

In exceptional market conditions, Rio Tinto achieves record financial results and declares total interim dividend of 561 US cents per share, 75% of underlying earnings

28 July 2021

Rio Tinto Chief Executive Jakob Stausholm said “Government stimulus in response to ongoing COVID-19 pressures has driven strong demand for our products at a time of constrained supply resulting in a significant spike in most prices. We focused on safely running our world-class assets and supplying products to our customers. This enabled us, despite operational challenges, to deliver record financial results with free cash flow of \$10.2 billion and underlying earnings of \$12.2 billion, after taxes and government royalties of \$7.3 billion. We are further strengthening the portfolio with our commitment to fund the high-quality Jadar lithium project, which signals our large-scale entry into the fast-growing battery materials market. We will pay an interim dividend of 561 US cents per share, representing 75% of underlying earnings.

“We are making progress on our four priorities, identifying opportunities for operational improvement, advancing our ESG agenda, taking important investment decisions and stepping up our external engagement. We are making real and lasting changes to the way we engage, interact and operate and are committed to ensuring that we have strong and positive relationships wherever we do business. We have identified what we need to do to make Rio Tinto a better company for the long term, with the right teams in place to unleash our full potential.”

Six months ended 30 June	2021	2020	Change
Net cash generated from operating activities (US\$ millions)	13,661	5,628	143 %
Capital expenditure ¹ (US\$ millions)	3,336	2,693	24 %
Free cash flow ² (US\$ millions)	10,181	2,809	262 %
Consolidated sales revenue (US\$ millions)	33,083	19,362	71 %
Underlying EBITDA ² (US\$ millions)	21,037	9,640	118 %
Underlying earnings ² (US\$ millions)	12,166	4,750	156 %
Net earnings (US\$ millions)	12,313	3,316	271 %
Underlying earnings ² per share (US cents)	751.9	293.7	156 %
Ordinary dividend per share (US cents)	376.0	155.0	143 %
Special dividend per share (US cents)	185.0	0.0	n/a
Total dividend per share (US cents)	561.0	155.0	262 %
Underlying return on capital employed (ROCE) ²	50 %	21 %	
	At 30 June 2021	At 31 December 2020	
Net cash / (debt) ² (US\$ millions)	3,140	(664)	

Our financial results are prepared in accordance with International Financial Reporting Standards (IFRS) and are unaudited - see page 39 for further information. Footnotes are set out on page 3.

- Our colleague Nico Swart was tragically killed in a shooting incident whilst driving to work at Richards Bay Minerals (RBM) in South Africa on 24 May. Our sympathies are with Nico's family and we are offering ongoing support to his family, friends and colleagues.
- We continue to prioritise the safety of our people and communities and have now exceeded 30 months without a fatality on site. However, our all injury frequency rate (AIFR) of 0.39 has seen a slight increase versus 2020 first half (0.37).
- Our new leadership team is now fully in place and focused on driving forward our four priorities. We are developing a large volume of work taking a company-wide, bottom-up and people-centric approach as we look to embed real and sustainable changes to the way we operate and engage.
- In the first half, we sustained our efforts to earn back trust and strengthen our social licence. We continue rebuilding our relationships with Traditional Owners in the Pilbara and engaged extensively with government representatives, business leaders, current and former Rio Tinto employees and our shareholders. The insights from these meetings are helping us improve how we operate and effectively and respectfully engage in a collaborative manner wherever we operate.
- \$13.7 billion net cash generated from operating activities was 143% higher than 2020 first half, mainly due to higher pricing for iron ore, aluminium and copper.

- \$10.2 billion free cash flow² reflected the stronger operating cash flows partially offset by a 24% rise in capital expenditure¹ to \$3.3 billion, driven by an increase in replacement and development capital as we ramp up our projects.
- Funding [committed](#) for the Jadar lithium-borates project in Serbia, subject to receiving all relevant approvals, permits and licences and ongoing engagement with local communities, the Government of Serbia and civil society: \$2.4 billion investment, targeting first saleable production in 2026 and ramp-up to full annual production of ~58,000 tonnes of battery-grade lithium carbonate in 2029.³
- \$21.0 billion underlying EBITDA² was 118% higher than 2020 first half, with an underlying EBITDA margin² of 61%.
- \$12.2 billion underlying earnings² (underlying EPS of 751.9 US cents) were 156% higher than 2020 first half with an underlying effective tax rate of 29%. Taking exclusions into account, net earnings of \$12.3 billion (basic EPS of 761.0 US cents) mainly reflected \$0.3 billion of exchange rate gains net of \$0.1 billion of net additional closure costs for non-operating and fully impaired assets. See table on page 12.
- \$3.1 billion of net cash² at 30 June 2021, compared with net debt² of \$0.7 billion at the start of the year, which reflected the free cash flow of \$10.2 billion partly offset by \$6.4 billion of cash returns paid to shareholders.
- Cash returns of \$9.1 billion announced today, comprising interim ordinary dividend of \$6.1 billion, equivalent to 376 US cents per share, and special dividend of \$3.0 billion, equivalent to 185 US cents per share. Interim pay-out ratio represents 75% of first half underlying earnings.

Strong cash flow from operations

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Net cash generated from operating activities	13,661	5,628
Capital expenditure ¹	(3,336)	(2,693)
Sales of property, plant and equipment	26	28
Lease principal payments	(170)	(154)
Free cash flow²	10,181	2,809
Cash inflows from prior years' disposals	10	10
Dividends paid to equity shareholders	(6,435)	(3,607)
Share buy-back	—	(208)
Other	48	(179)
Decrease / (increase) in net debt²	3,804	(1,175)

Footnotes are set out on page 3.

- \$13.7 billion of net cash generated from operating activities was 143% higher than 2020 first half, primarily driven by higher prices for our major commodities, which also resulted in higher dividends from equity accounted units. It is net of a tax payment of \$0.4 billion in Mongolia (disputed by Oyu Tolgoi, including through international arbitration) and a \$0.3 billion settlement related to the transfer of pension obligations in France.
- \$3.3 billion of capital expenditure¹ was 24% higher, comprised of \$1.4 billion of sustaining capital and \$1.9 billion of development capital, of which \$0.5 billion was growth and \$1.4 billion was replacement.
- Free cash flow² of \$10.2 billion, up 262%.
- \$6.4 billion of dividends reflected the 2020 final ordinary and special dividends paid in April 2021.
- As a result of the above, net debt² improved by \$3.8 billion in 2021 first half to net cash of \$3.1 billion.

Entry into battery minerals at scale: funding committed for Jadar lithium-borates project in Serbia

- \$2.4 billion funding [committed](#) to one of the world's largest greenfield lithium projects, subject to receiving all relevant approvals, permits and licences and ongoing engagement with local communities, the Government of Serbia and civil society.
- To be built to the highest environmental standards, including utilising dry stacking of tailings, with no need for a tailings dam. Approximately 70% of raw water to come from recycled sources or treated mine water.
- Expected to operate in the first quartile of the cost curve for both products, with a 40-year mine life.
- First saleable production in 2026 at a time of strong market fundamentals with lithium demand forecast to grow 25-35% per year over the next decade.

- Following ramp-up to full production in 2029, the mine is expected produce ~58,000 tonnes of battery-grade lithium carbonate, 160,000 tonnes of boric acid (B₂O₃ units) and 255,000 tonnes of sodium sulphate annually.³
- Positions Rio Tinto as the largest source of lithium supply in Europe. Jadar could supply enough lithium to power over one million electric vehicles per year.⁴

Our projects

- Increased our spend on exploration and evaluation to \$324 million in 2021 first half, as we progressed our greenfield programmes across 8 commodities in 19 countries and advanced our evaluation projects, notably Resolution Copper in Arizona and Winu copper-gold in Western Australia.
- At the Winu project in Western Australia, we continue to actively engage with the Traditional Owners and we plan to commence discussions on the initial scope and mine design, also in consultation with the Western Australian Environmental Protection Authority, with sanction now targeted for next year and first production in 2025, partly due to COVID-19 constraints. Drilling, fieldwork and study activities continue to progress.
- At Resolution, we are continuing to assist the US Forest Service with its review of the Final Environmental Impact Statement and draft Record of Decision. Mine studies continue to progress in parallel.
- At the Simandou iron ore project in Guinea, we are reviewing results from the technical optimisation of the infrastructure studies, and product test sample analysis is now underway. A new office was established in Conakry in the first half as we expand our in-country team.
- Mining has commenced at the \$2.6 billion Gudai-Darri replacement iron ore mine in Western Australia, with more than nine million cubic metres of pre-stripping completed in June. Despite labour shortages, first ore in the crusher is expected in 2021, although commissioning is later than originally planned. The project is expected to ramp up in early 2022, consistent with previous guidance, and reach full capacity in 2023. The first phase of this new hub, which will be our most technologically advanced mine, connecting up with our autonomous rail network, will have a 43 Mt annual capacity, underpinning production of the Pilbara Blend™.
- The \$0.9 billion (our share, previously \$0.8 billion) investment in the Robe River Joint Venture replacement mine projects are progressing. First ore at West Angelas (C, D) was achieved in June with load commissioning expected later in the year following delays related to heritage management. First ore at Robe Valley (Mesa B, C, H) is still expected in 2021, consistent with previous guidance.
- First ore at the \$0.8 billion Western Turner Syncline phase 2 mine, which will also replace existing production, is still expected in 2021, consistent with previous guidance.
- At the Oyu Tolgoi copper/gold underground project, project progress has been significantly affected by heightened COVID-19 constraints in Mongolia. To comply with COVID-19 restrictions, site manning levels were less than 25% of planned requirements. Despite these restrictions, as the Material Handling System 1 had been ahead of the definitive estimate schedule, it is now 90% complete with technical criteria achieved to support undercut commencement, subject to the ongoing impacts of COVID-19 and satisfactory resolution of the non-technical undercut criteria.
- The \$0.9 billion first phase of the south wall pushback at the Kennecott copper mine in the US remains on track, with gradual access to higher grades expected over 2021. The \$1.5 billion second phase is expected to extend copper operations to 2032. On 22 July, we [announced](#) the approval of a \$108 million investment for underground characterisation studies.
- The Zulti South project at RBM in South Africa, to sustain current capacity and extend mine life, remains on full suspension.

1. Capital expenditure is presented gross, before taking into account any cash received from disposals of property, plant and equipment (PP&E).

2. This financial performance indicator is a non-GAAP alternative performance measure ("APM"). It is used internally by management to assess the liquidity and performance of the business and is therefore considered relevant to readers of this document. It is presented here to give more clarity around the underlying business performance of the Group's operations. APMs are reconciled to directly comparable IFRS financial measures on pages 74 to 79.

3. These production targets were previously reported in a release to the Australian Securities Exchange (ASX) dated 10 December 2020, "Rio Tinto declares maiden Ore Reserve at Jadar" (for battery-grade lithium carbonate it was 55,000 tonnes). All material assumptions underpinning the production targets continue to apply and have not materially changed.

4. Assuming 60kWh battery size.

\$ 9.1 billion interim cash returns declared to shareholders in first half

Six months ended 30 June	2021 US\$bn	2021 USc per share	2020 US\$bn	2020 USc per share
Ordinary dividend				
Interim	6.1	376.0	2.5	155.0
<i>Pay-out ratio on ordinary interim dividend</i>		50 %		53 %
Additional return				
Special dividend	3.0	185.0	n/a	n/a
Total cash returns declared in first half	9.1	561.0	2.5	155.0
<i>Pay-out ratio on total interim dividend</i>		75 %		53 %

Total cash returns paid to shareholders in first half

Six months ended 30 June	2021 US\$bn	2020 US\$bn
Previous year's final ordinary dividend paid in April of each year	4.9	3.6
2020 special dividend announced in February 2021, paid in April 2021	1.5	n/a
Share buy-back programme, completed in February 2020	n/a	0.2
Total cash returns paid to shareholders in first half	6.4	3.8

Guidance

- Capital expenditure¹ is expected to be around \$7.5 billion in each of 2021, 2022 and 2023, unchanged from previous guidance. Each year includes \$3.0 to \$3.5 billion of sustaining capital, of which Pilbara iron ore sustaining capital is \$1.2 to \$1.6 billion. We continue to proactively manage COVID-19 and prioritise work across critical projects, as challenges associated with interstate and international border access continue, impacting the availability and movement of people, most notably in Australia, Canada and Mongolia.
- Effective tax rate on underlying earnings of approximately 30% in 2021.

2021 production guidance (Rio Tinto share, unless otherwise stated)

Pilbara iron ore (shipments, 100% basis)	325 to 340 Mt ¹
Bauxite	56 to 59 Mt ²
Alumina	7.8 to 8.2 Mt
Aluminium	3.1 to 3.3 Mt
Mined copper	500 to 550 kt ²
Refined copper	210 to 250 kt
Diamonds ³	3.0 to 3.8 M carats
Titanium dioxide slag	n/a ⁴
Iron Ore Company of Canada pellets and concentrate	10.5 to 12.0 Mt
Boric oxide equivalent	~0.5 Mt

2021 unit cost guidance

Pilbara iron ore unit cash costs per wet metric tonne, free on board (FOB) basis	\$18.0-18.5/t ⁵
Copper C1 unit costs (average for Kennecott, Oyu Tolgoi and Escondida)	60-75 US cents/lb

- At the low end of the range and remains subject to COVID-19 disruptions, risks around tie-in of new mines and management of cultural heritage.
- At the low end of the range.
- Diamonds 2021 guidance and actuals are for Diavik only for comparability, following Argyle closure in 2020. Unadjusted Diamonds production for 2020 was 14.7 million carats, including both Diavik and Argyle operations.
- Full year titanium dioxide slag production guidance has been removed as a result of risks around the timing of resumption of operations due to an escalation in the security situation at our Richards Bay Minerals operation in South Africa.
- Assumes a 0.77 Australian dollar exchange rate.

- Production and unit cost guidance is consistent with our Second Quarter Operations Review released on 16 July 2021.
- We will continue to monitor government-imposed restrictions related to COVID-19, and any other potential COVID-19 related disruptions. Restrictions on movement and availability of people can impact our ability to execute planned maintenance and deliver projects.
- Iron ore shipments and bauxite production guidance remain subject to weather and market conditions. We expect iron ore shipments to be at the low end of the guidance range which remains subject to tie-in and ramp-up of brownfield replacement mines, and ongoing cultural heritage management. Progress has been made on tying in approximately 90 million tonnes of replacement mine capacity at existing hubs in Robe Valley, West Angelas and Western Turner Syncline Phase 2. Replacement projects remain on track for completion in 2021, and Gudai-Darri is set to ramp up during 2022. The tight labour market in Western Australia has limited our access to experienced contractors and specific skill sets.
- The full impact on our Pilbara iron ore operations, mine developments and heritage approach from the reform of the Aboriginal Heritage Act 1972 (WA) remains unknown. We continue to engage with Traditional Owners regarding current and proposed plans for mining activities and work through development scenarios, adjusting mine plans where required. Given the quality of our resource, we retain a range of development options in the Pilbara, subject to heritage and environmental approvals.
- Full year titanium dioxide slag production guidance has been removed as a result of risks around the timing of resumption of operations at RBM in South Africa, due to a deterioration in the security situation. On 21 July, we [announced](#) that we would shut one of the four furnaces due to depletion of available feedstock. We continue to work with national and provincial governments as well as community structures to find a lasting solution to the current situation. However, if the situation does not improve, then we could be forced to progressively shut down the other furnaces by the end of August.

Update on our Sustainability targets

Progress against our Safety targets

Our first priority is to operate with zero fatalities and eliminate workplace injuries and catastrophic events. We have exceeded 30 months without a fatality on site, but we have seen an increase in our AIFR to 0.39 in the first half of 2021 versus 0.37 in 2020.

We continue to focus on eliminating the possibility of a fatality and we are currently working to strengthen the critical controls for incidents where a falling object had the potential to cause fatality. In the first half of 2021, and for the past three years, nearly 30% of all our Potential Fatal Incidents have related to falling objects.

The increase in injury rate is most prominent in our contractor teams and we are taking deliberate steps to ensure our care and systems extend to all of the people who work for us, including both employees and contractors. The maturity of our safety culture relies on having an inclusive work environment such that we all share the same unwavering commitment to eliminate injuries and incidents.

Progress against our Climate targets

We are targeting a reduction in our absolute Scope 1 and 2 emissions by 15% and our emission intensity by 30% by 2030 relative to our 2018 equity baseline.

In the first half of 2021, we continued making progress executing our climate strategy, initiating a number of partnerships to address our operational and value chain emissions. As with governments in the lead up to COP26, we continue our work to identify and develop options to raise our climate ambition in line with the goals of the Paris Agreement.

Reducing the carbon footprint of our operations

Mt CO ₂ e	H1 2021*	2020	2019	2018**
Scope 1 emissions	11.2	22.8	23.1	23.8
Scope 2 emissions	4.3	8.7	8.3	8.8
Total	15.5	31.5	31.5	32.6

*All emissions for June 2021 and non-managed operations are estimated based on production and emission intensity

**Adjusted for divestments and acquisitions baseline for target

Our absolute emissions in the first half of 2021 remain at approximately the same level as in 2019 and 2020. We continued, as planned, to progress the abatement projects identified in the short-term incentive plan targets through feasibility, design and approvals stages. However, as indicated in the 2020 Climate Change Report, these projects are expected to deliver more significant reductions later this decade and current emissions levels are mostly influenced by changes in operational factors.

- In the first half of 2021, we have announced multiple new initiatives that we are exploring in order to reduce our future emissions. These include; a Memorandum of Understanding (MoU) with Schneider Electric to develop a circular and sustainable market ecosystem for both companies and their customers; a partnership with energy technology company, Heliogen, to explore the deployment of breakthrough solar technology at our borates mine in California; the Charge On Innovation Challenge, with BHP and Vale, and in partnership with Australia's Mining Equipment, Technology and Services industry body Austmine, which is a global competition to develop new concepts for large-scale haul truck electrification systems for surface mine operations; and a partnership with the Australian Renewable Energy Agency (ARENA) to study whether hydrogen can replace natural gas in alumina refineries.
- On 26 July, we [announced](#) that we had signed a power purchasing agreement for a new renewable energy plant to power the operations of our QMM ilmenite mine in Fort Dauphin, southern Madagascar. The renewable energy plant, to be built, owned and operated by independent power producer CrossBoundary Energy, over a 20-year period, will consist of an 8 MW solar facility and a 12 MW wind energy facility to power mining and processing operations. There will also be a lithium-ion battery energy storage system of up to 8.25 MW as reserve capacity to ensure a stable and reliable network. The project will significantly contribute towards our operation in Madagascar achieving its carbon neutral objective by 2023.

Climate partnerships across our value chains

As part of our Climate Strategy, we made further progress against our Scope 3 goals in our partnerships to decarbonise our value chain in the first half of 2021:

- We signed a MoU with POSCO, the largest steel producer in South Korea and one of the world's leading steel producers, to jointly explore, develop and demonstrate technologies to transition to a low-carbon emission steel value chain. The partnership will explore a range of technologies for decarbonisation across the entire steel value chain from iron ore mining to steelmaking, including integrating Rio Tinto's iron ore processing technology and POSCO's steelmaking technology.
- We took a major step forward in eliminating all direct greenhouse gases from aluminium smelting with the start of construction on the first commercial-scale prototype cells of ELYSIS' technology, at our Alma smelter in Saguenay-Lac-Saint-Jean, Quebec. ELYSIS is a joint venture company led by Rio Tinto and Alcoa that is developing a new breakthrough technology, known as inert anode, that eliminates all direct greenhouse gases from the traditional smelting process and instead produces oxygen.
- We signed a charter agreement with Singapore's ship management company Eastern Pacific Shipping for three liquefied natural gas dual-fuel Newcastlemax bulk carriers, to further reduce our scope 3 shipping emissions. The delivery of the ships will commence from the second half of 2023.

Progress against our Water targets

By 2023, we are set to disclose for all managed operations, their permitted surface water allocation, how much of their allocation they have used, and the average rainfall volume that the catchment receives. We also expect to achieve local water stewardship targets for selected sites by 2023.

We have been focused on the collection and analysis of data for our Copper and Atlantic Aluminium businesses. In addition, we have developed a set of standardised water risk controls that our assets need to implement to satisfactorily prevent or mitigate, not just water scarcity risks, but also those associated with discharge quality and quantity, and long-term dewatering and geochemical impacts. The integration of these controls into our risk management systems completes the realignment of our approach to water risk and further enables our assets to improve water management and stewardship.

Progress against our Gender Diversity targets

We want to create a workplace that reflects the communities in which we operate and is safe, respectful and inclusive for all. We have set a target to increase the representation of women in our workforce by two percentage points this year. We have improved our gender balance across all employment categories in the first half but we are tracking slightly below target. Overall, we increased female representation by 0.9% to 21.0%, hiring 1,270 women, 32% of all hires. Improving the gender balance also requires a focus on retention as 323 women left Rio Tinto in the first half of 2021.

We have been looking closely at our workplace environment through the Everyday Respect initiative launched in March. Listening sessions have been held across the business to allow employees to share stories of their experiences and suggestions to ensure that we are providing a safe working environment that is free from sexual harassment, bullying and racism. Addressing these issues will, over time, contribute to a more inclusive and supportive work environment and help improve retention for both women and men from all backgrounds and abilities.

Progress against our Communities and Social Performance targets

In May, we recognised a year since the destruction of the Juukan Gorge rock shelters. We reflected on the magnitude of what was lost by our actions, and that the hurt we have caused will never be forgotten. We are collaborating with Puutu Kunti Kurrama and Pinikura (PKKP) leadership on both the Juukan Gorge remediation and development of a co-management of country model as part of agreement modernisation. Rehabilitation works around Juukan Gorge have now commenced. A key focus over the coming months is to finalise agreement on an appropriate remedy for the destruction of Juukan Gorge.

Cultural heritage awareness and management

The first phase of the Integrated Heritage Management Process to manage cultural heritage in Western Australia is now complete. Known sites of cultural significance have been re-assessed and mine plans adjusted or measures taken to avoid disturbance, and we increased buffer zones in some cases.

We have also further developed our internal awareness with the delivery of a new co-developed cultural awareness training via immersive virtual reality. We are on track to have 90% of our 14,000 Pilbara iron ore employees complete this training by mid-August 2021.

Our communities expertise

We are focused on building our social performance technical capability and competency and have continued to expand our Communities and Social Performance (CSP) headcount, with more than 300 CSP professionals now working on 60 sites in 35 countries (compared with 250 CSP professionals in 2020).

Indigenous leadership and engagement

In line with our commitment to establish an Indigenous Advisory Group, the terms of reference are under active development to ensure the group can help us manage policies and positions that are important to Indigenous Australia and our broader business. Further consultation with Traditional Owners and Indigenous leaders is planned for the third quarter.

Our \$50 million investment to attract, retain and grow Indigenous professionals and leaders has enabled us to nearly triple the number of Indigenous leaders in Rio Tinto over the past 12 months to 19 through internal promotion and recruitment, ahead of the original target. The 2021 target has therefore been revised to 50 Indigenous leaders.

Former Panguna copper mine in Bougainville

On 21 July, we [announced](#) that we had reached an agreement with Bougainville community members, represented by the Human Rights Law Centre, to identify and assess legacy impacts of the former Panguna copper mine in Bougainville. This follows several months of constructive discussions facilitated by the Australian OECD National Contact Point.

A joint committee of stakeholders will be formed to oversee a detailed independent assessment of the Panguna mine to identify and better understand actual and potential environmental and human rights impacts of the mine which ceased operating in 1989.

Underlying EBITDA, underlying earnings by product group

	Underlying EBITDA			Underlying Earnings		
	2021	2020	Change	2021	2020	Change
Six months ended 30 June	US\$m	US\$m	%	US\$m	US\$m	%
Iron Ore	16,060	7,698	109 %	10,216	4,563	124 %
Aluminium	1,924	925	108 %	921	193	377 %
Copper	2,048	686	199 %	885	111	697 %
Minerals	1,398	712	96 %	498	190	162 %
Reportable segment total	21,430	10,021	114 %	12,520	5,057	148 %
Other operations	(4)	1	(500)%	(51)	(29)	76 %
Inter-segment transactions	(6)	(18)	(67)%	(3)	(6)	(50)%
Product group total	21,420	10,004	114 %	12,466	5,022	148 %
Central pensions, share-based payments, insurance and derivatives	119	102	17 %	120	97	24 %
Restructuring, project and one-off costs	(36)	(72)	(50)%	(23)	(53)	(57)%
Other central costs	(346)	(273)	27 %	(294)	(233)	26 %
Central exploration and evaluation	(120)	(121)	(1)%	(100)	(97)	3 %
Net interest				(3)	14	(121)%
Total	21,037	9,640	118 %	12,166	4,750	156 %

Underlying EBITDA and underlying earnings are non-GAAP alternative performance measures ("APMs") used by management to assess the performance of the business, and provide additional information which investors may find useful. APMs are reconciled to directly comparable IFRS financial measures on pages 74 to 79.

