, such as land reform. Climate change represents perhaps the greatest long-term threat to our business, but also brings opportunities. We will need to show resilience to the risks it poses physical, regulatory and market. A low-carbon economy may lead to structural shifts such as a step-change in recycling, but it will also fuel higher demand for commodities like copper and raw materials for batteries.

Already, societal expectations around water and closure management are changing. We have considerably enhanced our framework for managing water risk, developing a comprehensive Water Risk Profile, Group-wide water metric and

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Group water target. We have also created a centrally coordinated closure strategy and a dedicated Closure team to provide strong lifecycle planning and to oversee our growing activities related to closing and repurposing our sites.

Principal risks and uncertainties exposure at a glance 2018 trend

	External	Internal	Internal and external
Increasing risk or uncertainty	<ul style="list-style-type: none"> - Sovereign risk - China development pathway - Commodity prices 		<ul style="list-style-type: none"> - Attracting and retaining talent
No change in risk or uncertainty	<ul style="list-style-type: none"> - Strategic partnership 	<ul style="list-style-type: none"> - Execution of acquisitions and divestments - Capital project development - Health, safety, environment and communities 	<ul style="list-style-type: none"> - Exploration and resources - Operational excellence - Regulation and regulatory intervention
Decreasing risk or uncertainty			<ul style="list-style-type: none"> - Liquidity

How we manage risk

Underpinned by our risk policy and standards, our approach to risk management and internal control is aimed at embedding risk awareness in all decision-making, and a commitment to managing risk proactively and effectively. This includes:

- Identifying and evaluating threats and opportunities early.
- Managing and preventing threats before they materialise, and responding effectively if they do.
- Actively pursuing opportunities to capture value within agreed risk tolerances.

We make accountability for risk management very clear in our business – this is a key performance area for line managers.

Our Risk team supports the understanding and management of risk at all levels of the business. They provide a framework for managing and reporting material risks, escalating key issues to the Executive Committee and ultimately to the board, if appropriate. They also support the Risk Management Committee.

Our process for identifying, evaluating and managing material business risks is designed to manage rather than eliminate threats where appropriate, accepting a degree of risk to generate returns. Certain threats, such as natural disasters, cannot be managed using internal controls, and there is limited capacity in the international insurance markets to transfer such risks.

We have material investments in a number of jointly controlled entities. Where we do not have managerial control, we may be unable to ensure that management will comply with our policies and standards, but we use what influence we have.

Our risk management framework

The responsibility for identifying, evaluating and managing risks lies with all our employees and business leaders. They operate within the Group-wide framework to manage risks within approved limits.

The framework also defines the oversight responsibilities of the board and the Executive Committee. Both are supported by our Risk Management Committee and central support functions, such as Risk and Group Internal Audit, to enable the effective identification, evaluation and management of risk across our business.

Our framework lays out a three lines of defence approach to managing risks and controls:

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First line: employees and business leaders own risks.

Second line: our central support functions and Risk Management Committee control our risk framework and internal control systems.

Third line: Group Internal Audit assures our internal control systems.

The key risk management responsibilities throughout the Group are outlined below.

Our risk management framework

Oversight	Board	<ul style="list-style-type: none"> - Determines the nature and extent of acceptable risk as we pursue our strategic objectives. - Confirms that management’s risk limits reflect the level of risk the board is willing to accept to achieve our strategic objectives. - Oversees the risk management process.
	Board committees	<ul style="list-style-type: none"> - At least once a year, the Audit Committee monitors and reviews the maturity and effectiveness of our risk management and internal control systems. - The Audit and Sustainability Committees review regular reports from management on the strategies and controls applied to any material business risks identified within the Committees’ scope.
Third line	Group Internal Audit	<ul style="list-style-type: none"> - Provides independent and objective assurance that our risk management and internal control systems are adequate and effective.
Second line	Executive Committee	<ul style="list-style-type: none"> - Sets our risk strategy and assesses the risks inherent in key investments and in strategic, business or annual plans.
	Risk Management Committee	<ul style="list-style-type: none"> - Oversees our risk management framework to help identify significant risks to Group-level objectives and to make sure we have effective risk management processes.
	Risk function	<ul style="list-style-type: none"> - Coordinates and supports Group-level risk management activity and reporting.

- Embeds risk management into core business processes, such as planning and capital allocation.

- Builds risk management capability and a risk-aware culture throughout the Group.

Other central support functions and management committees - Provide targeted expertise and support to risk, action and control owners.

- Develop and maintain specific controls, including policies, standards and procedures, to support the effective management of material Group-level risk within the agreed limits.

- Assure first line of defence compliance with controls.

First line

Product groups and central functions, executive/audit forums

- Monitor material risks and track activities to manage risk within their own business activities, escalating when appropriate.

- Consider risk and uncertainty in strategic and business planning and capital allocation proposals.

Product groups and business units

- Identify, assess and manage risks in operations, functions and projects.

Risk Community of Practice

- Supports alignment, consistency and continuous improvement of risk management.

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Principal risks and uncertainties

The principal risks and uncertainties outlined in this section reflect the inherent risks that could materially affect Rio Tinto or its ability to meet its strategic objectives, either directly or by triggering a succession of events that in aggregate become material to the Group.

Rio Tinto’s business units and functions assess the potential economic and non-economic consequences of their respective risks using the framework defined by the Group’s Risk standard. Once identified, each principal risk or uncertainty is reviewed and monitored by the relevant internal experts and by the Risk Management Committee and, as appropriate, by the relevant board committees and the board.

There may be additional risks unknown to Rio Tinto and other risks currently not believed to be material which could turn out to be material. A number of them, particularly those with longer-term potential impacts, are referred to in the sustainable development section on pages 52 to 63 of the Annual report 2018.

The principal risks and uncertainties should be considered in connection with any forward-looking statements in the Annual report 2018 and the cautionary statement on page 300 of the Annual report 2018.

Market risks

Rio Tinto operates in global markets and accepts the impact of exchange rate movements and market-driven prices for our commodities, seeking premiums where possible.

Commodity prices: inherent risk and uncertainty	Threats
<p>Commodity prices, driven by demand and supply for the Group’s products, vary outside of expectations over time.</p>	<p>Falling commodity prices, or adverse exchange rate movements, reduce cash flow, limiting profitability and shareholder returns. These may trigger impairments and/or impact rating agency metrics. Extended subdued prices may reflect a longer-term fall in demand for the Group’s products, and the reduced earnings and cash flow streams resulting from this may limit investment and/or growth opportunities.</p>
<p>Exchange rate variations and geopolitical issues may offset or exacerbate this risk.</p>	
<p>Anticipating and responding to market movements is inherently uncertain and outcomes may vary.</p>	<p>Failure to deliver planned returns from commercial insights would negatively impact cash flows for the Group.</p>

China development pathway: inherent risk and uncertainty

China's growth pathway could impact demand for the Group's products outside of expectations.

Threats

China is the largest market for our products, and Chinese demand is a strong driver, at times the dominant one, of the market price of the commodities we produce. An economic slowdown in China, and/or a material change in policy, could result in a slowdown in demand for our products and reduced earnings and cash flow for the Group.

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Strategic risks

Rio Tinto enforces disciplined capital allocation to the best returning opportunities (organic and inorganic growth projects) or returns to shareholders.

Execution of acquisitions and divestments: inherent risk and uncertainty

Rio Tinto's ability to secure planned value by successfully executing divestments and acquisitions may vary.

Threats

Divestment and acquisition activity incurs transaction costs that cannot be recouped, or may result in value destruction by realising less than fair value for divestments or paying more than fair value for acquisitions. This could result in unforeseen pressure on the Group's cash position or reduce the Group's ability to expand operations. The Group may also be liable for the past acts or omissions of assets it has acquired that were unforeseen or greater than anticipated at the time of acquisition. The Group may also face liabilities for divested entities if the buyer fails to honour commitments or the Group agrees to retain certain liabilities.

Capital project development: inherent risk and uncertainty

The Group's ability to deliver projects successfully may vary.

Threats

A delay or overrun in a project schedule could negatively impact the Group's profitability, cash flows, ability to repay project-specific indebtedness, asset carrying values, growth aspirations and relationships with key stakeholders.

Strategic partnerships: inherent risk and uncertainty

Threats

Strategic partnerships play a material role in delivering the Group's production, cash and market positioning, and these may not always develop as planned.

Joint-venture partners may hinder growth by not agreeing to support investment decisions. For non-managed operations, the decisions of the controlling partners may cause adverse impacts to the value of the Group's interest in the operation or to its reputation and may expose it to unexpected financial liability.

