

Notice to ASX

2023 Half Year Results Presentation

26 July 2023

The Rio Tinto 2023 half year results presentation will be given at 9.30am (BST) / 6.30pm (AEST) today by Rio Tinto Chief Executive Jakob Stausholm, and Chief Financial Officer Peter Cunningham. The presentation slides are attached and also available at <https://www.riotinto.com/en/invest/financial-news-performance/results>.

The live webcast will be available at <https://www.riotinto.com/en/invest/financial-news-performance/results>.

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

RioTinto

2023 Half Year Results

26 July 2023

Oyu Tolgoi, Mongolia



Cautionary and supporting statements

This presentation has been prepared by Rio Tinto plc and Rio Tinto Limited (together with their subsidiaries, “**Rio Tinto**”). By accessing/attending this presentation you acknowledge that you have read and understood the following statements.

Production Targets

The 500kpta copper and 350kozpa gold target (stated as recoverable metal) for the Oyu Tolgoi underground and open pit mines for the years 2028 to 2036 referenced in slides 14 and 21 is underpinned 13% by Proved Ore Reserves and 87% by Probable Ore Reserves. This production target has been scheduled from mine designs based on the Oyu Tolgoi Feasibility Study 2020 (OTFS20), which are not materially different to current mine designs, by Competent Persons in accordance with the requirements of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, 2012 Edition (the JORC code).

The production profiles for the Oyu Tolgoi underground and open pit mines shown in slide 43 are underpinned 41% by Proved Ore Reserves and 59% by Probable Ore Reserves for 2023 to 2027, and 10% by Proved Ore Reserves and 90% by Probable Ore Reserves for 2028 to 2036. The life of mine production profile shown in slide 43 is underpinned 22% by Proved Ore Reserves and 78% by Probable Ore Reserves for 2023 to 2051. The financial forecasts shown in slide 44 are based on production targets which are underpinned 43% by Proved Ore Reserves and 57% by Probable Ore Reserves for 2023 to 2025, 26% by Proved Ore Reserves and 74% by Probable Ore Reserves for 2026 to 2029, and 9% by Proved Ore Reserves and 91% by Probable Ore Reserves for 2030 to 2033. These production targets are stated as recovered metal and have been scheduled from current mine designs for the Oyu Tolgoi underground and open pit mines by Competent Persons in accordance with the requirements of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, 2012 Edition (The JORC code).

Forward-looking statements

This presentation 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 report, 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), are forward-looking statements. The words “intend”, “aim”, “project”, “anticipate”, “estimate”, “plan”, “believes”, “expects”, “may”, “should”, “will”, “target”, “set to” or similar expressions, commonly identify such forward-looking statements.

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inability to attract and retain requisite skilled people; declines in commodity prices and adverse exchange rate movements; an inability to raise sufficient funds for capital investment; inadequate estimates of ore resources and reserves; delays or overruns of large and complex projects; changes in tax regulation; safety incidents or major hazard events; cyber breaches; physical impacts from climate change; the impacts of water scarcity; natural disasters; an inability to successfully manage the closure, reclamation and rehabilitation of sites; the impacts of civil unrest; the impacts of the Ukraine conflict; breaches of Rio Tinto’s policies, standard and procedures, laws or regulations; trade tensions between the world’s major economies; increasing societal and investor expectations, in particular with regard to environmental, social and governance considerations; the impacts of technological advancements; and such other risks 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. Forward-looking statements should, therefore, be construed in light of such risk factors and undue reliance should not be placed on forward-looking statements. These forward-looking statements speak only as of the date of this report. 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.

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Jakob Stausholm

Chief Executive

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Strong financials and consistent progress

Production
(CuEq)¹

↑ **5%**

2,317kt in H1 2023

Underlying
ROCE

20%

Underlying
EBITDA

\$11.7 bn

Underlying EBITDA margin at 42%

Underlying
earnings

\$5.7 bn

Free cash
flow

\$3.8 bn

Dividends

177 US cps

Equal to \$2.9 bn

Investing in the health of our business...

Safety remains
our top priority

Improving asset
health

Building a
thriving culture

Strengthening our
social licence

...while shaping our portfolio for the future



Peter Cunningham

Chief Financial Officer

Beijing, China

Rio Tinto

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Robust results

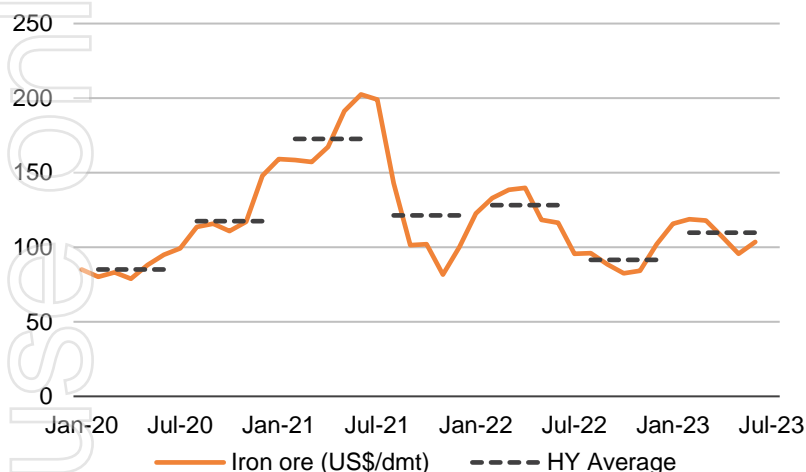
\$bn, except where stated	H1 2023	H1 2022	Comparison
Production (CuEq kt) ¹	2,317	2,200	+5%
Consolidated sales revenue	26.7	29.8	-10%
Underlying EBITDA	11.7	15.6	-25%
Underlying earnings ²	5.7	8.7	-34%
Net earnings ²	5.1	8.9	-43%
Underlying ROCE ²	20%	34%	-12 pp
Cash flow from operations	7.0	10.5	-33%
Capital expenditure	3.0	3.1	-3%
Free cash flow	3.8	7.1	-47%
Total dividend declared	2.9	4.3	-34%
Total dividend per share (\$)	1.77	2.67	-34%
Net debt	4.4	4.2*	+5%

¹Based on long-term consensus pricing | ²Comparative information has been restated to reflect the adoption of narrow scope amendments to IAS12, refer to page 41 of 2023 Interim Results Release for further detail. Reported numbers in 2022 were \$8.6bn Underlying earnings, \$8.9bn net earnings and 34% Underlying ROCE
*As at 31 December 2022

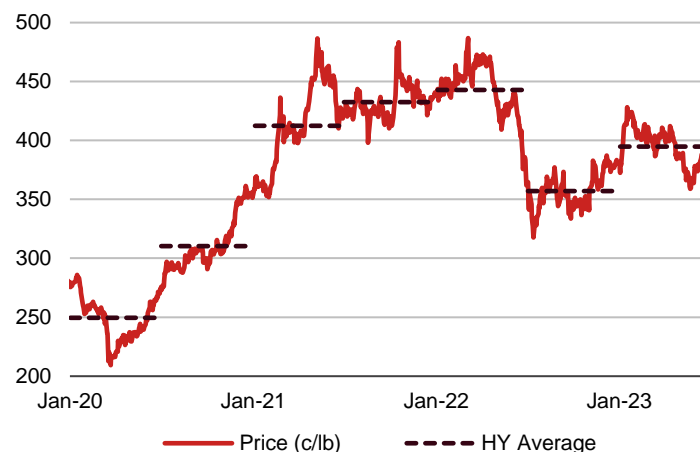


Commodity prices recovering from low point in H2 but still down materially year on year

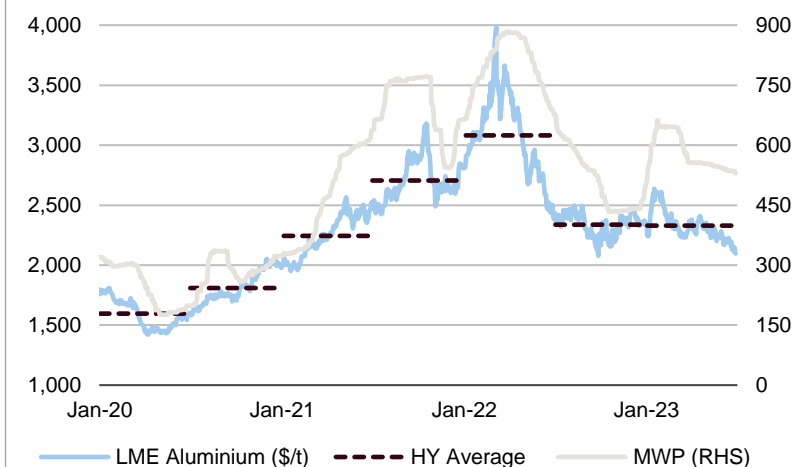
Iron Ore¹ index (-14% vs H1 '22)



Copper² LME (-10% vs H1 '22)



Aluminium³ LME (-24% vs H1 '22)



Realised pricing	H1 '22	H2 '22	H1 '23	Delta (vs H1 '22)
Iron ore (\$/dmt)	121	94	107	-11%
Copper (c/lb)	447	362	396	-11%

Realised pricing	H1 '22	H2 '22	H1 '23	Delta (vs H1 '22)
Aluminium (\$/t) ⁴	3,808	2,870	2,866	-25%

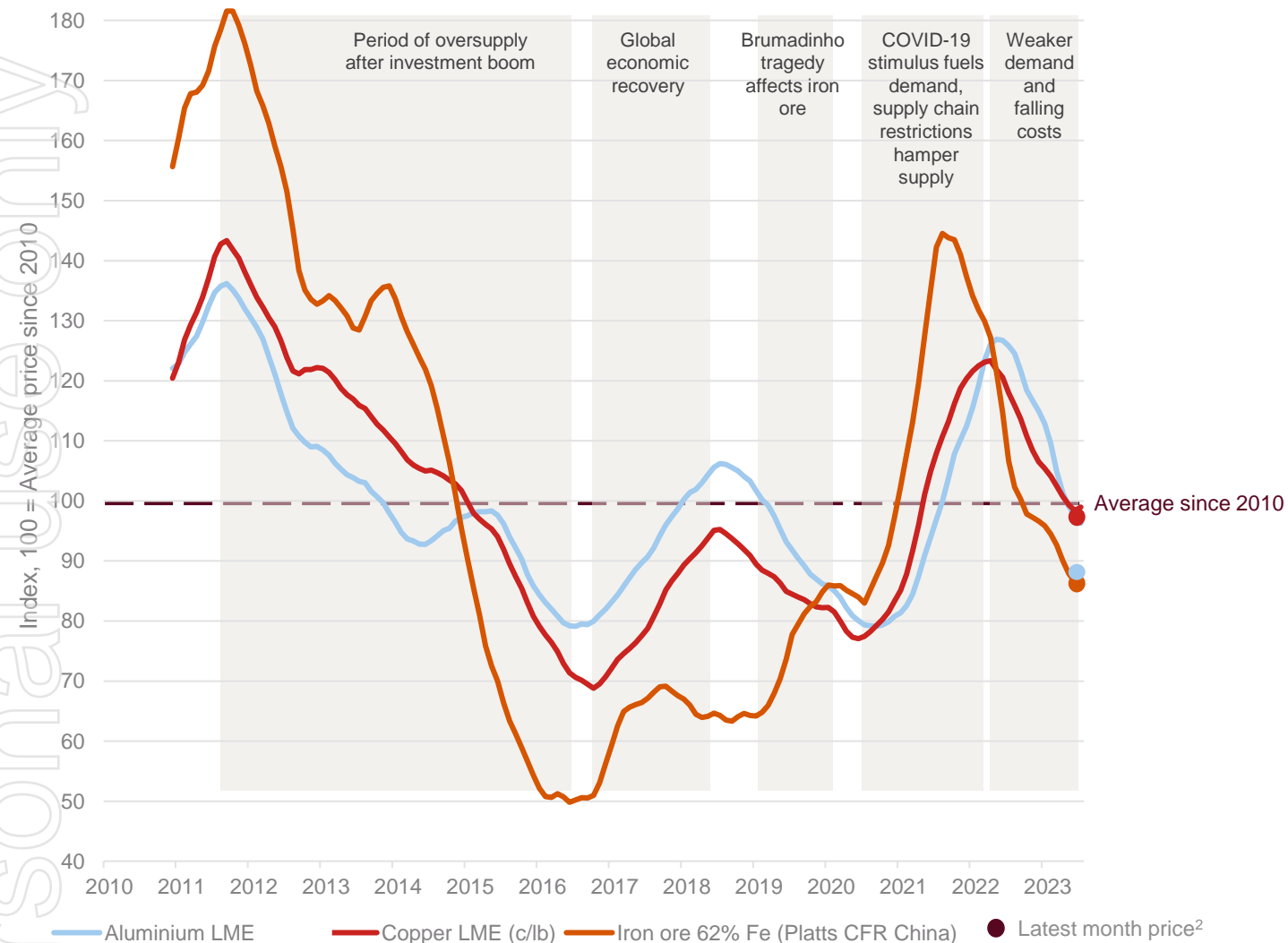
Aluminium raw materials \$/t index price