Central and other costs

Pre-tax central pension costs, share-based payments, insurance and derivatives were a \$119 million credit compared with a \$102 million credit in 2020 first half mainly due to higher insurance premiums in 2021 first half with a lower offset from claims than 2020 first half, coupled with lower costs associated with share based payments.

On a pre-tax basis, restructuring, project and one-off central costs were 50% lower than 2020 first half mainly due to provisions recognised in 2020 in respect of legacy operations.

Other central costs of \$346 million (pre-tax) were 27% higher than 2020 first half mainly attributable to stronger local currencies, and also includes a modest increase in costs associated with progressing our CSP and ESG objectives.

Central exploration and evaluation costs

We have a strong portfolio of projects with activity in 19 countries across 8 commodities in early exploration and studies stages. We have followed government COVID-19 requirements and guidelines at all our projects while focusing on protecting the health and well-being of local communities. The bulk of our central exploration expenditure in the half was prioritised on copper projects in Australia, Canada, Kazakhstan, the United States and Zambia, and diamond projects in Canada.

Commentary on financial results

To provide additional insight into the performance of our business, we report underlying EBITDA and underlying earnings. The principal factors explaining the movements in underlying EBITDA are set out in this table.

	US\$m
2020 first half underlying EBITDA	9,640
Prices	12,833
Exchange rates	(627)
Volumes and mix	(381)
General inflation	(137)
Energy	43
Operating cash unit costs	(318)
Higher exploration and evaluation spend	(44)
Non-cash costs/other	28
2021 first half underlying EBITDA	21,037

Strong financials benefiting from higher prices across most of our commodities

Due to our disciplined focus on cost containment, we managed to retain around 90% of the benefit from higher prices in 2021 first half. These increased underlying EBITDA by \$12,833 million compared with 2020 first half. We have included a table of prices and exchange rates on page 81.

The monthly average Platts index for 62% iron fines converted to an FOB basis more than doubled compared with 2020 first half. This was driven by a strong resurgence in global demand, in particular from China, and slower than anticipated growth in seaborne supply.

Average LME prices for copper and aluminium rebounded 66% and 41%, respectively, compared with 2020 first half. The mid-west premium duty paid for aluminium in the US averaged \$318 per tonne, 28% higher than in 2020 first half, reflective of strong demand and tight supply. The published gold price increased 10% compared with 2020 first half.

Headwinds from appreciating Australian and Canadian dollars

Compared with 2020 first half, on average the US dollar weakened by 17% against the Australian dollar, by 9% against the Canadian dollar and by 13% against the South African rand. Currency movements lowered underlying EBITDA by \$627 million relative to 2020 first half.

Lower underlying EBITDA from volumes and mix

We experienced some operational challenges in 2021 first half, including COVID-19 and significantly above average rainfall. These were reflected in the movement in volumes and mix, which lowered underlying EBITDA by \$381 million compared with 2020 first half. This was mostly attributable to iron ore shipments from the Pilbara, which decreased by 3%, driven by lower production following sustained wet weather, particularly at West Pilbara and Robe Valley operations, shutdowns to enable new replacement mines to be tied in, processing plant availability and cultural heritage management. Other key variances included lower volumes at Iron Ore Company of Canada (labour and equipment availability challenges) and reduced copper sales volumes at both Escondida (prolonged COVID-19 impact leading to lower recoveries and throughput) and Oyu Tolgoi (COVID-19-related constraints on exports to China). These were partly offset by higher refined copper sales at Kennecott (recovery from the earthquake and planned smelter maintenance shutdown, both in 2020), increased gold sales from Oyu Tolgoi (significant improvement in grades) and higher titanium dioxide feedstock volumes (in line with market demand).

Lower energy prices and general price inflation

Lower energy prices, on average, compared to 2020 first half benefited underlying EBITDA by \$43 million, mainly due to lower energy prices at our aluminium smelters, including the new agreement reached during the first half in relation to the electricity supply to New Zealand Aluminium Smelter (NZAS). This was outweighed by the \$137 million impact of general price inflation.

Continued focus on cost control

We maintained tight controls even during this period of high prices with continued focus on cost and working capital. However, lower volumes led to our operating cash unit costs rising by \$318 million (on a unit cost basis) compared with 2020 first half. Unit costs at our Pilbara iron ore operations increased to \$17.9 per tonne due to Gudai-Darri commissioning costs, a higher mining work index, increased plant maintenance and higher demurrage due to increased shipping rates. At our Aluminium business, we incurred cyclical cost increases for coke and alloys, while our Bauxite business in Queensland also experienced higher demurrage costs from inclement weather. These cost pressures were partly offset by fixed cost efficiencies at Kennecott following completion of planned smelter maintenance and recovery from the earthquake in 2020.

Increase in our exploration and evaluation activity

We increased our exploration and evaluation activity, expensing \$44 million more than in 2020 first half. This was focused on our greenfield programmes across 18 countries and our highest value evaluation projects, particularly in copper, Winu in Western Australia and Resolution in Arizona, and lithium-borates in Serbia.

Non-cash costs and Other

The movement in non-cash costs, one-off and other items increased underlying EBITDA by \$28 million compared with 2020 first half. This primarily reflected lower COVID-19 related costs (\$131 million in 2021 first half compared with \$157 million), and also includes the non-recurrence of certain one-off costs in 2020, such as the pot-lining replacement at the Kitimat aluminium smelter (\$50 million) and the impact from curtailment of operations at RBM (\$40 million) in early 2020, offset by provisions recognised, mainly environmental and provisions associated with our legacy operations.

Net earnings

The principal factors explaining the movements in underlying earnings and net earnings are set out here.

	US\$m
2020 first half net earnings	3,316
Total changes in underlying EBITDA	11,397
Increase in depreciation and amortisation (pre-tax) in underlying earnings	(214)
Decrease in interest and finance items (pre-tax) in underlying earnings	23
Increase in tax on underlying earnings	(3,171)
Increase in underlying earnings attributable to outside interests	(619)
Total changes in underlying earnings	7,416
Changes in exclusions from underlying earnings:	
Movement in net impairment charges	1,033
Movement in closure estimates (non-operating and fully impaired sites)	(15)
Movement in exchange differences and gains/losses on debt	563
2021 first half net earnings	12,313

Depreciation and amortisation, net interest and tax

Our depreciation and amortisation charge was \$214 million higher than 2020 first half, mainly due to the impact of the stronger Australian and Canadian dollars against the US dollar.

Interest and finance items (pre-tax) were \$23 million lower than 2020 first half, mainly reflecting the impact of floating interest rates on our net debt and the repayment of the \$526 million of Euro Bonds, which matured in May 2020.

The 2021 first half effective corporate income tax rate on underlying earnings, excluding equity accounted units, was 29%, which compared with 30% in 2020 first half. 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 2021.

Items excluded from underlying earnings

There were no impairment charges in 2021 first half. In 2020 first half, we recognised \$1,033 million of impairment charges, related to three of our Pacific Aluminium smelters (NZAS, Bell Bay and Boyne), the ISAL smelter in Iceland and our interest in the Diavik diamond mine. On pages 45 and 46 there is a detailed explanation of the impairment process.

In 2021 first half, we recognised net additional closure costs of \$15 million, after tax and non-controlling interests, principally relating to an increase in Diavik's closure provision to reflect the completion of the pre-feasibility study that was in progress when the asset was fully impaired in 2020. The 2021 charge also includes closure provision increases at some of the Group's legacy sites. Further analysis can be found on page 57.

In 2021 first half, we recognised non-cash exchange and derivative gains of \$280 million. 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. These gains compared with 2020 first half losses of \$283 million, giving rise to a favourable period-on-period movement of \$563 million. The exchange gains are largely offset by currency translation losses recognised in equity. The quantum of US dollar debt is largely unaffected and we will repay it from US dollar sales receipts.

Profit

Net earnings and underlying earnings refer to amounts attributable to the owners of Rio Tinto. The profit after tax attributable to the owners of Rio Tinto in 2021 first half totalled \$12.3 billion (2020 first half: \$3.3 billion). We recorded a profit in 2021 first half of \$13.1 billion (2020 first half: \$3.5 billion) of which a profit of \$0.8 billion (2020 first half: \$0.1 billion) was attributable to non-controlling interests.

Net earnings and underlying earnings

The differences between underlying earnings and net earnings are set out in this table (all numbers are after tax and exclude non-controlling interests).

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Underlying earnings	12,166	4,750
Items excluded from underlying earnings		
Impairment charges	—	(1,033)
Foreign exchange and derivative gains /(losses) on US dollar net debt and intragroup balances and derivatives not qualifying for hedge accounting	280	(283)
Net increases in closure estimates (non-operating and fully impaired sites)	(133)	(118)
Net earnings	12,313	3,316

On pages 56 and 57 there is a detailed reconciliation from underlying earnings to net earnings, including pre-tax amounts and additional explanatory notes. The differences between underlying EBITDA and Profit after tax are set out on the table on page 75.

Balance sheet

Net debt reduced by \$3.8 billion in 2021 first half, resulting in a net cash position of \$3.1 billion at 30 June 2021. This reflected the strong free cash flows partly offset by payment of the final and special dividends of \$6.4 billion.

Our net gearing ratio (net (cash) / debt to total capital) improved to (6)% at 30 June 2021 (31 December 2020: 1%).

Our total financing liabilities at 30 June 2021 were \$13.4 billion (see page 48) and the weighted average maturity was around 9 years. At 30 June 2021, approximately 86% of Rio Tinto's total borrowings were at floating interest rates (94% excluding leases). During the six months to 30 June 2020 we entered into \$1.5 billion of interest rate swaps to convert the remaining fixed Alcan debt to floating interest rates. The maximum amount, within non-current borrowings, maturing in any one calendar year is \$1.8 billion, which matures in 2025.

Cash and cash equivalents plus other short-term cash investments at 30 June 2021 were \$16.5 billion (31 December 2020: \$12.9 billion) and we have a \$7.5 billion fully committed Revolving Credit Facility, which remained undrawn throughout the period and matures in November 2023.

Our shareholder returns policy

The Board is committed to maintaining an appropriate balance between cash returns to shareholders and investment in the business, with the intention of maximising shareholder value.

At the end of each financial period, the Board determines an appropriate total level of ordinary dividend per share, taking into account the results for the financial year, the outlook for our major commodities, the Board's view of the long-term growth prospects of the business and the company's objective of maintaining a strong balance sheet. The intention is that the balance between the interim and final dividend be weighted to the final dividend.

The Board expects total cash returns to shareholders over the longer term to be in a range of 40-60% of underlying earnings in aggregate through the cycle. Acknowledging the cyclical nature of the industry, in periods of strong earnings and cash generation, it is the Board's intention to supplement the ordinary dividends with additional returns to shareholders. We determine dividends in US dollars. We declare and pay Rio Tinto plc dividends in pounds sterling and Rio Tinto Limited dividends in Australian dollars. The 2021 interim dividend has been converted at exchange rates applicable on 27 July 2021 (the latest practicable date prior to the declaration of the dividend). American Depository Receipt (ADR) holders receive dividends at the declared rate in US dollars.

Ordinary dividend per share	2021 interim	2020 interim
Rio Tinto Group		
US cents per share	376.00	155.00
Rio Tinto plc		
UK pence per share	270.84	119.74
Rio Tinto Limited		
Australian cents per share	509.42	216.47
Special dividend per share		
Rio Tinto Group		
US cents per share	185.00	n/a
Rio Tinto plc		
UK pence per share	133.26	n/a
Rio Tinto Limited		
Australian cents per share	250.64	n/a

The 2021 interim dividend and the special dividend to be paid to our Rio Tinto Limited shareholders will be fully franked. The Board expects Rio Tinto Limited to be in a position to pay fully franked dividends for the foreseeable future.

On 23 September 2021, we will pay the 2021 interim dividend and the special dividend to holders of ordinary shares and holders of ADRs on the register at the close of business on 13 August 2021 (record date). The ex-dividend date is 12 August 2021.

Rio Tinto plc shareholders may choose to receive their dividend in Australian dollars, and Rio Tinto Limited shareholders may choose to receive theirs in pounds sterling. Currency conversions will be based on the pound sterling and Australian dollar exchange rates five business days before the dividend payment date. Rio Tinto plc and Rio Tinto Limited shareholders must register their currency elections by 2 September 2021.

We continue to operate our Dividend Reinvestment Plans - see our website (riotinto.com) for details. Rio Tinto plc and Rio Tinto Limited shareholders' election notice for the Dividend Reinvestment Plans must be received by 2 September 2021. Purchases under the Dividend Reinvestment Plan are made on or as soon as practicable after the dividend payment date and at prevailing market prices. There is no discount available.

As previously announced at our 2020 full year results on 17 February 2021, and in line with market practice, we will be introducing a dividend fee on cash dividends paid on the ADR. The fee revenue will cover costs associated with the management of the ADR programme. The fee of \$0.005 per ADR, per cash dividend, will be introduced with the 2021 interim dividend which is payable on 23 September 2021. The fee will be deducted by the depositary.

Review of operations

Iron Ore

Six months ended 30 June	2021	2020	Change
Pilbara production (million tonnes - 100%)	152.3	161.1	(5)%
Pilbara shipments (million tonnes - 100%)	154.1	159.6	(3)%
Salt production (000 tonnes - Rio Tinto share) ¹	2,869	2,469	16 %
Gross product sales (US\$ millions)	21,707	11,465	89 %
Average realised price (US\$ per dry metric tonne, FOB basis)	168.4	85.4	97 %
Underlying EBITDA (US\$ millions)	16,060	7,698	109 %
Pilbara underlying FOB EBITDA margin ²	79 %	72 %	
Underlying earnings (US\$ millions)	10,216	4,563	124 %
Net cash generated from operating activities (US\$ millions)	11,049	5,460	102 %
Capital expenditure (US\$ millions) ³	(1,912)	(1,185)	61 %
Free cash flow (US\$ millions)	9,112	4,255	114 %
Underlying return on capital employed ⁴	121 %	64 %	

1. Dampier Salt is reported in Iron Ore, reflecting management responsibility. Iron Ore Company of Canada continues to be reported within Minerals. The Simandou iron ore project in Guinea is reported within Copper.
2. The Pilbara underlying free on board (FOB) EBITDA margin is defined as Pilbara underlying EBITDA divided by Pilbara gross product sales, excluding freight revenue.
3. Capital expenditure is the net cash outflow on purchases less sales of property, plant and equipment, capitalised evaluation costs and purchases less sales of other intangible assets.
4. Underlying return on capital employed (ROCE) is defined as underlying earnings excluding net interest divided by average capital employed (operating assets).

Financial performance

Our iron ore shipments from the Pilbara decreased by 3% compared with 2020 first half, in line with lower production, which was attributable to sustained wet weather, particularly at the West Pilbara and Robe Valley operations, shutdowns to enable new replacement mines to be tied in, processing plant availability and cultural heritage management.

Underlying EBITDA of \$16.1 billion was 109% higher than 2020 first half, reflective of higher prices driven by strong global demand and constrained supply. This more than compensated for the lower sales volumes and higher operating costs, which were driven by a stronger Australian dollar.

2021 first half Pilbara unit cash costs of \$17.9 per tonne (2020 first half: \$14.5 per tonne) included \$0.5 per tonne of COVID-19 costs. \$2.4 per tonne of the half-on-half increase was attributable to the 17% appreciation in the Australian dollar. Gudai-Darri commissioning costs, a higher mining work index, increased plant maintenance, and higher demurrage due to increased shipping rates were also contributors.

Cost guidance for the full year of \$18.0-\$18.5 per tonne represents an underlying cost increase of ~A\$0.3 billion (on a 100% basis) relative to previous guidance of \$16.7-\$17.7 per tonne, or 4%. The updated guidance reflects price escalation of key input costs (diesel and labour), costs related to mine heritage management and COVID-19-related costs (~A\$100 million, on a 100% basis, or US\$62 million our share were incurred in 2021 first half; no COVID-19 costs included in previous guidance). Cost guidance remains based on an A\$:US\$ exchange rate of 0.77.

Our Pilbara operations delivered an underlying FOB EBITDA margin of 79%.

We price the majority of our iron ore sales (79%) by reference to the average index price for the month of shipment. In 2021 first half, we priced approximately 12% of sales by reference to the prior quarter's average index lagged by one month, with the remainder sold either on current quarter average or on the spot market. We made approximately 71% of our sales including freight and 29% on an FOB basis.

We achieved an average iron ore price in 2021 first half of \$154.9 per wet metric tonne on an FOB basis (2020 first half: \$78.5 per wet metric tonne). This equates to \$168.4 per dry metric tonne, assuming 8% moisture, (2020 first half: \$85.4 per dry metric tonne) and compares to the monthly average Platts index for 62% fines converted to an FOB basis of \$172.6 per dry metric tonne.

Gross product sales for Pilbara operations included freight revenue of \$1.0 billion (2020 first half: \$0.6 billion).

We continue to significantly increase port sales in China, with 5.4 million tonnes of sales in 2021 first half, doubling 2020's volumes. Our portside operation handles product from our operations in the Pilbara and in Canada as well as third party product, and provides blending and screening capabilities. Approximately 85% of products sold were either blended or screened in Chinese ports in the first half of 2021.

Net cash generated from operating activities of \$11.0 billion was 102% higher than 2020 first half, driven by the higher underlying EBITDA and associated higher tax payments.

Free cash flow of \$9.1 billion was 114% higher than 2020 first half, primarily reflecting the higher operating cash flow net of a 61% increase in capital investment. This included an increase in sustaining capital and a step-up in development capital for Gudai-Darri and the replacement mines at Robe Valley (Mesa B,C, H), West Angelas (C, D) and Western Turner Syncline Phase 2.

Review of operations

Our Pilbara operations produced 152.3 million tonnes (our share 126.9 million tonnes), 5% lower than the first half of 2020 due to above average rainfall, shutdowns to enable replacement mines to be tied in, processing plant availability and cultural heritage management. Ongoing COVID-19 restrictions and a tight labour market have further impacted our ability to access experienced contractors and particular skill sets.

Sustained wet weather had an estimated impact of around 3 million tonnes in the first half. Consistent and above average rainfall impacted mine operations, particularly at West Pilbara and Robe Valley operations. The recorded rainfall days were 30% and 70% above the five year average at Paraburdoo and Karratha respectively, while rainfall at Pannawonica was 60% above the five year average.

The impact from shutdowns to enable replacement mines to be tied in at Western Turner Syncline and Robe Valley, and reduced processing plant availability, particularly at Yandicoogina, is estimated to be 4 million tonnes in the first half. Execution of shutdowns was also impacted by labour shortages due to COVID-19 restrictions and high labour demand.

We continue to prioritise engagement with Traditional Owners and cultural heritage management in daily site operations. To date, 2021 production has been reduced by around 2 million tonnes as mine plans have been amended, and buffers and exclusion zones have been incorporated to protect areas of high cultural significance. Mine plan changes have also resulted in increased production of SP-10.

Blast management plans have been developed to create smaller, higher controlled blasts to minimise vibration and protect heritage sites (approximately 11% of blasts in the first half), which has had some impact on mining productivity and materials handling. Going forward, this will remain a risk factor, however we are adapting mine practices and improving productivity.

Projects and growth options

Mining has commenced at the \$2.6 billion Gudai-Darri mine with more than nine million cubic metres of pre-stripping completed. Labour shortages have impacted both steel fabrication and site construction activities. First ore in the crusher is still expected in 2021, although commissioning is later than originally planned. The project is expected to ramp up in early 2022, consistent with previous guidance, and reach full capacity in 2023. Once complete, the initial mine development will have an annual capacity of 43 million tonnes.

The Robe River Joint Venture replacement mine sustaining production projects are on track. First ore at West Angelas C, D was achieved in June, with load commissioning expected later in the year following delays related to heritage management. First ore at Robe Valley (Mesa B, C, H) is still expected in 2021, consistent with previous guidance.

Construction at the Western Turner Syncline Phase 2 project is progressing, with first ore expected in 2021.

We continue to proactively manage COVID-19 and prioritise work across critical projects, as challenges associated with interstate border access continue, impacting the availability and movement of people.

Aluminium

Six months ended 30 June	2021	2020	Change
Bauxite production (000 tonnes - Rio Tinto share)	27,264	28,373	(4)%
Alumina production (000 tonnes - Rio Tinto share)	4,047	4,000	1 %
Aluminium production (000 tonnes - Rio Tinto share) ¹	1,619	1,568	3 %
Gross product sales (US\$ millions)	5,932	4,487	32 %
Average realised aluminium price (US\$ per tonne)	2,626	1,849	42 %
Underlying EBITDA (US\$ millions)	1,924	925	108 %
Underlying EBITDA margin (integrated operations)	36 %	23 %	
Underlying earnings (US\$ millions)	921	193	377 %
Net cash generated from operating activities (US\$ millions)	1,384	1,089	27 %
Capital expenditure - excluding EAUs ¹ (US\$ millions)	(487)	(443)	10 %
Free cash flow (US\$ millions)	880	624	41 %
Underlying return on capital employed ²	12 %	3 %	

1. Capital expenditure is the net cash outflow on purchases less sales of property, plant and equipment, capitalised evaluation costs and purchases less sales of other intangible assets. It excludes equity accounted units (EAUs).
2. Underlying return on capital employed (ROCE) is defined as underlying earnings excluding net interest divided by average capital employed (operating assets).

Financial performance

Our aluminium business delivered a significant uplift in underlying EBITDA and a substantial increase in cash flow, with free cash flow already at the same level as full year 2020. This was driven by a rebound in sales prices and heightened demand for value-added product (VAP) as markets recovered from the impact of COVID-19.

Underlying EBITDA of \$1.9 billion was more than double 2020 first half. The benefit from the stronger pricing environment, in particular for primary metal and alumina, and higher aluminium sales driven by the stability of our Canadian smelting business were only partly offset by the impact of stronger local currencies, lower bauxite shipments and some cost inflation for coke and alloys. This increased our industry-leading underlying EBITDA margin to 36%.

We achieved an average realised aluminium price of \$2,626 per tonne, 42% higher than 2020 first half (\$1,849 per tonne). This comprised the LME price, a market premium and a VAP premium. The cash LME price averaged \$2,245 per tonne, 41% higher than 2020 first half. In our key US market, the mid-West premium duty paid recovered 28% to \$318 per tonne (2020 first half: \$249 per tonne). In 2021 first half, VAP volumes recovered to represent 50% of the primary metal we sold (2020 first half: 40%) and generated product premiums averaging \$207 per tonne of VAP sold (2020 first half: \$208 per tonne).

Although we are broadly balanced in alumina, approximately 2.1 million tonnes of our legacy alumina sales contracts are exposed to a fixed linkage to the LME price. These contracts date back to 2005 or earlier, and the majority expire between 2023 and 2030. The opportunity loss from these legacy contracts was negligible in 2021 first half, compared with around \$50 million in 2020 first half.

We generated \$1.4 billion in net cash from operating activities, 27% higher than 2020 first half, reflective of the higher underlying EBITDA achieved, net of a build in trade working capital, driven by the higher pricing environment and supply chain constraints, which compared with a reduction in working capital in 2020 first half. The rise in operating cash flow was reflected in free cash flow of \$0.9 billion, 41% higher than 2020 first half, and already level with 2020 full year.

Review of operations

Bauxite production of 27.3 million tonnes was 4% lower than 2020 first half due to ongoing system instability following severe wet weather in Eastern Australia earlier in the year. 2020 first half had strong production due to deferrals of planned shutdowns from COVID-19 restrictions.

Alumina production of 4.0 million tonnes was 1% higher than 2020 first half reflecting strong operational performance at the refineries.

Aluminium production of 1.6 million tonnes was 3% higher than 2020 first half, underpinned by the ISAL smelter in Iceland and Becancour smelter in Quebec operating at full capacity, and the Kitimat smelter in British Columbia nearing completion of its pot relining cycle. The Saguenay smelters had a strong performance in 2021 first half, with stable performance maintained across the remaining portfolio.

On 26 July, we [announced](#) that we had begun reducing production at the Kitimat smelter due to a strike initiated by the local union, after negotiations failed to reach a new collective labour agreement. Production will be reduced to around 35% of the smelter's 432,000 tonne annual capacity, so that it can safely be operated by staff and employees.