Financial risk

Rio Tinto maintains a strong balance sheet and liquidity position to preserve financial flexibility through the cycle.

Liquidity: inherent risk and uncertainty

External events and internal capital discipline may impact Group liquidity.

Threats

The Group's ability to raise sufficient funds for planned expenditure, such as capital growth and/or mergers and acquisitions, as well as the ability to weather a major economic downturn, could be compromised by a weak balance sheet and/or inadequate access to liquidity.

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Resources risks

Rio Tinto invests materially to accurately identify new deposits and develop orebody knowledge, underpinning our operations and projects.

Exploration and resources: inherent risk and uncertainty

The success of the Group’s exploration activity may vary. In addition, estimates of ore reserves are based on uncertain assumptions that, if changed, could result in the need to restate ore reserves and mine plans.

Threats

A failure to discover new viable orebodies could undermine future growth prospects.

The risk that new information comes to light or that operating conditions change means that the economic viability of some ore reserves and mine plans can be restated downwards. As a result, projects may be less successful and of shorter duration than initially anticipated, and/or the asset value may be impaired.

Health, safety, environment and community (HSE&C) risks


Rio Tinto’s operations are inherently hazardous. We manage responsibly to preserve our licence to operate and ensure our employees and contractors go home safe and healthy.

HSE&C: inherent risk and uncertainty

Our operations and projects are inherently hazardous with the potential to cause illness or injury, damage to the environment, disruption to a community or a threat to personal security.

Threats

Failure to manage our health, safety, environment or community risks could result in a catastrophic event or other long-term damage which could in turn harm the Group’s financial performance and licence to operate.

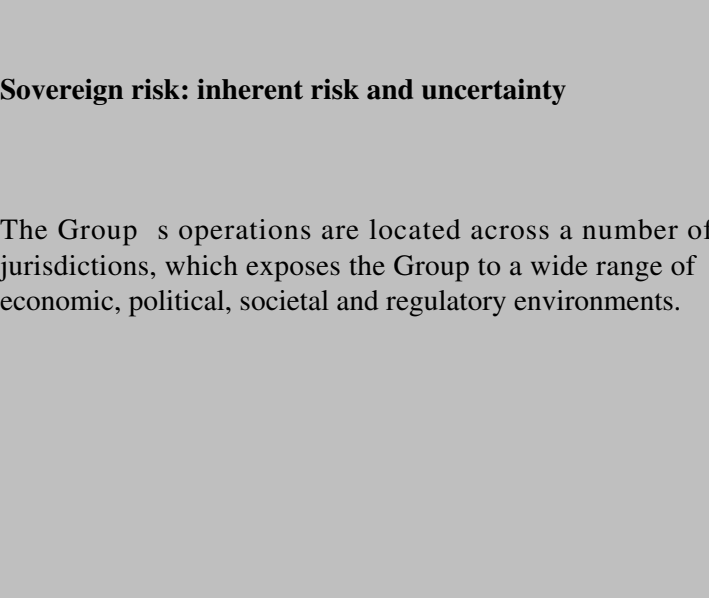


Recognised hazards and threats include, among others, underground operations, pit slope instability, tailings facilities, process safety, infrastructure, vector-borne and pandemic disease, chemicals, gases, vehicles and machinery, aviation, extreme natural environments, endangered flora or fauna, areas of cultural heritage significance, water supply stress and climate change.

Stakeholder risks

Rio Tinto recognises the value of positive engagement with a range of stakeholders, and seeks to develop collaborative and mutually beneficial partnerships through our partner-to-operate strategy.

Sovereign risk: inherent risk and uncertainty



The Group's operations are located across a number of jurisdictions, which exposes the Group to a wide range of economic, political, societal and regulatory environments.

Threats

Adverse actions by governments and others can result in operational/project delays or loss of licence to operate. Other potential actions can include expropriation, changes in taxation, and export or foreign investment restrictions, which may threaten the investment proposition, title, or carrying value of assets. Legal frameworks with respect to policies such as energy, climate change and mineral law may also change in a way that increases costs.

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Governance risks

Rio Tinto employees operate in compliance with *The way we work* – our global code of business conduct, the Group delegation of authorities and all Group policies, standards and procedures.

Regulation and regulatory intervention: inherent risk and uncertainty

The Group's reputation and regulatory licences are dependent upon appropriate business conduct and are threatened by actual or perceived breaches of law, reputation or our code of conduct.

Threats

Fines may be imposed against Group companies for breaching anti-trust rules, anti-corruption legislation, sanctions or human rights violations or for other inappropriate business conduct.

A serious allegation or formal investigation by increasingly connected regulatory authorities (regardless of ultimate finding) could result in a loss in share price value and/or assets or loss of business. Other consequences could include the criminal prosecution of individuals and/or Group companies, imprisonment, fines, legal liabilities and reputational damage to the Group. There may also be considerable cost and disruption in responding to allegations or investigations and related litigation, and in taking remedial action.

Operations, projects and people risks

Rio Tinto seeks to achieve operational and commercial excellence, and to attract and retain the best people in the industry.

Operational excellence: inherent risk and uncertainty

Threats

Excellence at our operations and projects is derived from high operational and human productivity and innovation, which requires quality people, processes and systems.

Business interruption may arise from a number of circumstances, including:

- Operational difficulties throughout the value chain, such as extended industrial dispute, delayed development, bottlenecks or interruptions to infrastructure for power, water and transportation.
- Operational failure such as a process safety incident, major pit slope, dump or tailings/water impoundment failure or underground incident.
- Cyber breach/incident affecting commercial and operational systems.
- Natural disasters such as earthquakes, subsidence, drought, flood, fire and storm can impact mines, smelters, refineries and infrastructure installations. Some of these risks are likely to increase through the impact of climate change.

Any of these events could result in a significant HSE&C incident, an interruption to operations, the inability to deliver products or a commercial loss.

Attracting and retaining talent: inherent risk and uncertainty

Threats

Attracting and retaining talent as the company and industry evolves presents a constant challenge.

The inability to attract or retain key talent will constrain the Group's ability to reach its goals within planned timeframes.

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ITEM 4. INFORMATION ON THE COMPANY

4.A History and development of the company

The information set forth under the headings:

Shareholder information-Organisational structure on page 292;

Shareholder information-History on page 292;

Shareholder information-Nomenclature and financial data on page 292;

Shareholder information-Dual listed companies structure on pages 292 and 293;

Contact details-Registered offices on page 299;

Business reviews-Iron Ore on pages 34 to 37;

Business reviews-Aluminium on pages 38 to 41;

Business reviews-Copper & Diamonds on pages 42 to 45;

Business reviews-Energy & Minerals on pages 46 to 49;

Business reviews-Commercial on page 51;

Directors report-Additional statutory disclosure-Operating and financial review-Transactions on page 137;

Sustainable development on pages 52 to 63;

Portfolio management-Material acquisitions and divestments on page 33;

Portfolio management-Capital projects on pages 32 and 33;

Key performance indicators on pages 20 to 23;

Rio Tinto financial information by business unit on pages 249 to 251;

Financial statements Note 2-Operating segments on pages 165 to 168;

Financial statements Note 37-Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses on pages 208 and 209; and

Financial statements Note 42-Events after the balance sheet date on page 211 of the Annual report 2018 is incorporated herein by reference.

In 2018 and 2017, the Group did not receive any public takeover offers by third parties in respect of Rio Tinto plc shares or Rio Tinto Limited shares or make any public takeover offers in respect of other companies' shares.

Rio Tinto's Form 20-F and other filings can be viewed on the Rio Tinto website at www.riotinto.com as well as the SEC website at www.sec.gov.

4.B Business overview

The information set forth under the headings:

2018 at a glance on pages 4 and 5;

Market context: our business in a transforming world on pages 10 to 11;

Market context: strategic realities on pages 12 and 13;

Business model and strategy: the way we work on pages 14 to 17;

Business model and strategy: our strategy in action on pages 18 and 19;

Key performance indicators on pages 20 to 23;

Financial review on pages 26 to 31;

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Business reviews-Iron Ore on pages 34 to 37;

Business reviews-Aluminium on pages 38 to 41;

Business reviews-Copper & Diamonds on pages 42 to 45;

Business reviews-Energy & Minerals on pages 46 to 49;

Business reviews-Growth & Innovation on page 50;

Business reviews-Commercial on page 51;

Financial statements Note 3-Operating segments-additional information on pages 169 and 170;

Directors report-Additional statutory disclosure-Government regulations on page 140; and

Directors report-Additional statutory disclosure-Environmental regulations on page 140 of the Annual report 2018 is incorporated herein by reference.