Coal tar pitch	1,103	1,476	1,399	+27%
Petroleum coke	695	719	636	-8%

¹Monthly average of Platts CFR index for 62% iron fines converted to FOB basis | ²Average LME price | ³Average LME price. MWP = US Midwest premium | ⁴LME plus all-in premiums (product and market) | YoY = change in average price during first half compared to previous half year. Source: Rio Tinto Market Analysis, LME, S&P Global, CRU NA

Our major commodities: trading below their real-term 2010 average

Commodity prices (real \$2023, 12 months moving average)¹

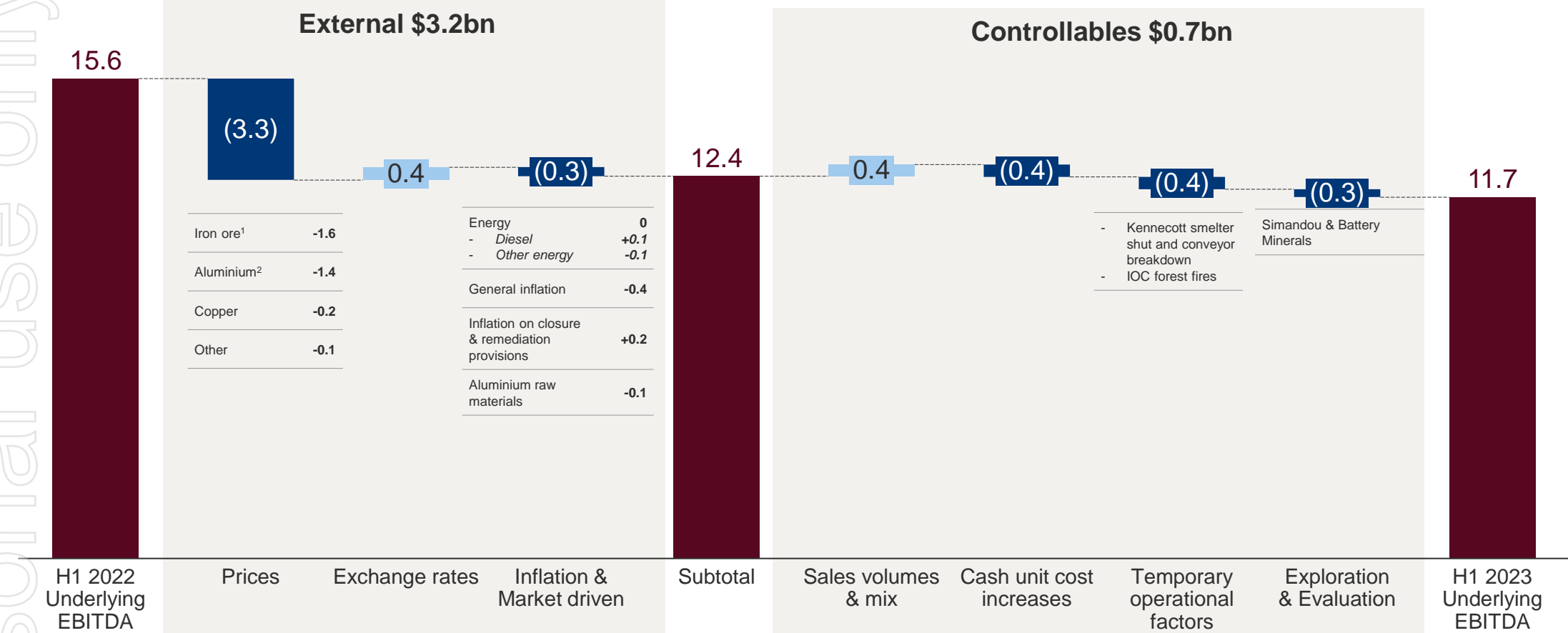


- Commodity prices falling for over a year as commodity intensive GDP growth and supply bottlenecks fade
- Currently trading below long-term levels in real terms
- Spot prices mostly trading above the lows of the second half of 2022, with falling input costs impacting aluminium

Pricing remains the biggest driver – rate of cost inflation slowing but still a headwind

Underlying EBITDA

\$bn



¹Iron ore includes Pilbara, portside trading and IOC | ²Aluminium includes alumina and bauxite
Note: Financial figures are rounded to the nearest million, hence small differences may result in the totals

Cash conversion impacted by working capital movements

\$bn, except where stated	H1 2023	H1 2022	Comparison
Underlying EBITDA	11.7	15.6	-25%
Tax paid	(2.4)	(3.8)	-37%
Working capital outflow	(0.9)	(0.4)	+125%
EAUs ¹ (EBITDA net of dividends)	(0.8)	(0.4)	+100%
Other	(0.6)	(0.5)	+20%
Net cash generated from operating activities	7.0	10.4	-33%
Capital expenditure (net)	(3.0)	(3.1)	-3%
Lease principal payments	(0.2)	(0.2)	-%
Free Cash Flow	3.8	7.1	-46%
Cash conversion ²	60%	67%	-7 pp

Working capital outflow of \$0.9bn in H1 2023 reflected:

- Build in blasted and mine stocks in the Pilbara to support system health
- Seasonally higher spares and stores
- Lower payables due to timing of spend and normal volatility in amounts due to JV partners and employees

Lower dividends from Escondida

¹EAU = Equity Accounted Unit | ²Cash conversion is Net cash generated from operating activities divided by underlying EBITDA

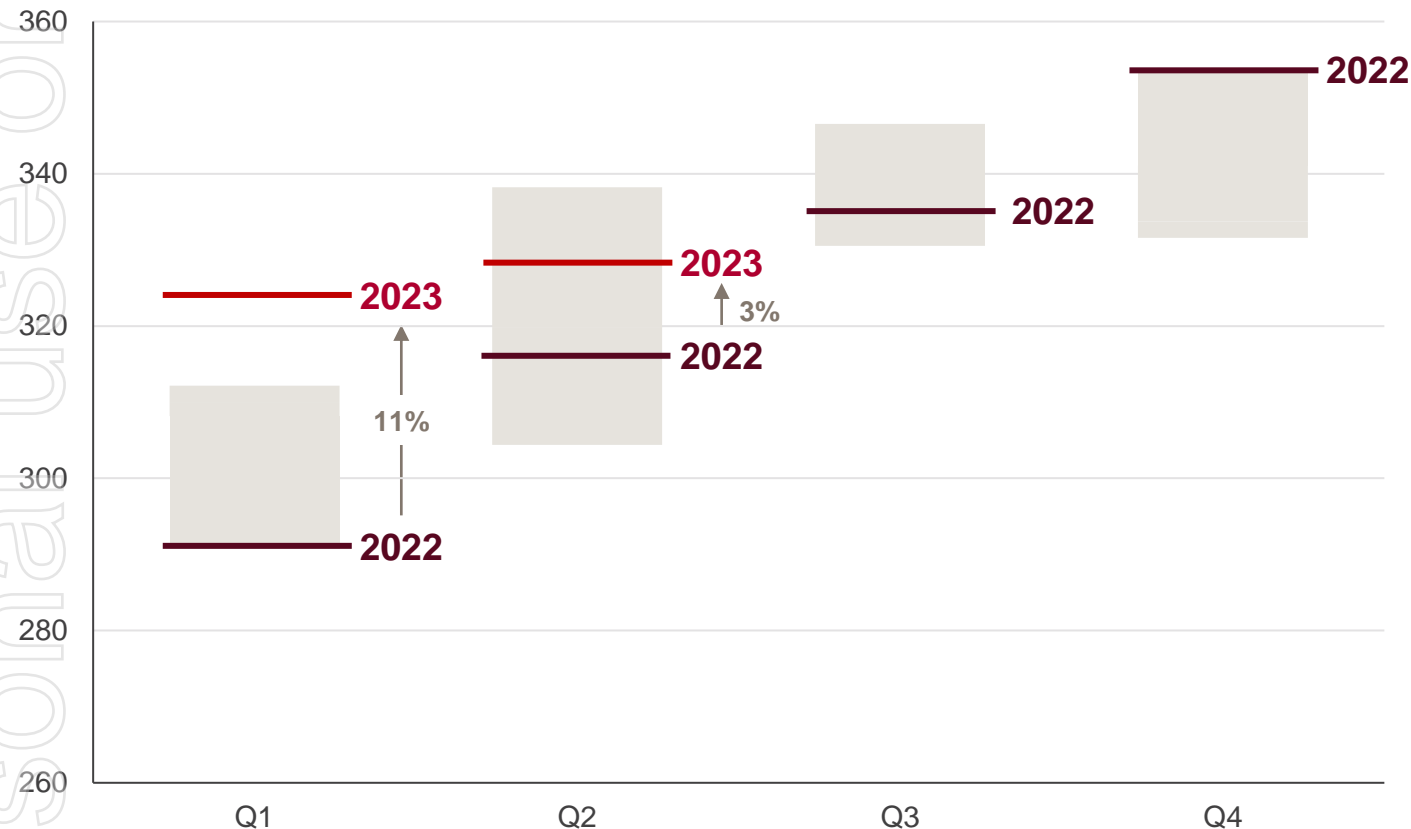
Pilbara Iron Ore, Canadian smelters and Oyu Tolgoi driving our momentum

\$bn, except where stated	Iron Ore		Aluminium		Copper		Minerals	
	Sustained operational improvement	vs H1 22	Kitimat ramping up	vs H1 22	Unlocking growth	vs H1 22	Challenging market conditions	vs H1 22
Production	160.5mt ¹	+7%	1.6mt ²	+9%	0.3mt ³	-1%	0.6mt ⁴	+4%
Underlying EBITDA	9.8	-6%	1.1	-60%	1.1	-29%	0.7	-45%
EBITDA margin ^{5,6}	69%	-1 pp	21%	-20 pp	43%	-11 pp	30%	-10 pp
Capex	1.1	-26%	0.6	-4%	0.9	+26%	0.3	+13%
Free cash flow	5.6	-20%	0.2	-89%	(0.5)	-45%	(0.2)	-165%
ROCE ⁶	63%	-9 pp	4%	-16 pp	4%	-6 pp	13%	-8 pp
Performance	<ul style="list-style-type: none"> Five quarters of improved operational performance Gudai-Darri at full capacity Shipments guidance now at upper half of range With rising second half volumes, SP10 expected to be a larger proportion of shipments (10% in first half) Construction of Western Range in line with schedule 		<ul style="list-style-type: none"> Metal volumes +9% versus first half 2022 as Kitimat ramps up to full capacity by year end Price declines drive margins down, lower raw material costs to flow through in second half Upgrading quality of highly competitive Canadian smelters with AP60 expansion, Alma VAP, Arvida recycling capacity and formation of Matalco recycling joint venture 		<ul style="list-style-type: none"> Margins remain robust despite 10% decline in LME copper Achieved sustainable production from Oyu Tolgoi underground Investing in Kennecott's future with smelter rebuild and underground Geotechnical challenges and unplanned concentrator maintenance at Escondida 		<ul style="list-style-type: none"> IOC: forest fires impact production, lower prices Weaker market conditions for Iron & Titanium and Boron businesses Higher spending on Rincon 3000 starter plant with valuable insights gained and carried over to design and engineering of full-scale project 	

Continued momentum in our Pilbara Iron Ore business

Mine production ranges by quarter¹

(2019 to 2022, Mtpa)