Projects and growth options

At the Kemano hydropower tunnel project in Kitimat in British Columbia, Canada, works have resumed at full capacity and the tunnel boring excavation is now 74% complete, having achieved a total of 5,660 metres. The project is scheduled to complete in the second half of 2022, subject to there being no further COVID-19 delays. Total approved capital is now \$761 million, following the approval of an additional \$132 million by the Board in July.

ELYSIS, our joint venture with Alcoa, has selected our Alma smelter in Saguenay-Lac-Saint-Jean, Quebec, for the first installation and demonstration of its inert anode technology at a commercial size of 450 kiloamperes (kA). Construction of the first prototype cells has commenced. This will build on ongoing work at the nearby ELYSIS Industrial Research and Development Centre. The 450 kA cells at Alma will be supported by investments of C\$20 million from the Government of Quebec and C\$20 million from the Government of Canada.

Copper

Six months ended 30 June	2021	2020	Change
Mined copper production (000 tonnes - Rio Tinto share)	236.1	265.7	(11)%
Refined copper production (000 tonnes - Rio Tinto share)	111.4	74.1	50 %
Gross product sales (US\$ millions)	3,779	1,983	91 %
Average realised copper price (US cents per pound) ¹	415	250	66 %
Underlying EBITDA (US\$ millions)	2,048	686	199 %
Underlying EBITDA margin (product group operations)	61 %	43 %	
Underlying earnings (US\$ millions)	885	111	697 %
Net cash generated from operating activities (US\$ millions) ²	1,232	100	1,132 %
Capital expenditure - excluding EAUs (US\$ millions) ³	(668)	(869)	(23)%
Free cash flow (US\$ millions)	561	(776)	n/a
Underlying return on capital employed ⁴	13 %	2 %	

1. Average realised price for all units sold. Realised price does not include the impact of the provisional pricing adjustments, which positively impacted revenues in the first half by \$202 million (first half 2020 negative impact of \$26 million).
2. Net cash generated from operating activities excludes the operating cash flows of equity accounted units (EAUs) but includes dividends from EAUs (Escondida).
3. Capital expenditure is the net cash outflow on purchases less sales of property, plant and equipment, capitalised evaluation costs and purchases less sales of other intangible assets. It excludes EAUs.
4. Underlying return on capital employed (ROCE) is defined as underlying earnings excluding net interest divided by average capital employed (operating assets).
5. Following a reorganisation of the management team, the Simandou iron ore project in Guinea is reported within Copper.

Financial performance

The improvement in our financial performance was primarily driven by stronger market conditions. We also benefited from higher refined sales volumes, driven by a solid smelter performance at Kennecott and higher gold grades at Oyu Tolgoi. These compensated for lower volumes at Escondida, where ongoing preventive measures in response to the resurgence of COVID-19 continued to impact workforce availability.

At \$2.0 billion, our underlying EBITDA was almost three times higher than 2020 first half. The stronger market environment, which rebounded from the impact of the global COVID-19 pandemic, drove underlying EBITDA \$1.3 billion higher, with a 66% increase in our realised copper price to 415 US cents per pound, before taking into account the provisional pricing benefit to revenues of \$202 million in 2021 first half. We incurred additional costs related to our response to COVID-19, higher energy costs, notably in the US driven by weather conditions, and higher royalties at Oyu Tolgoi, in line with higher volumes and prices. These were offset by an improvement in refined copper volumes at Kennecott due to the non-recurrence of two significant events in 2020 - the earthquake in March and the planned smelter shutdown that commenced in May.

Our C1 copper unit costs, at 71 cents per pound in 2021 first half, were 43% lower than in 2020 first half. Lower throughput and grades at Escondida and higher royalties, in line with stronger prices, at Kennecott and Oyu Tolgoi were offset by higher production of copper and, in particular, gold at Oyu Tolgoi, driven by higher grades.

We continued to advance our future copper evaluation projects, in particular at Resolution Copper in Arizona and Winu in Western Australia.

Strong cash from our operating activities of \$1.2 billion benefited from the same drivers as underlying EBITDA and \$0.5 billion higher dividends from Escondida. This was partly offset by a tax payment of \$0.4 billion in Mongolia that is being disputed by Oyu Tolgoi, including through international arbitration. Free cash flow of \$0.6 billion was net of \$0.7 billion of capital expenditure, which included ongoing activities at the Oyu Tolgoi underground project.

Review of operations

Copper

Mined copper production of 236.1 thousand tonnes was 11% lower than 2020 first half, attributable to lower recoveries, throughput and grade at Escondida, partly offset by marginally higher production at Oyu Tolgoi.

Refined copper production was 50% higher than 2020 first half, reflecting Kennecott's full recovery from the earthquake in March 2020 and the planned smelter shutdown which commenced in May 2020.

Kennecott

Mined copper production was 6% lower than 2020 first half primarily due to a planned relocation of the in-pit crusher in April and a slope failure in May. The successful relocation of the crusher to a new area outside of the pit is a significant milestone as it enables access to additional ore and reduces the risk of a potential geotechnical event on key mine infrastructure. On 31 May 2021, an anticipated slope failure occurred in the south east wall of the Bingham Canyon pit. There were no injuries or damage to equipment as the slope deformation had been methodically tracked since May 2020 and the timing of the slide was accurately predicted by our best-in-class slope monitoring systems and geotechnical team.

Escondida

In first half 2021, Escondida's mined copper production was 17% lower than 2020 first half, due to lower concentrator throughput, lower grade in ore feed to concentrators and lower recoverable copper in ore stacked for leaching. This was as a result of ongoing preventive measures in response to the resurgence of COVID-19 in the region, which has continued to impact workforce availability.

On 1 April 2021, Escondida successfully completed negotiations for a new collective agreement that applies to the Intermel Union of Operators and Maintainers, effective for 24 months from 1 April 2021. Escondida's collective agreement with Union No1 of Operators and Maintainers expires on 1 August 2021 and negotiations commenced in June 2021.

Oyu Tolgoi

Mined copper production from the open pit was 15% higher than 2020 first half with higher head grades and copper recovery, partly offset by lower manning levels due to COVID-19.

First half shipments were affected by Chinese border restrictions due to increased cases of COVID-19 in Mongolia. Force majeure was declared on shipments from 30 March and remains in place. Shipments resumed with some measures in place to transport greater volumes in a safe and efficient manner.

Oyu Tolgoi underground project¹

Project progress has been significantly affected by heightened COVID-19 constraints in Mongolia. To comply with COVID-19 restrictions, site manning levels were less than 25% of planned requirements. Despite these restrictions, as the Material Handling System 1 had been ahead of the definitive estimate schedule (sustainable production for Panel 0 expected in October 2022 and development capital of \$6.75 billion²), it is now 90% complete with technical criteria achieved to support undercut commencement, subject to the ongoing impacts of COVID-19 and satisfactory resolution of the non-technical undercut criteria.

The impact of the additional restrictions experienced in the first half is ongoing and still to be determined.

Following the Presidential election, engagements continue and the negotiation team is in the process of remobilising to continue formal discussions with the Government of Mongolia. All stakeholders remain committed to moving the project forward and ensuring a long-term solution to the issues under discussion. As previously reported, a number of additional milestones need to be met in order to ensure that the project can commence caving operations (undercut) including: key regulatory milestones including registration of the updated Resources and Reserves and acceptance of the updated Feasibility Study (OTFS20) by the relevant governmental agencies of Mongolia; project budget uplift in line with the definitive estimate to be approved by the Oyu Tolgoi board; funding plan in line with the Heads of Agreement signed in April between Rio Tinto and Turquoise Hill Resources to be approved by the Oyu Tolgoi Board; and milestones for the power solution.

Other projects and growth options

The \$0.9 billion investment in phase one of the south wall pushback project at Kennecott, which will extend mine life to 2026, remains on track. We expect to gradually access higher grades made available from this project from 2021. The \$1.5 billion investment in phase two will further extend strip waste rock mining and support additional infrastructure development, allowing mining to continue into a new area of the ore body between 2026 and 2032 and continue to generate attractive returns for Kennecott.

On 22 July, we [announced](#) the approval of a \$108 million investment for underground characterisation studies to support an underground mine below the existing open pit at Kennecott. Potential underground mining would occur concurrently with open pit operations and result in increased copper output.

At our Resolution Copper project in Arizona, we are continuing to assist the US Forest Service with its review of the Final Environmental Impact Statement and draft Record of Decision. Mine studies continue to progress in parallel.

At the Winu project in Western Australia, we continue to actively engage with the Traditional Owners and we plan to commence discussions on the initial scope and mine design, also in consultation with the Western Australian Environmental Protection Authority, with sanction now targeted for next year and first production in 2025 partly due to COVID-19 constraints. Drilling, fieldwork and study activities continue to progress.

At the Simandou iron ore project in Guinea, we are reviewing results from the technical optimisation of the infrastructure studies, and product test sample analysis is now underway. A new office was established in Conakry in the second quarter as we expand our in-country team.

- 1. Project baseline reporting has been updated following endorsement of the definitive estimate by Rio Tinto Board and Turquoise Hill Resources (pending Oyu Tolgoi board approval). The definitive estimate assumed COVID-19 restrictions in 2021 that were no more stringent than those experienced in September 2020 and noted that should COVID-19 constraints continue beyond 2021 or should the COVID-19 situation escalate further in 2021 leading to tougher restrictions, additional costs and schedule impacts will arise. Since the definitive estimate, at the end of 2020, Mongolia implemented additional restrictions in response to community transmission cases, and in March 2021 the first cases of COVID-19 were identified at Oyu Tolgoi resulting in temporary site shutdown, quarantine measures and further travel and movement restrictions. The impact of these additional restrictions, which have continued throughout this period and are beyond those experienced in September 2020, is ongoing and still to be determined.*
- 2. This estimate is at a "better than feasibility study" level of accuracy.*

Minerals

Six months ended 30 June	2021	2020	Change
Iron ore pellets and concentrates production ¹ (000 tonnes - Rio Tinto share)	5,066	5,322	(5)%
Titanium dioxide slag production (000 tonnes - Rio Tinto share)	577	555	4 %
Borates production (000 tonnes - Rio Tinto share)	248	258	(4)%
Diamonds production (000 carats - Rio Tinto share) ²	1,858	1,820	2 %
Gross product sales (US\$ millions)	3,270	2,322	41 %
Underlying EBITDA (US\$ millions)	1,398	712	96 %
Underlying EBITDA margin (product group operations)	46 %	33 %	
Underlying earnings (US\$ millions)	498	190	162 %
Net cash generated from operating activities (US\$ millions)	582	396	47 %
Capital expenditure (US\$ millions) ³	(209)	(147)	42 %
Free cash flow (US\$ millions)	362	242	50 %
Underlying return on capital employed ⁴	19 %	8 %	

1. Iron Ore Company of Canada continues to be reported within Minerals. Following a reorganisation of the management team, the Diamonds business is reported within Minerals and the Simandou iron ore project in Guinea is reported within Copper.
2. Diamonds production solely relates to Diavik, following the closure of Argyle in 2020. The 2020 comparative for production has been restated. Financial comparatives include the results of the whole Diamonds business.
3. Capital expenditure is the net cash outflow on purchases less sales of property, plant and equipment, capitalised evaluation costs and purchases less sales of other intangible assets.
4. Underlying return on capital employed (ROCE) is defined as underlying earnings excluding net interest divided by average capital employed (operating assets).

Our colleague Nico Swart was tragically killed in a shooting incident whilst driving to work at RBM on 24 May. Our sympathies are with Nico's family and we are offering ongoing support to his family, friends and colleagues.

Financial performance

The business was generally stable from an operational perspective, while continuing to comply with government-imposed COVID-19 restrictions, notably in Canada.

The one significant exception was at Richards Bay Minerals (RBM) in South Africa where operations were significantly hampered by a deterioration in the security situation. As a result, we declared force majeure on 30 June, with the cessation of mining activities and curtailment of the smelter. On 21 July, we [announced](#) that we would shut one of the four furnaces due to depletion of available feedstock. We continue to work with national and provincial governments as well as community structures to find a lasting solution to the current situation. However, if the situation does not improve, then we could be forced to progressively shut down the other furnaces by the end of August.

Underlying EBITDA of \$1.4 billion was almost double 2020 first half, primarily reflecting a \$0.9 billion benefit from higher pricing across the portfolio, with prices achieved for iron ore pellets and concentrates for sale being the main contributor.

We generated net cash of \$0.6 billion from our operating activities and \$0.4 billion of free cash flow, 47% and 50% higher, respectively, reflecting the strong pricing environment and our operational performance.

Review of operations

Iron Ore Company of Canada (IOC)

IOC production of pellets and concentrate was 5% lower than 2020 first half due to labour and equipment availability issues impacting product feed. Force majeure declared in April was lifted 9 weeks later following the temporary cessation of ship loading due to a fire in March at one shiploader when the second shiploader was undergoing planned maintenance activities.

Total shipments of pellets and concentrates were 8.3 million tonnes (our share 4.8 million tonnes), 12% lower than 2020 first half.

Minerals

Titanium dioxide feedstock production was 4% higher than 2020 first half, with consistent production at the Fer et Titane (RTFT) metallurgical complex in Quebec.

Borates production was 4% lower than 2020 first half. Completion of planned major maintenance in May, combined with productivity initiatives will help support system stability in the second half.

Diamonds

Diamond production at Diavik was 2% higher than 2020 first half, driven by a 9% uplift in tonnes processed, due to plant productivity improvements.

Projects and growth options

The Zulti South project at RBM in South Africa is on full suspension.

On 27 July, the Board [*committed*](#) funding for the Jadar lithium-borates project in Serbia: we are ready to invest \$2.4 billion in one of the world's largest greenfield lithium projects, subject to receiving all relevant approvals, permits and licences and ongoing engagement with local communities, the Government of Serbia and civil society. The asset is expected to operate in the first quartile of the cost curve, with a ~40-year mine life. First saleable production is expected to take place in mid-2026 at a time of strong market fundamentals with lithium demand forecast to grow 25-35% per year over the next decade. Following ramp-up to full production in 2029, the mine is expected to produce ~58,000 tonnes of battery-grade lithium carbonate, 160,000 tonnes of boric acid (B₂O₃ units) and 255,000 tonnes of sodium sulphate annually.³ Jadar could supply all the necessary lithium to power over one million electric vehicles per year.⁴

The Jadar development will include an underground mine with associated infrastructure and equipment, including electric haul trucks, as well as a beneficiation chemical processing plant. To minimise the impact to communities, it will be built to the highest environmental standards, including utilising dry stacking of tailings. This innovative method allows the dry tailings to be progressively reclaimed with vegetation and soil with no need for a tailings dam. Water management will be state of the art with a dedicated facility resulting in approximately 70% of raw water coming from recycled sources or treated mine water.

Jadar will be a significant investment for Serbia and has the potential to make a 1% direct and 4% indirect contribution to the country's GDP, with many Serbian suppliers being involved in the construction of the mine. We are committed to help develop local businesses so that they can support the operation over the coming decades. It will also be a significant employer, creating 2,100 jobs during construction and 1,000 mining and processing jobs once in production.

Footnotes are set out on page 25.

Price and exchange rate sensitivities

The following sensitivities give the estimated effect on underlying EBITDA, assuming that each price or exchange rate moved in isolation. The relationship between currencies and commodity prices is a complex one; movements in exchange rates can affect movements in commodity prices and vice versa. The exchange rate sensitivities quoted here include the effect on operating costs of movements in exchange rates, but do not include the effect of the revaluation of foreign currency working capital. Please use them with care.

	Average published price/exchange rate for 2021 first half	US\$ million impact on full year 2021 underlying EBITDA of a 10% change in prices/exchange rates
Aluminium - US\$/t	\$2,245	784
Copper - US cents per pound	413c	478
Gold - US\$/ounce	\$1,805	77
Iron ore realised price (62% Fe CFR freight-adjusted) - US\$ per dry metric tonne	\$168.4	4,180
Australian dollar against the US dollar	0.77	665
Canadian dollar against the US dollar	0.80	249
Oil (Brent) - US\$ per barrel	\$65	112

The impact of a \$100 per tonne change in each of the input costs below is expected to have the following impact on our Canadian¹ aluminium smelting unit cash cost² of \$1,262 per tonne in 2021 first half:

	US\$/t
Alumina (FOB)	191
Green petroleum coke (FOB)	27
Calcined petroleum coke (FOB)	36
Coal tar pitch (FOB)	8

1. Canadian smelters include all fully-owned smelters in Canada (Alma, AP60, Arvida, Grande-Baie, Kitimat and Laterrière), as well as our share of the Becancour and Alouette smelters.
2. The smelting unit cash cost refers to all costs which have been incurred before casting, excluding depreciation but including corporate allocations and with alumina at market price, to produce one metric tonne of primary aluminium.

Capital projects

Projects (Rio Tinto 100% owned unless otherwise stated)	Total approved capital cost (100% unless otherwise stated)	Approved capital remaining to be spent from 1 July 2021	Status/Milestones
Ongoing and approved			
Iron ore			
Investment in the Robe River Joint Venture (West Angelas C and D and Mesa B, C and H at Robe Valley) in the Pilbara region of Western Australia to sustain production capacity.	\$0.9bn (RT share)	\$0.2bn (RT share)	Approved in October 2018, the investments will enable us to sustain production of our Pilbara Blend™ and Robe Valley products. An additional \$0.1 billion (100% basis) was approved by the joint venture partners in the first half of 2021. First ore at West Angelas (C, D) was achieved in June with load commissioning expected later in the year following delays related to heritage management. First ore at Robe Valley (Mesa B, C, H) is still expected in 2021, consistent with previous guidance.
Investment in Gudai-Darri, a new production hub in the Pilbara region of Western Australia. The investment incorporates a processing plant and infrastructure including a 166-kilometre rail line connecting the mine to our existing network. Once complete, the mine will have an initial annual capacity of 43 million tonnes.	\$2.6bn	\$0.6bn	Approved in November 2018. Mining has commenced, with more than nine million cubic metres of pre-stripping completed. Labour shortages have impacted both steel fabrication and site construction activities. First ore is expected in 2021, although commissioning is later than originally planned. The project is expected to ramp up in early 2022, consistent with previous guidance, and reach full capacity in 2023.
Investment in the Greater Tom Price operations (Western Turner Syncline phase 2) to sustain production capacity.	\$0.8bn	\$0.3bn	Approved in November 2019, the investment will enable us to sustain production of our Pilbara Blend™ and facilitate mining of existing and new deposits around Tom Price. It includes construction of a new crusher and a 13-kilometre conveyor. First ore is still expected in 2021, consistent with previous guidance.
Aluminium			
Investment in a second tunnel at the 1000MW Kemano hydropower facility at Kitimat, British Columbia, Canada, which will ensure the long-term reliability of the power supply to the Kitimat smelter.	\$0.8bn	\$0.3bn	The project was approved in 2017, with \$155 million of additional capital approved in 2020 and a further \$132 million approval in July 2021. Works resumed at full capacity in 2021 first half and the tunnel boring excavation is now 74% complete, having achieved a total of 5,660 metres. The project is scheduled to complete in the second half of 2022, subject to there being no further COVID-19 delays.
Copper			
Investment in the south wall pushback, to extend mine life at Kennecott, Utah, US, from 2019 to 2026.	\$0.9bn	<\$0.1bn	Funding for the continuation of open pit mining via the push back of the south wall: the project is largely complete with some simple mine stripping activities remaining.
Phase two of the south wall pushback to extend mine life at Kennecott by a further six years.	\$1.5bn	\$1.3bn	Approved in December 2019, the investment will further extend strip waste rock mining and support additional infrastructure development. This will allow mining to continue into a new area of the orebody between 2026 and 2032.
Development of the Oyu Tolgoi underground copper/gold mine in Mongolia (Rio Tinto 34%), which is expected to produce 480,000 tonnes ¹ of copper per year on average from 2028 to 2036 (open pit and underground), compared with 149,600 tonnes in 2020 (open pit).	\$6.75bn ²	\$2.15bn	The project was originally approved in May 2016 for \$5.3bn, with an additional \$1.45 billion approval by the Rio Tinto Board in December 2020, following completion of the definitive estimate. Sustainable production for Panel 0 is expected to be achieved by October 2022, subject to the ongoing impacts of COVID-19 ² and satisfactory resolution of the non-technical undercut criteria.

Projects (Rio Tinto 100% owned unless otherwise stated)	Total approved capital cost (100% unless otherwise stated)	Approved capital remaining to be spent from 1 July 2021	Status/Milestones
Minerals			
Development of the Zulti South project at Richards Bay Minerals (RBM) in South Africa (Rio Tinto 74%), to sustain current capacity and extend mine life.	\$0.5bn	\$0.3bn	Approved in April 2019, the investment will underpin RBM's supply of zircon and ilmenite over the life of the mine. Construction remains on full suspension, pending normalisation of operations.
Development of the greenfield Jadar lithium-borates project in Serbia. The development will include an underground mine with associated infrastructure and equipment, including electric haul trucks, as well as a beneficiation chemical processing plant.	\$2.4bn	\$2.4bn	The project was approved in July 2021. It remains subject to receiving all relevant approvals, permits and licences and ongoing engagement with local communities, the Government of Serbia and civil society. First saleable production is expected in 2026 with ramp-up to full production of ~58,000 tonnes of battery-grade lithium carbonate, 160,000 tonnes of boric acid (B ₂ O ₃ units) and 255,000 tonnes of sodium sulphate per year in 2029. ³

1. *This production target (stated as recovered metal) for the Oyu Tolgoi underground and open pit mines was previously reported in a release to the market on 16 December 2020 (market release). All material assumptions underpinning the production target continue to apply and have not materially changed*
2. *These estimates include the known impacts of COVID-19. The definitive estimate assumes restrictions in 2021 that are no more stringent than those experienced in September 2020. Mongolia implemented further restrictions at the end of 2020 in response to a re-emergence of COVID-19. Should COVID-19 constraints be maintained at December 2020 levels, escalate further in 2021 leading to tougher restrictions, or continue beyond 2021, additional costs and schedule impacts will arise.*
3. *These production targets were previously reported in a release to the Australian Securities Exchange (ASX) dated 10 December 2020, "Rio Tinto declares maiden Ore Reserve at Jadar" (for battery-grade lithium carbonate it was 55,000 tonnes). All material assumptions underpinning the production targets continue to apply and have not materially changed.*
4. *Assuming 60kWh battery size.*

DIRECTORS' REPORT

for the half year ended 30 June 2021

Review of operations and important events

A detailed review of the Group's operations, the results of those operations during the half year ended 30 June 2021 and likely future developments are given on pages 1 to 25. Important events that have occurred during the period and up until the date of this report are set out below.

Financial

On 2 March 2021, we announced that the Australian Taxation Office (ATO) had issued Rio Tinto Limited with amended assessments of A\$359.4m (US\$279.8m) primary tax and A\$47.1m (US\$36.7m) of interest.

On 8 April 2021, we published our latest Taxes paid report detailing the \$8.4 billion of taxes and royalties paid globally in 2020, up from \$7.6 billion in 2019. The majority of taxes were paid in Australia (\$6.8 billion), home to the largest part of our business. We also made significant payments in Canada (\$651 million), Mongolia (\$277 million), Chile (\$246 million), UK (\$132 million), United States (\$111 million), and South Africa (\$61 million).

On 27 May 2021 we announced that we had published a report on payments to governments made by us and our subsidiary undertakings for the year ended 31 December 2020 as required under the UK's Report on Payments to Governments Regulations 2014 (as amended in December 2015). We paid US\$8.4 billion of taxes and royalties and a further US\$1.4 billion on behalf of our employees during 2020.

On 1 June 2021 we announced that we had made an application to the Financial Conduct Authority and the London Stock Exchange for the block listing of 30,000 ordinary shares of 10 pence each in the Company to be admitted to the Official List and to be traded on the Main Market of the London Stock Exchange.

Operations

On 17 February 2021 we announced changes to estimates of Mineral Resources and Ore Reserves: Mineral Resources and Ore Reserves at Rio Tinto's Pilbara iron ore deposits in Western Australia, Mineral Resources and Ore Reserves at Rio Tinto Aluminium (RTA) Pacific Operations' Weipa and Gove assets in Australia and Mineral Resources at the Kennecott Copper operation in Utah.

On 23 March 2021 we announced how we will work in partnership with Traditional Owners, host communities and independent groups to strengthen and improve our approach to cultural heritage and community relations.

On 9 April 2021 we announced that we had entered into a binding Heads of Agreement with Turquoise Hill Resources for an updated funding plan for the completion of the Oyu Tolgoi Underground Project in Mongolia.