Disclosure pursuant to Section 13(r) of the Securities Exchange Act of 1934

Section 13(r) to the U.S. Securities Exchange Act of 1934, as amended (the Exchange Act) requires an issuer to disclose in its annual reports, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with the Government of Iran during the period covered by the report. Disclosure is required even where the activities, transactions or dealings are conducted outside the United States by non-U.S. persons in compliance with applicable law, and whether or not the activities are sanctionable under US law. Pursuant to Section 13(r) of the Exchange Act, the company notes the following in relation to activities that took place in 2018, or in relation to activities the company became aware of in 2018 relating to disclosable activities prior to the reporting period.

The company routinely takes action to protect its intellectual property rights in many countries throughout the world, including Iran. In connection with such protection efforts, the company has used, directly or indirectly, Intellectual Property firms with an agent or branch office in Iran to assist with the filing of patent and trade-mark applications, prosecution activities and maintenance in Iran. Contact with the firms has been minimal and solely limited to these activities. Certain transactions related to patents, trademarks and copyright are authorised activities under U.S sanctions against Iran (including the filing of an application to obtain a patent or trade-mark in Iran), and although the company is not a U.S person, it believes its limited activities in this regard are consistent with this authorisation.

Rio Tinto acquired its interest in Namibia-based Rössing Uranium Limited (Rössing) in 1970. The Iran Foreign Investments Company (IFIC) acquired its original minority shareholding in Rössing in 1975. IFIC's interest predates

the establishment of the Islamic Republic of Iran and the U.S. economic sanctions targeting Iran's nuclear, energy and ballistic missile programs. IFIC acquired and continues to own a minority shareholding in Rössing in accordance with Namibian law. The Treasury Department's Office of Foreign Assets Control designated IFIC as a Specially Designated National on 5 November 2018.

Rössing is neither a business partnership nor joint venture between Rio Tinto and IFIC. Rössing is a Namibian limited liability company with a large number of shareholders, including Rio Tinto with 68.62 per cent, IFIC with 15.29 per cent, the Industrial Development Corporation of South Africa with 10.22 per cent, local individual shareholders with a combined interest of 2.45 per cent and the Government of the Republic of Namibia with 3.42 per cent but with an additional 50.07 per cent vote at a general meeting of Rössing on matters of national interest.

As a shareholder in Rössing, Rio Tinto has no power or authority to divest IFIC's holding in Rössing. However, Rössing has taken several recent steps to limit IFIC's future involvement in Rössing.

The Rössing board took steps in 2012 to terminate IFIC's involvement in the governance of Rössing. As a shareholder in Rössing, IFIC was entitled under Namibian law to attend annual general meetings of Rössing, which they do attend. IFIC was previously represented on the board of Rössing by two directors. While this level of board representation did not provide IFIC with the ability to influence the conduct of Rössing's business on its own, the Rössing board nonetheless determined that, in light of international economic sanctions, it would be in the best interest of Rössing to terminate IFIC's involvement in board activity. Therefore, on 4 June 2012, at the annual general meeting of Rössing, the shareholders of the company, including Rio Tinto, voted not to re-elect the two IFIC board members. This ended

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IFIC's participation in Rössing board activities. IFIC accordingly is not represented on the Rössing board, nor does it have the right to attend board meetings or receive any board information.

While IFIC is entitled to its pro rata share of any dividend that the majority of the board may declare for all shareholders in Rössing, IFIC has not received such monies since early 2008. Simply by maintaining its own shareholding in Rössing, Rio Tinto is not engaging in any activity intended or designed to confer any direct or indirect financial support for IFIC. A dividend was declared for 2015 in March 2016 and an interim 2016 dividend declared in August 2016 with approximately US\$13.6 million (representing IFIC's portion of the dividends declared in 2016) deposited into a restricted bank account in Namibia held in favour of IFIC since 2008. Rössing has not declared any dividends since August 2016.

Rössing is one of the world's largest and longest-operating uranium mines. All of the uranium produced by Rössing is sold to Rio Tinto Marketing Pte. Ltd, (doing business as Rio Tinto Uranium), which re-sells this product to electric utilities in North America, Asia and Europe. As a minority shareholder, IFIC has no uranium product off-take rights. Neither IFIC nor other Government of Iran entities have any supply contracts in place with Rössing and none receive any uranium from Rössing. IFIC also does not have access to any technology through its investment in Rössing or rights to such technology.

On 26 November 2018, Rio Tinto has entered into a binding agreement with China National Uranium Corporation Limited (CNUC) for the sale of its entire 68.62 per cent stake in Rössing. The total consideration comprises an initial cash payment of US\$6.5 million, payable at completion, and a contingent payment of up to US\$100 million following completion. The contingent payment is linked to uranium spot prices and Rössing's net income during the next seven calendar years. In addition, Rio Tinto will receive a cash payment if CNUC sells the Zelda 20 Mineral Deposit during a restricted period following completion. The total consideration is subject to a maximum cap of US\$106.5 million. The transaction is subject to certain conditions precedent, including merger approval from the Namibian Competition Commission. Subject to these conditions being met, the transaction is expected to complete in the first half of 2019. Following completion of the divestment, Rio Tinto Marketing Pte Ltd will continue to purchase a quantity of uranium produce by Rössing, in order to satisfy existing contractual commitments with customers.

While Rio Tinto does not view itself as actively transacting or entering into business dealings with an instrumentality of the Government of Iran or a Specially Designated National, this information has been provided to ensure transparency regarding the passive, minority shareholding in Rössing currently held by IFIC. Rio Tinto has disclosed the IFIC shareholding matter to the United States Government and has periodically updated the U.S. Department of State as to the same.

See below Item 5.A, Additional financial information-Sales revenue (Iron Ore, Aluminium, Copper & Diamonds, Energy & Minerals).

4.C Organizational structure

The information set forth under the headings:

Shareholder information-Organisational structure on page 292;

Financial statements Note 33-Principal subsidiaries on pages 203 to 205;

Financial statements Note 34-Principal joint operations on page 205;

Financial statements Note 35-Principal joint ventures on page 206; and

Financial statements Note 36-Principal associates on pages 207 and 208 of the Annual report 2018 is incorporated herein by reference.

4.D Property, plant and equipment

The information set forth under the headings:

Portfolio management-Capital projects on page 32 and 33;

Sustainable development on pages 52 to 63;

Key performance indicators on pages 20 to 23;

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Business reviews-Iron Ore on pages 34 to 37;

Business reviews-Aluminium on pages 38 to 41;

Business reviews-Copper & Diamonds on pages 42 to 45;

Business reviews-Energy & Minerals on pages 46 to 49;

Directors report-Additional statutory disclosure-Environmental regulations on page 140;

Directors report-Additional statutory disclosure-Greenhouse gas emissions on page 140;

Metals and minerals production on pages 268 to 270;

Ore reserves on pages 271 to 277 and page 279;

Mines and production facilities on pages 282 to 287; and

Financial statements Note 14-Property, plant and equipment on pages 178 and 179 of the Annual report 2018 is incorporated herein by reference.

ITEM 4A. UNRESOLVED STAFF COMMENTS

As far as the Group is aware, there are no unresolved written comments from the SEC staff regarding its periodic reports under the Exchange Act received more than 180 days before 31 December 2018.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

5.A Operating results

The information set forth under the headings:

Financial review on pages 26 to 31;

Business reviews-Iron Ore on pages 34 to 37;

Business reviews-Aluminium on pages 38 to 41;

Business reviews-Copper & Diamonds on pages 42 to 45;

Business reviews-Energy & Minerals on pages 46 to 49;

Sustainable development on pages 52 to 63;

Directors report-Additional statutory disclosure-Government regulations on page 140;

Directors report-Additional statutory disclosure-Environmental regulations on page 140; and

Financial statements Note 30-Financial instruments and risk management on pages 189 to 199 of the Annual report 2018 is incorporated herein by reference.

Table of Contents**5.A Operating results continued****Additional Financial Information**

To provide additional insight into the performance of our business, we report underlying EBITDA and underlying earnings, which are defined in Financial statements Note 2 - Operating segments on pages 165 to 168 of the Annual report 2018.

2018 net earnings of US\$13.6 billion were US\$4.8 billion above the 2017 net earnings of US\$8.8 billion. Net earnings represent amounts attributable to owners of Rio Tinto. International Financial Reporting Standards (IFRS) requires that the profit/(loss) for the period reported in the income statement should also include earnings/(losses) attributable to non-controlling interests in subsidiaries. The table below lists the principal factors driving the movement in net earnings between periods and reconciles to profit for the year.