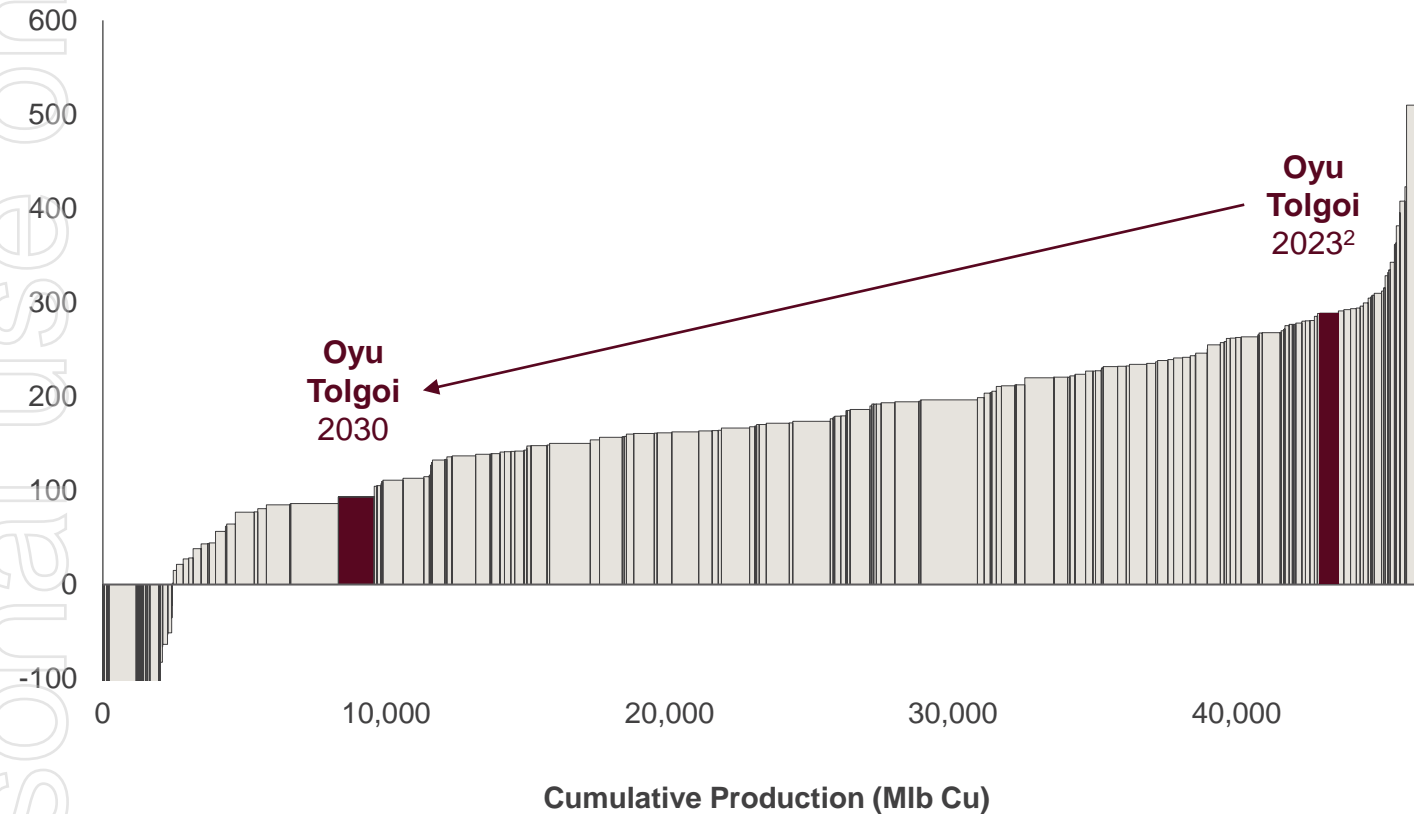


- 2023 shipments guidance at upper half of 320 to 335Mt range
- Ongoing operational improvements, and uplift from the Safe Production System
- SP10 was 10% of total shipments² in H1: expected to be a higher share in H2
- H1 unit costs \$21.2 per tonne, down 6% YoY
- Management of environmental footprint, cultural heritage and engagement with Traditional Owners integral to the way we work
- Progressing approvals for next tranche of replacement mines, with Rhodes Ridge order of magnitude study expected in 2023
- Continued focus on asset reliability and pit health

Oyu Tolgoi expected to yield significant free cash flow in 2nd half of decade

2030 Copper Equivalent Cost Curve¹

Copper equivalent unit cost including sustaining capex (c/lb)

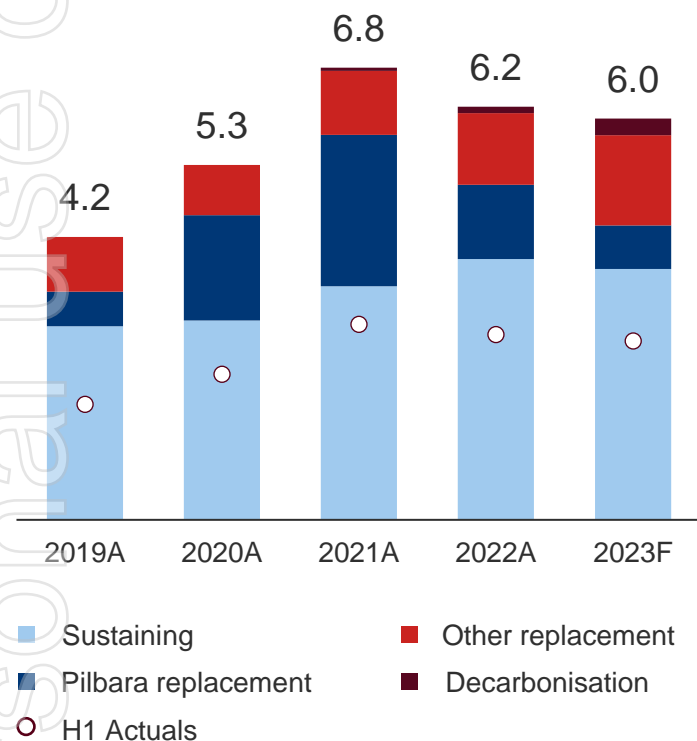


- Oyu Tolgoi's operating assets of \$14.3 billion represented ~25% of the Group total at 30 June 2023
- Sustainable underground production achieved in March 2023
- More than 80% of growth capital already spent
- Expected to ramp up to 500kt per annum average copper production from 2028-36³
- Set to become the world's 4th largest copper mine by 2030⁴