On 30 June 2021 we announced that we had declared force majeure on customer contracts at Richards Bay Minerals in South Africa due to an escalation in the security situation at the operations. This led to the decision to cease operations until the safety and security position improved.

On 21 July 2021 we announced that we had reached an agreement to identify and assess legacy impacts of the former Panguna copper mine in Bougainville with Bougainville community members, represented by the Human Rights Law Centre.

On 21 July 2021 we announced that the Richards Bay Minerals (RBM) operation in South Africa will shut one of its four furnaces due to the depletion of available feedstock at the plant.

People

On 3 March 2021 we announced that Chairman Simon Thompson would not seek re-election at the 2022 annual general meetings (AGMs) of Rio Tinto plc and Rio Tinto Limited. It was also announced that Michael L'Estrange, a non-executive director, would retire from the Board at the conclusion of the 2021 AGMs.

On 27 April 2021 we announced that Barbara Levi, Chief Legal Officer & External Affairs, had accepted the position of Group General Counsel at UBS and will leave Rio Tinto by the end of October 2021.

On 4 June 2021 we announced that we had appointed Ben Wyatt as a non-executive director effective September 2021.

On 17 June 2021 we announced the appointment of Peter Cunningham as Chief Financial Officer with immediate effect. Peter, who had been Interim Chief Financial Officer since 1 January 2021, also joined the Rio Tinto Board as an executive director at the same time.

On 7 July 2021 we announced that we had appointed Isabelle Deschamps to succeed Barbara Levi as Chief Legal Officer & External Affairs.

Rio Tinto 2021 Annual General Meetings ("AGMs")

The annual general meetings of Rio Tinto plc and Rio Tinto Limited were held on 9 April 2021 and 6 May 2021 respectively. Under Rio Tinto's dual listed companies structure established in 1995, decisions on significant matters affecting shareholders of Rio Tinto plc and Rio Tinto Limited in similar ways are taken through a joint electoral procedure.

Resolutions 3 ("Approval of the Directors' Remuneration Report: Implementation Report") and 4 ("Approval of the Directors' Remuneration Report"), put to the joint electorate, were not passed as ordinary resolutions. As more than 25% of the votes cast were against resolution 4, this constitutes a "first strike" for the purposes of section 250U of the Australian Corporations Act 2001. The Board acknowledged that the executive pay outcomes in relation to the tragic events at Juukan Gorge are sensitive and contentious issues. During the course of 2021, the Remuneration Committee will engage further with shareholders in response to the 2020 Remuneration Report vote. The Committee will take time to reflect further on the feedback already received and on any new input obtained from this subsequent engagement, in particular as it considers the implementation of the new Remuneration Policy.

Resolution 5 ("To re-elect Megan Clark AC as a director"), put to the joint electorate, was passed as an ordinary resolution with 73.52% votes in favour. Rio Tinto acknowledged that the reduced vote for Dr Clark's re-election compared to previous years reflects the fact that, as Chair of the Sustainability Committee at the time that the rock shelters at Juukan Gorge were destroyed, Dr Clark shares accountability for the failings in the areas of communities and social performance that led to those events occurring. In light of the support provided by almost 75% of shareholders, Dr Clark and the Board carefully weighed the need for accountability for the events at Juukan Gorge against the significant contribution, experience and continuity that Dr Clark brings to the Board and the Group's relationship with Traditional Owners, and concluded that she should remain on the Board in order to provide stability at this important time for Rio Tinto. In view of the reduced vote, the Board will continue to consult with shareholders and will consider their feedback as it continues to oversee the implementation of the Group's priorities in social performance and cultural heritage management.

At Rio Tinto plc's AGM on 9 April 2021, Resolution 21 ("Authority to purchase Rio Tinto plc shares"), put to Rio Tinto plc shareholders only, was passed with less than 80% of votes in favour. Shining Prospect (a subsidiary of the Aluminium Corporation of China "Chinalco") voted against it. Chinalco has not sold any of its shares in Rio Tinto plc and now has a holding of over 14% given its non-participation in the Company's significant share buy-back programmes. This places Chinalco close to the 14.99% holding threshold agreed with the Australian Government at the time of its original investment in Rio Tinto.

Directors

The directors serving on the Boards of Rio Tinto plc and Rio Tinto Limited as at 30 June 2021 were:

	Notes	Date of appointment
Chairman		
Simon Thompson	(R, N and S)	1 April 2014
Executive directors		
Jakob Stausholm, Chief Executive Officer		3 September 2018
Peter Cunningham, Chief Financial Officer		17 June 2021
Non-executive directors		
Sam Laidlaw (senior independent director, Rio Tinto plc)	(R, N and S)	10 February 2017
Simon McKeon (senior independent director, Rio Tinto Limited)	(A, R and N)	1 January 2019
Megan Clark	(R, N and S)	20 November 2014
Hinda Gharbi	(A, N and S)	1 March 2020
Simon Henry	(A, N and S)	1 April 2017
Jennifer Nason	(R, N and S)	1 March 2020
Ngaire Woods	(R, N and S)	1 September 2020

Notes

(A) Audit Committee, (R) Remuneration Committee, (N) Nominations Committee, (S) Sustainability Committee

Dividend

The 2020 final dividend was paid on 15 April 2021 to holders of Rio Tinto plc and Rio Tinto Limited ordinary shares and Rio Tinto plc ADR holders. The 2020 final dividend, equivalent to 309 US cents per share was determined by the board on 17 February 2021. Rio Tinto plc shareholders received 221.86 pence per share and Rio Tinto Limited shareholders received 397.48 Australian cents per share, based on the applicable exchange rates on 16 February 2021. Rio Tinto plc ADR holders received 309 US cents per ADR for the final dividend.

The 2021 interim dividend, equivalent to 376 US cents per share, and the special dividend, equivalent to 185 US cents per share will be paid on 23 September 2021 to Rio Tinto Limited, Rio Tinto plc and Rio Tinto plc ADR shareholders on the register at the close of business on 13 August 2021. The ex-dividend date for both the 2021 interim dividend and the special dividend for Rio Tinto Limited, Rio Tinto plc and Rio Tinto plc ADR shareholders is 12 August 2021. Rio Tinto plc shareholders will receive 270.84 pence per share for the interim dividend and 133.26 pence per share for the special dividend and Rio Tinto Limited shareholders will receive 509.42 Australian cents per share for the interim dividend and 250.64 Australian cents per share for the special dividend based on the applicable exchange rates on 27 July 2021. ADR holders receive dividends at the declared rate in US dollars.

Principal risks and uncertainties

The principal risks and uncertainties that could materially affect our results and operations are set out on pages 92 to 108 of the 2020 Annual Report. For the remaining six months of the financial year, these remain broadly consistent with the trends reported in the Annual Report. We continue to monitor areas of uncertainty in the short to medium term, namely the effectiveness of COVID-19 vaccinations, reform of the Aboriginal Heritage Act 1972 in Western Australia and our Richards Bay Minerals operation.

Impact of the pandemic continues to evolve as optimism from vaccine rollouts are countered by resurgence of the virus in some regions we operate. Unfortunately, our progress on projects continue to be impacted by COVID-19 related travel restrictions.

The future impact of the Aboriginal Heritage Act 1972 reform in Western Australia on our Pilbara mine developments and heritage approach remains unknown. In 2020, 54 million dry tonnes of iron ore were removed from Reserves. Our iron ore reserves totalled 3 billion tonnes at the end of 2020 across our Pilbara mines. Quantification of impact of heritage exclusions on Pilbara's reserve base continues as part of our mine replenishment planning and ongoing Traditional Owner engagement. We have committed to establishing an Indigenous Advisory Group to help us to better manage policies and positions that are important to Indigenous Australia and our business.

We have been saddened by loss of our colleague from Richards Bay Minerals operation in South Africa. We are focused on restoring safe operations at Richards Bay Minerals as soon as possible and we continue to monitor the local situation closely.

Living our corporate values

Living our values (Safety, Teamwork, Respect, Integrity and Excellence) goes to the heart of our Group's performance, future prospects and reputation.

Geopolitics impacting trade and/or investment

International geopolitics may impact our ability to operate effectively and/or invest.

Transition to a low-carbon future

Climate change is a systemic challenge and will require co-ordinated actions between nations, industries and society. Our risk is that we do not adapt competitively to the requirements of a low-carbon future.

Execution of acquisitions and divestments

Acquisitions' (or divestments') actual realised value may vary materially from original business case.

New ore resources

The success of exploration programmes and/or acquisitions may be insufficient to offset depletion.

Strategic partnerships

Strategic partnerships play a material role in delivering our growth, production, cash or market positioning, and these may not always develop as planned.

Relationships with communities

We may not be viewed as a trusted partner by society and governments, affecting our ability to operate and grow through collaborative and mutually beneficial partnerships.

Attract and retain requisite skilled people

Our ability to maintain our competitive position is dependent on attracting, developing and retaining services of a wide range of internal and external skilled and experienced personnel and contracting partners.

Commodity economics

Commodity prices, driven by demand for and supply of our products, vary and may not be as expected over time.

Access to capital through economic cycles

External events and financial discipline may impact our ability to access capital and support our strategy.

Resources to reserves

Our estimates of ore resources and reserves may vary.

Capital project delivery

Large capital investments require multi-year execution plans and are complex.

Change in tax regulations

The international tax policy landscape is becoming increasingly volatile.

Safety incident or major hazard event

Our operations and projects are inherently hazardous, with the potential to cause illness or injury, damage to the environment, and disruption to communities.

Cyber breach

Cyber risk may disrupt our operations, affect how our employees work and/or breach data privacy and other sensitive information related to customers, contractors and suppliers.

Physical impacts from climate change

Our operating sites may be vulnerable to the physical impacts of climate change.

Water scarcity and management

Water is a key part of our operational environmental footprint and a critical, shared resource for people, the environment and economic prosperity.

Natural disaster exposure

A natural disaster occurs with significant operational interruption or damage to our assets and/or communities.

Closure, reclamation and rehabilitation

Estimated costs and liabilities for our sites after they cease operating may vary.

Civil unrest

Civil unrest may expose our employees and/or operations to significant threats or impact our key markets and customers, potentially resulting in compromised employee safety, and damage to or loss of assets.

COVID-19

The potential for transmission across our teams, communities and supply chains continues to be a threat.

Breach of our policies, standards and procedures, laws or regulations

This risk may greatly impact our reputation, licence to operate, and potentially exposes us financially.

Publication of half year results

In accordance with the UK Financial Conduct Authority's Disclosure Guidance & Transparency Rules and the Australian Securities Exchange Listing Rules, the half year results will be made public and are available on the Rio Tinto Group website.

Auditor's independence declaration

KPMG, the auditors of Rio Tinto Limited, have provided the auditor's independence declaration as required under section 307C of the Corporations Act 2001 in Australia. This has been reproduced on page 69 and forms part of this report.

The Directors' report is made in accordance with a resolution of the Board.

Simon Thompson

Chairman

28 July 2021

Group income statement

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Consolidated operations		
Consolidated sales revenue	33,083	19,362
Net operating costs (excluding items shown separately)	(15,322)	(12,217)
Impairment charges ^(a)	—	(1,015)
Exploration and evaluation costs	(324)	(280)
Operating profit	17,437	5,850
Share of profit after tax of equity accounted units	556	198
Impairment of investments in equity accounted units ^(a)	—	(119)
Profit before finance items and taxation	17,993	5,929
Finance items		
Net exchange gains/(losses) on net external and intragroup debt balances	375	(165)
Net losses on derivatives not qualifying for hedge accounting	(63)	(206)
Finance income	42	104
Finance costs ^(b)	(91)	(169)
Amortisation of discount on provisions	(207)	(214)
	56	(650)
Profit before taxation	18,049	5,279
Taxation	(4,981)	(1,828)
Profit after tax for the period	13,068	3,451
– attributable to owners of Rio Tinto (net earnings)	12,313	3,316
– attributable to non-controlling interests	755	135
Basic earnings per share^(c)	761.0c	205.0c
Diluted earnings per share^(c)	756.1c	203.6c

(a) Refer to Impairment charges note on pages 45 and 46.

(b) Finance costs in the income statement include hedging adjustments and are net of amounts capitalised of US\$174 million (30 June 2020: US\$175 million).

(c) For the purpose of calculating basic earnings per share, the weighted average number of Rio Tinto plc and Rio Tinto Limited shares outstanding during the period was 1,618.1 million (30 June 2020: 1,617.3 million), being the weighted average number of Rio Tinto plc shares outstanding of 1,246.9 million (30 June 2020: 1,246.5 million), plus the weighted average number of Rio Tinto Limited shares outstanding of 371.2 million (30 June 2020: 370.8 million). The profit figures used in the calculation of basic and diluted earnings per share are the profits attributable to owners of Rio Tinto.

For the purpose of calculating diluted earnings per share, the effect of dilutive securities is added to the weighted average number of shares. This effect is calculated under the treasury stock method.

Group statement of comprehensive income

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Profit after tax for the period	13,068	3,451
Other comprehensive income/(loss)		
Items that will not be reclassified to profit or loss:		
Actuarial gains/(losses) on post-retirement benefit plans	712	(283)
Changes in the fair value of equity investments held at fair value through other comprehensive income (FVOCI)	12	(4)
Tax relating to these components of other comprehensive income	(219)	75
Share of other comprehensive income/(losses) of equity accounted units, net of tax	12	(6)
	517	(218)
Items that have been/may be subsequently reclassified to profit or loss:		
Currency translation adjustment ^(a)	(365)	(945)
Fair value movements:		
– Cash flow hedge (losses)/gains	(142)	69
– Cash flow hedge (gains)/losses transferred to the income statement	(20)	21
Net change in costs of hedging	(20)	10
Tax relating to these components of other comprehensive loss/(income)	55	(46)
Share of other comprehensive income/(losses) of equity accounted units, net of tax	10	(32)
Other comprehensive income/(loss) for the period, net of tax	35	(1,141)
Total comprehensive income for the period	13,103	2,310
– attributable to owners of Rio Tinto	12,342	2,289
– attributable to non-controlling interests	761	21

- (a) Excludes a currency translation loss of US\$82 million for the period ended 30 June 2021 (30 June 2020: loss of US\$75 million) arising on Rio Tinto Limited's share capital, which is recognised in the Group statement of changes in equity on pages 37 and 38.

Group cash flow statement

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Cash flows from consolidated operations^(a)	18,179	8,643
Dividends from equity accounted units	726	183
Cash flows from operations	18,905	8,826
Net interest paid	(208)	(258)
Dividends paid to holders of non-controlling interests in subsidiaries	(407)	(215)
Tax paid	(4,629)	(2,725)
Net cash generated from operating activities	13,661	5,628
Cash flows from investing activities		
Purchases of property, plant and equipment and intangible assets	(3,336)	(2,693)
Disposals of subsidiaries, joint ventures, unincorporated joint operations and associates	10	10
Purchases of financial assets ^(b)	(18)	(20)
Sales of financial assets ^(b)	16	87
Sales of property, plant and equipment and intangible assets	26	28
Net receipts/(funding) from/of equity accounted units	28	(14)
Other investing cash flows ^(c)	(33)	(333)
Net cash used in investing activities	(3,307)	(2,935)
Cash flows before financing activities	10,354	2,693
Cash flows from financing activities		
Equity dividends paid to owners of Rio Tinto	(6,435)	(3,607)
Proceeds from additional borrowings	137	38
Repayment of borrowings and associated derivatives ^(d)	(257)	(593)
Lease principal payments	(170)	(154)
Proceeds from issue of equity to non-controlling interests	28	79
Own shares purchased from owners of Rio Tinto	—	(208)
Other financing cash flows	6	—
Net cash flows used in financing activities	(6,691)	(4,445)
Effects of exchange rates on cash and cash equivalents	(21)	(21)
Net increase/(decrease) in cash and cash equivalents	3,642	(1,773)
Opening cash and cash equivalents less overdrafts	10,381	8,027
Closing cash and cash equivalents less overdrafts ^(e)	14,023	6,254
(a) Cash flows from consolidated operations		
Profit after tax for the period	13,068	3,451
Adjustments for:		
– Taxation	4,981	1,828
– Finance items	(56)	650
– Share of profit after tax of equity accounted units	(556)	(198)
– Impairment charges of investments in equity accounted units after tax	—	119
– Impairment charges	—	1,015
– Depreciation and amortisation	2,307	2,092
– Provisions (including exchange differences on provisions)	485	336
– Pension settlement ^(f)	(291)	—
Utilisation of provisions	(349)	(254)
Utilisation of provision for post-retirement benefits	(76)	(97)
Change in inventories	(518)	(289)
Change in receivables and other assets ^(g)	(966)	508
Change in trade and other payables	250	(262)
Other items ^(h)	(100)	(256)
	18,179	8,643

Group cash flow statement (continued)

- (b) During the six months to 30 June 2021, the Group invested a further US\$15 million (30 June 2020: received net proceeds of US\$84 million) within a separately managed portfolio of fixed income instruments. Purchases and sales of these securities are reported on a net cash flow basis within 'Sales of financial assets' or 'Purchases of financial assets' depending on the overall net position at each reporting date.
- (c) During 2020, Energy Resources of Australia Ltd (ERA) deposited US\$299 million into a trust fund controlled by the Government of Australia. ERA is entitled to reimbursement from the fund once specific phases of rehabilitation relating to the Ranger Project are completed. The fund is outside of the scope of IFRS 9 - 'Financial Instruments' and therefore classified as an "other receivable" within 'Receivables and other assets'. At 30 June 2021 the total amount held in the trust fund was US\$402 million (31 December 2020: US\$410 million).
- (d) During 2020, we repaid our €402 million (nominal value) Rio Tinto Finance plc Euro Bonds on their maturity. The cash outflow relating to the repayment of the bond and the realised loss on the derivatives were recognised within 'Repayment of borrowings and associated derivatives' and totalled US\$526 million.
- (e) Closing cash and cash equivalents less overdrafts for the purposes of the cash flow statement differs from cash and cash equivalents on the Group balance sheet as per the following reconciliation:

Closing cash and cash equivalents less overdrafts	30 June 2021	31 December 2020	30 June 2020
	US\$m	US\$m	US\$m
Balance per Group balance sheet	14,027	10,381	6,269
Bank overdrafts repayable on demand (unsecured)	(4)	—	(15)
Balance per Group cash flow statement	14,023	10,381	6,254

- (f) During the period ended 30 June 2021, the Group entered into an agreement to transfer its partially funded pension obligations in France to an external insurer. The insurance premium was paid by the transfer of the existing pension assets valued at US\$89 million plus an additional cash payment of €247 million (US\$294 million), of which US\$3 million is included in 'Profit after tax'. The Group has no further legal or constructive obligation relating to the insured pensions and has reflected this transaction as a settlement.
- (g) The Mongolian Tax Authority required payment by Oyu Tolgoi of US\$356 million in relation to disputed tax matters. Oyu Tolgoi continues to dispute the matters and has classified amounts subject to international arbitration as prepayments pending resolution.
- (h) Includes realised gains on currency forward contracts not designated in a hedge relationship of US\$10 million (30 June 2020: realised losses of US\$200 million).

Group balance sheet

	30 June 2021	31 December 2020
	US\$m	US\$m
Non-current assets		
Goodwill	945	946
Intangible assets	2,809	2,755
Property, plant and equipment	63,835	62,882
Investments in equity accounted units	3,660	3,764
Inventories	174	174
Deferred tax assets	3,400	3,385
Receivables and other assets	2,139	1,796
Tax recoverable	27	4
Other financial assets	687	829
	77,676	76,535
Current assets		
Inventories	4,448	3,917
Receivables and other assets	4,322	3,644
Tax recoverable	55	62
Other financial assets	2,913	2,851
Cash and cash equivalents	14,027	10,381
	25,765	20,855
Total assets	103,441	97,390
Current liabilities		
Borrowings and other financial liabilities	(704)	(607)
Trade and other payables	(7,523)	(7,421)
Tax payable	(2,015)	(1,850)
Provisions including post-retirement benefits	(1,834)	(1,729)
	(12,076)	(11,607)
Non-current liabilities		
Borrowings and other financial liabilities	(13,210)	(13,408)
Trade and other payables	(796)	(820)
Tax payable	(613)	(477)
Deferred tax liabilities	(3,501)	(3,239)
Provisions including post-retirement benefits	(15,076)	(15,936)
	(33,196)	(33,880)
Total liabilities	(45,272)	(45,487)
Net assets	58,169	51,903
Capital and reserves		
Share capital ^(a)		
– Rio Tinto plc	207	207
– Rio Tinto Limited	3,699	3,781
Share premium account	4,320	4,314
Other reserves	11,509	11,960
Retained earnings	33,240	26,792
Equity attributable to owners of Rio Tinto	52,975	47,054
Attributable to non-controlling interests	5,194	4,849
Total equity	58,169	51,903

Group balance sheet (continued)

- (a) At 30 June 2021, Rio Tinto plc had 1,247.8 million ordinary shares in issue and held by the public, and Rio Tinto Limited had 371.2 million shares in issue and held by the public. There were no cross holdings of shares between Rio Tinto Limited and Rio Tinto plc in either period presented.

As required to be disclosed under the ASX Listing Rules, the net tangible assets per share amounted to US\$30.40 (31 December 2020: US\$26.79).

Group statement of changes in equity

	Attributable to owners of Rio Tinto					Non-controlling interests US\$m	Total equity US\$m
	Share capital US\$m	Share premium account US\$m	Other reserves US\$m	Retained earnings US\$m	Total US\$m		
Six months ended 30 June 2021							
Opening balance	3,988	4,314	11,960	26,792	47,054	4,849	51,903
Total comprehensive income for the period ^(a)	—	—	(466)	12,808	12,342	761	13,103
Currency translation arising on Rio Tinto Limited's share capital	(82)	—	—	—	(82)	—	(82)
Dividends	—	—	—	(6,435)	(6,435)	(407)	(6,842)
Own shares purchased from Rio Tinto shareholders to satisfy share awards to employees ^(b)	—	—	(13)	(4)	(17)	—	(17)
Change in equity interest held by Rio Tinto	—	—	—	37	37	(37)	—
Treasury shares reissued and other movements	—	6	—	—	6	—	6
Equity issued to holders of non-controlling interests	—	—	—	—	—	28	28
Employee share options and other IFRS 2 charges to the income statement	—	—	28	42	70	—	70
Closing balance	3,906	4,320	11,509	33,240	52,975	5,194	58,169

	Six months ended 30 June 2021	Six months ended 30 June 2020
Dividends per share: Ordinary - paid during the period	309.0c	231.0c
Dividends per share: Special - paid during the period	93.0c	—
Ordinary dividends per share: proposed in the announcement of the results for the period	376.0c	155.0c
Special dividends per share: proposed in the announcement of the results for the period	185.0c	—

- (a) Refer to Group statement of comprehensive income for further details.
- (b) Net of contributions received from employees for share awards to employees.

Group statement of changes in equity (continued)

	Attributable to owners of Rio Tinto					Non-controlling interests US\$m	Total equity US\$m
	Share capital US\$m	Share premium account US\$m	Other reserves US\$m	Retained earnings US\$m	Total US\$m		
Six months ended 30 June 2020							
Opening balance	3,655	4,313	9,177	23,387	40,532	4,710	45,242
Total comprehensive income for the period ^(a)	—	—	(818)	3,107	2,289	21	2,310
Currency translation arising on Rio Tinto Limited's share capital	(75)	—	—	—	(75)	—	(75)
Dividends	—	—	—	(3,607)	(3,607)	(320)	(3,927)
Share buy-back ^(b)	—	—	—	(1)	(1)	—	(1)
Own shares purchased from Rio Tinto shareholders to satisfy share awards to employees ^(c)	—	—	(12)	(18)	(30)	—	(30)
Change in equity interest held by Rio Tinto	—	—	—	58	58	(58)	—
Treasury shares reissued and other movements	—	1	—	—	1	—	1
Equity issued to holders of non-controlling interests	—	—	—	—	—	79	79
Employee share options and other IFRS 2 charges to the income statement	—	—	23	34	57	—	57
Closing balance	3,580	4,314	8,370	22,960	39,224	4,432	43,656

- (a) Refer to Group statement of comprehensive income for further details.
- (b) In 2020, the amount of US\$1 million together with the amounts paid during the period in respect of an irrevocable contract in place at the beginning of the year to cover the share buy-back programme totalled US\$208 million as reported in the cash flow statement.
- (c) Net of contributions received from employees for share awards to employees.