	2018 vs 2017	
	US\$m	US\$m
2017 Net earnings		8,762
Prices ^(a)	277	
Exchange rates ^(a)	286	
Volume and mix ^(a)	863	
General inflation ^(a)	(301)	
Energy ^(a)	(436)	
Operating cash cost movements ^(a)	(750)	
Higher exploration and evaluation spend ^(a)	(43)	
One-off items ^(a)	(23)	
Non-cash / other ^(a)	(317)	
Total changes in underlying EBITDA	(444)	
Decrease in depreciation and amortisation (pre-tax) in underlying earnings	391	
Decrease in interest and finance items (pre-tax) in underlying earnings	385	
Increase in tax on underlying earnings	(149)	
Increase in underlying earnings attributable to outside interests	(2)	
Total change in underlying earnings^(b)		181
Decrease in net impairment charges	377	
Increase in gains on consolidation and gains on disposals	1,974	
Movement in exchange differences and gains/losses on debt	1,514	
Other	830	
Total changes in exclusions from underlying earnings		4,695
2018 net earnings		13,638
Profit attributable to non-controlling interests		287
Profit for the year		13,925

- (a) These variances represent the impact on EBITDA.
- (b) Earnings contributions from Group businesses and business segments are based on underlying earnings. Amounts excluded from net earnings in arriving at underlying earnings are described in Financial statements Note 2 - Operating segments on page 167 of the Annual report 2018.

Prices

Commodity price movements in 2018 increased underlying EBITDA by US\$277 million compared with 2017.

The FOB (free on board) Platts index for 62% iron Pilbara fines was 4% lower on average compared with 2017. Average LME prices for copper and aluminium were up 6% and 7% respectively, compared with 2017. We also benefitted from higher market premiums for aluminium, in particular the mid-west premium in the US which averaged US\$419 per tonne in 2018 a 111% rise on 2017's US\$199 per tonne.

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On 1 March 2018, the US government announced a 10% tariff on US imports of aluminium from Canada, which it implemented on 1 June 2018. We do not expect this to have a significant financial impact on our business in the near term.

Exchange rates

Compared with 2017, on average the US dollar strengthened by 3% against the Australian dollar, stayed flat against the Canadian dollar and weakened by 1% against the South African rand. Currency movements increased underlying EBITDA by US\$286 million relative to 2017.

Volumes

Higher sales volumes increased underlying EBITDA by US\$863 million compared with 2017, mainly in iron ore and copper/gold. Our Pilbara iron ore shipments rose as we debottlenecked our rail network following full implementation of AutoHaul autonomous trains and ramped up production from our new Silvergrass mine. In copper, we benefitted from better operating performance at Escondida including the absence of the labour disruption in 2017, as well as higher copper grades at Rio Tinto Kennecott and higher gold grades at Oyu Tolgoi.

Energy

Higher energy prices compared with 2017 reduced our underlying EBITDA by US\$436 million. This was mainly due to the average price of oil rising by roughly 31% in 2018 to US\$71 per barrel. Our Pacific Aluminium smelters were also affected by higher coal prices and a new power contract.

Operating cash cost movements*

Our cash operating costs rose by US\$750 million compared with 2017. The considerable efficiencies we continue to see from our mine-to-market productivity programme were offset by the increasing costs of raw materials in particular caustic soda, petroleum coke and tar pitch for Aluminium.

Exploration and evaluation spend

We spent US\$43 million more on exploration and evaluation compared with last year. This went to our highest-value projects, particularly the Resolution copper project in Arizona.

One off items

One-off items were US\$23 million more than in 2017. At Iron Ore Company of Canada, we suspended operations for two months in 2018 (US\$236 million impact) before reaching a new labour agreement. At Iron & Titanium, production was suspended after a fatality at our Sorel-Tracy plant and labour disruptions at Richards Bay Minerals (US\$132 million impact). In 2017, our most significant one-off item was the strike action at Escondida, which led to lower volumes and higher unit costs with a US\$316 million impact.

Non-cash costs/other

The movements in our non-cash costs and other items lowered EBITDA by US\$317 million compared with 2017. We had US\$717 million less in underlying EBITDA following the sale of our coal businesses in 2017 and 2018. This was partly offset by the US\$278 million gain on sale of the Winchester South and Valeria coal development projects and a

US\$167 million revaluation of a royalty receivable arising from the disposal of the Mount Pleasant coal project in 2016. Our restructuring costs were US\$95 million higher as we continued our reorganization around four operating and commercial hubs.

Depreciation and amortisation, net interest and tax

Our depreciation and amortisation charge was US\$391 million lower than in 2017, driven by the sale of the thermal coal assets in 2017 and a lower charge at Oyu Tolgoi due to some assets being fully depreciated. Interest and finance items (pre-tax) were US\$385 million lower than 2017. This was due to a lower level of net debt, lower early redemption costs from bond purchases and an increase in capitalised interest. In 2018, we completed a bond tender, reducing our gross debt by a further US\$1.94 billion equivalent. We also incurred US\$94 million in early redemption costs from the bond tender, compared with US\$256 million in 2017. Since the start of 2016, we have reduced the nominal value of outstanding bonds from approximately US\$21 billion to around US\$7.8 billion equivalent, with an average weighted interest rate on the outstanding bonds of around 5%.

** Operating cash cost improvements represent the difference between the current and prior year full cash cost of sales per unit based on the prior year volume sold. This financial performance indicator is used by management internally to assess performance and therefore is considered relevant to users of the accounts.*

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The 2018 effective corporate income tax rate on underlying earnings, excluding equity accounted units, was 29%, compared with 28% in 2017. The effective tax rate on underlying earnings in Australia in both years was just over 30%. We anticipate an effective tax rate on underlying earnings of approximately 30% in 2019. We expect to make a tax payment of A\$1.8 billion (equivalent to US\$1.3 billion) in the first half of 2019, relating to our 2018 profits and profit from the sale of our Queensland coking coal assets.

Items excluded from underlying earnings

Refer to page 20 below for a detailed reconciliation between underlying earnings and net earnings.

Profit

Net earnings and underlying earnings refer to amounts attributable to the owners of Rio Tinto. The net profit attributable to the owners of Rio Tinto in 2018 totalled US\$13.6 billion (2017: US\$8.8 billion). We recorded a profit in 2018 of US\$13.9 billion (2017: US\$8.9 billion) of which a profit of US\$287 million (2017: US\$89 million) was attributable to non-controlling interests.

Table of Contents**2017 financial performance compared with 2016**

2017 underlying earnings of US\$8.6 billion and net earnings of US\$8.8 billion were US\$3.5 billion above and US\$4.1 billion above the comparable measures for the previous year respectively (2016 underlying earnings of US\$5.1 billion and net earnings of US\$4.6 billion were US\$0.6 billion above and US\$5.5 billion above the comparable measures for the previous year respectively). Both net earnings and underlying earnings represent amounts attributable to owners of Rio Tinto. International Financial Reporting Standards (IFRS) requires that the profit/(loss) for the period reported in the income statement should also include earnings/(losses) attributable to non-controlling interests in subsidiaries. Underlying earnings is reconciled to net earnings/(losses) in the table below, which also lists the principal factors driving the movement in underlying earnings between periods.

	2017 vs 2016	
	US\$m	US\$m
2016 Net earnings	4,617	
Items excluded from underlying earnings ^(a)	483	
2016 Underlying earnings		5,100
Prices	4,107	
Exchange rates	(294)	
Volumes	114	
General cost inflation	(240)	
Energy	(125)	
Operating cash cost improvements	373	
One-off items	(257)	
Tax / non-cash / interest / other	(151)	
Total changes in underlying earnings ^(a)		3,527
2017 Underlying earnings		8,627
Impairment charges	(481)	
Gains/ losses on consolidation and disposal of interests in businesses	2,022	
Exchange differences and movements on derivatives	(810)	
Changes in corporate tax rates in the US and France	(439)	
Receipt of Rio Tinto Kennecott insurance claim	45	
Adjustment to deferred tax relating to expected divestments	(202)	
Total excluded in arriving at underlying earnings		135
2017 net earnings		8,762
Profit attributable to non-controlling interests		89
Profit for the year		8,851

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Prices

The effect of price movements on the Group's commodities in 2017 was to increase underlying earnings by US\$4.1 billion compared with 2016.

The largest contributors to this increase were: iron ore (US\$1.9 billion), aluminium including related products (US\$1.0 billion), copper (US\$0.5 billion), Coking coal (US\$0.3 billion) and other coal products including thermal coal (US\$0.3 billion).