We will continue to invest consistently through the cycle

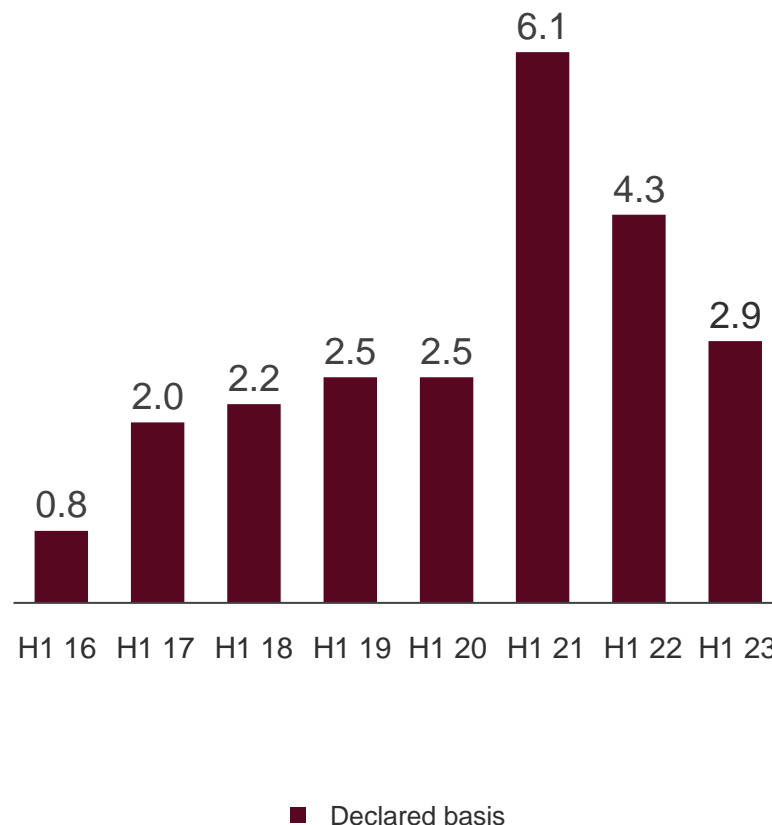
01 Essential capex

Integrity, Replacement, Decarbonisation

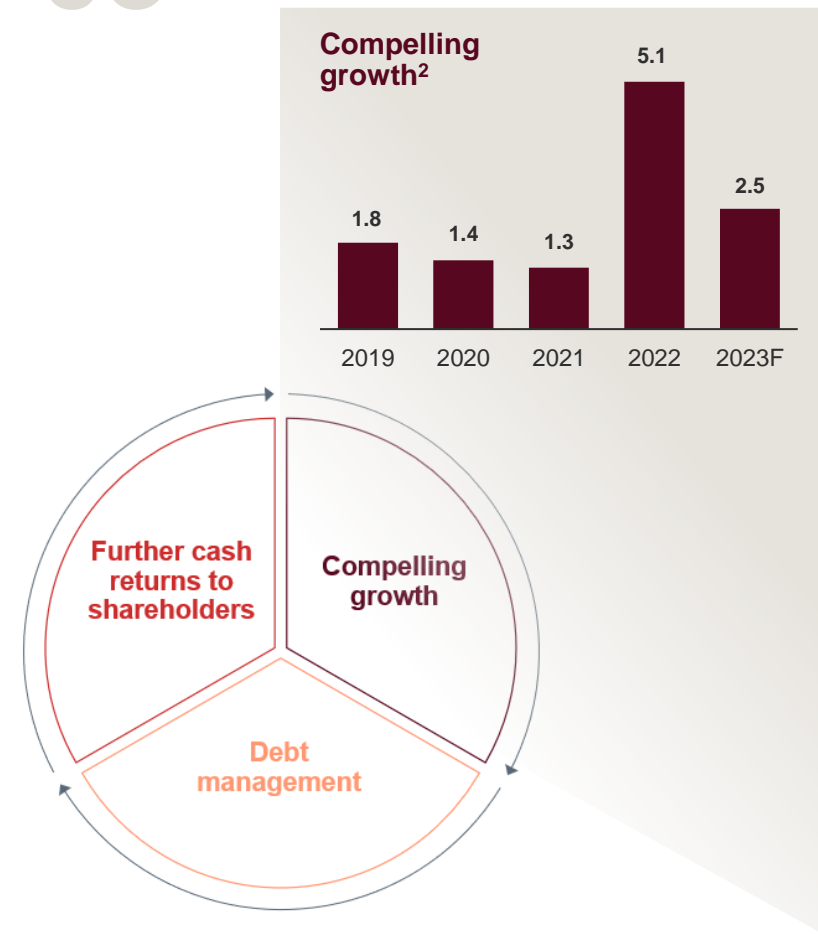


02 Interim ordinary dividends

40-60% of underlying earnings on average through the cycle¹

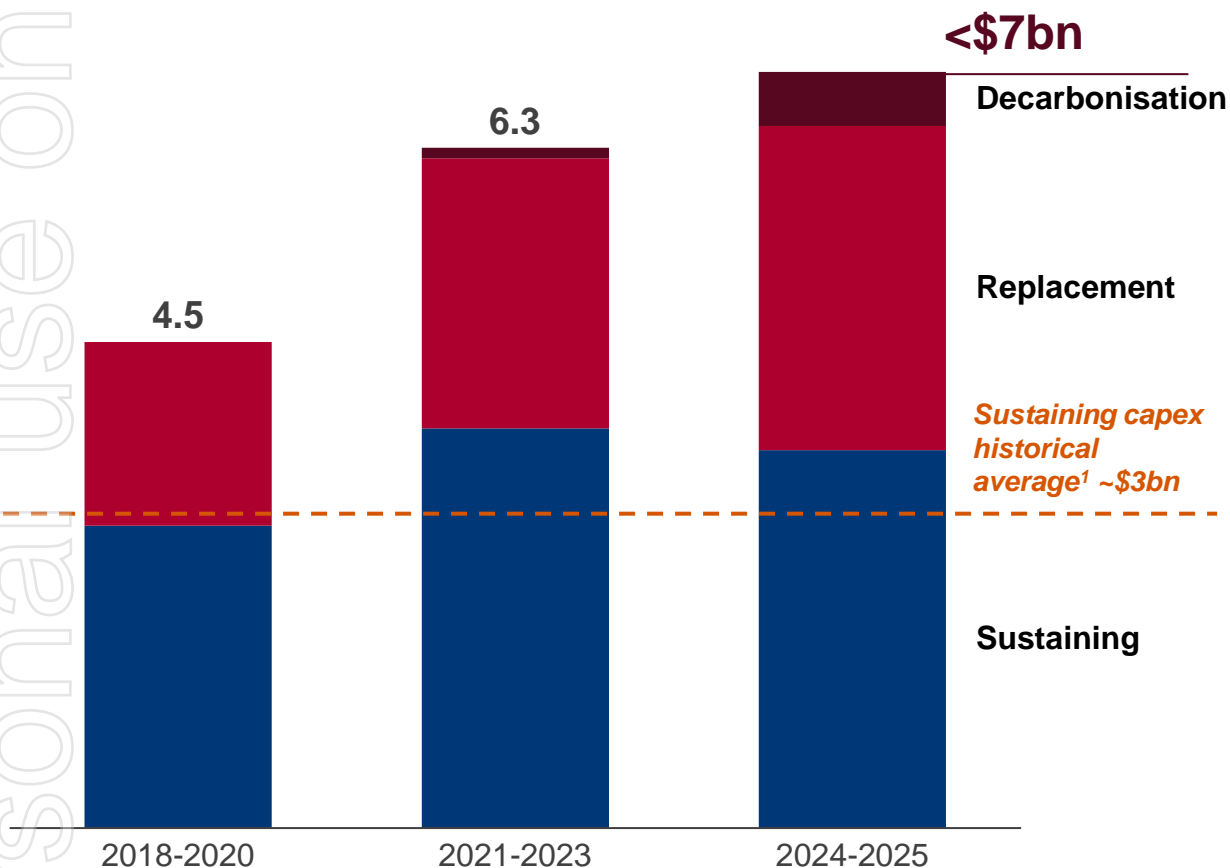


03 Iterative cycle of...

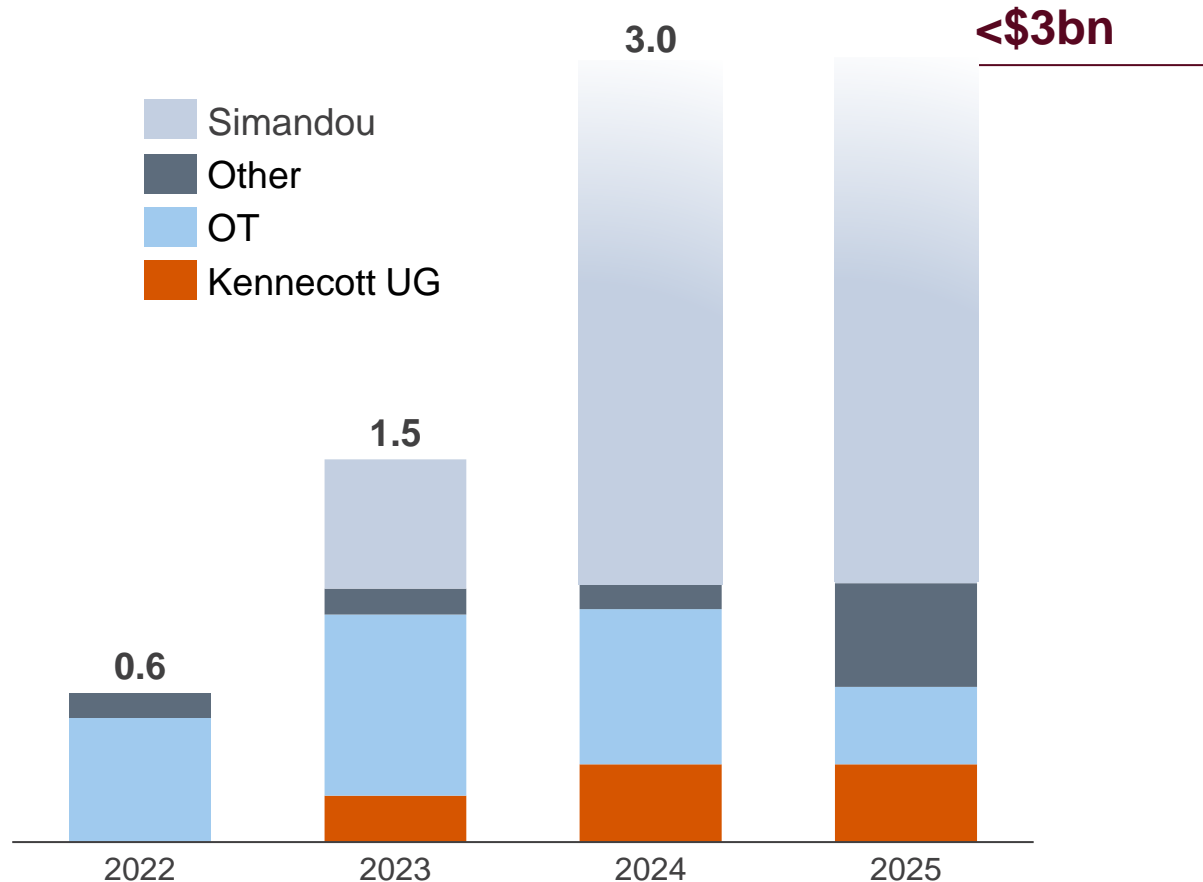


Disciplined investing for asset health, growth and decarbonisation

Essential capex (US\$bn, annual average)
Investing in the health of our existing business



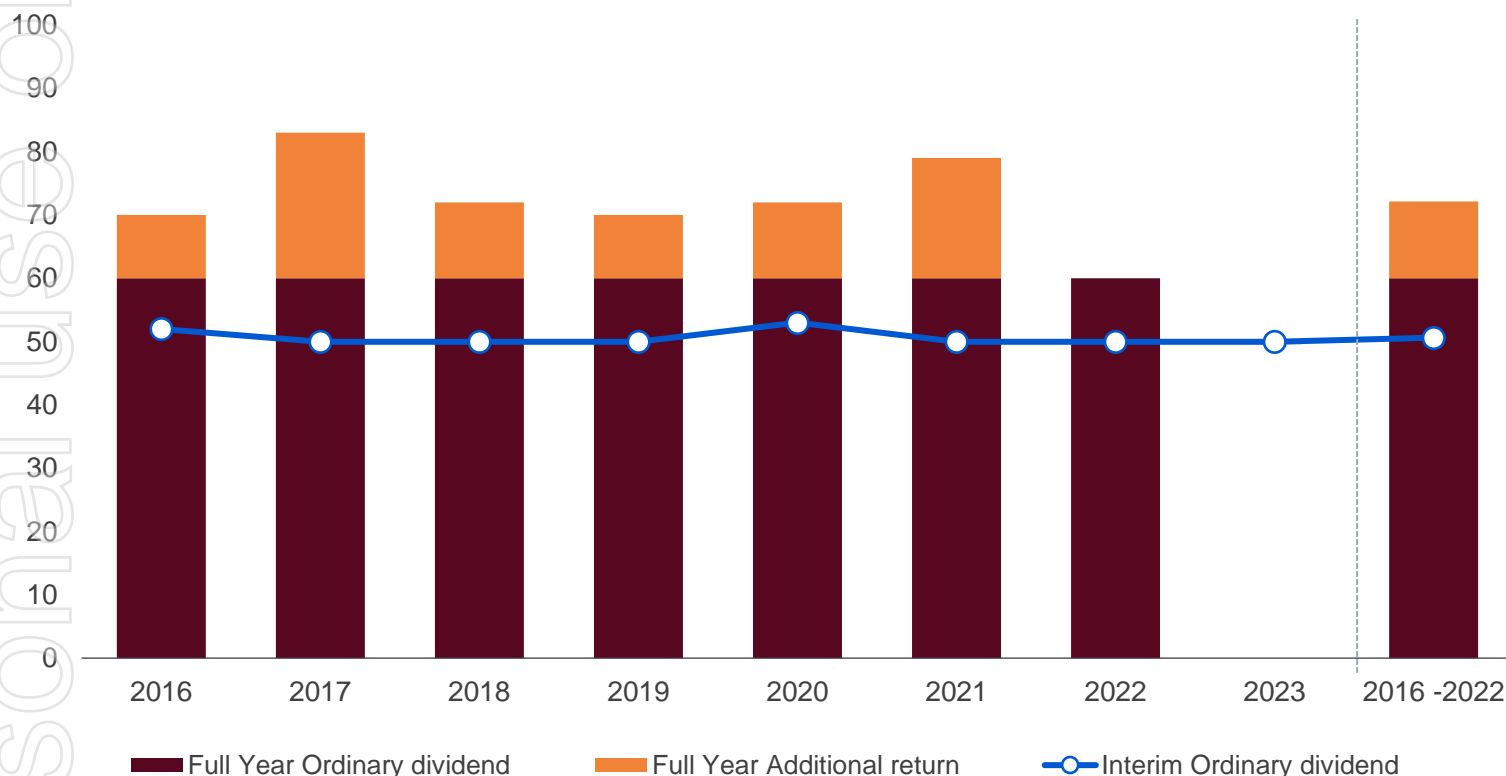
Growth capex² (US\$bn)
Shaping our portfolio for the future



Attractive dividends remain paramount

Shareholder returns¹ of 40-60% of underlying earnings on average through the cycle

Payout ratio (%)



- **\$2.9bn of dividends declared for H1**
- **50% payout**, in line with our policy and with the intention that the balance between interim and final dividend be weighted to the final
- **Consistent seven-year track record** of shareholder returns
 - 50% average payout on interim ordinary dividend over the past eight years

Jakob Stausholm

Chief Executive



Oyu Tolgoi, Mongolia

RioTinto

Gathering momentum with a clear pathway

Finding better ways to
provide the materials
the world needs

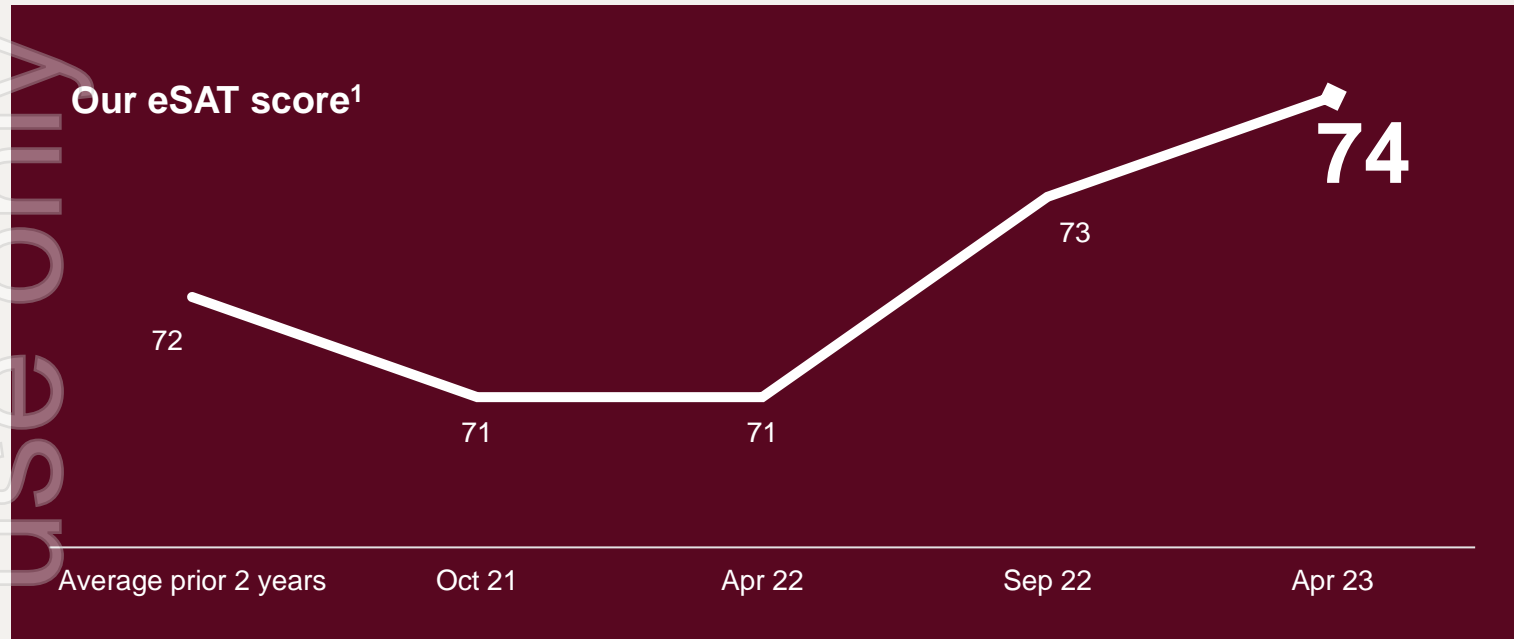


Care

Courage

Curiosity

Executing our strategy



- **Pilbara**
7% production uplift YoY
- Much to do elsewhere to achieve operating excellence
- **Safe Production System** deployment on schedule
- Building a values-based performance culture with care, courage and curiosity as the foundations
- Improving our employee engagement in particular at sites where SPS is deployed



Our four objectives in action

Oyu Tolgoi – a world leading copper business



Entering an exciting phase as the underground ramps up



Best in class water consumption rates with continuous improvement



AIFR = 0.20¹

One of the safest operations in Rio Tinto and the mining industry



Ramp-up on track to deliver 500kt per annum from 2028 – 2036²

Strong pipeline of options to sustain and grow



Partnering for prosperity

¹May 2023 year to date | ²See supporting references for the 500kpta copper target on slide 2

Finding better ways to provide the materials the world needs

Growing our North American aluminium business



¹AP60 technology generates approximately 1.6 tonnes of CO₂e per tonne of aluminium produced, compared to approximately 3.2 tonnes of CO₂e per tonne of aluminium for the Arvida smelter's current technology, and over 12 tonnes of CO₂e per tonne of aluminium for the industry average

Global decarbonisation portfolio accelerating – near-term delivery remains a challenge

BlueSmelting™ at RTIT



- **Ilmenite reduction technology**
- **95% less GHG emissions** potential from BlueSmelting™
- **First production delivered** in July 2023 from demonstration plant

Boron biofuel



- **First open pit mine** to convert to renewable diesel
- **45,000 tonnes CO₂ equivalent** per year reduction
- **9,600 cars** comparable reduction