Notes to the interim financial statements

Basis of preparation

The condensed consolidated interim financial statements included in this interim report have been prepared in accordance with: International Accounting Standard ('IAS') 34 'Interim financial reporting' as issued by the International Accounting Standards Boards (IASB) and adopted by the European Union ('EU') before 1 January 2021 and as adopted for use in the United Kingdom ('UK') thereafter under the European Union (Withdrawal) Act 2018; the Disclosure Guidance and Transparency Rules sourcebook ('DTR') of the Financial Conduct Authority ('FCA') applicable to interim financial reporting; and an Order under section 340 of the Australian Corporations Act 2001 issued by the Australian Securities and Investments Commission on 16 July 2021.

These condensed consolidated interim financial statements represent a 'condensed set of financial statements' as referred to in the DTR issued by the FCA. Accordingly, they do not include all of the information required for a full annual financial report and are to be read in conjunction with the Group's annual financial statements for the year ended 31 December 2020 and any public announcements made by the Group during the interim reporting period.

The 2020 annual financial statements were prepared on a going concern basis in accordance with the Companies Act 2006 applicable to companies reporting under International Financial Reporting Standards and in accordance with applicable UK law, applicable Australian law as amended by the Australian Securities and Investments Commission Order dated 24 July 2020 and Article 4 of the European Union IAS regulation and in accordance with:

- International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and interpretations issued from time to time by the IFRS Interpretations Committee (IFRS IC) both as adopted by the European Union (EU IFRS) and which were mandatory for EU reporting as at 31 December 2020 and;
- International Financial Reporting Standards as issued by the IASB and interpretations issued from time to time by the IFRS IC which were mandatory as at 31 December 2020.

These condensed consolidated financial statements are unaudited and do not constitute statutory accounts as defined in Section 434 of the United Kingdom Companies Act 2006. The financial information as at 31 December 2020 included in this report has been extracted from the full financial statements filed with the Registrar of Companies. The Auditors' report on these full financial statements was unqualified, did not include a reference to any matters to which the auditor drew attention by way of emphasis of matter and did not contain statements under section 498 (2) (regarding adequacy of accounting records and returns), or under section 498 (3) (regarding provision of necessary information and explanations) of the Companies Act 2006.

Notes to the interim financial statements (continued)

Accounting policies

The condensed consolidated interim financial statements have been drawn up on the basis of accounting policies, methods of computation and presentation consistent with those applied in the financial statements for the year ended 31 December 2020, and in the corresponding interim period, except for the modifications set out below. This basis of accounting is referred to as 'IFRS' in this report. Adoption of changes to IFRS applicable in 2021 did not have a significant impact on the Group's financial statements.

During the six months to 30 June 2021, the Group did not early adopt any amendments, standards or interpretations that have been issued but are not yet mandatory.

The UK's transition period for leaving the EU ended on 31 December 2020 ('the transition date'). In accordance with consequent changes to applicable UK law, the financial statements basis of preparation has been updated to replace International Financial Reporting Standards as issued by the International Accounting Standards Board and interpretations issued from time to time by the IFRS Interpretations Committee as adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union (EU IFRS), with issued standards and interpretations as adopted for use in the United Kingdom (UK IFRS). Provisions in the European Union (Withdrawal) Act 2018 result in UK IFRS at the transition date being identical to EU IFRS in force at the end of the transition period. Adoptions, interpretations and amendments of IFRS made in the EU after the transition date do not apply in the UK.

The Group adopted *Interest Rate Benchmark Reform - Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)* at 1 January 2021. The amendments address the financial reporting impact from reform of the London Interbank Offered Rate (LIBOR) and other benchmark interest rates (collectively "IBOR reform"). Financial authorities have asked market participants to complete the transition to alternative Risk Free Rates (RFR). On 5 March 2021 LIBOR's administrator, ICE Benchmarks Administration (IBA) and its supervisor, the UK Financial Conduct Authority (FCA), issued statements which provide the dates that all LIBOR settings will either cease to be provided by any administrator or will no longer be representative. This will occur: immediately after 31 December 2021, for all GBP, Euro, CHF and JPY LIBOR settings, and for 1-week and 2-month USD LIBOR settings; and immediately after 30 June 2023, for the remaining USD LIBOR settings. The Group will take relevant Phase 2 practical reliefs from certain requirements in IFRS 9, IFRS 7, IFRS 4 and IFRS 16 relating to changes in the basis for determining contractual cash flows of financial assets, financial liabilities and hedge accounting.

Our hedging arrangements impacted by the reform of US LIBOR are part of the International Swaps and Derivatives Association ("ISDA") Fallbacks Protocol, which provides a global standardised mechanism for replacement of the current benchmark. At 30 June 2021, the Group has interest rate risk exposure including US\$7.3 billion nominal values of fixed-rate borrowings swapped to US dollar rates in fair value hedge relationships. We expect application of the Phase 2 reliefs to result in continuation of the Group's pre-existing hedge accounting upon amendment of designated arrangements in response to the replacement of IBOR with new benchmarks.

In addition, the Group has a number of arrangements which reference IBOR benchmarks and extend beyond 2021. These include third-party borrowings relating to the Oyu Tolgoi LLC project finance facility and other secured loans, a number of intragroup balances and certain commercial contracts. Other arrangements which currently reference IBOR benchmarks include accessible revolving lines of credit, and shareholder loan facilities. As a result of the Phase 2 relief the Group expects that no material gain or loss will arise from these updates.

Notes to the interim financial statements (continued)

Accounting policies (continued)

Principal accounting policies

Principal accounting policy information has also been expanded to reflect changes in 2021 to the following policy:

Financial instruments - Derivatives and hedge accounting - refer to note 1(q)(iv) to the 2020 Annual Report:

The Group adopted *Interest rate benchmark reform - Phase 1 (Amendments to IFRS 9, IAS 39, and IFRS 7)* during the year ended 31 December 2019, and adopted *Interest Rate Benchmark Reform - Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)* from 1 January 2021. Phase 1 amendments allow temporary relief from applying specific hedge accounting requirements to hedging arrangements directly impacted by IBOR reform. Application of the temporary reliefs mean that IBOR reform does not result in termination of hedging relationships referencing an IBOR during the period of IBOR-related uncertainty. Phase 2 amendments allow relief from certain requirements in IFRS 9, IFRS 7, IFRS 4 and IFRS 16 relating to changes in the basis for determining contractual cash flows of financial assets, financial liabilities and hedge accounting. The principal Phase 1 relief which the Group has applied to its hedging portfolio is in the assumption that US LIBOR remains a separately identifiable component for the duration of the hedge; and the US LIBOR rates referenced by fixed-to-floating rate swaps in fair value hedge relationships do not change as the result of IBOR reform, preserving the economic relationship and allowing the related hedges to remain effective. This temporary relief ceases, on a hedge-by-hedge basis, when the designated hedge relationship is amended and application of Phase 2 reliefs begins, which will be by 30 June 2023. As a result of the Phase 2 reliefs the Group expects that no material gain or loss will arise from the IBOR reform.

International financial reporting standards mandatory beyond 2021

The Group disclosed information relating to standards and pronouncements mandatory beyond 2021 in the financial statements for the year ended 31 December 2020, Amendments to IAS 16 *Property, Plant and Equipment: Proceeds before Intended Use* and IAS 37 *Provisions, Contingent Liabilities and Contingent Assets: Cost of Fulfilling a Contract* are mandatory in 2022. Amendments to IAS 12 *Income Taxes – Deferred Tax related to Assets and Liabilities arising from a Single Transaction* and IFRS 17 *Insurance Contracts* are mandatory in 2023. Amendments to IAS 1 *Presentation of financial statements: classification of liabilities* is now unlikely to be mandatory any earlier than 2024. Work is underway to identify arrangements affected by adoption of these amendments and the new insurance standard and to quantify corresponding adjustments to retained earnings and restatement of previously reported amounts where applicable. Initial stages of the impact assessment have been completed, comprising internal research and consultation. We are presently undertaking detailed review and ongoing monitoring of arrangements, transactions and contracts identified as potentially impacted by these changes to IFRS. Our approach assumes that UK endorsement will result in mandatory application on a timeframe equivalent to that under IFRS and AIFRS. The Group does not propose the early adoption of any of these pronouncements.

Amendments to IAS 16 *Property, Plant and Equipment: Proceeds before Intended Use* (mandatory in 2022 and not yet endorsed by the UK) prohibit the deduction, from the cost of major project construction work in progress, of proceeds (net of additional processing costs) from selling items before the related item of property, plant and equipment is available for use. Under the amendment such proceeds are recognised in profit and loss together with the costs of producing those items. The amendments will result in higher reported revenue, operating costs, inventory and property plant and equipment balances (capital works in progress) relating to major development projects completed after 1 January 2020. IAS 2 *Inventories* will apply to the measurement of pre-production inventory and identifying the related cost may require significant estimation and judgment in the selection of an appropriate method for allocating development expenditure to such inventory. Adjustments to Group retained earnings at 1 January 2020, and restatement of the 2020 Group Income Statement and Balance Sheet upon adoption of the amendments in 2022 in respect of such projects are not expected to be material. We continue to monitor the progress of major projects under development in 2021 for relevant pre-production revenue and associated cost; more information relating to ongoing and approved capital projects at 30 June 2021 is provided on page 24.

Notes to the interim financial statements (continued)

International financial reporting standards mandatory beyond 2021 (continued)

Amendments to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets: Cost of Fulfilling a Contract* (mandatory in 2022 and not yet endorsed by the UK) specify which costs an entity includes in determining the cost of fulfilling a contract for the purpose of assessing whether the contract is onerous. Under the amendment the cost of fulfilling a contract comprises all directly related costs, comprising both incremental amounts and an allocation of other directly related expenditure. The Group currently makes provision for onerous contracts when the assets dedicated to the contract are fully impaired or the contract becomes stranded as a result of a business decision (refer to note 1(i) on page 215 of the 2020 Annual Report). From 2022, the Group will record a provision if a contract is found to be loss-making on a stand-alone basis following allocation of all directly related costs as required by the amendments to IAS 37. As required by the amendment's transition arrangements, the Group will apply the amendments in its 2022 Financial Statements without restatement, with an adjustment to retained earnings at 1 January 2022 if required.

Our impact assessment has confirmed that no adjustments in respect of the amendments will be needed to arrangements for which an onerous contract provision has already been recorded. No further arrangements have been identified to date which would be treated as onerous contracts under the revised guidance on cost of fulfilling a contract; this assessment may change if key input assumptions for contract valuation move significantly. In particular, the Group has approximately 2.1 million tonnes per annum of short- and long-term legacy alumina sales contracts which are exposed to a fixed linkage to the LME Aluminium price, with about 30% of volume commitments expiring by the end of 2023. Opportunity loss relating to these sales contracts does not indicate that they are onerous, and we estimate that a reduction of 10% in the LME Aluminium index would, other factors remaining unchanged, not result in a material adjustment at 1 January 2022. Other input price variables in alumina production, including cost of bauxite production and procurement of caustic and energy, could also have an impact on whether an adjustment to recognise an onerous contract provision is required. More information on these alumina sales contracts is provided on page 48 of the 2020 Annual Report. Other than these contracts, our impact assessment has not, to date, identified any arrangements potentially giving rise to significant onerous contract provisions under the revised cost of fulfilment approach.

This assessment reflects our current expectations as to how to apply the amendments to IAS 37. Practical application of the amendments continues to develop, and the Group continues to monitor this.

IAS 12 Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction, mandatory in 2023 and not yet endorsed by the UK. Narrow-scope amendments to IAS 12 introduce an exception to the initial recognition exemption for transactions that give rise to equal taxable and deductible temporary differences. The most significant impact from implementing these amendments is expected to be from temporary differences related to the Group's provisions for close-down and restoration / environmental and lease obligations and corresponding capitalised closure costs and right-of-use assets.

Our existing accounting policy states that “where the recognition of an asset and liability from a single transaction gives rise to equal and off-setting temporary differences, Rio Tinto applies the Initial Recognition Exemption allowed by IAS 12, and consequently recognises neither a deferred tax asset nor a deferred tax liability in respect of these temporary differences.”

Under the amendment, deferred tax assets and liabilities will be required to be recognised in respect of such temporary differences. Upon transition in 2023, the Group anticipates material adjustments (prior to required offsetting within the same tax jurisdiction) as at 1 January 2021 to deferred tax assets and deferred tax liabilities with the net difference recorded in reserves. Work is ongoing to quantify the impact, including appropriate offsets against existing deferred tax liabilities or assets in various jurisdictions. There will be no impact on tax cash flows or balance sheet tax recoverable or payable as a result of implementing these amendments and the unwind of the newly recognised deferred tax is not expected to materially impact annual profits and losses.

IFRS 17 *Insurance Contracts* (mandatory in 2023 and not yet endorsed by the UK) provides consistent principles for all aspects of accounting for insurance contracts. The Group continues to evaluate the impacts of this pronouncement.

The effective date for amendments to IAS 1 *Presentation of financial statements: classification of liabilities* has been tentatively deferred to no earlier than 1 January 2024 and is not yet endorsed by the UK. This amendment sets out specific guidance for determining the classification of liabilities as current or non-current, based on whether an entity has a substantive right to payment deferral at the reporting date. The Group continues to evaluate the impact of this amendment.

Notes to the interim financial statements (continued)

COVID-19 impact

As announced in our second quarter Operations Review on 16 July 2021, we continue to prioritise the safety of our employees, contractors, their families and the communities where we operate.

During the six months to 30 June 2021 there has been a resurgence of the virus, including second and third waves in regions where we have assets and offices including Mongolia, India, the Americas and South Africa, and we have continued to implement a range of preventive measures to keep our people safe, in accordance with government guidance. As a company, we also benefited from our host governments recognising mining as an essential business, and allowing us to continue operating. This meant people remained employed, suppliers had our business, and taxes and royalties continued to be paid.

Ongoing travel restrictions and tight labour markets add further pressure on the business and limit our ability to access additional people, particularly in Western Australia, Canada, and the asset locations most affected by virus resurgence, referred to above.

However, there has been no material adverse impact to our operations and associated financial results year-to-date as a result of COVID-19. At our Oyu Tolgoi operations, shipments have been affected by Chinese border restrictions due to increased cases of COVID-19 in Mongolia. We continue to work closely with authorities and our customers to manage the risk of supply chain disruptions.

The potential impact of COVID-19 over the next the 12 months remains uncertain, and a risk we continue to closely monitor and proactively manage.

Potential impacts may include:

- changes in the market resulting in lower demand and/or commodity prices.
- impact on shipments in response to market demand or in response to government directives restricting the movement of goods (e.g. Chinese border restrictions due to COVID-19 cases in Mongolia impacting shipments from Oyu Tolgoi).
- additional costs associated with preventative, monitoring and management measures introduced across our operations.
- labour shortages and restrictions on the movement of people and goods may inhibit our ability to progress some of our projects at planned pace.

Recognising the broad and complex impacts of the pandemic on our markets, operations and financial performance, we have chosen not to segregate COVID-19 related costs from our underlying performance metrics.

Full details of initiatives taken to date can be found on our website. However, the contents of the Rio Tinto website are not part of these condensed consolidated interim financial statements.

Going concern

Management has prepared detailed cash flow forecasts for the next six months and has updated life of mine plans models with longer term cash flow projections. These forecasts demonstrate that the Group has sufficient cash, other liquid resources and undrawn credit facilities to enable the Group to meet its obligations as they fall due. As such the directors considered it appropriate to adopt the going concern basis of accounting in preparing the interim financial information.

Notes to the interim financial statements (continued)

Alternative performance measures

The Group presents certain Alternative performance measures (APMs), including underlying earnings, which are reconciled to directly comparable IFRS financial measures. The reconciliations included on pages 74 to 79 of this report do not form part of these condensed consolidated interim financial statements. These APMs are used by management to assess the performance of the business and may therefore be useful to investors. They are not a substitute for the IFRS measures and should be considered supplementary to those measures.

Reconciliation with Australian Accounting Standards

The Group's financial statements have been prepared in accordance with IFRS as defined on page 39, which differs in certain respects from the version of IFRS that is applicable in Australia, referred to as Australian Accounting Standards ('AAS').

Prior to 1 January 2004, the Group's financial statements were prepared in accordance with UK GAAP. Under IFRS, goodwill on acquisitions prior to 1998, which was eliminated directly against equity in the Group's UK GAAP financial statements, has not been reinstated. This was permitted under the rules governing the transition to IFRS set out in IFRS 1. The equivalent Australian Standard, AASB 1, does not provide for the netting of goodwill against equity. As a consequence, shareholders' funds under AAS include the residue of such goodwill, which amounted to US\$376 million at 30 June 2021 (31 December 2020: US\$374 million).

Save for the exception described above, the Group's financial statements drawn up in accordance with IFRS are consistent with the requirements of AAS.

Notes to the interim financial statements (continued)

Impairment charges

	Six months ended 30 June 2021	Six months ended 30 June 2020
	Pre-tax US\$m	Pre-tax US\$m
Aluminium – Pacific Aluminium	—	(489)
Aluminium - ISAL	—	(204)
Minerals – Diavik	—	(441)
Total impairment charge	—	(1,134)
Allocated as:		
Intangible assets	—	(4)
Property, plant and equipment	—	(1,011)
Investment in equity accounted units ('EAUs')	—	(119)
Total impairment charge	—	(1,134)
Comprising:		
Impairment charges of consolidated balances	—	(1,015)
Impairment charges related to EAUs (pre-tax)	—	(148)
Total impairment charges in the financial information by business unit (page 70)	—	(1,163)
Taxation (including related to EAUs)	—	130
Total impairment in the income statement	—	(1,033)

2021

There were no impairment charges or reversals during the six months ended 30 June 2021.

2020

Aluminium - Pacific Aluminium, Australia and New Zealand

On 9 July 2020, we announced the conclusion of the NZAS strategic review and gave Meridian Energy 14 months' notice for the termination of the power contract. As a result of the decision to wind-down operations an impairment trigger was identified. The net present value of post-tax cash flows over the remaining life for this cash-generating unit was negative and therefore the non-current assets of the smelter were fully impaired.

The high operating costs and challenging outlook for the aluminium industry also resulted in impairment triggers being identified at the Bell Bay aluminium smelter in Tasmania, Australia and at Boyne Smelter in Queensland, Australia. Bell Bay has a power contract to 2025 with Hydro Tasmania and with the current market context the forecast net present value of cash flows over that period was negative. The property, plant and equipment of the Bell Bay smelter was fully impaired. The recoverable amount for our share of the Boyne Smelter cash-generating unit which also included the Gladstone Power Station was determined as US\$273 million based on post-tax cash flows expressed in real-terms and discounted at 6.6%. Accordingly our share of impairment after tax in the equity accounted unit was US\$119 million (US\$148 million pre-tax) related to the smelter and US\$26 million (US\$36 million pre-tax) related to the power station.

Notes to the interim financial statements (continued)

Impairment charges (continued)

Aluminium - ISAL Smelter, Iceland

In February 2020 we announced a strategic review of the ISAL smelter in Iceland and the challenging market conditions were identified as an impairment trigger. The net present value of cash flows projected over the remaining life for this CGU did not support retaining any carrying value for the non-current assets of the CGU, which were fully impaired following a pre-tax impairment charge of US\$204 million in the first half of 2020.

During subsequent negotiations Landsvirkjun tabled an improved offer for power delivery, restoring the competitiveness of the smelter over its remaining life. At 31 December 2020, we concluded these updated circumstances, represented an indicator of partial impairment reversal. When combined with improved pricing since 30 June 2020 we calculated a post-tax recoverable amount for the CGU of US\$139 million based on the IAS 36 fair value less cost of disposal (FVLCD) methodology, discounted using a post-tax discount rate of 6.6% expressed in real terms and recorded a pre-tax impairment reversal of US\$111 million. As a consequence, the full year results for the year ended 31 December 2020 included a net pre-tax impairment charge of US\$93 million.

Minerals (previously under Copper & Diamonds) - Diavik, Canada

The COVID-19 pandemic significantly disrupted the global demand for diamonds with many countries restricting the movement of citizens and closing retail outlets. Our 40% joint venture partner at the Diavik diamond mine filed for creditor protection in April 2020 and defaulted on its cash calls. Together these circumstances were identified as an impairment trigger. The net present value of post-tax cash flows projected over the remaining life of the Diavik diamond mine to 2025 did not support retaining any carrying value for the property, plant and equipment and intangible assets of the cash generating unit, which were fully impaired.

Notes to the interim financial statements (continued)

Prima facie tax reconciliation

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Profit before taxation	18,049	5,279
Deduct: share of profit after tax of equity accounted units ^(a)	(556)	(198)
Add back: impairment of investments in equity accounted units ^(a)	—	119
Parent companies' and subsidiaries' profit before tax	17,493	5,200
Prima facie tax payable at UK rate of 19% (2020: 19%)	3,324	988
Higher rate of taxation on Australian underlying earnings	1,609	707
Impact of items excluded in arriving at underlying earnings ^(b) :		
– Impairment charges ^(c)	—	92
– Exchange and gains/losses on derivatives	(34)	18
– Losses from increases to closure estimates (non-operating and fully impaired sites)	(9)	(21)
Other tax rates applicable outside the UK and Australia on underlying earnings	77	(79)
Amounts under/(over) provided in prior years	43	(6)
Recognition of previously unrecognised deferred tax assets ^(d)	(77)	—
Write-down of previously recognised deferred tax assets	8	12
Other items	40	117
Total taxation charge^(a)	4,981	1,828

- (a) This tax reconciliation relates to the Group's parent companies, subsidiaries and joint operations, and excludes equity accounted units. The Group's share of profit of equity accounted units is net of tax charges of US\$318 million (30 June 2020: US\$111 million). In 2020, impairments of investments in equity accounted units were net of tax credits of US\$29 million.
- (b) The impact for each item includes the effect of tax rates applicable outside the UK.
- (c) In 2020, the tax impact of impairments included the write down of deferred tax assets at ISAL and NZAS and non-recognition of deferred tax on those impairments. The tax impact also included recognition at local tax rates of deferred tax assets arising on the impairments of Bell Bay, Gladstone Power Station and Diavik. Refer to the Impairment charges note on pages 45 and 46.
- (d) The recognition of previously unrecognised deferred tax assets relates to the recognition of prior year deferred tax assets on losses and on impaired assets at Oyu Tolgoi due to improved deferred tax asset recovery expectations.

Notes to the interim financial statements (continued)

Consolidated net (debt)/cash

	Financing liabilities			Other assets		Net (debt)/cash US\$m
	Borrowings excluding overdrafts ^(a) US\$m	Lease Liabilities ^(b) US\$m	Debt-related derivatives (included in Other financial liabilities/assets) ^(c) US\$m	Cash and cash equivalents ^(d) US\$m	Other Investments ^(e) US\$m	
For the six months ended 30 June 2021						
Analysis of changes in consolidated net (debt)/cash						
Opening balance	(12,653)	(1,178)	248	10,381	2,538	(664)
Foreign exchange adjustment	5	1	(3)	(21)	—	(18)
Cash movements excluding exchange movements	120	170	(1)	3,663	(15)	3,937
Other non-cash movements ^(b)	125	(94)	(133)	—	(13)	(115)
Closing balance	(12,403)	(1,101)	111	14,023	2,510	3,140

- (a) Borrowings excluding overdrafts (including lease liabilities) of US\$13,504 million at 30 June 2021 (31 December 2020: US\$13,831 million) differ from total borrowings and other financial liabilities of US\$13,914 million (31 December 2020: US\$14,015 million) on the balance sheet as they exclude overdrafts of US\$4 million (31 December 2020: US\$nil), other current financial liabilities of US\$150 million (31 December 2020: US\$23 million) and other non-current financial liabilities of US\$256 million (31 December 2020: US\$161 million).
- (b) Other non-cash movements in lease liabilities include the net impact of additions, modifications and terminations during the period.
- (c) Included within "Debt-related derivatives" are interest rate and cross currency interest rate swaps that are in hedge relationships with the Group's debt.
- (d) At 30 June 2021, we held US\$1,800 million (31 December 2020: US\$1,200 million) of reverse repurchase agreements, measured at amortised cost and reported within cash and cash equivalents as they are highly liquid products maturing within three months.
- (e) Other investments comprise US\$2,510 million (31 December 2020: US\$2,538 million) of highly liquid financial assets held in managed investment funds classified as held for trading.