The Platts price for 62 per cent iron Pilbara fines was 20 per cent higher on average compared with 2016. Achieved average pricing in 2017 was US\$59.6 per wet metric tonne on an FOB basis (2016: US\$49.3 per wet metric tonne). This equated to US\$64.8 per dry metric tonne (2016: US\$53.6 per dry metric tonne), which compared with the average FOB Platts price of US\$64.1 per dry metric tonne for 62 per cent iron Pilbara fines (2016: US\$53.6 per dry metric tonne).

For Aluminium, the Group achieved an average realised aluminium price of US\$2,231 per tonne in 2017 (2016: US\$1,849 per tonne). This included premia for value-added products (VAP), which represented 57 per cent of primary metal sold in 2017 (2016: 54 per cent) and generated attractive product premia averaging US\$221 per tonne of VAP sold (2016: US\$223 per tonne) on top of the physical market premia.

The average price of copper increased from 221 US cents per pound to 281 US cents per pound.

Realised hard coking coal prices were 42 per cent higher on average compared with 2016 and realised thermal coal prices averaged 32 per cent higher.

Exchange rates

Compared with 2016, the US dollar, on average, weakened by one per cent against the Canadian dollar, weakened by four per cent against the Australian dollar and by ten per cent against the South African rand. The effect of all currency movements was to decrease underlying earnings relative to 2016 by US\$0.3 billion.

Volumes

Movements in sales volumes increased earnings by US\$0.1 billion compared with 2016. The main contributors were higher iron ore shipments from the Pilbara, a 20 per cent increase in titanium dioxide slag feedstock sales volumes and a six per cent rise in bauxite sales.

Energy

Higher input energy prices during the year reduced underlying earnings by US\$0.1 billion compared with 2016 in part related to oil, where the average price rose approximately 23 per cent, averaging US\$54 per barrel during 2017.

Cash costs, exploration and evaluation

Rio Tinto continued to realise considerable savings from its cost reduction programme, delivering US\$0.6 billion pre-tax (underlying earnings impact of US\$0.4 billion) comprised of operating cash cost improvements* (US\$0.5 billion pre-tax) and reductions in exploration and evaluation cash expenditure (US\$48 million pre-tax) in 2017, meeting its US\$2.0 billion target over 2016 and 2017 six months earlier than scheduled. The Group achieved

US\$8.3 billion pre-tax (US\$5.9 billion post-tax) in total operating cash cost improvements and reductions in exploration and evaluation expenditure compared with the 2012 base. These savings were achieved against a backdrop of rising raw materials costs, in particular for the Aluminium industry.

The Group continued to optimise its expenditure on exploration and evaluation, progressing the highest value projects.

** Operating cash cost improvements represent the difference between the current and prior year full cash cost of sales per unit based on the prior year volume sold. This financial performance indicator is used by management internally to assess performance and therefore is considered relevant to users of the accounts.*

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One off items

Group one-off items of US\$0.3 billion included in underlying earnings primarily related to the impact of the strike at Escondida in the first half of 2017 which resulted in lower volumes and higher unit costs compared with 2016. In addition there was a deferred tax asset write-down at Grasberg. These were partly offset by receipt of the final insurance settlement relating to the Manefay slide at Kennecott in 2013.

Tax / non-cash / interest / other

The 2017 effective corporate income tax rate on underlying earnings, excluding equity accounted units, was 28 per cent compared with 22 per cent in 2016. The higher tax rate in 2017 primarily reflected increased profit in Australia and the impact of a deferred tax asset write-down relating to Grasberg while the lower rate in 2016 was due to the recognition of a deferred tax asset in Mongolia. The effective tax rate on underlying earnings in Australia remained at 30 per cent.

The Group interest charge (net of tax and non-controlling interests) of US\$0.4 billion was US\$0.2 billion lower than 2016 due to the lower level of net debt and an increase in capitalised interest. The interest charge included US\$0.2 billion of early redemption costs from bond repurchases in 2017 when the Group successfully completed a US\$2.5 billion bond tender and redemption exercise which reduced gross debt. In 2016, similar exercises reduced gross debt by US\$7.5 billion, with early redemption costs of US\$0.2 billion. Since the start of 2016, the Group has reduced the nominal value of outstanding bonds from approximately US\$21 billion to around US\$9.5 billion.

Table of Contents**Exclusions from underlying earnings 2016-2018**

Earnings contributions from Group businesses and business segments are based on underlying earnings. Amounts excluded from net earnings in arriving at underlying earnings are summarised in the discussion of year-on-year results below.

	2018	2017	2016
	US\$m	US\$m	US\$m
Impairment charges	(104)	(481)	(183)
Net gains on consolidation and disposal of interests in businesses	3,996	2,022	382
Foreign exchange and derivative gains / (losses) on US dollar net debt and intragroup balances and derivatives not qualifying for hedge accounting	704	(810)	536
Gain on sale of wharf and land in Kitimat, Canada	569	-	-
Changes in closure estimates (non-operating and fully impaired sites)	(335)	-	(282)
Changes in corporate tax rates	-	(439)	-
Rio Tinto Kennecott insurance settlement	-	45	-
Adjustment to deferred tax assets relating to expected divestments	-	(202)	-
Restructuring costs including global headcount reductions	-	-	(177)
Onerous port and rail contracts	-	-	(329)
Tax provision	-	-	(380)
Other exclusions	-	-	(50)
Total excluded in arriving at underlying earnings	4,830	135	(483)
Net earnings	13,638	8,762	4,617
Underlying earnings	8,808	8,627	5,100

2018

In 2018, we recognised US\$104 million of post-tax impairment charges, mainly relating to the carrying value of the ISAL aluminium smelter in Iceland following its reclassification to assets held for sale. In 2017, we recognised US\$481 million (post-tax) of impairment charges, relating primarily to the carrying values of the Roughrider uranium deposit in Canada, the Rössing Uranium mine in Namibia and the Argyle diamond mine in Australia.

2018 net gains on consolidation and disposal of interests in businesses of US\$4.0 billion (post-tax) include the sale of our Hail Creek and Kestrel coking coal businesses in Australia, the sale of our interest in Grasberg in Indonesia and the formation of the Elysis joint venture in Canada. We created this joint venture in May with Alcoa to develop and commercialise a carbon-free aluminium smelting process and recognised a gain of US\$141 million (post-tax) for the

fair value uplift on forming the joint venture. In 2017, we realised net gains on disposal of interests in businesses of US\$2.0 billion from the sale of the Coal & Allied thermal coal business in Australia.

Amounts relating to the undeveloped coal properties, Winchester South and Valeria, are included within underlying earnings.

In 2018, we recognised non-cash exchange and derivative gains of US\$0.7 billion. This was mainly on US dollar debt in non-US dollar functional currency Group companies, intragroup balances, and on the revaluation of certain derivatives which do not qualify for hedge accounting. The exchange gains are largely offset by currency translation losses recognised in equity. The quantum of US dollar debt is largely unaffected. We will repay it from US dollar sales receipts and US dollar divestment proceeds.

Other exclusions of US\$0.2 billion include gains on the sale of surplus land at Kitimat in Canada (US\$0.6 billion), partially offset by charges recognised to increase closure provisions at ERA and Argyle in Australia (US\$0.3 billion).

2017

Impairment charges of US\$481 million (post-tax) were recognised in 2017. This related primarily to the carrying values of the Roughrider uranium deposit in Canada, the Rössing uranium mine in Namibia and the Argyle diamond mine in Australia. Roughrider's recoverable amount was determined to be nil following a decision in the first half of 2017 to cease further expenditure on the project. Rössing was impaired due to oversupply in the uranium market resulting in

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structural changes to forecast prices, while the impairment at Argyle was attributable to lower production volumes, a smaller than expected contribution from productivity improvements and lower realised prices.

Net gains on disposal of interests in businesses of US\$2,022 million primarily related to the sale of the Coal & Allied thermal coal business which completed on 1 September 2017.

Non-cash exchange and derivative losses in 2017 of US\$810 million arose primarily on US dollar debt in non-US dollar functional currency Group companies, intragroup balances, and on the revaluation of certain derivatives which do not qualify for hedge accounting. The exchange losses were largely offset by currency translation gains recognised in equity and the quantum of US dollar debt, which will be repaid from US dollar sales receipts and US dollar divestment proceeds, is therefore largely unaffected.

Deferred tax assets were remeasured to reflect lower corporate income tax rates in the US and France as a result of tax legislation changes. Deferred tax assets were also derecognised as a result of revised profit forecasts in France due to expected divestments.