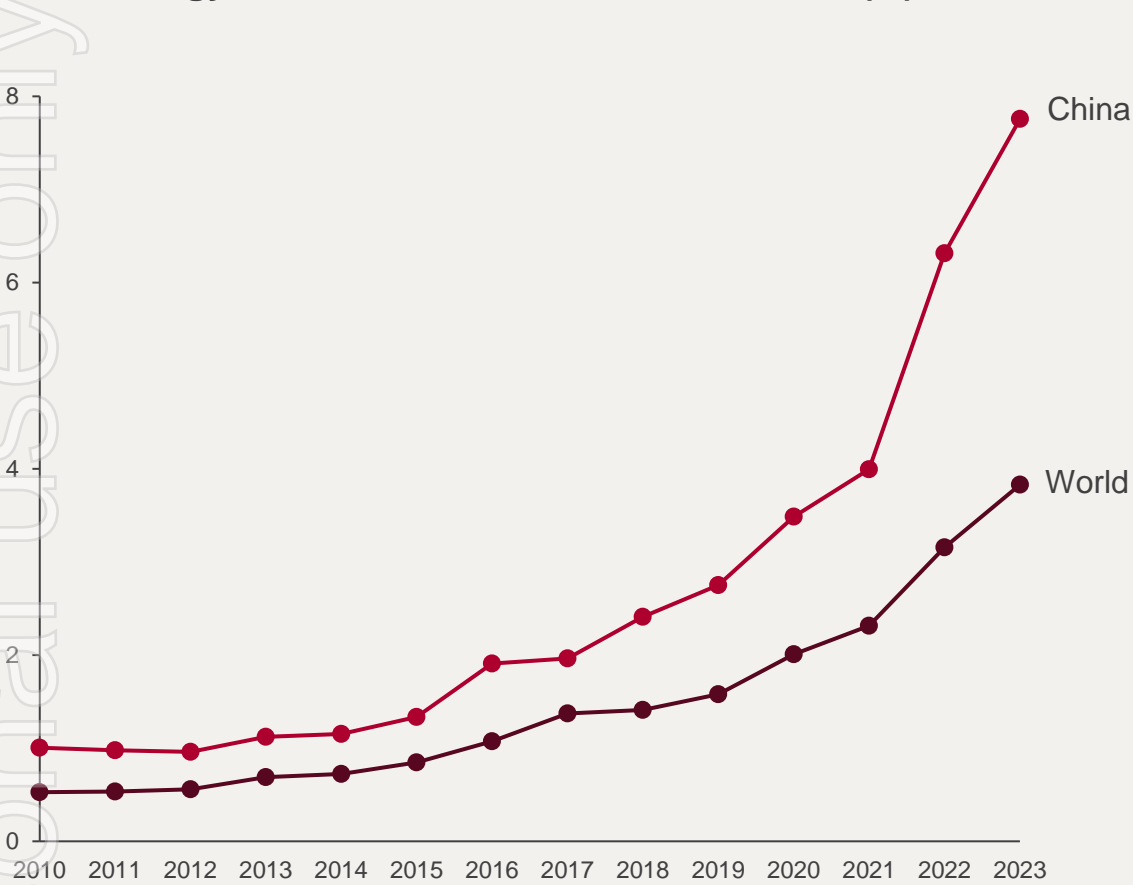
MoU with China Baowu



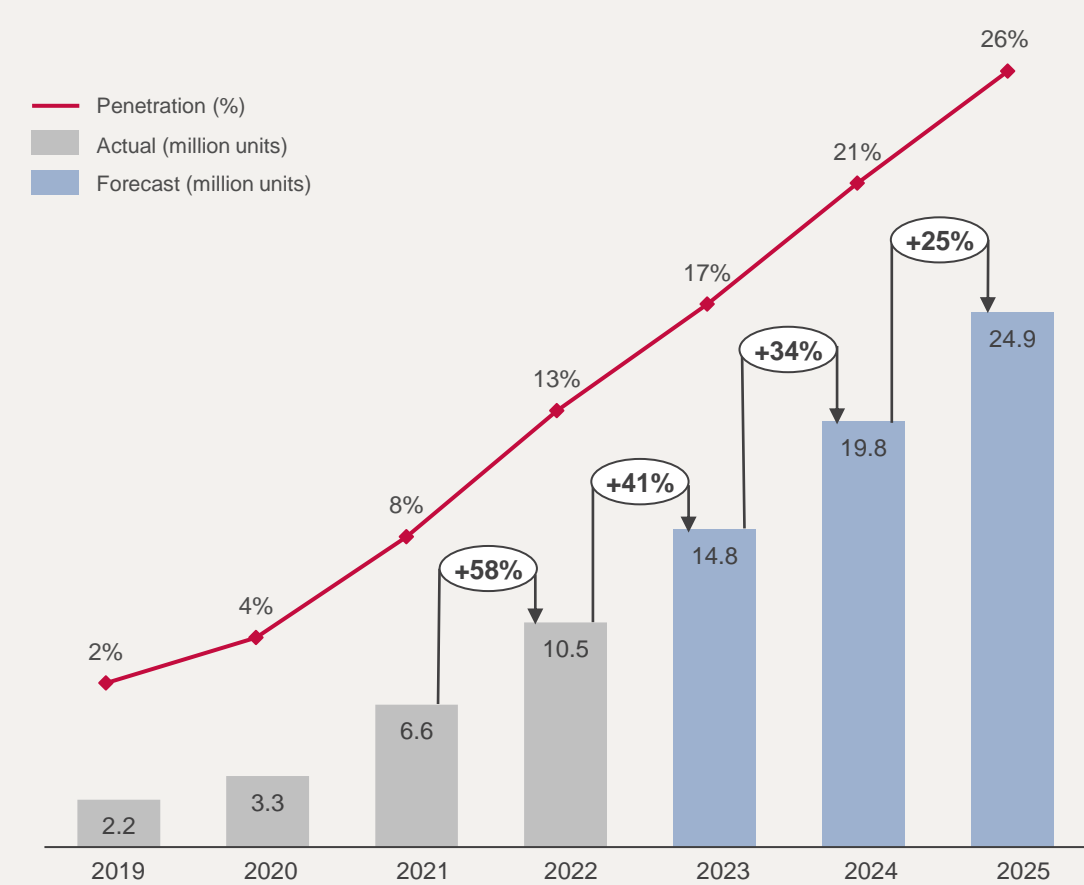
- Working together to help **decarbonise the steel value chain**
- Research, build and demonstrate **pilot-scale electric melter**
- Study options for **low-carbon iron in Western Australia**

Decarbonisation to drive demand for metals

Solar energy contribution to aluminium demand (%)



Global EV sales



Source: Rio Tinto Market Analysis, CRU, CPIA, BNEF



**Partnering for
shared success**



**Continuing our
culture journey**



**Growing value and future
dividend potential**

ersonal use only

RioTinto



ersonal use only

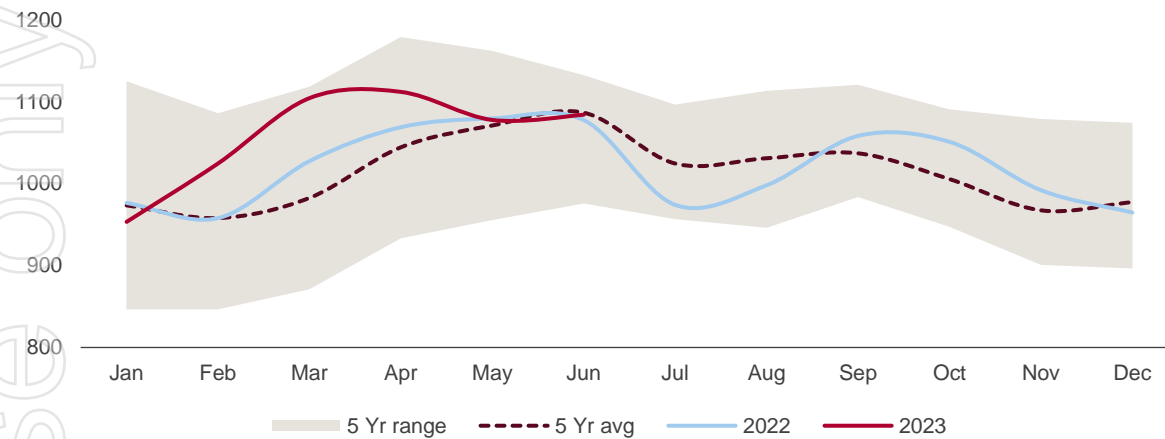
Appendices

2023 interim results

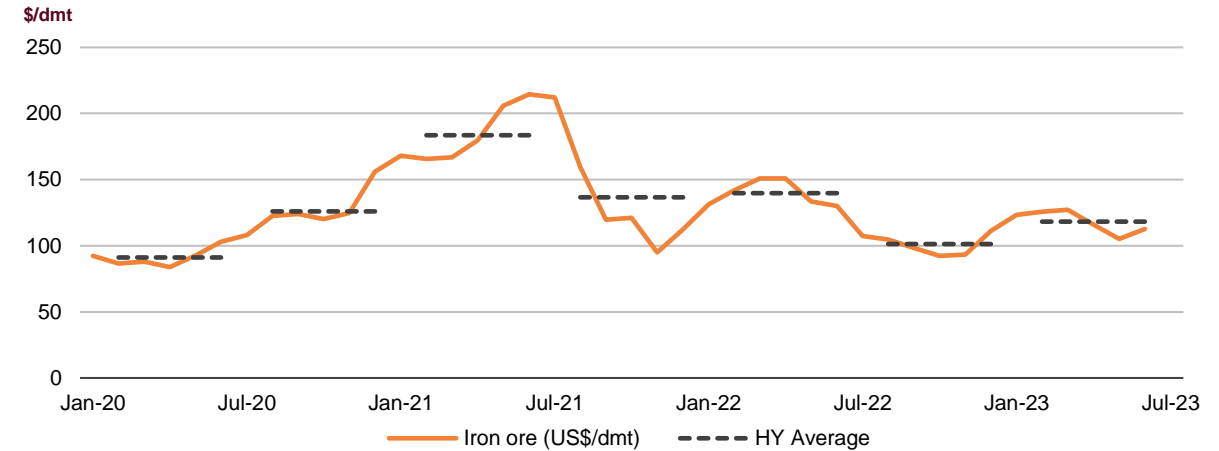
Markets

Strong Chinese iron ore imports absorbing supply gains

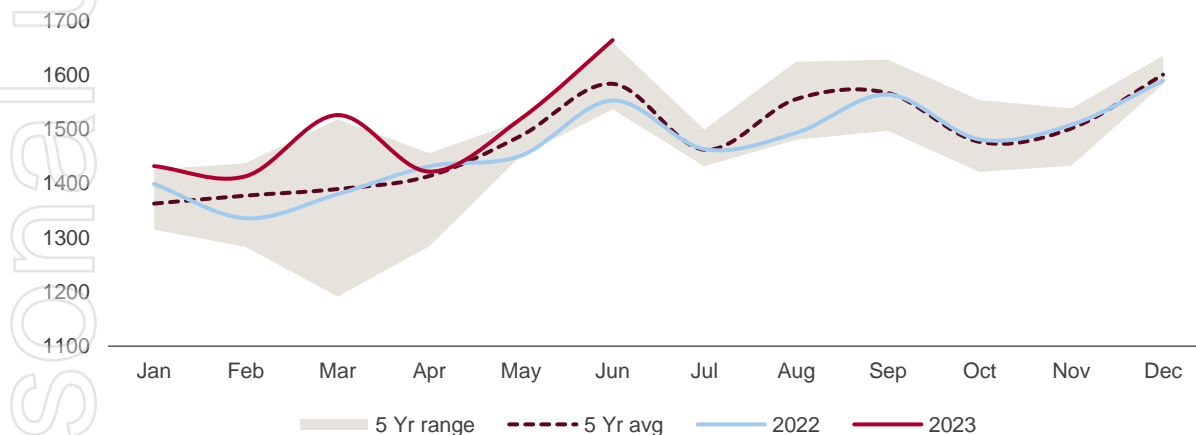
China's crude steel production (Mt annualised)



Iron Ore¹ (-15% YoY)



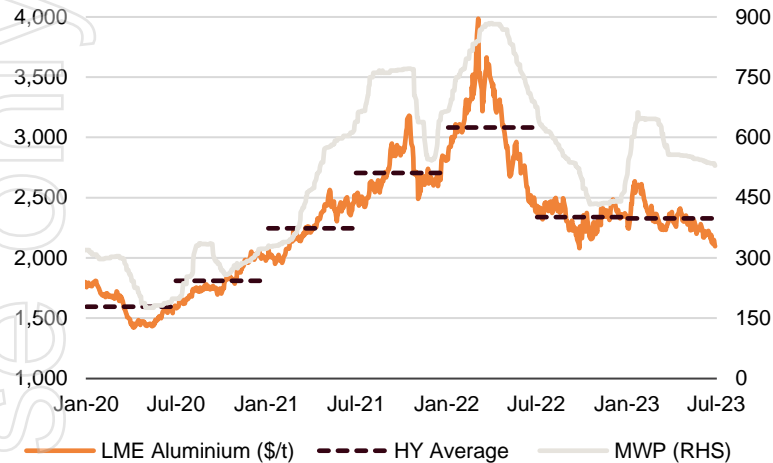
Seaborne Iron Ore supply run rate (Mt annualised²)