Notes to the interim financial statements (continued)

Provisions and post-retirement benefits

	Pensions and post-retirement healthcare ^(a)	Other employee entitlements ^(b)	Close-down and restoration/environmental ^(c)	Other	Total
For the six months ended 30 June 2021	US\$m	US\$m	US\$m	US\$m	US\$m
Opening balance	3,055	419	13,335	856	17,665
Adjustment on currency translation	41	(10)	(133)	(7)	(109)
Adjustments to mining properties/right of use assets:					
– changes in estimate	—	—	21	3	24
Charged/(credited) to profit:					
– increases to existing and new provisions	82	60	265	95	502
– decreases to existing provisions and unused amounts reversed	—	(10)	(2)	(12)	(24)
– exchange losses on provisions	—	—	7	—	7
– amortisation of discount	—	—	206	1	207
Utilised in the period	(76)	(63)	(231)	(55)	(425)
Actuarial gains recognised in equity	(616)	—	—	—	(616)
Transfers and other movements ^(a)	(291)	—	(1)	(29)	(321)
Closing balance	2,195	396	13,467	852	16,910
Balance sheet analysis:					
Current	71	306	917	540	1,834
Non-current	2,124	90	12,550	312	15,076
Total	2,195	396	13,467	852	16,910

- (a) During the period ended 30 June 2021, the Group entered into an agreement to transfer its partially funded pension obligations in France to an external insurer. The insurance premium was paid by the transfer of the existing pension assets valued at US\$89 million plus an additional cash payment of €247 million (US\$294 million), of which US\$3 million was taken to the income statement. The Group has no further legal or constructive obligation relating to the insured pensions and has reflected this transaction as a settlement.
- (b) The provision for other employee entitlements includes a provision for long service leave of US\$275 million (31 December 2020: US\$283 million), based on the relevant entitlements in certain Group operations and includes US\$52 million (31 December 2020: US\$62 million) of provision for redundancy and severance payments.
- (c) Close-down and restoration/environmental liabilities at 30 June 2021 have not been adjusted for closure related receivables amounting to US\$595 million (31 December 2020: US\$574 million) due from the ERA trust fund, the co-owners of the Diavik Joint Venture and other financial assets held for the purposes of meeting closure obligations. These are included within “Receivables and other assets” in the balance sheet.

Notes to the interim financial statements (continued)

Financial instruments disclosures

Except where stated, the information given below relates to the financial instruments of the parent companies and their subsidiaries and joint operations, and excludes those of equity accounted units.

Fair values disclosure of financial instruments

The following table shows the carrying amounts and fair values of our borrowings including those which are not carried at an amount which approximates their fair value at 30 June 2021 and 31 December 2020. The fair values of our cash equivalents, loans to equity accounted units and other financial liabilities approximate their carrying values because of their short maturity, or because they carry floating rates of interest.

	30 June 2021		31 December 2020	
	Carrying value US\$m	Fair value US\$m	Carrying value US\$m	Fair value US\$m
Borrowings	12,405	14,558	12,653	15,076

Total borrowings with a carrying value of US\$7.4 billion (31 December 2020: US\$7.6 billion) relate to listed bonds. These have a fair value of US\$9.0 billion (31 December 2020: US\$9.5 billion) and are categorised as level 1 in the fair value hierarchy.

Borrowings with a carrying value of US\$4.2 billion (31 December 2020: US\$4.2 billion) relate to project finance drawn down by Oyu Tolgoi, with a fair value of US\$4.7 billion (31 December 2020: US\$4.7 billion) and are categorised as level 3 in the fair value hierarchy. We use different valuation inputs for the pre-and post-completion phases to reflect Rio Tinto's completion support guarantee during the pre-completion phase. To measure the fair value of the project finance pre-completion our valuation input includes market yield over the pre-completion period, the variability of which we consider a reasonable indicator of fair value movements on amounts outstanding under the project finance facility. Post-completion, we estimate the fair value with reference to the annual interest rate on each tranche of the facility, and after considering factors that could indicate a change in the credit assessment of Oyu Tolgoi LLC as a counterparty to project finance. These factors include in-country risk relating to the Oyu Tolgoi project, and the assumed date of transition from pre-completion to post-completion. These valuation inputs are considered to be level 3. Transition from pre-completion to post-completion is determined by a set of tests for both completion of physical infrastructure and the ability to extract and process ore of defined grades over a defined period.

Our remaining borrowings have a fair value measured by discounting estimated cash flows with an applicable market quoted yield and are categorised as level 2 in the fair value hierarchy.

Debt maturity

During the six months to 30 June 2021, we have not entered into any new interest rate swaps. During 2020, we entered into US\$1.5 billion of interest rate swaps to convert the remaining fixed Alcan debt to floating interest rates. This is in accordance with our floating interest rate policy. We have put these swaps into fair value hedge relationships with the respective tranches of debt.

The main sources of ineffectiveness of the fair value hedges include changes in the timing of the cash flows of the hedging instrument compared to the underlying hedged item, and changes in the credit risk of parties to the hedging relationships. The changes in fair value of the bonds and the swaps as well as the ineffectiveness recorded in the income statement is not material to the Group.

The fair value of interest rate and cross currency interest rate swaps at 30 June 2021 was US\$273 million (31 December 2020: US\$388 million) asset and US\$162 million (31 December 2020: US\$140 million) liability, respectively. These are included within "Other financial assets" and "Other financial liabilities" in the balance sheet.

Notes to the interim financial statements (continued)

Financial instruments disclosures (continued)

The effective interest rate of our borrowings, impacted by swaps, are summarised below. All nominal values are fully hedged unless otherwise stated:

	Nominal value	Weighted average interest rate after swaps	Swap maturity	Carrying Value at 30 June 2021	Carrying Value at 31 December 2020
	US\$m		Year	US\$m	US\$m
Borrowings in a hedge relationship					
Rio Tinto Finance plc Euro Bonds 2.875% due 2024	546	3 month LIBOR +1.64%	2024	530	555
Rio Tinto Finance (USA) Limited Bonds 3.75% 2025	1,200	3 month LIBOR +1.39%	2025	1,268	1,299
Rio Tinto Finance (USA) Limited Bonds 7.125% 2028	750	3 month LIBOR +3.27%	2028	960	1,005
Alcan Inc. Debentures 7.25% due 2028	100	3 month LIBOR +5.43%	2024	107	109
Rio Tinto Finance plc Sterling Bonds 4.0% due 2029	807	3 month LIBOR +2.65%	2024	713	717
Alcan Inc. US\$400m Debentures 7.25% due 2031 ^(a)	400	3 month LIBOR +5.72%	2025	427	438
Alcan Inc. US\$750m Global Notes 6.125% due 2033 ^(a)	750	3 month LIBOR +5.67%	2025	732	744
Alcan Inc. US\$300m Global Notes 5.75% due 2035 ^(a)	300	3 month LIBOR +5.18%	2025	287	292
Rio Tinto Finance (USA) Limited Bonds 5.2% 2040	1,150	3 month LIBOR +3.79%	2022	1,168	1,173
Rio Tinto Finance (USA) plc Bonds 4.75% 2042	500	3 month LIBOR +3.42%	2023	500	501
Rio Tinto Finance (USA) plc Bonds 4.125% 2042	750	3 month LIBOR +2.83%	2023	742	743

- (a) In 2020 we entered into new swaps to convert the interest payable in relation to these bonds from fixed to floating rates.

Valuation hierarchy of financial instruments carried at fair value on a recurring basis

The table below shows the financial instruments carried at fair value by valuation method in accordance with IFRS 9 at 30 June 2021:

At 30 June 2021	Held at fair value				Held at amortised cost US\$m
	Total US\$m	Level 1 ^(a) US\$m	Level 2 ^(b) US\$m	Level 3 ^(c) US\$m	
Assets					
Cash and cash equivalents ^(d)	14,027	7,198	—	—	6,829
Investments in equity shares and funds	113	67	—	46	—
Other investments, including loans and pooled funds ^(e)	2,955	2,531	—	240	184
Trade and other financial receivables ^(f)	3,794	2	2,122	—	1,670
Derivatives (net)					
Forward contracts and option contracts: designated as hedges ^(g)	(118)	—	—	(118)	—
Forward contracts and option contracts, not designated as hedges ^(g)	133	—	54	79	—
Derivatives related to net debt ^(h)	111	—	111	—	—
Liabilities					
Trade and other financial payables	(5,767)	—	(167)	—	(5,600)
Total	15,248	9,798	2,120	247	3,083

Notes to the interim financial statements (continued)

Financial instruments disclosures (continued)

At 31 December 2020	Held at fair value				Held at amortised cost US\$m
	Total US\$m	Level 1 ^(a) US\$m	Level 2 ^(b) US\$m	Level 3 ^(c) US\$m	
Assets					
Cash and cash equivalents ^(d)	10,381	6,411	—	—	3,970
Investments in equity shares and funds	75	35	—	40	—
Other investments, including loans and pooled funds ^(e)	2,899	2,563	—	198	138
Trade and other financial receivables ^(f)	3,286	5	1,802	—	1,479
Derivatives (net)					
Forward contracts and option contracts: designated as hedges ^(g)	53	—	7	46	—
Forward contracts and option contracts, not designated as hedges ^(g)	180	—	69	111	—
Derivatives related to net debt ^(h)	248	—	248	—	—
Liabilities					
Trade and other financial payables	(5,847)	—	(30)	—	(5,817)
Total	11,275	9,014	2,096	395	(230)

- (a) Valuation is based on unadjusted quoted prices in active markets for identical financial instruments.
- (b) Valuation is based on inputs that are observable for the financial instruments; which include quoted prices for similar instruments or identical instruments in markets which are not considered to be active, or inputs, either directly or indirectly based on observable market data.
- (c) Valuation is based on inputs for the asset or liability that are not based on observable market data (unobservable inputs).
- (d) Cash and cash equivalents include money market funds which are treated as fair value through profit or loss ('FVPL') under IFRS 9 with the fair value movements going into finance income.
- (e) Other investments, including loans and pooled funds, comprise: cash deposits in rehabilitation funds, government bonds, managed investment funds and royalties. The royalties receivable are valued based on expected mine production as well as forward commodity prices.
- (f) Trade receivables include provisionally priced invoices. The related revenue is initially based on forward market selling prices for the quotation periods stipulated in the contracts with changes between the provisional price and the final price are recorded separately within 'Other revenue'. The selling price can be measured reliably for the Group's products, as it operates in active and freely traded commodity markets. At 30 June 2021, US\$1,940 million (31 December 2020: US\$1,671 million) of provisionally priced receivables were recognised.
- (g) Level 3 derivatives mainly consist of derivatives embedded in electricity purchase contracts linked to the LME with terms expiring between 2025 and 2036 (31 December 2020: 2025 and 2029). The embedded derivatives are measured using discounted cash flows and option model valuation techniques.
- (h) Interest rate and currency interest rate swaps are valued using applicable market quoted swap yield curves adjusted for relevant basis and credit default spreads. Currency interest rate swap valuations also use market quoted foreign exchange rates. A discounted cash flow approach is used to derive fair value from these inputs to the underlying cash flows.

Notes to the interim financial statements (continued)

Financial instruments disclosures (continued)

Level 3 Financial instruments

The table below shows the summary of changes in the fair value of the Group's Level 3 financial assets and financial liabilities for the six months to 30 June 2021.

	30 June 2021 US\$m
Level 3 Financial assets and liabilities	
Opening balance	395
Currency translation adjustments	(3)
Total realised gains/(losses) included in:	
– consolidated sales revenue	15
– net operating costs	(18)
Total unrealised gains included in:	
– net operating costs	33
Total unrealised gains transferred into other comprehensive income	(172)
Disposals/maturity of financial instruments	(3)
Closing balance	247
Net gains included in the income statement for assets and liabilities held at period end	26

Sensitivity analysis in respect of level 3 financial instruments

Forward contracts and options whose fair value is determined using unobservable inputs are calculated using appropriate discounted cash flow and option model valuation techniques.

To value the aluminium embedded derivatives, we use unobservable inputs when the term of the derivative extends beyond observable market prices. In 2021 and 2020, changing the level 3 inputs to reasonably possible alternative assumptions does not change the fair value significantly, taking into account the expected remaining term of contracts. The fair value of the aluminium embedded derivatives are US\$92 million in a net liability position at 30 June 2021 (31 December 2020: US\$126 million in a net asset position).

We also have royalty receivables, with a carrying value of US\$155 million (31 December 2020: US\$113 million), arising from the sale of our coal assets in prior periods. These are classified as 'Other investments, including loans' within 'Other financial assets'. The fair values are determined using level 3 unobservable inputs. This receivable includes US\$56 million that relates to royalties from thermal coal production beyond 2030 and has not been adjusted for potential changes in production rates that could occur due to climate change targets.

The main unobservable input is the long-term coal price used over the life of the royalty receivable. A 15% increase in the coal spot price would result in a US\$149 million increase (31 December 2020: US\$198 million increase) in the carrying value. A 15% decrease in the coal spot price would result in a US\$41 million decrease (31 December 2020: US\$46 million decrease) in the carrying value. We have used a 15% assumption to calculate our exposure as it represents the annual coal price movement that we deem to be reasonably probable (on an annual basis over the long run).

Notes to the interim financial statements (continued)

Segmental information

The Group's reportable segments are based on principal product groups and are consistent with the internal reporting structure as at 30 June 2021. Business units (BUs) are allocated to PGs based on management structure. The reportable segments are described as follows:

Reportable segment	Principal activities
Iron Ore	Iron ore mining and salt and gypsum production in Western Australia.
Aluminium	Bauxite mining; alumina refining; aluminium smelting.
Copper	Mining and refining of copper, gold, silver, molybdenum and other by-products; exploration activities together with the Simandou iron ore project, which is the responsibility of Copper product group chief executive.
Minerals	Includes businesses with products such as borates, titanium dioxide feedstock together with the Iron Ore Company of Canada (iron ore mining and iron concentrate/pellet production). Also includes diamond mining, sorting and marketing.

The financial information by business unit has been recast in accordance with the organisational restructure announced on 28 January 2021. The main impacts are as follows: Simandou has moved from the previous Energy & Minerals product group to the Copper product group; Uranium has moved from the previous Energy & Minerals product group to Other Operations; Diamonds has moved from the previous Copper & Diamonds product group to the Minerals product group; the Minerals product group retains the Argyle Residual operations and from 1 January 2021, Argyle Closure has moved to Other Operations. Argyle Residual operations includes activity relating to the sale of remaining diamond inventory and property held. Argyle Closure includes activity relating to the management and execution of the Argyle mine closure obligations and management of entities with interests in state and traditional owner agreements and licences. As a result of these changes, the Copper & Diamonds segment is renamed Copper and the Energy & Minerals segment is renamed Minerals from 2021.

The Rio Tinto financial information by business unit provided on pages 70 to 73 of these interim financial statements provides additional voluntary business unit disclosure which the Group considers useful to the users of the financial statements.

Six months ended 30 June 2021	Gross product sales ^(b) US\$m	Underlying EBITDA ^(c) US\$m	Underlying earnings ^(d) US\$m	Capital expenditure ^(e) US\$m	Depreciation and amortisation ^(f) US\$m
Iron Ore	21,707	16,060	10,216	1,912	1,022
Aluminium	5,932	1,924	921	524	645
Copper	3,779	2,048	885	750	523
Minerals	3,270	1,398	498	209	232
Reportable segments total	34,688	21,430	12,520	3,395	2,422
Other Operations	85	(4)	(51)	—	92
Inter-segment transactions	(145)	(6)	(3)	—	—
Product group total	34,628	21,420	12,466	3,395	2,514
Other items	—	—	—	35	42
Share of equity accounted units ^(a)	(1,545)	—	—	(120)	(249)
Proceeds from disposal of property, plant and equipment	—	—	—	26	—
Central pensions, share-based payments, insurance and derivatives	—	119	120	—	—
Restructuring, project and one-off costs	—	(36)	(23)	—	—
Central costs	—	(346)	(294)	—	—
Central exploration and evaluation	—	(120)	(100)	—	—
Net interest	—	—	(3)	—	—
Consolidated sales revenue/Capital expenditure/Depreciation and amortisation^(g)	33,083		12,166	3,336	2,307
Underlying EBITDA/Underlying earnings		21,037	12,166		

Notes to the interim financial statements (continued)

Six months ended 30 June 2020	Gross product sales ^(b) US\$m	Underlying EBITDA ^(c) US\$m	Underlying earnings ^(d) US\$m	Capital expenditure ^(e) US\$m	Depreciation and amortisation ^(f) US\$m
Iron Ore	11,465	7,698	4,563	1,185	840
Aluminium	4,487	925	193	482	594
Copper (Adjusted)	1,983	686	111	987	568
Minerals (Adjusted)	2,322	712	190	147	266
Reportable segments total	20,257	10,021	5,057	2,801	2,268
Other Operations (Adjusted)	158	1	(29)	1	99
Inter-segment transactions	(82)	(18)	(6)	—	—
Product group total	20,333	10,004	5,022	2,802	2,367
Other items	—	—	—	22	39
Share of equity accounted units ^(a)	(971)	—	—	(159)	(314)
Proceeds from disposal of property, plant and equipment	—	—	—	28	—
Central pensions, share-based payments, insurance and derivatives	—	102	97	—	—
Restructuring, project and one-off costs	—	(72)	(53)	—	—
Central costs	—	(273)	(233)	—	—
Central exploration and evaluation	—	(121)	(97)	—	—
Net interest	—	—	14	—	—
Consolidated sales revenue/Capital expenditure/Depreciation and amortisation^(g)	19,362			2,693	2,092
Underlying EBITDA/Underlying earnings		9,640	4,750		

- (a) For Gross product sales - share of equity accounted units also includes adjustments for intra-subsidary/equity accounted units sales.
- (b) Gross product sales includes the Group's proportionate share of product sales by equity accounted units (after adjusting for sales to subsidiaries) of US\$1,567 million (30 June 2020: US\$986 million) which are not included in consolidated sales revenue. Consolidated sales revenue includes subsidiary sales of US\$22 million (30 June 2020: US\$15 million) to equity accounted units which are not included in gross product sales.
- (c) Underlying EBITDA represents profit before tax, net finance items, depreciation and amortisation excluding the EBITDA impact of the same items that are excluded in arriving at underlying earnings (as defined below). The reconciliation of underlying EBITDA to profit before taxation can be found on page 56.
- (d) Underlying earnings represent net earnings attributable to the owners of Rio Tinto, adjusted to exclude items which do not reflect the underlying performance of the Group's operations.

Exclusions from underlying earnings are those gains and losses that individually, or in aggregate with similar items, are of a nature or size to require exclusion in order to provide additional insight into underlying business performance.

The following items are excluded from net earnings in arriving at underlying earnings in each period irrespective of the magnitude:

- Net gains/(losses) on disposal and consolidation of interests in businesses.
- Impairment charges and reversals.
- Profit/(loss) after tax from discontinued operations.
- Certain exchange and derivative gains and losses.

The reconciliation of underlying earnings to net earnings can be found on pages 56 and 57.

Notes to the interim financial statements (continued)

- (e) Capital expenditure for reportable segments comprises the net cash outflow on purchases less disposals of property, plant and equipment, capitalised evaluation costs and purchases less disposals of other intangible assets. The details provided include 100% of subsidiaries' capital expenditure and Rio Tinto's share of the capital expenditure of joint operations and equity accounted units.
- (f) Product group depreciation and amortisation for reportable segments include 100% of subsidiaries' depreciation and amortisation and Rio Tinto's share of the depreciation and amortisation of equity accounted units. Rio Tinto's share of the depreciation and amortisation charge of equity accounted units is deducted to arrive at depreciation and amortisation as shown in the cash flow statement. These figures do not include impairment charges and reversals, which are excluded from underlying earnings.
- (g) Capital expenditure and Depreciation and amortisation as reported in the cash flow statement.

Reconciliation of underlying EBITDA to profit before taxation

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Underlying EBITDA	21,037	9,640
(Losses)/gains on embedded commodity derivatives not qualifying for hedge accounting (including exchange)	(2)	53
Change in closure estimates (non-operating and fully impaired sites)	(175)	(172)
Depreciation and amortisation in subsidiaries and equity accounted units ^(a)	(2,502)	(2,288)
Impairment charges	—	(1,163)
Taxation and finance items in equity accounted units	(365)	(141)
Finance items	56	(650)
Profit before taxation	18,049	5,279

- (a) Depreciation and amortisation in subsidiaries and equity accounted units for the period ended 30 June 2021 is net of capitalised depreciation of US\$54 million (30 June 2020: US\$118 million).

Reconciliation of underlying earnings to net earnings

Underlying earnings are reported by Rio Tinto to provide greater understanding of the underlying business performance of its operations. Underlying earnings and net earnings both represent amounts attributable to owners of Rio Tinto. Exclusions from underlying earnings relating to equity accounted units are stated after tax and included in the column 'Pre-tax'. Items (a) to (e) below are excluded from net earnings in arriving at underlying earnings.

	Pre-tax US\$m	Taxation US\$m	Non- controlling interests US\$m	Net amount for six months ended 30 June 2021 US\$m	Net amount for six months ended 30 June 2020 US\$m
Underlying earnings	17,918	(4,999)	(753)	12,166	4,750
Items excluded from underlying earnings:					
Impairment charges ^(a)	—	—	—	—	(1,033)
Exchange and derivative gains/(losses):					
- Exchange gains/(losses) on net debt and intragroup balances ^(b)	374	(34)	7	347	(149)
- Losses on currency and interest rate derivatives not qualifying for hedge accounting ^(c)	(52)	10	(3)	(45)	(167)
- (Losses)/gains on embedded commodity derivatives not qualifying for hedge accounting ^(d)	(16)	—	(6)	(22)	33
Net losses from movements to closure estimates (non-operating and fully impaired sites) ^(e)	(175)	42	—	(133)	(118)
Total excluded from underlying earnings	131	18	(2)	147	(1,434)
Net earnings	18,049	(4,981)	(755)	12,313	3,316

Notes to the interim financial statements (continued)

- (a) Refer to Impairment charges note on pages 45 and 46.
- (b) Exchange gains/(losses) on external net debt and intragroup balances for the period ended 30 June 2021 comprise of post-tax foreign exchange losses on net debt of US\$4 million and post-tax gains of US\$351 million on intragroup balances, primarily as a result of the Australian dollar weakening against the US dollar and the Canadian dollar strengthening against the US dollar.

Exchange (losses)/gains on external net debt and intragroup balances for the period ended 30 June 2020 comprise post-tax foreign exchange losses on net debt of US\$170 million and post-tax gains of US\$21 million on intragroup balances, primarily as a result of the Australian and Canadian dollars both weakening against the US dollar.

- (c) Valuation changes on currency and interest rate derivatives, which are ineligible for hedge accounting, other than those embedded in commercial contracts, and the currency revaluation of embedded US dollar derivatives contained in contracts held by entities whose functional currency is not the US dollar.
- (d) Valuation changes on derivatives, embedded in commercial contracts, that are ineligible for hedge accounting, but for which there will be an offsetting change in future Group earnings.
- (e) In 2021, this amount includes an increase in Diavik's closure provision to reflect the completion of the Pre-Feasibility Study that was in progress when the asset was fully impaired in 2020. As the assets at Diavik had previously been fully impaired this increase has been recognised through the income statement and has been excluded from underlying earnings in line with past practice when impairments have been recorded based on provisional closure estimates. The 2021 charge also includes closure provision increases at some of the Group's legacy sites where the environmental damage preceded ownership by Rio Tinto.

In 2020, the Pre-Feasibility Study for the Gove refinery closure was completed, resulting in an increase to the closure provision. As a non-operating asset, this increase was recognised through the income statement. Also in 2020, the feasibility study for the Argyle mine closure was completed, resulting in a decrease to the closure provision. As the assets at Argyle had previously been fully impaired this decrease was recognised through the income statement, in line with previous movements to the closure provision. These movements were excluded from underlying earnings.

Notes to the interim financial statements (continued)

Segmental information - additional information

Geographical analysis (by destination)

	Six months ended 30 June 2021	Six months ended 30 June 2020	Six months ended 30 June 2021	Six months ended 30 June 2020
Consolidated sales revenue by destination ^(a)	%	%	US\$m	US\$m
China	59.9 %	54.9 %	19,805	10,633
Asia (excluding China and Japan)	9.5 %	11.1 %	3,157	2,155
United States of America	11.5 %	12.4 %	3,816	2,392
Japan	7.2 %	8.3 %	2,373	1,598
Europe (excluding UK)	5.0 %	5.9 %	1,667	1,143
Canada	2.4 %	2.9 %	793	585
Australia	1.6 %	1.8 %	519	351
UK	0.5 %	0.6 %	166	112
Other countries	2.4 %	2.1 %	787	393
Consolidated sales revenue	100.0 %	100.0 %	33,083	19,362

- (a) Consolidated sales revenue by geographical destination is based on the ultimate country of destination of the product, if known. If the eventual destination of the product sold through traders is not known then revenue is allocated to the location of the product at the time when control is transferred. Rio Tinto is domiciled in both the UK and Australia.