In 2017, the Group received the final settlement on the insurance claims related to the 2013 pit-wall slide at Rio Tinto Kennecott of US\$233 million pre-tax (US\$146 million post-tax). Part of the settlement, US\$73 million pre-tax (US\$45 million post-tax), was excluded from underlying earnings in line with the treatment of associated costs incurred from 2013 to 2015.

2016

Impairment charges during the year ended 31 December 2016 primarily related to the Argyle diamond mine in Western Australia. An impairment trigger assessment at the Argyle diamond mine cash-generating unit resulted in the identification of impairment indicators as a result of lower production volumes compared with forecast and the lower prices achieved for bulk diamonds. The reduction in the recoverable amount resulted in a pre-tax impairment charge of US\$241 million to property, plant and equipment and intangible assets.

Net gains on disposal of interests in businesses in 2016 related mainly to the sale of Rio Tinto's 40 per cent interest in the Bengalla Joint Venture on 1 March 2016 and the sale of the Lochaber assets in Scotland on 23 November 2016. This was partially offset by a loss on disposal of the 100 per cent interest in Carbone Savoie on 31 March 2016.

Net exchange gains in 2016 comprised post-tax foreign exchange gains of US\$123 million principally on external US dollar denominated net debt in non-US dollar functional currency companies (on borrowings of approximately US\$17.6 billion), and US\$393 million of gains on intragroup balances mainly as the Canadian dollar strengthened against the US dollar compared with 31 December 2015. The Group took further steps during 2016 to reduce the income statement exposure on retranslation of intragroup balances. The remaining US\$20 million related to valuation changes on commodity, currency and interest rate derivatives which are ineligible for hedge accounting.

A review of the infrastructure capacity requirements in Queensland, Australia, confirmed that it was no longer likely that Rio Tinto would utilise the Abbot Point Coal Terminal and associated rail infrastructure capacity contracted under take or pay arrangements. On 31 October 2016, an agreement was reached with Adani, the owner of the port, to relinquish that capacity. Accordingly, an onerous contract provision was recognised based on the net present value of expected future cash flows for the port and rail capacity discounted at a post-tax real rate of two per cent, resulting in a post-tax onerous contract charge of US\$329 million.

Tax provision includes amounts provided for specific tax matters for which the timing of resolution and potential economic outflow are uncertain. During 2016 a provision was made in relation to matters under discussion with the Australian Taxation Office (ATO) relating to the transfer pricing of certain transactions between Rio Tinto entities based in Australia and the Group's commercial centre in Singapore for the period since 2009.

The increase in closure provision (non-operating sites) related to the Gove alumina refinery in Northern Territory, Australia where operations have been curtailed since May 2014. The provision was updated based on the current cost estimates from the studies. Future revisions to the closure cost estimate during the study periods (including the next stage of feasibility study) will continue to be excluded from underlying earnings as the site operating assets have been fully impaired.

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Group financial results by product group 2016-2018	2018	2017	2016
	US\$m	US\$m	US\$m
Iron Ore	6,514	6,692	4,611
Aluminium	1,347	1,583	947
Copper & Diamonds	1,054	263	(18)
Energy & Minerals ^(a)	1,012	1,242	612
Other operations	(102)	(138)	(88)
Other items	(690)	(483)	(241)
Exploration and evaluation	(193)	(178)	(147)
Net interest	(134)	(354)	(576)
Group underlying earnings	8,808	8,627	5,100
Exclusions	4,830	135	(483)
Net Earnings	13,638	8,762	4,617

(a) Includes the Simandou iron ore project in Guinea and Iron Ore Company of Canada.

Table of Contents**Sales Revenue**

Consolidated sales revenue for 2018 of US\$40.5 billion was US\$0.5 billion or 1% higher than the prior period. Gross sales revenue (including the sales revenue of equity accounted units on a proportionately consolidated basis, after adjusting for sales to subsidiaries) increased from US\$41.9 billion to US\$42.8 billion. Rio Tinto's sales revenue continues to be predominantly attributable to iron ore and aluminium.

Prices

Commodity	Source	Unit	2018 US\$	2017 US\$	2016 US\$
<i>Average prices</i>					
Iron ore 62% Fe	Platts Index less				
	Baltic Exchange				
Fines FOB	Freight Rate	dmt ^(a)	61.8	64.1	54.0
Aluminium	LME ^(b)	Tonne	2,110	1,969	1,605
Copper	LME ^(b)	Pound	2.97	2.81	2.21
Gold	London Bullion				
	Market (LBMA)	Ounce	1,269	1,257	1,250
<i>Year end spot price</i>					
Aluminium		Tonne	1,863	2,256	1,704
Copper		Pound	2.70	3.27	2.51
Gold		Ounce	1,282	1,306	1,148

(a) Dry metric tonne

(b) LME cash price

The above table shows published prices for Rio Tinto's commodities for the last three years where these are publicly available, and where there is a reasonable degree of correlation between the published prices and Rio Tinto's realised prices.

Group sales revenue will not necessarily move in line with these published prices for a number of reasons which are discussed below.

The discussion of revenues below relates to the Group's gross revenue from sale of commodities, as included in the Financial information by business unit on pages 249 to 251 of the Annual report 2018.

Iron Ore**2018 sales revenue compared with 2017**

Gross sales revenue increased by US\$0.2 billion (1%) to US\$18.5 billion. This included freight revenue of US\$1.69 billion compared with US\$1.46 billion.

The small increase was primarily driven by increasing shipments by 2% to 338 million tonnes which was offset by lower prices. The average FOB Platts index for 62% Pilbara fines dropped by 4%.

In 2018, we priced approximately 68% of our sales with reference to the current month average index; 17% with reference to the prior quarter's average index lagged by one month; 5% with reference to the current quarter average; and 10% on the spot market. Approximately 32% of our sales were made on an FOB basis with the remainder sold including freight.

In 2018, we achieved an average iron ore price of US\$57.8 per wet metric tonne on an FOB basis (2017: US\$59.6 per wet metric tonne). This equates to US\$62.8 per dry metric tonne (2017: US\$64.8 per dry metric tonne), which compares with the average FOB Platts index of US\$61.8 per dry metric tonne for the 62% iron Pilbara fines product (2017: US\$64.1 per dry metric tonne).

2017 sales revenue compared with 2016

Gross sales revenue increased by US\$3.6 billion (25%) to US\$18.3 billion.

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Sales volumes were one per cent higher than 2016 sales, reflecting ongoing productivity improvements being made to the rail network, along with increased flexibility across the infrastructure system. Achieved average pricing was also higher in 2017, US\$59.6 per wet metric tonne on an FOB basis compared with US\$49.3 per wet metric tonne in 2016.

Approximately 67 per cent of sales in 2017 were priced with reference to the current month average, 17 per cent with reference to the prior quarter's average index lagged by one month, five per cent with reference to the current quarter average and 11 per cent were sold on fixed terms on the spot market. Index prices are adjusted for product characteristics and iron and moisture content.

Aluminium

2018 sales revenue compared with 2017

Aluminium's sales revenues are from aluminium and related products such as alumina and bauxite. Gross sales revenue increased by 11% to US\$12.2 billion in 2018.

This reflected the stronger pricing environment, in particular for primary metal in the first half of the year. This was however offset by lower volumes. The lower volumes were primarily due to labour disruptions at the non-managed Becancour smelter in Canada and a power interruption at the Dunkerque smelter in France.

In 2018, we achieved an average realised aluminium price of US\$2,470 per tonne (2017: US\$2,231 per tonne). This comprised the LME price, a market premium and a value-added product (VAP) premium. The cash LME price averaged US\$2,110 per tonne, 7% higher than 2017. Market premiums increased in all regions. In our key US market, the mid-West premium rose 111% to US\$419 per tonne (2017: US\$199 per tonne), driven by the 10% US tariff implemented on 1 June which is included in our operating costs. VAP represented 57% of the primary metal we sold (2017: 57%) and generated attractive product premiums averaging \$224 per tonne of VAP sold (2017: US\$221 per tonne).

2017 sales revenue compared with 2016

Gross sales revenue increased by 16% to US\$11.0 billion in 2017. The 2017 cash LME aluminium price averaged US\$1,969 per tonne, an increase of 23 per cent on 2016, however this was partially offset by lower sales volumes due to operational issues at Sohar and curtailment at the Boyne Smelter.

Strong bauxite production performance, combined with robust demand from China, enabled the Group to increase its share of third party bauxite shipments by ten per cent to 32.3 million tonnes (2016: 29.3 million tonnes).