- Although China's steel demand recovery encountered headwinds, crude steel production increased by 3% YoY during H1
- Disruptions to scrap processing and availability, compounded by electricity shortages, helped lift China's pig iron production by 5% YoY during H1
- This absorbed the 6% YoY increase in China's H1 iron ore imports, while domestic iron ore supply continues to experience significant safety and environmental challenges
- Meanwhile, Chinese steel exports trended up sharply towards 100 million tonne annualised run-rates, last observed in 2016
- Seaborne iron ore supply performed strongly during the first half of the year, with June shipments from Australia and Brazil estimated at or close to all-time highs
- Total iron ore exports rose 5% YoY in H1, comprising a 2.5% increase from the major producers, >75% YoY rise of India's shipments, and 10% YoY gains from Canada

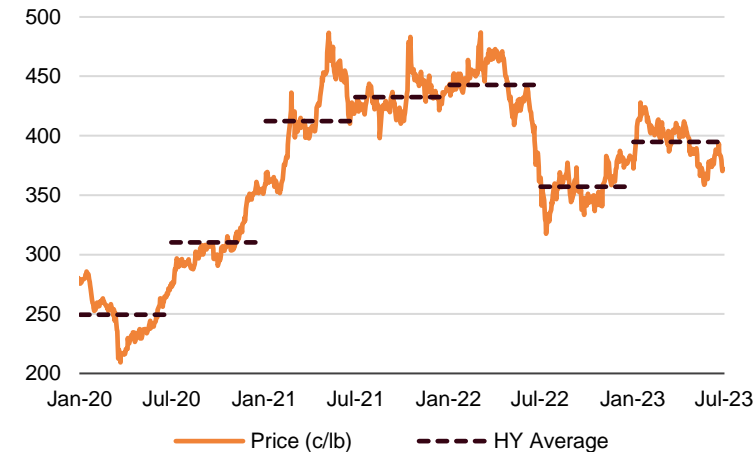
Price support for our commodities compared to H2

Aluminium¹ (-24% YoY)



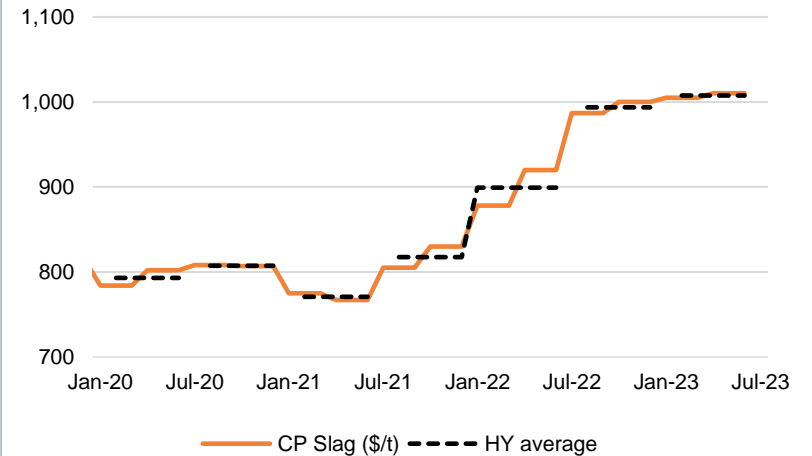
- Global aluminium demand has been resilient in H1, YTD +2% YoY, with growth in automotive and solar markets offsetting weaker demand from the construction sector
- Aluminium production has been stable, as smelting capacity has remained offline in Europe and idle capacity in China has only restarted gradually, resulting in 1% YTD global growth
- Global reported inventories are flat YTD and reported stocks in China have remained low. China imported 0.4Mt of primary aluminium in Jan-May 2023, averting a decline in inventories to unsustainably low levels

Copper² (-10% YoY)



- Price rebound from H2 2022, although still lower than last year as global macro uncertainty dampens sentiment
- China demand growth positive despite downturn in construction, driven by electric vehicles and renewable sectors. Demand in US and EU was resilient in Q1 but has softened thereafter
- Mine supply disruptions in Q1 limited material availability; Chile's production YTD remains weak, partially offset by higher production from Peru
- Inventories have fallen sharply after China's seasonal build-up in Q1 (down 50% YoY in June)

TiO₂ (chloride slag) (+12% YoY)



- TiO₂ feedstock prices relatively stable through H1 despite deteriorating market conditions further downstream
- Demand for TiO₂ products has continued to be impacted by weakening macro environment over the first half with construction indicators down across major TiO₂ consuming regions
- Sales volume declines for pigment producers and paint manufacturers in North America and Europe reported in Q1

Other financials

Balance sheet remains strong

Disciplined approach is unchanged, we intend to maintain it throughout the cycle

Balance sheet strength is an asset. Offers resilience and creates optionality

Principles-based approach to anchor balance sheet around a single A credit rating

Moody's: A2 (stable), S&P: A (stable)

No net debt target

Our financial strength allows us to simultaneously:

Reinvest for growth (up to \$10bn per year in total capex in 2024 and 2025 depending on opportunities)

Accelerate our own decarbonisation

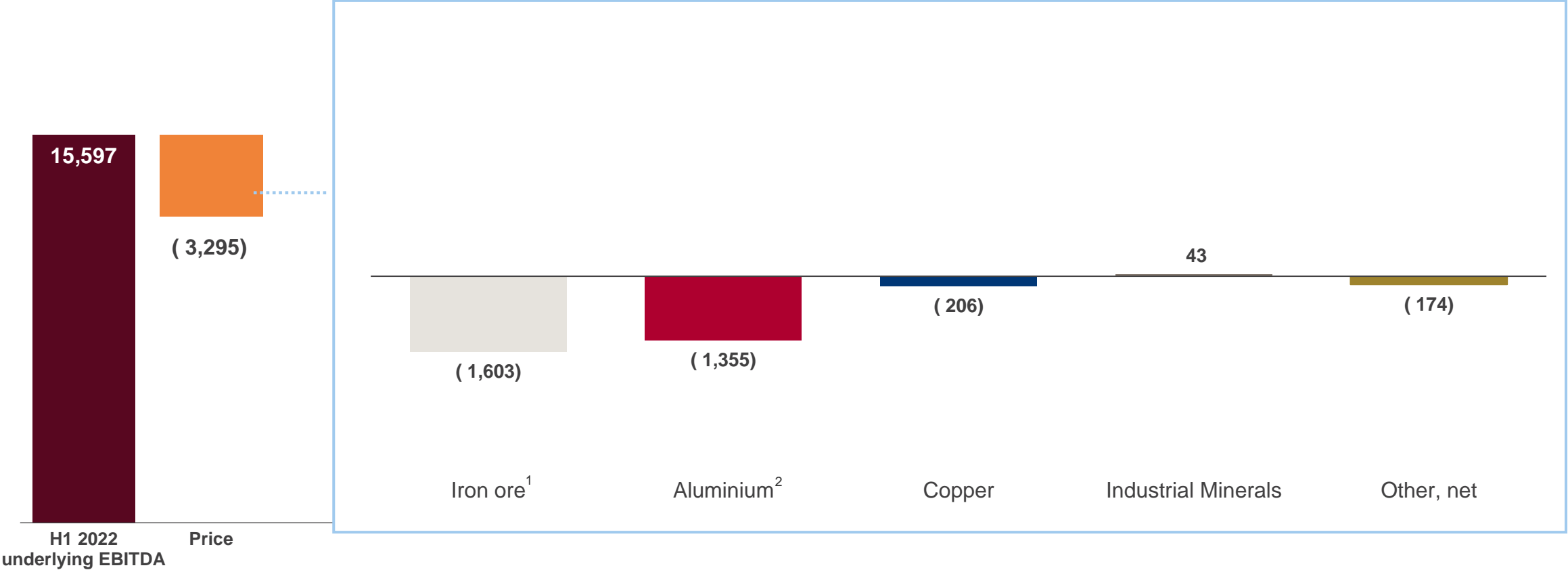
Continue to pay attractive dividends in line with our policy (consistent seven-year track record)

\$bn	2023	2022	2021
Net cash generated from operating activities	7.0	16.1	25.3
Capital expenditure	3.0	6.8	7.4
Dividends paid	3.7	11.7	15.4
Net (debt)/cash	(4.4)	(4.2)	1.6
Cash and liquid resources	10.4	8.8	15.2
Revolving credit facility (5 year maturity)	7.5	7.5	7.5
Net debt (cash)/Underlying EBITDA	0.19x	0.16x	-0.04x
Gearing	8%	7%	-3%
Weighted average debt maturity	12 yrs	11 yrs	11 yrs

Prices recovering from low point in H2 but still down materially year on year

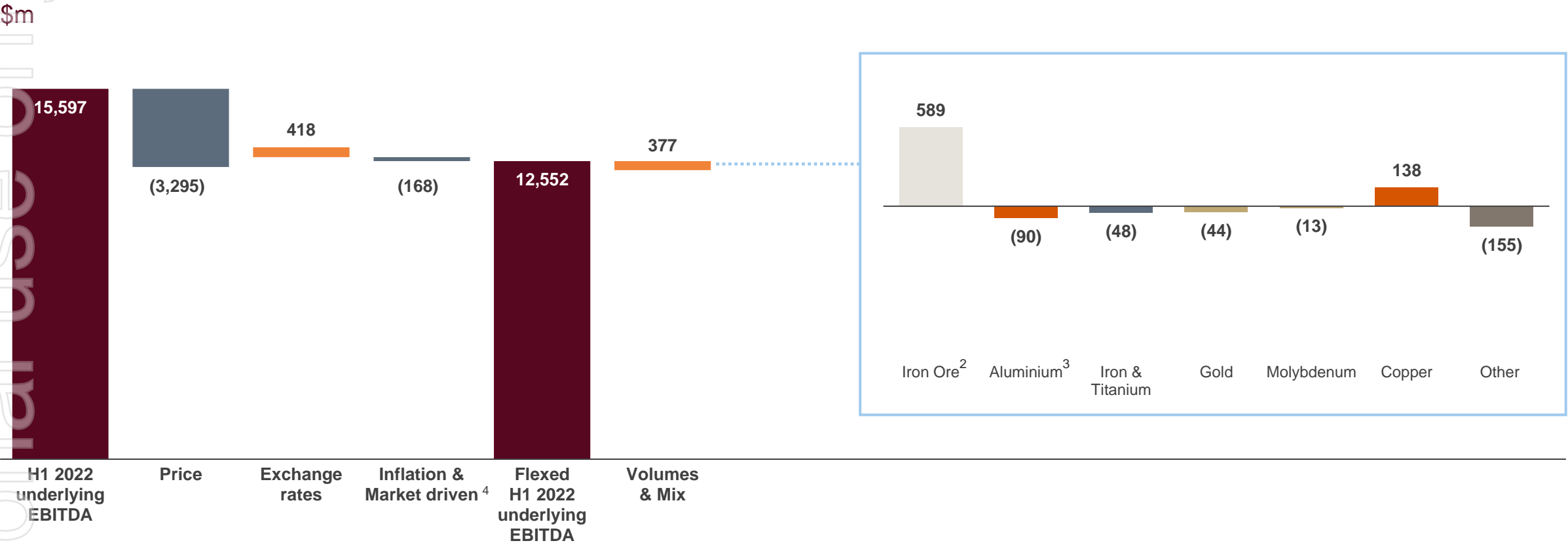
Underlying EBITDA H1 2023 vs H1 2022

\$m



Higher sales volumes¹ with Gudai-Darri and Oyu Tolgoi underground coming online

Underlying EBITDA H1 2023 vs H1 2022



Simplified earnings by Business Unit for H1 2023

	Primary Metal Atlantic	Pacific Aluminium	Copper	Pilbara
Sales volume	1,172kt	501kt	314kt⁶	139.8Mt⁹
Average benchmark price	\$2,329/t	\$2,329/t	396c/lb ⁷	\$109.8/dmt ¹⁰
Premiums, provisional pricing, by-product sales, product mix, other	\$654/t ²	\$263/t ²	50c/lb	\$(2.6)/dmt
Revenue per unit	\$2,983/t³	\$2,592/t³	446c/lb	\$107.2/dmt
Unit cost	\$1,756/t ^{1,4}	\$2,177/t ^{1,4}	244c/lb ^{1,8}	\$21.2/t
Other costs per unit	\$562/t ⁵	\$194/t ⁵	11c/lb ⁵	\$17.7/t ¹¹
Margin per unit	\$665/t	\$221/t	191c/lb	\$68.2/t
Total EBITDA (\$m)	779	111	1,323	9,541

¹Calculated using production volumes | ²Includes Midwest premium duty paid, which was 56% of our volumes in first half 2023 and value added premiums which were 47% of the primary metal we sold | ³Segmental revenue per Financial Information by Business Unit includes other revenue not included in the realised price | ⁴Includes costs before casting | ⁵Includes net inventory movements to derive margin per unit on a sales basis | ⁶Copper consolidated share, Kennecott and Oyu Tolgoi at 100%, Escondida at 30% | ⁷Average LME | ⁸C1 copper unit costs on a gross basis (excluding by-product credits) | ⁹Consolidated basis | ¹⁰Platts (FOB) index for 62% iron fines | ¹¹Includes freight and royalties