Product analysis (by revenue type)

Consolidated sales revenue by product	Six months ended 30 June 2021			Six months ended 30 June 2020		
	Revenue from contracts with customers US\$m	Other revenue ^(a) US\$m	Consolidated sales revenue US\$m	Revenue from contracts with customers US\$m	Other revenue ^(a) US\$m	Consolidated sales revenue US\$m
Iron ore	21,964	1,108	23,072	12,182	82	12,264
Aluminium, Alumina and Bauxite	5,733	84	5,817	4,454	(19)	4,435
Copper	1,472	77	1,549	642	(9)	633
Industrial minerals	1,141	4	1,145	991	(7)	984
Gold	506	(6)	500	214	4	218
Diamonds	160	—	160	141	—	141
Other products ^(b)	827	13	840	692	(5)	687
Consolidated sales revenue	31,803	1,280	33,083	19,316	46	19,362
Share of equity accounted unit sales and intra-subsiary/equity accounted unit sales			1,545			971
Gross product sales			34,628			20,333

- (a) Certain of the Group's products may be provisionally priced at the date revenue is recognised based on forward rates. The subsequent changes in value of provisionally priced receivables through to settlement is classified as 'Other revenue' above.
- (b) "Other products" includes metallic co-products, molybdenum, silver and other commodities. This category also now includes uranium sales of US\$76 million (30 June 2020: US\$149 million) that were previously disclosed separately.

Notes to the interim financial statements (continued)

Other disclosures

Capital commitments at 30 June 2021

Capital commitments, excluding the Group's share of joint venture capital commitments, were US\$3,059 million (31 December 2020: US\$3,152 million). Our capital commitments include open purchase orders for managed operations and expenditure on major projects authorised by our Investment Committee for non-managed operations. On a legally enforceable basis, capital commitments would be approximately US\$1.7 billion (31 December 2020: US\$1.5 billion) as many of the contracts relating to the Group's projects have various cancellation clauses.

The Group's share of joint venture capital commitments was US\$9 million (31 December 2020: US\$9 million).

Contingent liabilities (subsidiaries and joint operations)

Contingent liabilities, indemnities and other performance guarantees were US\$140 million at 30 June 2021 (31 December 2020: US\$146 million).

Performance guarantees

Indemnities and other performance guarantees represent the potential outflow of funds from the Group for the satisfaction of obligations including those under contractual arrangements (for example undertakings related to supplier agreements) not provided for in the balance sheet, where the likelihood of the guarantees or indemnities being called is assessed as possible rather than probable or remote. There were no material contingent liabilities arising in relation to the Group's joint ventures and associates.

Rio Tinto Coal Mozambique

In October 2017, Rio Tinto announced that it had been notified by the U.S. Securities and Exchange Commission (SEC) that the SEC had filed a complaint in relation to Rio Tinto's disclosures and timing of the impairment of Rio Tinto Coal Mozambique (RTCM). The impairment was reflected in Rio Tinto's 2012 year-end accounts. The SEC alleges that Rio Tinto, a former chief executive, Tom Albanese, and a former chief financial officer, Guy Elliott, committed violations of the antifraud, reporting, books and records and internal control provisions of the federal securities law by not accurately disclosing the value of RTCM and not impairing it when Rio Tinto published its 2011 year-end accounts in February 2012 or its 2012 interim results in August 2012. In June 2019, the trial court dismissed an associated US class action on behalf of securities holders. In August 2020, the appeals court partially overturned the court's dismissal and the case is with the trial court for further consideration.

In March 2018, the Australian Securities and Investments Commission (ASIC) filed civil proceedings in the NSW District Registry of the Federal Court of Australia against Rio Tinto Limited, Albanese, and Elliott. On 1 May 2018, ASIC expanded its proceedings. ASIC alleges that Rio Tinto committed violations of the disclosure, accounting, and misleading or deceptive conduct provisions of the Corporations Act by making misleading or deceptive statements related to RTCM in its 2011 Annual Report and its 2012 interim financial statements, not complying with accounting standards in respect of its 2012 interim financial statements, and not disclosing an impairment of RTCM in its 2012 interim financial statements. ASIC further alleges Albanese and Elliott breached their duties as directors or officers, and failed to take all reasonable steps to comply with relevant accounting requirements.

Rio Tinto believes that the SEC case and the ASIC proceedings are unwarranted and will defend the allegations vigorously. Hence, no provisions have been recognised for these cases.

Simandou

Rio Tinto continues to co-operate fully with relevant authorities in connection with their investigations in relation to contractual payments totalling US\$10.5 million made to a consultant who had provided advisory services in 2011 on the Simandou project in Guinea. In August 2018, the court dismissed a related US class action commenced on behalf of securities holders. No provision has been recognised for this case.

The outcomes of these matters remain uncertain, but they could ultimately expose the Group to material financial cost. The Board is giving these matters its full and proper attention and a dedicated Board committee continues to monitor the progress of these matters, as appropriate.

Notes to the interim financial statements (continued)

Other disclosures (continued)

Other legal matters

The Group has not established provisions for certain additional legal claims in cases where we have assessed that a payment is either not probable or cannot be reliably estimated. A number of Group companies are, and will likely continue to be, subject to various legal proceedings and investigations that arise from time to time. As a result, the Group may become subject to substantial liabilities that could affect our business, financial position and reputation. Litigation is inherently unpredictable and large judgements may at times occur. The Group may incur, in the future, judgements or enter into settlements of claims that could lead to material cash outflows. However, at present, we do not believe that any of these proceedings will have a materially adverse effect on our financial position.

Related party matters

Transactions and balances with equity accounted units are summarised below. Purchases, trade and other receivables, and trade and other payables relate largely to amounts charged by equity accounted units for toll processing of alumina and purchasing of bauxite and aluminium. Sales relate largely to sales of alumina to equity accounted units for smelting into aluminium. Details of the Group's principal equity accounted units are given in the 2020 Annual report.

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Income statement items		
Purchases from equity accounted units	(543)	(519)
Sales to equity accounted units	205	119
Cash flow statement items		
Dividends from equity accounted units	726	183
Net receipts/(funding) from/of equity accounted units	28	(14)
<hr/>		
	30 June 2021	31 December 2020
	US\$m	US\$m
Balance sheet items		
Investments in equity accounted units ^(a)	3,660	3,764
Loans to equity accounted units	—	41
Trade and other receivables: amounts due from equity accounted units ^(b)	246	251
Trade and other payables: amounts due to equity accounted units	(240)	(241)

(a) Investments in equity accounted units include quasi equity loans.

(b) This includes prepayments of tolling charges.

Rio Tinto plc has provided a number of guarantees in relation to various pension funds. Subject to certain conditions, Rio Tinto plc would pay any contributions due from Group companies participating in these funds in the event that the companies fail to meet their contribution requirements.

Notes to the interim financial statements (continued)

Other disclosures (continued)

Summary financial information for subsidiaries that have non-controlling interests that are material to the Group

This summarised financial information is shown on a 100% basis. It represents the amounts shown in the subsidiaries' financial statements prepared in accordance with IFRS under Group accounting policies, including fair value adjustments, and before intercompany eliminations

	Iron Ore Company of Canada 2021	Iron Ore Company of Canada 2020	Turquoise Hill (a)(b)(c) 2021	Turquoise Hill (a)(b)(c) 2020
	US\$m	US\$m	US\$m	US\$m
Income statement summary for six months ended 30 June				
Revenue	1,718	1,011	844	409
Profit/(loss) after tax	654	257	426	(23)
– attributable to non-controlling interests	271	106	211	(89)
– attributable to Rio Tinto	383	151	215	66
Other comprehensive income/(loss)	96	(91)	5	(2)
Total comprehensive income/(loss)	750	166	431	(25)
	30 June 2021	31 December 2020	30 June 2021	31 December 2020
	US\$m	US\$m	US\$m	US\$m
Balance sheet summary as at:				
Non-current assets	2,879	2,733	11,789	10,930
Current assets	840	670	1,033	1,496
Current liabilities	(493)	(462)	(530)	(540)
Non-current liabilities	(1,034)	(993)	(4,392)	(4,404)
Net assets	2,192	1,948	7,900	7,482
– attributable to non-controlling interests	907	804	2,600	2,424
– attributable to Rio Tinto	1,285	1,144	5,300	5,058
	2021	2020	2021	2020
	US\$m	US\$m	US\$m	US\$m
Cash flow statement summary for six months ended 30 June				
Cash flow from operations	964	403	95	29
Dividends paid to non-controlling interests	(206)	—	—	—

- (a) Turquoise Hill Resources Ltd holds a controlling interest in Oyu Tolgoi LLC ("OT").
- (b) Under the terms of the project finance facility held by OT, there are certain restrictions on the ability of OT to make shareholder distributions.
- (c) Since 2011, Turquoise Hill has funded common share investments in OT on behalf of Erdenes Oyu Tolgoi LLC ("Erdenes"). In accordance with the Amended and Restated Shareholders Agreement dated 8 June 2011, such funded amounts earn interest at an effective annual rate of LIBOR plus 6.5% and are repayable to them via a pledge over Erdenes' share of future OT common share dividends. Erdenes also has the right to reduce the outstanding balance by making payments directly to Turquoise Hill. Common share investments funded on behalf of Erdenes are recorded as a reduction to the net carrying value of non-controlling interests. As at 30 June 2021, the cumulative amount of such funding was US\$1,399 million (31 December 2020: US\$1,378 million), excluding accrued interest of US\$877 million (31 December 2020: US\$804 million) relating to this funding.

Notes to the interim financial statements (continued)

Other disclosures (continued)

Summary financial information for subsidiaries that have non-controlling interests that are material to the Group (continued)

	Robe River Mining Co Pty 2021 US\$m	Robe River Mining Co Pty 2020 US\$m	Other companies and eliminations ^(d) 2021 US\$m	Other companies and eliminations ^(d) 2020 US\$m	Robe River 2021 US\$m	Robe River 2020 US\$m
Income statement summary for six months ended 30 June						
Revenue	1,289	734	1,504	851	2,793	1,585
Profit after tax	752	403	841	424	1,593	827
– attributable to non-controlling interests	301	158	—	—	301	158
– attributable to Rio Tinto	451	245	841	424	1,292	669
Other comprehensive loss	(80)	(88)	(37)	(38)	(117)	(126)
Total comprehensive income	672	315	804	386	1,476	701
Balance sheet summary as at:						
	30 June 2021 US\$m	31 December 2020 US\$m	30 June 2021 US\$m	31 December 2020 US\$m	30 June 2021 US\$m	31 December 2020 US\$m
Non-current assets	3,535	3,452	4,238	4,247	7,773	7,699
Current assets	1,134	865	1,870	2,239	3,004	3,104
Current liabilities	(583)	(380)	(339)	(414)	(922)	(794)
Non-current liabilities	(424)	(255)	(4,234)	(4,752)	(4,658)	(5,007)
Net assets	3,662	3,682	1,535	1,320	5,197	5,002
– attributable to non-controlling interests	1,463	1,397	—	—	1,463	1,397
– attributable to Rio Tinto	2,199	2,285	1,535	1,320	3,734	3,605
Cash flow statement summary for six months ended 30 June						
	2021 US\$m	2020 US\$m	2021 US\$m	2020 US\$m	2021 US\$m	2020 US\$m
Cash flow from operations	1,134	665	1,643	1,066	2,777	1,731
Dividends paid to non-controlling interests	(201)	(211)	—	—	(201)	(211)

- (d) "Other companies and eliminations" includes North Mining Limited (a wholly-owned subsidiary of the Group which accounts for its interest in Robe River) and goodwill of US\$375 million at 30 June 2021 (31 December 2020: US\$383 million) that arose on the Group's acquisition of its interest in Robe River.

Notes to the interim financial statements (continued)

Other disclosures (continued)

Summary information for joint ventures that are material to the Group

This summarised financial information is shown on a 100% basis. It represents the amounts shown in the joint ventures' financial statements prepared in accordance with IFRS under Group accounting policies, including fair value adjustments and amounts due to and from Rio Tinto.

	Minera Escondida Ltda ^(a)	Minera Escondida Ltda ^(a)	Sohar Aluminum Co. L.L.C. ^(b)	Sohar Aluminum Co. L.L.C. ^(b)
	2021	2020	2021	2020
	US\$m	US\$m	US\$m	US\$m
Income statement summary for six months ended 30 June				
Revenue	4,953	3,137	420	325
Depreciation and amortisation	(580)	(797)	(60)	(55)
Other operating costs	(1,506)	(1,243)	(245)	(225)
Operating profit	2,867	1,097	115	45
Finance expense	(73)	(70)	(10)	(15)
Income tax	(1,034)	(370)	(15)	(5)
Profit after tax	1,760	657	90	25
Other comprehensive income/(loss)	40	(27)	—	—
Total comprehensive income	1,800	630	90	25
	30 June 2021	31 December 2020	30 June 2021	31 December 2020
	US\$m	US\$m	US\$m	US\$m
Balance sheet summary as at:				
Non-current assets	11,710	11,833	1,805	1,850
Current assets	3,010	3,107	420	270
Current liabilities	(1,777)	(1,813)	(150)	(675)
Non-current liabilities	(4,796)	(4,560)	(745)	(200)
Net assets	8,147	8,567	1,330	1,245
Assets and liabilities above include:				
– cash and cash equivalents	887	1,103	145	30
– current financial liabilities	(577)	(790)	(55)	(565)
– non-current financial liabilities	(2,800)	(2,560)	(575)	(30)
	2021	2020	2021	2020
	US\$m	US\$m	US\$m	US\$m
Cash flow statement summary for six months ended 30 June				
Dividends received from joint venture (Rio Tinto share)	720	183	—	—

- (a) In addition to its "Investment in equity accounted units", the Group recognises deferred tax liabilities of US\$334 million (31 December 2020: US\$358 million) relating to tax that would be payable if the Group's share of the earnings retained in Minera Escondida Ltda were remitted to the Group.
- (b) Under covenants stipulated in the agreement to Sohar Aluminium Co. L.L.C.'s secured loan facilities, there are certain restrictions on the ability of Sohar Aluminium Co. L.L.C. to make shareholder distributions.

Events after the balance sheet date

There were no significant events identified after the balance sheet date.

Directors' declaration

Directors' statement of responsibility

In the directors' opinion:

The condensed consolidated interim financial statements on pages 31 to 64 including the notes have been prepared in accordance with IAS 34 'Interim Financial Reporting' as adopted by the European Union before 1 January 2021 and applicable in the United Kingdom ('UK') thereafter under the European Union (Withdrawal) Act 2018, the Disclosure Guidance and Transparency Rules sourcebook ('DTR') of the Financial Conduct Authority in the United Kingdom, applicable accounting standards and the Australian Corporations Act 2001 as modified by an order of the Australian Securities and Investments Commission issued on 16 July 2021, using the most appropriate accounting policies for Rio Tinto's business and supported by reasonable and prudent judgements.

The condensed consolidated interim financial statements give a true and fair view of the Rio Tinto Group's financial position as at 30 June 2021 and of its performance, as represented by the results of its operations, comprehensive income and expense and its cash flows for the six months then ended. There are reasonable grounds to believe that each of the Rio Tinto Group, Rio Tinto Limited and Rio Tinto plc will be able to pay its debts as and when they become due and payable.

The interim management report includes a fair review of the information required by DTR 4.2.7R and DTR 4.2.8R, namely:

- an indication of important events that have occurred during the first six months and their impact on the condensed set of consolidated financial statements, and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
- material related-party transactions in the first six months and any material changes in the related-party transactions described in the last annual report.

Signed in accordance with a resolution of the Board of Directors.

Simon Thompson

Chairman
28 July 2021

Jakob Stausholm

Chief executive
28 July 2021

Peter Cunningham

Chief financial officer
28 July 2021

Independent Auditors' Review Reports of KPMG LLP ("KPMG UK") to Rio Tinto plc and of KPMG ("KPMG Australia") to the members of Rio Tinto Limited

Conclusions

For the purposes of these reports, the terms 'we' and 'our' denote KPMG UK in relation to UK responsibilities and reporting obligations to Rio Tinto plc, and KPMG Australia in relation to Australian responsibilities and reporting obligations to the members of Rio Tinto Limited.

We have reviewed the accompanying interim financial information ("Interim Financial Statements") in the Interim Results 2021 ("Interim Report") of the Rio Tinto Group ("the Group") as at and for the six months ended 30 June 2021 which comprises the:

- Group income statement
- Group statement of comprehensive income;
- Group cash flow statement;
- Group balance sheet;
- Group statement of changes in equity; and
- The explanatory notes to the Interim Financial Statements on pages 39 to 64 (including the Rio Tinto financial information by business unit on pages 70 to 73).

The Rio Tinto Group consists of Rio Tinto plc, Rio Tinto Limited and the entities they controlled at 30 June 2021 or during the six months ended 30 June 2021. KPMG Australia considers the Directors' Declaration to be part of the Interim Financial Statements when forming its conclusion.

Review conclusion by KPMG UK

Based on our review, nothing has come to our attention that causes us to believe that the Interim Financial Statements are not prepared, in all material respects, in accordance with International Accounting Standard ('IAS') 34 *Interim Financial Reporting* as adopted for use in the UK and the Disclosure Guidance and Transparency Rules ("the DTR") of the UK's Financial Conduct Authority ("the UK FCA").

Review conclusion by KPMG Australia

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the Interim Financial Statements, including the Directors' Declaration, are not in accordance with an Order under section 340 of the Australian Corporations Act 2001 issued by the Australian Securities and Investments Commission on 16 July 2021, including:

- giving a true and fair view of the Group's financial position as at 30 June 2021 and of its performance for the six months ended on that date; and
- complying with International Accounting Standard ('IAS') 34 'Interim Financial Reporting' as adopted for use in the UK and the Australian Corporations Regulations 2001.

Basis for Conclusions

KPMG UK conducted its review in accordance with International Standard on Review Engagements (UK and Ireland) 2410 *Review of Interim Financial Information Performed by the Independent Auditor of the Entity* issued by the Auditing Practices Board for use in the UK.

In conducting its review, KPMG UK has complied with the ethical and independence requirements of the UK FRC Ethical Standard as applied to listed public interest entities.

KPMG Australia conducted its review in accordance with Auditing Standard on Review Engagements ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity* ("ASRE 2410"), as issued by the Australian Auditing and Assurance Standards Board.

KPMG Australia is independent of the Group in accordance with the auditor independence requirements of the Australian Corporations Act 2001 and the ethical requirements of the *Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to its audit of the annual consolidated financial report in Australia. In conducting its review, KPMG Australia has also fulfilled its other ethical responsibilities in accordance with the Code.

KPMG UK's and KPMG Australia's responsibilities are further described in the *Auditors' Responsibilities for the Review of the Interim Financial Statements* section of our report.

Responsibilities of the Directors for the Interim Financial Statements and Interim Report

The Interim Report is the responsibility of, and has been approved by, the Directors of Rio Tinto plc and the Directors of Rio Tinto Limited.

The Directors of Rio Tinto plc are responsible for:

- preparing the Interim Report in accordance with the DTR of the UK FCA; and
- the preparation of Interim Financial Statements in accordance with IAS 34 as adopted for use in the UK. The latest annual financial statements of the Group were prepared in accordance with International Financial Reporting Standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union and in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006. The next annual financial statements will be prepared in accordance with UK-adopted international accounting standards.

The Directors of Rio Tinto Limited are responsible for:

- the preparation of Interim Financial Statements, including the Directors' Declaration, that give a true and fair view in accordance with International Accounting Standard 34 *Interim Financial Reporting* as adopted for use in the UK and the Australian Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 16 July 2021; and
- such internal control as the Directors of Rio Tinto Limited determine is necessary to enable the preparation of the Interim Financial Statements, including the Directors' Declaration, that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditors' Responsibilities for the Review of the Interim Financial Statements

KPMG UK's responsibility is to express to Rio Tinto plc a conclusion on the Interim Financial Statements based on its review.

KPMG Australia's responsibility is to express a conclusion on the Interim Financial Statements, including the Directors' Declaration, based on its review.

ASRE 2410 requires KPMG Australia to conclude whether we have become aware of any matter that makes us believe that the Interim Financial Statements, including the Directors' Declaration, do not comply with the Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 16 July 2021 including giving a true and fair view of the Group's financial position as at 30 June 2021 and its performance for the six months ended on that date, and complying with International Accounting Standard 34 *Interim Financial Reporting* as adopted for use in the UK and the Corporations Regulations 2001.

A review of Interim Financial Statements consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. We read the other information that accompanies the Interim Financial Statements and is contained in the Interim Report and consider whether it contains any apparent misstatements or material inconsistencies with the information in the Interim Financial Statements.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) or Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

The purpose of our review work and to whom we owe our responsibilities

KPMG UK's report is made solely to Rio Tinto plc in accordance with the terms of KPMG UK's engagement to assist Rio Tinto plc in meeting the requirements of the DTR of the UK FCA. Our review work has been undertaken so that we might state to Rio Tinto plc those matters we are required to state to it in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Rio Tinto plc for our review work, for this report, or for the conclusions we have reached.

KPMG Australia's report is made solely to Rio Tinto Limited's members, as a body, in accordance with the Australian Corporations Act 2001 as amended by the Australian Securities and Investments Commission Order dated 16 July 2021. Our review work has been undertaken so that we might state to the members of Rio Tinto Limited those matters we are required to state to them in this report, and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Rio Tinto Limited's members, as a body, for our review work, for this report, or for the conclusion we have reached.

Jonathan Downer
for and on behalf of KPMG LLP
Chartered Accountants
London
28 July 2021

Trevor Hart
Partner
Perth
28 July 2021

KPMG
28 July 2021

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Lead Auditor's Independence Declaration under Section 307C of the Australian Corporations Act 2001

To the Directors of Rio Tinto Limited

I declare that, to the best of my knowledge and belief, in relation to the review of Rio Tinto Limited for the half-year ended 30 June 2021 there have been:

- a) no contraventions of the auditor independence requirements as set out in the *Australian Corporations Act 2001* in relation to the review; and
- b) no contraventions of any applicable code of professional conduct in relation to the review.

This declaration is in respect of Rio Tinto Limited and the entities it controlled during the financial period.