Copper & Diamonds

2018 sales revenue compared with 2017

Gross sales revenue of US\$6.5 billion was 34% higher than 2017. This reflected increased copper and gold volumes which were driven by higher grades. The rise is also connected to productivity improvements and increased plant throughput at Rio Tinto Kennecott, a return to capacity at Escondida, higher gold grades at Oyu Tolgoi, and a greater metal share at Grasberg.

Average LME copper prices increased 6% to 297 US cents per pound, and the average gold price rose 1% to \$1,269 per ounce compared with 2017. These price rises were more than offset by provisional pricing movements.

2017 sales revenue compared with 2016

Gross sales revenue increased by 7 per cent in 2017 compared with 2016.

Copper sales revenue was higher than in 2016 as the average LME copper price increased by 27 per cent to 281 US cents per pound and the gold price increased by one per cent to US\$1,257 per ounce. This was partially offset by the impact of lower sales volumes (13% lower than 2016), mainly due to the impact of a strike at Escondida in the first quarter of 2017.

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Diamonds revenue increased 15 per cent to US\$0.7 billion in 2017, reflecting higher sales volumes, including the effect of factories in India increasing manufacturing capacity as the market normalised following Indian banknote reform in 2016, and the outlook in key emerging markets improved. This resulted in sustained re-stocking activity throughout the pipeline for most of the year.

At 31 December 2017, the Group had an estimated 250 million pounds of copper sales that were provisionally priced at 304 US cents per pound. The final price of these sales will be determined during the first half of 2018. This compares with 235 million pounds of open shipments at 31 December 2016, provisionally priced at 250 cents per pound.

Energy & Minerals

2018 sales revenue compared with 2017

Gross sales revenue for the product group in 2018 fell by 27% to US\$5.7 billion. Coal revenue was US\$1.8 billion lower due to the sale of Coal & Allied Industries Limited in 2017 and the sale of the remaining coking coal assets in the current year.

Excluding the entire contribution from coal in both years, 2018 revenue of US\$4.7 billion was 5% lower than the 2017 comparative of US\$4.9 billion. This reflected lower volumes in iron ore and titanium dioxide feedstocks, partly offset by higher prices.

IOC production and sales in 2018 were affected by a two-month strike at the mine in the second quarter. Pellet production of 8.5 million tonnes (our share 5.0 million tonnes) was 18% lower than 2017, while concentrate production for sale of 6.7 million tonnes (our share 3.9 million tonnes) was 22% lower. Total sales of pellets and concentrates in 2018 were 15.0 million tonnes (our share 8.8 million tonnes), 21% lower than 2017.

Titanium dioxide feedstock production was 15% lower in 2018 compared with 2017 although the resulting impact on revenue was offset by higher prices due to stronger demand and tight supply.

2017 sales revenue compared with 2016

Gross sales revenue for the product group in 2017 of US\$7.8 billion was 15 per cent higher than 2016 as a result of higher prices and higher sales volumes across most products.

Gross sales revenue for Rio Tinto Coal Australia of US\$2.8 billion in 2017 was seven per cent higher than 2016, despite the impact of the sale of Coal & Allied Industries Limited in September 2017. The Group achieved hard coking coal prices of US\$169 per tonne, on average, in 2017 on an FOB basis (2016: US\$119 per tonne). Average prices realised for thermal coal were US\$78 per tonne on an FOB basis in 2017 (2016: US\$60 per tonne).

Gross sales revenue at Iron Ore Company of Canada (IOC) of US\$1.9 billion was 41 per cent higher than 2016, driven by higher prices and a five per cent increase in production.

Market conditions for titanium dioxide continued to improve in 2017, with strengthening pigment prices supported by low inventory and tight supply. Consequently, feedstock demand improved year-on-year. Improved conditions were also evident in the zircon market.

Borates demand growth was primarily driven by the agriculture and construction sectors in 2017. Offtake across most regions held firm, although borates demand in China was impacted by environmental-related shutdowns during the third quarter.

The uranium market remained oversupplied in 2017, with many market players along the value chain reporting excess inventories. The spot price fell from US\$26 per pound in the first quarter to below US\$21 per pound for much of the year until capacity curtailment announcements boosted spot prices as the year drew to a close. Adverse policy shifts in South Korea and Japan, as well as an increasingly competitive energy market in the US, dampened the expected demand growth in these markets.

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Cash flow

2018 cash flow compared with 2017

A full consolidated cash flow statement is contained in the Financial Statements on page 146 of the Annual report 2018.

We generated US\$11.8 billion in net cash from our operating activities, 15% lower than in 2017. This reduction was primarily driven by higher tax payments related to our 2017 profits and adverse working capital movements. We invested US\$5.4 billion in capital expenditure, 21% more than in 2017 as our major projects ramped up. These included our Oyu Tolgoi underground copper mine in Mongolia, the completion of our Amrun bauxite project in Queensland and the full implementation of AutoHaul, the automation of our Pilbara train system.

We generated US\$7.0 billion of free cash flow (refer to page 27 of the Annual Report 2018), 27% lower than 2017, in line with our lower operating cash flow and higher capital expenditure. This was partly offset by proceeds from the sale of property, plant and equipment including US\$0.5 billion received from the sale of surplus land at Kitimat. In 2018, our mine-to-market productivity programme exit rate was \$0.4 billion which was impacted by US\$0.3 billion of raw material cost headwinds. We are on track to be generating US\$1.5 billion per year in free cash flow from this programme from 2021.

We paid US\$5.4 billion in dividends to our shareholders. We also repurchased US\$5.4 billion of our shares: US\$2.1 billion of these were bought off-market in Australia and US\$3.3 billion on-market in the UK in 2018 as part of our ongoing programme.

2017 compared with 2016

Net cash generated from operating activities of US\$13.9 billion was 64 per cent higher than 2016 driven by higher commodity prices and cash cost improvements, partly offset by higher tax payments from increased underlying profits.

Purchases of property, plant and equipment and intangible assets were US\$4.5 billion in 2017, a rise of 49 per cent compared with 2016. Major capital projects in 2017 included the development of the Oyu Tolgoi underground copper mine in Mongolia, construction of key infrastructure at the Amrun bauxite project in Queensland and completion of the Silvergrass iron ore mine in the Pilbara.

In 2017, the Group generated US\$9.5 billion of free cash flow, 64 per cent higher than 2017. This included US\$0.4 billion of productivity gains from the mine-to-market productivity programme which was implemented in 2017, targeting the delivery of US\$5.0 billion of additional free cash flow from 2017 to 2021.

Dividends paid in 2017 of US\$4.2 billion reflected the 2016 final dividend paid in April 2017, and the 2017 interim dividend paid in September 2017. Share repurchases totalled US\$2.1 billion comprised of the US\$1.5 billion on-market buy-back in Rio Tinto plc shares and the US\$0.6 billion (AUD\$0.8 billion) off-market buy-back in Rio Tinto Limited shares.

In 2017, disposals of subsidiaries, joint ventures and associates mainly related to the cash proceeds received to date for the sale of Coal & Allied Industries Limited of US\$2.54 billion (net of working capital adjustments and cash transferred on disposal) and also included receipts of the second and final instalment of funds for Rio Tinto's disposal of its 100 per cent interest in Lochaber, which was completed in November 2016.

Rio Tinto completed a US\$2.5 billion (nominal value) bond buy-back programme in June 2017. Net interest paid included US\$0.3 billion being the payment of the premiums and the accelerated interest associated with the bond redemption. In addition, US\$7 million was paid relating to the close out of interest rate swaps and was recognised in other financing cash flows.

Balance sheet at 31 December 2018

Our net debt (refer to page 27 of the Annual Report 2018) declined by US\$4.1 billion, giving rise to net cash of US\$0.3 billion. This reflects our 2018 operating cash flows and divestment proceeds, offset by the increase in capital expenditure, payment of the final dividend and the ongoing share buy-back.

Our net gearing ratio (net debt to total capital refer to page 27 of the Annual Report 2018) decreased to -1% at 31 December 2018 (31 December 2017: 7%).

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Total financing liabilities at 31 December 2018 were US\$13.0 billion and the weighted average maturity was around 11 years. At 31 December 2018, approximately 79% of Rio Tinto's total borrowings were at floating interest rates. The maximum amount, within non-current borrowings, maturing in any one calendar year was US\$1.7 billion, which matures in 2025. These amounts are subject to revision following the implementation of IFRS16 on 1 January 2019.