Iron Ore

Financial metrics (\$bn)	H1 2023	H1 2022 comparison	2023 guidance
Segmental revenue	15.6	-6%	
EBITDA	9.8	-6%	
Margin (FOB) ³	69%	-1pp	
Operating cash flow	6.8	-20%	
Capex	1.1	-26%	Sustaining ~\$1.5 ⁴
Free cash flow	5.6	-20%	
Underlying ROCE	63%	-9pp	
Average realised price ^{1,3} (\$/t)	107.2	-11%	
Unit cost ^{2,3} (\$/t)	21.2	-3%	21.0-22.5

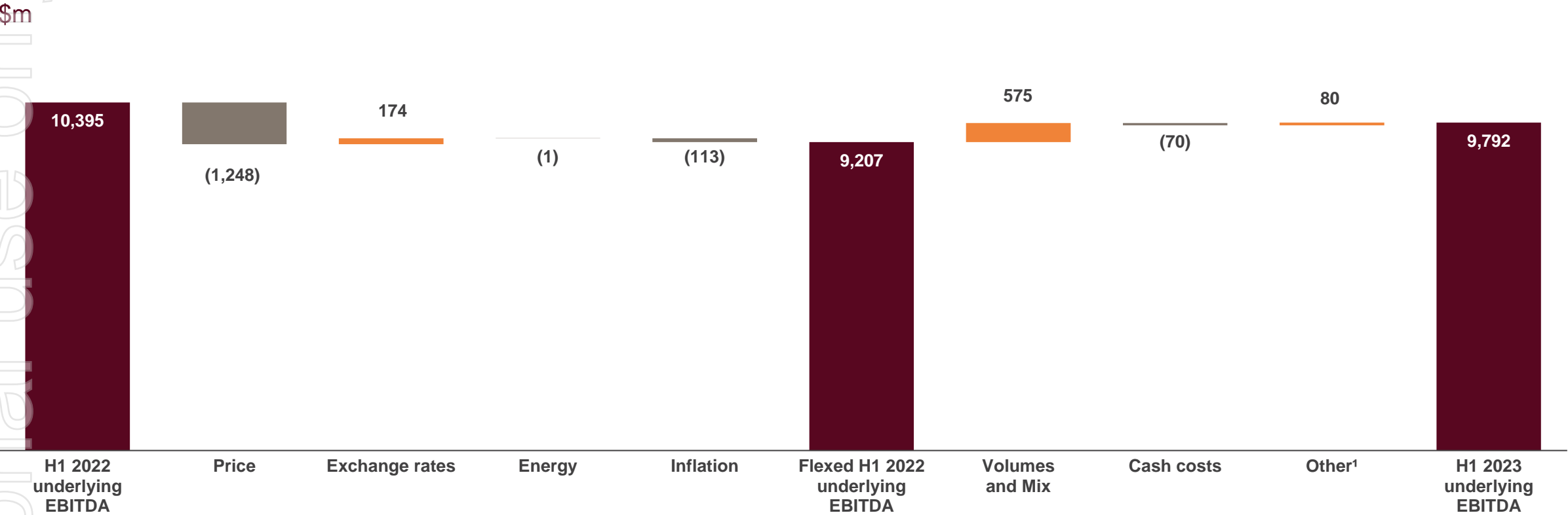
Shipments ³ (Mt, 100% basis)	2023 guidance	H1 2023	2022	2021	2020	2019	2018
Pilbara Blend		105.5	203.9	202.9	232.7	228.1	245.4
Robe Valley		13.1	25.5	25.2	30.3	27.4	32
Yandicoogina		26.2	56.9	56.9	57.7	57.1	57.4
SP10		16.8	35.4	36.6	9.9	14.8	3.4
Total	320-335	161.7	321.6	321.6	330.6	327.4	338.2

¹Dry metric tonne, FOB basis | ²Unit costs are based on operating costs included in EBITDA and exclude royalties (State and third party), freight, depreciation, tax and interest. Unit costs are stated at an Australian dollar exchange rate of 0.68 for 2023 half year actuals and 0.70 for 2023 guidance | ³Pilbara only. All other figures reflect Pilbara operations, portside trading and Dampier Salt | ⁴Subject to ongoing inflationary pressure

Iron Ore

Sustained improvement in operational performance

Underlying EBITDA H1 2023 vs H1 2022



Aluminium

Financial metrics (\$bn)	H1 2023	H1 2022 comparison	2023 guidance
Segmental revenue	6.3	-20%	
EBITDA	1.1	-60%	
Margin (integrated operations)	21%	-20pp	
Operating cash flow	0.8	-63%	
Capex (excl. EAU's)	0.6	-4%	
Free cash flow	0.2	-89%	
Underlying ROCE	4%	-16pp	
Aluminium realised price ¹	2,866	-25%	
Average alumina price ²	349	-12%	

Production (Mt, Rio Tinto share)	2023 guidance	H1 2023	2022	2021	2020	2019	2018
Bauxite	54-57*	25.6	54.6	54.3	56.1	55.1	50.4
Alumina	7.4-7.7	3.7	7.5	7.9	8.0	7.7	8.0
Aluminium	3.1-3.3	1.6	3.0	3.2	3.2	3.2	3.2

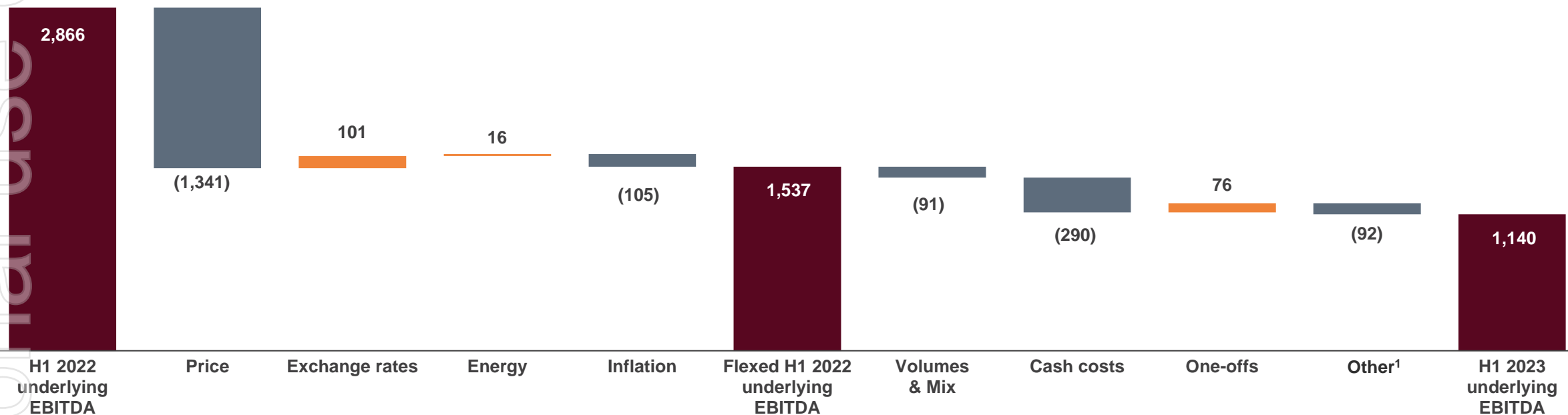
* In the lower end of the range

Aluminium

Price declines drive margins down; lower raw material costs to flow through in H2

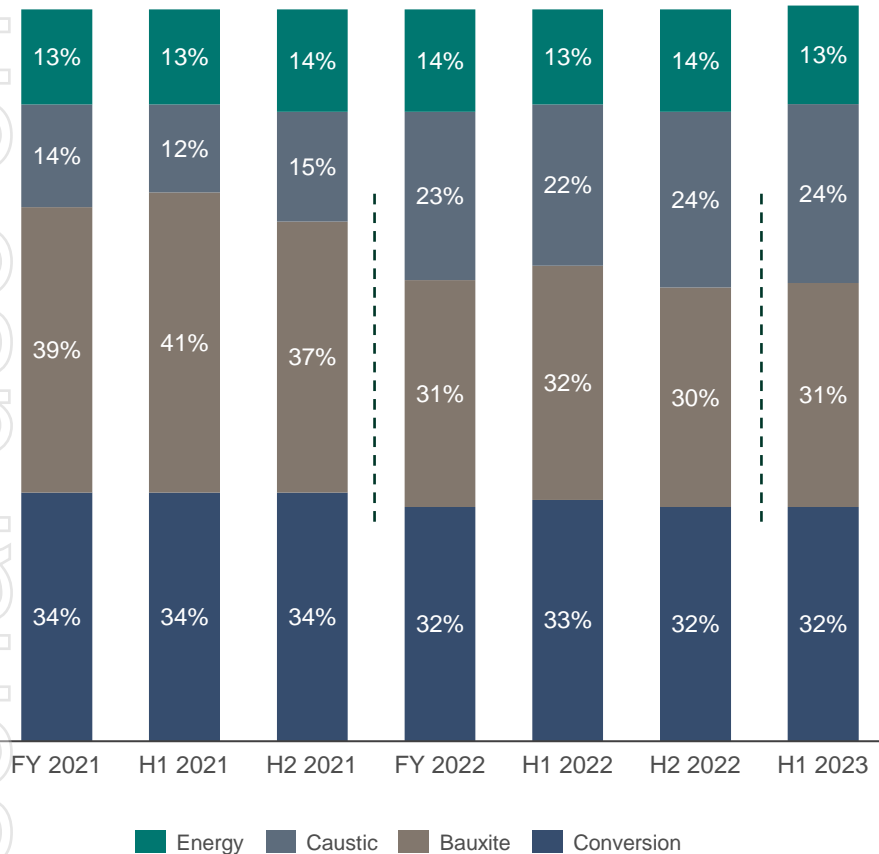
Underlying EBITDA H1 2023 vs H1 2022

\$m



Composition of alumina and aluminium production costs

Production cash costs (alumina refining)



Input Costs	H1 2021 Index price	H2 2021 Index price	H1 2022 Index Price	H2 2022 Index price	H1 2023 Index Price	Inventory Flow ⁴	FY23 Annual Cost Sensitivity
Caustic Soda ¹	274 \$/t	535 \$/t	675 \$/t	595 \$/t	432 \$/t	3 – 4 months	\$10m per \$10/t
Natural Gas ²	2.85 \$/t	4.59 \$/t	6.02 \$/t	7.01 \$/t	2.61 \$/t	0 - 1 month	\$4m per \$0.10/GJ
Fuel Oil ³	64.6 \$/bbl	76.3 \$/bbl	105.9 \$/bbl	93.8 \$/bbl	79.2 \$/bbl	N/A	\$2m per \$10/barrel

1. NE Asia FOB
2. Henry Hub
3. Brent
4. Based on quarterly standard costing (moving average)

Input Costs	H1 2021 Index price	H2 2021 Index price	H1 2022 Index Price	H2 2022 Index price	H1 2023 Index Price	Inventory Flow ⁴	FY23 Annual Cost Sensitivity
Alumina ⁵	288 \$/t	369 \$/t	395 \$/t	328 \$/t	349 \$/t	1 -2 months	\$64m per \$10/t
Petroleum Coke ⁶	373 \$/t	491 \$/t	695 \$/t	719 \$/t	636 \$/t	2 -3 months	\$11m per \$10/t
Coal Tar Pitch ⁷	748 \$/t	818 \$/t	1103 \$/t	1476 \$/t	1399 \$/t	1 - 2 months	\$2m per \$10/t

5. LME Australia
6. US Gulf (FOB)
7. North AM (FOB)

Copper

Financial metrics (\$bn)	H1 2023	H1 2022 comparison	2023 guidance
Segmental revenue	3.5	-2%	
EBITDA	1.1	-29%	
Margin (integrated operations)	43%	-11pp	
Operating cash flow	0.4	-63%	
Capex (excl. EAU's)	0.9	+26%	
Free cash flow	(0.5)	-45%	
Underlying ROCE ¹	4%	-6pp	
Copper realised price ²	396	-11%	
Unit cost ³	184c/lb	+24%	180-200

Production (Mt, Rio Tinto share)	2023 guidance	H1 2023	2022	2021	2020	2019	2018
Mined copper ⁴	590 to 640	290	521	494	528	577	608
Refined copper	160 to 190	95	209	202	155	260	275