KPMG

Trevor Hart
Partner
Perth
28 July 2021

Liability limited by a scheme approved under Professional Standards Legislation

Rio Tinto financial information by business unit

	Rio Tinto interest %	Gross product sales ^(a)		Underlying EBITDA ^(b)		Underlying earnings ^(c)	
		for the 6 months ended		for the 6 months ended		for the 6 months ended	
		30 June 2021	Adjusted 30 June 2020	30 June 2021	Adjusted 30 June 2020	30 June 2021	Adjusted 30 June 2020
		US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
Iron Ore							
Pilbara	(d)	21,476	11,246	16,207	7,702	10,348	4,628
Dampier Salt	68.4	145	112	21	25	5	8
Evaluation projects/other	(e)	1,003	252	161	(37)	110	(77)
Intra-segment	(e)	(917)	(145)	(329)	8	(247)	4
Total Iron Ore		21,707	11,465	16,060	7,698	10,216	4,563
Aluminium							
Bauxite		1,082	1,170	338	514	105	257
Alumina		1,359	1,096	295	115	155	38
Primary Metal		3,193	2,111	1,101	284	564	(59)
Pacific Aluminium		1,285	965	273	5	174	(50)
Intra-segment and other		(1,391)	(1,262)	(36)	33	(40)	24
Integrated operations		5,528	4,080	1,971	951	958	210
Other product group Items		404	407	17	3	12	(3)
Product group operations		5,932	4,487	1,988	954	970	207
Evaluation projects/other		—	—	(64)	(29)	(49)	(14)
Total Aluminium		5,932	4,487	1,924	925	921	193
Copper							
Rio Tinto Kennecott	100.0	1,318	635	676	193	323	(12)
Escondida	30.0	1,486	941	1,033	564	537	204
Oyu Tolgoi and Turquoise Hill	(f)	844	409	528	89	152	11
Product group operations		3,648	1,985	2,237	846	1,012	203
Simandou iron ore project	(g)	—	—	(6)	(2)	(2)	(1)
Evaluation projects/other		131	(2)	(183)	(158)	(125)	(91)
Total Copper		3,779	1,983	2,048	686	885	111
Minerals							
Iron Ore Company of Canada	58.7	1,807	1,086	1,105	473	398	156
Rio Tinto Iron & Titanium	(h)	973	773	305	222	146	80
Rio Tinto Borates	100.0	300	293	64	83	34	47
Diamonds	(i)	160	141	16	(12)	5	(40)
Product group operations		3,240	2,293	1,490	766	583	243
Evaluation projects/other		30	29	(92)	(54)	(85)	(53)
Total Minerals		3,270	2,322	1,398	712	498	190
Other operations							
	(j)	85	158	(4)	1	(51)	(29)
Inter-segment transactions		(145)	(82)	(6)	(18)	(3)	(6)
Product group total		34,628	20,333	21,420	10,004	12,466	5,022
Central pensions, share-based payments, insurance and derivatives				119	102	120	97
Restructuring, project and one-off costs				(36)	(72)	(23)	(53)
Central costs	(k)			(346)	(273)	(294)	(233)
Central exploration and evaluation				(120)	(121)	(100)	(97)
Net interest						(3)	14
Underlying EBITDA/earnings				21,037	9,640	12,166	4,750
Items excluded from underlying EBITDA/earnings				(177)	(119)	147	(1,434)
Reconciliation to Group income statement							
Share of equity accounted unit sales and intra-subsiary/equity accounted unit sales		(1,545)	(971)				
Impairment charges				—	(1,163)		
Depreciation and amortisation in subsidiaries excluding capitalised depreciation				(2,253)	(1,974)		
Depreciation and amortisation in equity accounted units				(249)	(314)		
Taxation and finance items in equity accounted units				(365)	(141)		
Finance items				56	(650)		
Consolidated sales revenue/profit before taxation/net earnings		33,083	19,362	18,049	5,279	12,313	3,316

Rio Tinto financial information by business unit (continued)

	Rio Tinto interest %	Capital expenditure ^(l)		Depreciation and amortisation		Operating assets ^(m)	
		for the 6 months ended		for the 6 months ended		As at	
		30 June 2021	30 June 2020	30 June 2021	30 June 2020	30 June 2021	31 December 2020
		Adjusted	Adjusted	Adjusted	Adjusted		
		US\$m	US\$m	US\$m	US\$m	US\$m	US\$m
Iron Ore							
Pilbara	(d)	1,907	1,179	1,011	831	16,558	16,253
Dampier Salt	68.4	5	6	11	9	169	163
Evaluation projects/other	(e)	—	—	—	—	833	338
Intra-segment	(e)	—	—	—	—	(351)	(104)
Total Iron Ore		1,912	1,185	1,022	840	17,209	16,650
Aluminium							
Bauxite		67	53	165	139	2,551	2,593
Alumina		113	74	80	59	2,116	2,294
Primary Metal		285	303	347	325	9,506	9,361
Pacific Aluminium		58	54	53	71	409	455
Intra-segment and other		1	(2)	—	—	875	662
Total Aluminium		524	482	645	594	15,457	15,365
Copper							
Rio Tinto Kennecott	100.0	203	320	249	223	2,282	2,317
Escondida	30.0	83	118	174	239	2,663	2,726
Oyu Tolgoi and Turquoise Hill	(f)	460	548	98	104	8,854	8,111
Product group operations		746	986	521	566	13,799	13,154
Simandou iron ore project	(g)	—	(2)	—	—	19	16
Evaluation projects/other		4	3	2	2	154	192
Total Copper		750	987	523	568	13,972	13,362
Minerals							
Iron Ore Company of Canada	58.7	90	51	96	88	1,052	1,009
Rio Tinto Iron & Titanium	(h)	83	60	109	95	3,538	3,390
Rio Tinto Borates	100.0	17	16	25	25	487	502
Diamonds	(i)	11	20	2	58	191	(7)
Product group operations		201	147	232	266	5,268	4,894
Evaluation projects/other		8	—	—	—	37	33
Total Minerals		209	147	232	266	5,305	4,927
Other operations	(j)	—	1	92	99	(848)	(550)
Inter-segment transactions						(36)	129
Product group total		3,395	2,802	2,514	2,367	51,059	49,883
Other items		35	22	42	39	(1,224)	(2,165)
Less: equity accounted units		(120)	(159)	(249)	(314)	—	—
Total		3,310	2,665	2,307	2,092	49,835	47,718
Add back: Proceeds from disposal of property, plant and equipment		26	28				
Total capital expenditure per cash flow statement		3,336	2,693				
Less: Net cash/(debt)						3,140	(664)
Equity attributable to owners of Rio Tinto						52,975	47,054

Notes to financial information by business unit

Business units are classified according to the Group's management structure.

The financial information by business unit has been recast in accordance with the organisational restructure announced on 28 January 2021. The main impacts are as follows: Simandou has moved from the previous Energy & Minerals product group to the Copper product group; Uranium has moved from the previous Energy & Minerals product group to Other Operations; Diamonds has moved from the previous Copper & Diamonds product group to the Minerals product group; the Minerals product group retains the Argyle Residual operations and from 1 January 2021, Argyle Closure has moved to Other Operations. Argyle Residual operations includes activity relating to the sale of remaining diamond inventory and property held. Argyle Closure includes activity relating to the management and execution of the Argyle mine closure obligations and management of entities with interests in state and traditional owner agreements and licences. As a result of these changes, the Copper & Diamonds segment is renamed Copper and the Energy & Minerals segment is renamed Minerals from 2021.

The disclosures in this note include certain Alternative performance measures (APMs). For more information on the APMs used by the Group, including definitions and calculations, please refer to pages 74 to 79.

- (a) Gross product sales includes the sales revenue of equity accounted units on a proportionately consolidated basis (after adjusting for sales to subsidiaries) in addition to consolidated sales. Consolidated sales revenue includes subsidiary sales to equity accounted units which are not included in gross product sales.
- (b) Underlying EBITDA of subsidiaries and the Group's share relating to equity accounted units represents profit before: tax, net finance items, depreciation and amortisation charged to the income statement in the period. Underlying EBITDA excludes the EBITDA impact of the same items that are excluded from underlying earnings.
- (c) Underlying earnings represent net earnings attributable to the owners of Rio Tinto, adjusted to exclude items which do not reflect the underlying performance of the Group's operations. Business unit earnings are stated before finance items but after the amortisation of discount related to provisions. Earnings attributed to business units do not include amounts that are excluded in arriving at underlying earnings.
- (d) Pilbara represents the Group's 100% holding in Hamersley, 50% holding of Hope Downs Joint Venture and 65% holding of Robe River Iron Associates. The Group's net beneficial interest in Robe River Iron Associates is 53% as 30% is held through a 60% owned subsidiary and 35% is held through a 100% owned subsidiary.
- (e) Gross product sales, Underlying EBITDA, Net Earnings and Operating assets within Evaluation projects/other include activities relating to the shipment and blending of Pilbara and Iron Ore Company of Canada (IOC) iron ore inventories held at portside in China and sold to domestic customers. Transactions between the Pilbara and our portside trading business are eliminated through the Iron Ore "intra-segment" line and transactions between IOC and the portside trading business are eliminated through "inter-segment transactions".
- (f) Our interest in Oyu Tolgoi is held indirectly through our 50.8% investment in Turquoise Hill Resources Ltd (TRQ), where TRQ's principal asset is its 66% investment in Oyu Tolgoi LLC, which owns the Oyu Tolgoi copper-gold mine.
- (g) Simfer Jersey Limited, a company incorporated in Jersey in which the Group has a 53% interest, has an 85% interest in Simfer S.A., the company that manages the Simandou mining project in Guinea. The Group therefore has a 45.05% indirect interest in Simfer S.A. These entities are consolidated as subsidiaries and together referred to as the Simandou iron ore project.
- (h) Includes our interests in Rio Tinto Fer et Titane (100%), QIT Madagascar Minerals (QMM, 80%) and Richards Bay Minerals (attributable interest of 74%).
- (i) Includes our interests in Argyle (100%), mainly the Argyle Residual Operations which relates to the sale of remaining inventory and Diavik (60%). From 1 June 2021, management responsibility for the Argyle site moved from Minerals to Rio Tinto Closure (RTC), hence, Argyle Closure is reported in Other operations effective from 1 January 2021. Refer to (j) below.
- (j) Other operations include our 100% interest in the Gove alumina refinery (under rehabilitation), Rio Tinto Marine, and the remaining legacy liabilities of Rio Tinto Coal Australia. These include provisions for onerous contracts, in relation to rail infrastructure capacity, partly offset by financial assets and receivables relating to contingent royalties and disposal proceeds. From 1 January 2021, Uranium moved from Minerals to Other operations. From 1 January 2021, Argyle Closure is reported as part of Other Operations.

Notes to financial information by business unit (continued)

- (k) Mark-to-market movements on commodity derivatives entered into with the commercial objective of achieving spot pricing for the underlying transaction at the date of settlement have been reclassified from Central costs and are now included in Central pensions, share based payments, insurance & derivatives, in order to provide a better understanding of Central costs. The impact of this change on the reported comparatives is insignificant, and therefore the comparatives have not been restated.
- (l) Capital expenditure is the net cash outflow on purchases less sales of property, plant and equipment, capitalised evaluation costs and purchases less sales of other intangible assets. The details provided include 100% of subsidiaries' capital expenditure and Rio Tinto's share of the capital expenditure of joint operations and equity accounted units.
- (m) Operating assets of the Group comprise equity attributable to Rio Tinto before deducting net cash/(debt). Operating assets of business units are comprised of net assets excluding post-retirement assets and liabilities, net of tax, and before deducting net debt. Operating assets are stated after the deduction of non-controlling interests - these are calculated by reference to the net assets of the relevant companies (i.e. inclusive of such companies' debt and amounts due to or from Rio Tinto Group companies).

Alternative performance measures

The Group presents certain alternative performance measures ("APMs") which are reconciled to directly comparable IFRS financial measures below. These APMs are used by management to assess the performance of the business and provide additional information which investors may find useful. APMs are presented in order to give further insight into the underlying business performance of the Group's operations.

APMs are not consistently defined and calculated by all companies, including those in the Group's industry. Accordingly, these measures used by the Group may not be comparable with similarly titled measures and disclosures made by other companies. Consequently, these APMs should not be regarded as a substitute for the IFRS measures and should be considered supplementary to those measures.

The following tables present the Group's key financial measures not defined according to IFRS and a reconciliation between those APMs and their nearest respective IFRS measure.

APMs derived from the Income statement

The following income statement measures are used by the Group to provide greater understanding of the underlying business performance of its operations and to enhance comparability of reporting periods. They indicate the underlying commercial and operating performance of our assets including revenue generation, productivity and cost management.

Gross product sales

Gross product sales includes the sales revenue of equity accounted units on a proportionately consolidated basis (after adjusting for sales to subsidiaries) in addition to consolidated sales. Consolidated sales revenue includes subsidiary sales to equity accounted units which are not included in gross product sales.

Gross product sales measures revenue on a basis that is comparable to our Underlying EBITDA metric.

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Consolidated sales revenue	33,083	19,362
Share of equity accounted unit sales and intra-subsiary/equity accounted unit sales	1,545	971
Gross product sales	34,628	20,333

Alternative performance measures (continued)

Underlying EBITDA

Underlying EBITDA represents profit before tax, net finance items, depreciation and amortisation excluding the EBITDA impact of the same items that are excluded in arriving at underlying earnings (as defined on page 55).

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Profit after tax	13,068	3,451
Depreciation and amortisation in subsidiaries excluding capitalised depreciation	2,253	1,974
Depreciation and amortisation in equity accounted units	249	314
Finance items in subsidiaries	(56)	650
Taxation in subsidiaries	4,981	1,828
Taxation and finance items in equity accounted units	365	170
Impairment charges	—	1,134
Losses/(gains) on embedded commodity derivatives not qualifying for hedge accounting (including exchange)	2	(53)
Change in closure estimates (non-operating and fully impaired sites)	175	172
Underlying EBITDA	21,037	9,640

Underlying EBITDA margin

Underlying EBITDA margin is defined as Group underlying EBITDA divided by gross product sales.

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Underlying EBITDA	21,037	9,640
Gross product sales	34,628	20,333
Underlying EBITDA margin	61 %	47 %

Pilbara underlying FOB EBITDA margin

The Pilbara underlying free on board (FOB) EBITDA margin is defined as Pilbara underlying EBITDA divided by Pilbara gross product sales, excluding freight revenue.

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Pilbara		
Underlying EBITDA	16,207	7,702
Pilbara gross product sales	21,476	11,246
Freight revenue	1,023	590
Pilbara gross product sales, excluding freight revenue	20,453	10,656
Pilbara underlying FOB EBITDA margin	79 %	72 %

Alternative performance measures (continued)

Underlying EBITDA margin from Aluminium integrated operations

Underlying EBITDA margin from integrated operations is defined as underlying EBITDA divided by gross product sales.

	Six months ended 30 June 2021 US\$m	Six months ended 30 June 2020 US\$m
Aluminium		
Underlying EBITDA - integrated operations	1,971	951
Gross product sales - integrated operations	5,528	4,080
Underlying EBITDA margin from integrated operations	36 %	23 %

Underlying EBITDA margin (product group operations)

Underlying EBITDA margin (product group operations) is defined as underlying EBITDA divided by gross product sales.

	Six months ended 30 June 2021 US\$m	Adjusted Six months ended 30 June 2020 ^(a) US\$m
Copper		
Underlying EBITDA - product group operations	2,237	846
Gross product sales - product group operations	3,648	1,985
Underlying EBITDA margin - product group operations	61 %	43 %

	Six months ended 30 June 2021 US\$m	Adjusted Six months ended 30 June 2020 ^(a) US\$m
Minerals		
Underlying EBITDA - product group operations	1,490	766
Gross product sales - product group operations	3,240	2,293
Underlying EBITDA margin - product group operations	46 %	33 %

- (a) The comparatives have been recast in accordance with the organisational restructure announced on 28 January 2021. The main impacts are as follows: Simandou has moved from the previous Energy & Minerals product group to the Copper product group; Uranium has moved from the previous Energy & Minerals product group to Other Operations; Diamonds has moved from the previous Copper & Diamonds product group to the Minerals product group; the Minerals product group retains the Argyle Residual operations and from 1 January 2021, Argyle Closure has moved to Other Operations. Argyle Residual operations includes activity relating to the sale of remaining diamond inventory and property held. Argyle Closure includes activity relating to the management and execution of the Argyle mine closure obligations and management of entities with interests in state and traditional owner agreements and licences. As a result of these changes, the Copper & Diamonds segment is renamed Copper and the Energy & Minerals segment is renamed Minerals from 2021.

Underlying Earnings

Underlying earnings represent net earnings attributable to the owners of Rio Tinto, adjusted to exclude items which do not reflect the underlying performance of the Group's operations.

Exclusions from underlying earnings are those gains and losses, that individually, or in aggregate with similar items, are of a nature and size to require exclusion in order to provide additional insight into underlying business performance.

Alternative performance measures (continued)

The following items are excluded from net earnings in arriving at underlying earnings in each period irrespective of the magnitude:

- Net gains/(losses) on disposal and consolidation of interests in businesses.
- Impairment charges and reversals.
- Profit/(loss) after tax from discontinued operations.
- Certain exchange and derivative gains and losses.

The reconciliation of underlying earnings to net earnings can be found on segmental information note on pages 56 to 57.

Basic underlying earnings per share

Basic underlying earnings per share is calculated as underlying earnings divided by the weighted average number of shares outstanding during the period.

On a per share basis, this allows the comparability of underlying financial performance adjusted to exclude items which do not reflect the underlying performance of the Group's operations.

	Six months ended 30 June 2021	Six months ended 30 June 2020
	cents	cents
Basic earnings per ordinary share	761.0c	205.0c
Items excluded from underlying earnings per share	(9.1)c	88.7c
Basic underlying earnings per ordinary share	751.9c	293.7c

APMs derived from Cash flow statement

Capital expenditure

Capital expenditure comprises sustaining and development expenditure on property, plant and equipment, and on intangible assets. This is equivalent to 'Purchases of property, plant and equipment and intangible assets in the cash flow statement', hence, presented gross, before taking into account any cash received from disposals of property, plant and equipment and intangible assets.

This measure is used to support management's objective of effective and efficient capital allocation as we need to invest in existing assets in order to maintain and improve productive capacity, and in new assets to grow the business.

Free cash flow

Free cash flow is defined as net cash generated from operating activities minus purchases of property, plant and equipment and intangibles and payments of lease principal, plus proceeds from the sale of property, plant and equipment and intangible assets.

This measures the net cash returned by the business after the expenditure of sustaining and development capital. This cash can be used for shareholder returns, reducing debt and other investing/financing activities.

	Six months ended 30 June 2021	Six months ended 30 June 2020
	US\$m	US\$m
Net cash generated from operating activities	13,661	5,628
Less: Purchase of property, plant and equipment and intangible assets	(3,336)	(2,693)
Less: Lease principal payments	(170)	(154)
Add: Sales of property, plant and equipment and intangible assets	26	28
Free cash flow	10,181	2,809

Alternative performance measures (continued)

APMs derived from the Balance sheet

Net cash/(debt)

Net cash/(debt) is total borrowings plus lease liabilities less cash and cash equivalents and other liquid investments, adjusted for derivatives related to net debt.

Net cash/(debt) measures how we are managing our balance sheet and capital structure. Refer to Consolidated net debt note for the reconciliation on page 48.

Net gearing ratio

Net gearing ratio is defined as net cash/(debt) divided by the sum of net cash/(debt) and total equity at the end of each period. It demonstrates the degree to which the Group's operations are funded by debt versus equity.

	30 June 2021	31 December 2020
	US\$m	US\$m
Net cash/(debt)	3,140	(664)
Net cash/(debt)	3,140	(664)
Total equity	(58,169)	(51,903)
Net cash/(debt) plus total equity	(55,029)	(52,567)
Net gearing ratio	(6)%	1 %

Operating assets

The Group's Operating assets comprises of our share of net assets before deducting net cash/(debt).

This measure shows the net value of assets and liabilities used to generate profits.

	30 June 2021	31 December 2020
	US\$m	US\$m
Equity attributable to owners of Rio Tinto	52,975	47,054
Add: Net cash/(debt)	3,140	(664)
Operating assets	49,835	47,718

Alternative performance measures (continued)

Underlying return on capital employed

Underlying return on capital employed ("ROCE") is defined as annualised underlying earnings excluding net interest divided by average capital employed (operating assets).

Underlying ROCE measures how efficiently we generate profits from investment in our portfolio of assets.

	30 June 2021	30 June 2020
	US\$m	US\$m
Net earnings	12,313	3,316
Items added back to derive underlying earnings (refer to page 56)	(147)	1,434
Underlying earnings	12,166	4,750
Adjusted for 'Net interest':		
Finance income per the income statement	(42)	(104)
Finance costs per the income statement	91	169
Tax on finance cost	(10)	(41)
Non-controlling interest share of net finance costs	(52)	(54)
Net interest cost in Equity Accounted Units (Rio Tinto Share)	16	16
Net interest	3	(14)
Adjusted underlying earnings	12,169	4,736
Annualised adjusted underlying earnings	24,338	9,472
Equity attributable to owners of Rio Tinto - beginning of the period	47,054	40,532
Net debt - beginning of the period	664	3,651
Capital employed - beginning of the period	47,718	44,183
Equity attributable to owners of Rio Tinto - end of the period	52,975	39,224
Net (cash)/debt - end of the period	(3,140)	4,826
Capital employed - end of the period	49,835	44,050
Average capital employed	48,777	44,117
Underlying return on capital employed	50 %	21 %

Summary financial data in Australian dollars, Sterling and US dollars

30 June 2021 A\$m	30 June 2020 A\$m	30 June 2021 £m	30 June 2020 £m		30 June 2021 US\$m	30 June 2020 US\$m
44,879	30,894	24,935	16,121	Gross product sales	34,628	20,333
42,876	29,418	23,823	15,351	Consolidated sales revenue	33,083	19,362
23,392	8,021	12,997	4,185	Profit before tax from continuing operations	18,049	5,279
16,936	5,243	9,410	2,736	Profit for the period from continuing operations	13,068	3,451
15,958	5,038	8,866	2,629	Net earnings attributable to Rio Tinto shareholders	12,313	3,316
27,264	14,647	15,148	7,643	Underlying EBITDA	21,037	9,640
15,767	7,217	8,761	3,766	Underlying earnings ^(a)	12,166	4,750
986.2	311.5	548.0	162.6	Basic earnings per ordinary share ^(b)	761.0	205.0
974.4	446.2	541.4	232.9	Basic underlying earnings per ordinary share ^{(a) (b)}	751.9	293.7
				Dividends per share to Rio Tinto shareholders ^(c)		
397.48c	349.74c	221.86p	177.47p	- paid ordinary dividend	309.00c	231.00c
119.63c	—	66.77p	—	- paid special dividend	93.00c	—
509.42c	216.47c	270.84p	119.74p	- proposed interim ordinary dividend	376.00c	155.00c
250.64c	—	133.26p	—	- proposed interim special dividend	185.00c	—
13,419	4,092	7,456	2,135	Cash flow before financing activities	10,354	2,693
30 June 2021 A\$m	31 December 2020 A\$m	30 June 2021 £m	31 December 2020 £m		30 June 2021 US\$m	31 December 2020 US\$m
4,179	(864)	2,270	(488)	Net cash/(debt)	3,140	(664)
70,497	61,252	38,295	34,592	Equity attributable to Rio Tinto shareholders	52,975	47,054

(a) A reconciliation of underlying earnings to net earnings can be found on page 56.

(b) Basic earnings per ordinary share and basic underlying earnings per ordinary share do not recognise the dilution resulting from share options on issue.

(c) The Australian dollar and Sterling amounts are based on the US dollar amounts, retranslated at average or closing rates as appropriate, except for the dividends which are the actual amounts paid or payable.

Metal prices and exchange rates

	Six months to 30 June 2021	Six months to 30 June 2020	Increase/ (Decrease) HY 2021 Vs. HY 2020	Year to 31 December 2020
Metal prices - average for the period				
Copper - US cents/lb	413c	249c	66 %	281c
Aluminium - US\$/tonne	\$2,245	\$1,595	41 %	\$1,702
Gold - US\$/troy oz	\$1,805	\$1,645	10 %	\$1,770
Average exchange rates against the US dollar				
Sterling	1.39	1.26	10 %	1.28
Australian dollar	0.77	0.66	17 %	0.69
Canadian dollar	0.80	0.73	9 %	0.75
Euro	1.21	1.10	9 %	1.14
South African rand	0.069	0.061	13 %	0.061
Period end exchange rates against the US dollar				
Sterling	1.38	1.23	13 %	1.36
Australian dollar	0.75	0.69	10 %	0.77
Canadian dollar	0.81	0.73	10 %	0.78
Euro	1.19	1.12	6 %	1.23
South African rand	0.070	0.058	21 %	0.068

Availability of this report

This report is available on the Rio Tinto website (www.riotinto.com).

Forward-looking statements

This announcement includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts included in this announcement, including, without limitation, those regarding Rio Tinto's financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to Rio Tinto's products, production forecasts and reserve and resource positions and any statements related to the ongoing impact of the COVID-19 pandemic), are forward-looking statements. The words "intend", "aim", "project", "anticipate", "estimate", "plan", "believes", "expects", "may", "would", "should", "could", "will", "target", "set to", "seek", "risk" or similar expressions, commonly identify such forward-looking statements.

Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Rio Tinto, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding Rio Tinto's present and future business strategies and the environment in which Rio Tinto will operate in the future. Among the important factors that could cause Rio Tinto's actual results, performance or achievements to differ materially from those in the forward-looking statements are levels of actual production during any period, levels of demand and market prices, the ability to produce and transport products profitably, the impact of foreign currency exchange rates on market prices and operating costs, operational problems, political uncertainty and economic conditions in relevant areas of the world, the actions of competitors, activities by governmental authorities such as changes in taxation or regulation, the risks and uncertainties associated with the ongoing impacts of COVID-19 or other pandemic and such other risk factors identified in Rio Tinto's most recent Annual report and accounts in Australia and the United Kingdom and the most recent Annual report on Form 20-F filed with the United States Securities and Exchange Commission (the "SEC") or Form 6-Ks furnished to, or filed with, the SEC. The above list is not exhaustive. Forward-looking statements should, therefore, be construed in light of such risk factors and undue reliance should not be placed on forward-looking statements, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption caused by the outbreak of COVID-19. These forward-looking statements speak only as of the date of this announcement. Rio Tinto expressly disclaims any obligation or undertaking (except as required by applicable law, the UK Listing Rules, the Disclosure Guidance and Transparency Rules of the Financial Conduct Authority and the Listing Rules of the Australian Securities Exchange) to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in Rio Tinto's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Nothing in this announcement should be interpreted to mean that future earnings per share of Rio Tinto plc or Rio Tinto Limited will necessarily match or exceed its historical published earnings per share.

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This announcement is authorised for release to the market by Rio Tinto's Group Company Secretary.