In 2018, we repaid US\$2.3 billion of borrowings, mainly through the early redemption of bonds. Cash and cash equivalents plus other short-term cash investments at 31 December 2018 were US\$13.3 billion (31 December 2017: US\$11.5 billion).

Financial instruments and risk management

The Group's policies with regard to financial instruments and 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, and liquidity risk and capital management. Further details of our Financial instruments and risk management are disclosed in Financial statements Note 30 Financial instruments and risk management on pages 189 to 199 of the Annual report 2018.

The Annual report 2018 shows the full extent of the Group's financial commitments, including debt. The risk factors to which the Group is subject are summarised above in Item 3.D, Risk factors.

The effectiveness of internal controls continues to be a high priority in the Rio Tinto Group.

Dividend

The 2018 interim dividend was 127.0 US cents (2017: 110.0 US cents) and the final dividend was determined as 180.0 US cents (2017: 180.0 US cents). In addition, the directors of Rio Tinto announced a special dividend of 243.0 US cents per share. 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 paid and declared in pounds sterling and Rio Tinto Limited dividends are declared and paid in Australian dollars, converted at exchange rates on 26 February 2019. Details relating to the dividend policy, determination and payment of dividends in sterling, Australian dollars and other currencies and on the payment of dividends to holders of American Depositary Receipts (ADRs) are included under the heading Shareholder information on page 292 of the Annual report 2018 and above in Item 3.A, Selected financial data.

Capital and liquidity risk management

The Group's total capital is defined as equity attributable to owners of Rio Tinto plus equity attributable to non-controlling interests and net debt, as shown below:

Total capital

	2018	2017
	US\$m	US\$m
Equity attributable to owners of Rio Tinto	43,686	44,711

Equity attributable to non-controlling interests	6,137	6,404
Net debt (Financial Statements Note 24 of the Annual report 2018)	(255)	3,845
Total capital	49,568	54,960

The Group's material capital and evaluation projects are listed under the heading "Portfolio management" on pages 32 and 33 and in "Growth & Innovation" on page 50 respectively of the Annual report 2018.

We expect that contractual commitments for expenditure, together with other expenditure and liquidity requirements, will be met from internal cash flow and, to the extent necessary, from the existing facilities described in "Financial statements Note 30 - Financial instruments and risk management", part A(b)(i) on pages 190 to 192 of the Annual report 2018. This note also provides further details of our liquidity and capital risk management.

Table of Contents**Treasury management and financial instruments**

Details of our Treasury management and financial instruments are disclosed in Financial statements Note 30-Financial instruments and risk management on pages 189 to 199 of the Annual report 2018.

Foreign exchange

The following sensitivities give the estimated effect on underlying earnings assuming that each exchange rate moves 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 rate

	Average exchange rate for 2018 US cents	Effect on underlying EBITDA of 10% change in full year average +/- US\$m
Australian dollar	75	721
Canadian dollar	77	354

The exchange rate sensitivities quoted above include the effect on net 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 caution. Further details of our exposure to foreign currency fluctuations and currency derivatives, and our approach to currency hedging, are contained within Financial statements Note 30-Financial instruments and risk management, part A(b)(iv), on pages 195 and 196 of the Annual report 2018.

Interest rates

Details of our exposure to interest rate fluctuations are contained within Financial statements Note 30-Financial instruments and risk management, part A(b)(v), on page 196 of the Annual report 2018.

Commodity prices

The approximate effect on the Group's underlying EBITDA of a ten per cent change from the full year average market price in 2018 for the following products would be:

Average market price for EBITDA	Effect on underlying EBITDA of 10% change in full year
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Commodity	Unit	US\$	average +/- US\$m
Iron ore			
62% Fe Fines FOB	dmt	61.8	1,566
Aluminium	Tonne	2,110	612
Copper	Pound	2.97	388
Gold	Ounce	1,269	46

The sensitivities give the estimated impact on net EBITDA of changes in prices assuming that all other variables remain constant. These should be used with caution. As noted previously, the relationship between currencies and commodity prices is a complex one and changes in exchange rates can influence commodity prices and vice versa.

Further details of our exposure to commodity price fluctuations are contained within Financial statements Note 30-Financial instruments and risk management , part A(b)(ii), on pages 192 to 194 of the Annual report 2018.

Table of Contents**Credit risks**

Details of our exposure to credit risks relating to financial receivables, financial instruments and cash deposits, are contained within Financial statements Note 30-Financial instruments and risk management, part A(b)(iii), on pages 194 and 195 of the Annual report 2018.

Disposals and acquisitions

Information regarding disposals and acquisitions is provided in Financial statements Note 37 Purchases and sales of subsidiaries, joint ventures, associates and other interests in businesses on pages 208 and 209 of the Annual report 2018.

Critical accounting policies and estimates

Many of the amounts included in the financial statements involve the use of judgment and/or estimates. These judgments and estimates are based on management's best knowledge of the relevant facts and circumstances, having regard to previous experience, but actual results may differ from the amounts included in the financial statements.

Information about such judgments and estimation is contained under Judgments in applying accounting policies and key sources of estimation uncertainty in Financial statements Note 1-Principal accounting policies on page 152 of the Annual report 2018.

Off balance sheet arrangements and contractual commitments

The table below presents information in relation to our material off balance sheet arrangements and contractual commitments. Information regarding the Group's post retirement commitments and funding arrangements is provided in Financial statements Note 44-Post-retirement benefits on pages 214 to 219 of the Annual report 2018. Information regarding the Group's close-down and restoration obligations is provided in Financial statements Note 26-Provisions (including post-retirement benefits) on page 186 of the Annual report 2018. In addition Financial statements Note 31-Contingencies and commitments on pages 199 to 201 of the Annual report 2018, provides further information regarding contingent liabilities, guarantees and commitments.

We expect that these contractual commitments for expenditure, together with other expenditure and liquidity requirements, will be met from internal cash flows and, to the extent necessary, from existing facilities.

At 31 December 2018	<1 yr US\$m	1-3 yrs US\$m	3-5 yrs US\$m	> 5 yrs US\$m	Total US\$m
Expenditure commitments in relation to:					
Operating leases	475	587	270	385	1,717
Other (capital commitments)	1,742	439	66	36	2,283
	2,217	1,026	336	421	4,000
Long-term debt and other financial obligations*:					
Debt	312	728	1,401	10,476	12,917
Interest payments	651	1,289	1,216	4,082	7,238
Asset retirement obligations	468	801	1,056	11,602	13,927

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Purchase obligations	2,804	2,909	1,979	9,358	17,050
Other	829	196	80	339	1,444
	5,064	5,923	5,732	35,857	52,576
Total	7,281	6,949	6,068	36,278	56,576

*Other contractual commitments that the Group has where the maturity profile is unknown include pension obligations of US\$2,486 million, taxes payable of US\$2,190 million and guarantees of US\$317 million. Taxes payable include balances that relate to uncertain tax positions. This may mean the commitment is greater or less than that disclosed.

Except as disclosed in Financial statements Note 21-Cash and cash equivalents on page 183 of the Annual report 2018, there are no material legal or economic restrictions on the ability of our subsidiaries to transfer funds to the company in the form of cash dividends, loans, or advances.

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5.B Liquidity and capital resources

The information set forth under the headings:

Portfolio management-Capital projects on pages 32 and 33;

Business reviews-Iron Ore-New projects and growth options on page 37;

Business reviews-Aluminium-New projects and growth options on page 41;

Business reviews-Copper & Diamonds-New projects and growth options on page 45;

Business reviews-Energy & Minerals-New projects and growth options on page 49;

Financial statements Note 22-Borrowings and other financial liabilities on pages 184 and 185; and

Financial statements Note 30-Financial instruments and risk management on pages 189 to 199 of the Annual report 2018 is incorporated herein by reference.

See above Item 5.A, Additional financial information-Cash flow to Additional Information-Off balance sheet arrangements and contractual commitments .

5.C Research and development, patents and licenses

The information set forth under the headings:

Business reviews-Growth & Innovation on page 50;

Directors report-Additional statutory disclosure-Exploration, research and development on page 140 and

Financial statements Note 4-Net operating costs (excluding items shown separately) on page 170 of the Annual report 2018 is incorporated herein by reference.

5.D Trend information

The information set forth under the headings:

Market context: our business in a transforming world on pages 10 and 11;

Market context: strategic realities on pages 12 and 13;

Business model and strategy: the way we work on pages 14 to 17;

Business model and strategy: our strategy in action on pages 18 and 19;

Chairman's statement on pages 6 and 7;

Chief executive's statement on pages 8 and 9;

Chief financial officer's statement on pages 24 and 25;