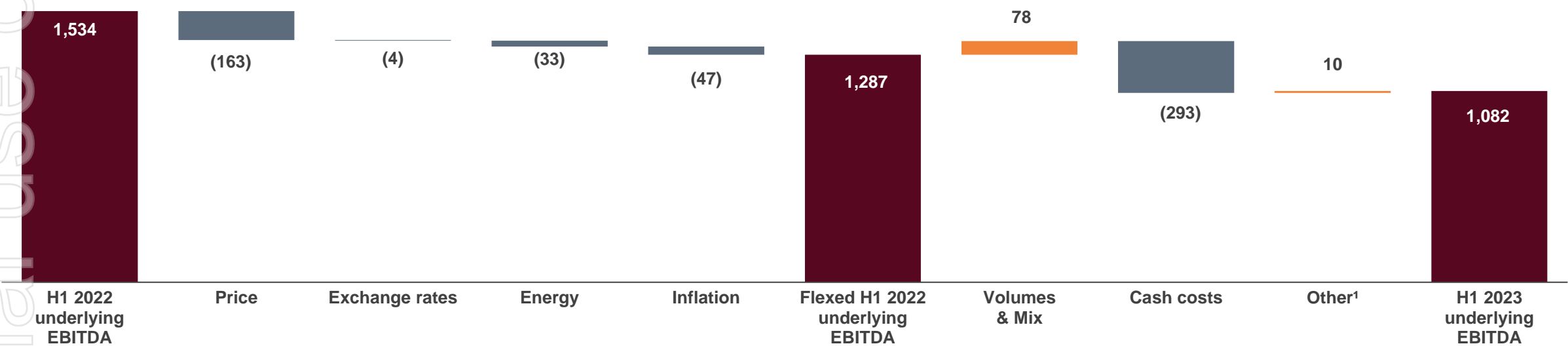
¹Underlying ROCE is defined as underlying earnings (product group operations) excluding net interest divided by average capital employed | ²Average realised price for all units sold. Realised price does not include the impact of the provisional pricing adjustments, which negatively impacted revenues in H1 2023 by \$4m (2022 first half negative impact of \$30m) | ³Unit costs for Kennecott, OT and Escondida utilises the C1 unit cost calculation where Rio Tinto has chosen Adjusted Operating Costs as the appropriate cost definition. C1 costs are direct costs incurred in mining and processing, plus site G&A, freight and realisation and selling costs. Any by-product revenue is credited against costs at this stage | ⁴2023 mined copper guidance includes Oyu Tolgoi on a 100% consolidated basis and continues to reflect our 30% share of Escondida. This followed Rio Tinto's acquisition of Turquoise Hill Resources which completed on 16 December 2022. Oyu Tolgoi production prior to 2023 reported on a 33.52% Rio Tinto share basis

Copper

Margins remain robust despite 10% decline in LME price

Underlying EBITDA H1 2023 vs H1 2022

\$m



1

Oyu Tolgoi: Set to triple copper production

Metrics ^{1,2}	Unit	2022 Act	2023 - 2027	2028 - 2036	LOM ³
Ore processed	Mt	39	40	42	40
Head grade (Cu)	%	0.42	0.97	1.28	0.82
Recovery (Cu)	%	80	87	90	84
Concentrate volume	dmt	616	1,078	1,608	1,010
Concentrate grade (Cu)	%	21	31	30	27
Copper production	Kt	130	~340	~500	~290
Gold production	Koz	184	~360	~330	~260

Construction of infrastructure to support ramp up to full production on track

Gold remains a valuable by-product

Producing high quality concentrate attractive to Chinese smelters

Oyu Tolgoi: Expect to turn free cash flow positive after significant investment

Annualised basis forecast¹, real terms, US\$bn

Financials²:

2023 – 2025 (3 years)

2026 – 2029 (4 years)

2030 – 2033 (4 years)

Gross Revenue

1.5 – 2.9

3.8 – 4.6

4.2 – 5.1

Development Capex³

0.5 – 0.7

-

-

Sustaining Capex³

0.5 – 0.6

0.3 – 0.4

0.2 – 0.3






Opex⁴

0.9 – 1.1

1.0 – 1.2

1.0 – 1.2

Oyu Tolgoi: Funding profile

Project finance ¹	Shareholder funds ²	Equity
\$3.9b	\$7.7b	\$4.2b
▼		
Participants	Facility	
	A-loan	
	A-loan	
	Export Credit Agency	
	Export Credit Agency	
	Export Credit Agency	
	B-loan (70%)	
	MIGA-insured (30%)	
Commercial banks	Total Commercial Loans (100%)	
Total		

Funding Requirement
\$1.6-1.7b
(Jun 2023 - Dec 2024)

\$1.6-1.7 billion to be secured by **Rio Tinto Sponsored Senior Loan Agreement** with terms and conditions that mirror the existing project finance facility

Expect to be **cashflow positive from 2025 onwards** to fund the remaining scope of the underground construction

Minerals

Financial metrics (\$bn)

	H1 2023	H1 2022 comparison
Segmental revenue	2.9	-15%
EBITDA	0.7	-45%
Margin (product group operations)	30%	-10 pp
Operating cash flow	0.09	-86%
Capex	0.3	+13%
Free cash flow	0.2	-165%
Underlying ROCE ²	13%	-8 pp

Production (Rio Tinto share)

	2023 guidance	H1 2023	2022	2021	2020	2019	2018
IOC (Mt)	10.0-11.0	4.7	10.3	9.7	10.4	10.5	9.0
Borates – B ₂ O ₃ content (kt)	~0.5Mt	257	532	488	480	520	512
Titanium dioxide slag (kt)	1.1-1.4Mt*	589	1,200	1,014	1,120	1,206	1,116
Diamonds ¹ (kt)	3.0-3.8Mt	1,924	4,651	3,847	3,731	4,031	4,358

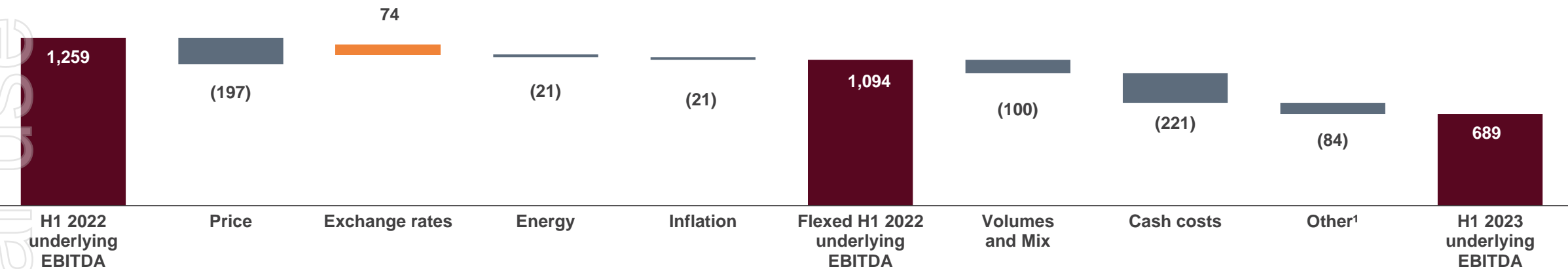
* In the lower end of the range

Minerals

Challenging market conditions; forest fires at IOC impact production

Underlying EBITDA H1 2023 vs H1 2022

\$m



Cash flow reconciliation

H1 2023 Cash Flow (US\$m)

	Statutory cash flow	Reconciling items	Underlying cash flow
Profit after tax for the year/Underlying EBITDA	4,947		11,728
Adjustments for:			
• Taxation	1,983		
• Finance items	748		
• Share of profit after tax of equity accounted units	(431)	(611) ¹	(1,042)
• Impairments	1,175	1,175	-
• Depreciation and amortisation	2,485		
• Provisions (including exchange differences on provisions)	63	29	92
Utilisation of provisions	(492)		(492)
Change in working capital	(927)		(927)
Other items	(116)	192	76
Cash flows from consolidated operations	9,435		
Dividends from EAU's	287		287
Net interest paid	(286)		(286)
Dividends paid to non-controlling interests	(46)		(46)
Tax paid	(2,415)		(2,415)
Net cash generated from operating activities	6,975		
Purchases of PPE			(3,001)
Sales of PPE			8
Lease principal payments			(213)
Free cash flow			3,769

Utilisation of provisions

Close down and restoration	(333)
Post-retirement benefits and other employee benefits	(115)
Other provisions	(44)
	(492)

Change in working capital

Inventories	(293)
Trade and other receivables	(6)
Trade and other payables	(628)
	(927)

Other items

	Statutory	Reconciling items	Underlying
Change in non-debt derivatives	(73)	112 ²	39
Depreciation transferred	(88)	88 ³	-
Other items ^{2,3}	45	(8)	37
	(116)	192	76

Modelling EBITDA

Underlying EBITDA sensitivity

	Average published price/ exchange rate for HY 2023	US\$m impact on full year 2023 underlying EBITDA of a 10% change in prices/exchange rates
Aluminium - US\$ per tonne	2,329	1,151
Copper - US cents per pound	396	523
Gold - US\$ per troy ounce	1,932	59
Iron ore realised price (FOB basis) - US\$ per dry metric tonne	107.2	2,786
Australian dollar against the US dollar	0.68	712
Canadian dollar against the US dollar	0.74	369
Oil (Brent) - US per barrel	86	193

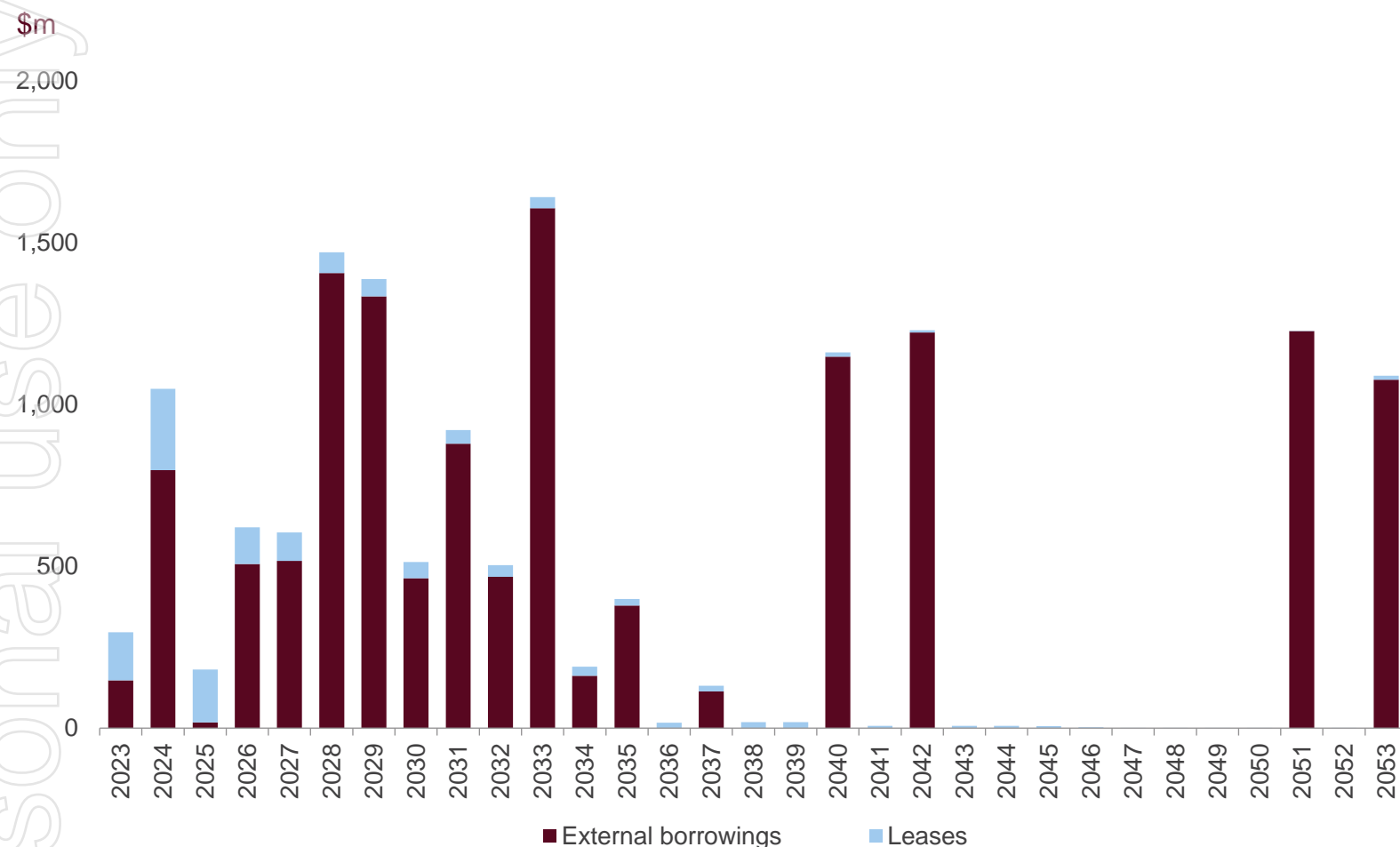
Note: The sensitivities give the estimated effect on underlying EBITDA assuming that each individual price or exchange rate moved in isolation. The relationship between currencies and commodity prices is a complex one and movements in exchange rates can affect movements in commodity prices and vice versa. The exchange rate sensitivities include the effect on operating costs but exclude the effect of revaluation of foreign currency working capital

Income Statement: exclusions

	June 2023			June 2022		
	Per Interim release	Exclusions	Underlying	Per Interim release	Exclusions	Underlying
Consolidated sales revenue	26,667		26,667	29,775		29,775
Net operating costs (excluding items disclosed separately)	(17,535)	(141)	(17,676)	(17,202)	(89)	(17,291)
Impairment reversals/(charges net of reversals)	(1,175)	1,175	-	-		-
Exploration and evaluation expenditure (net of profit relating to interests in undeveloped projects)	(710)		(710)	(367)		(367)
Operating profit	7,247	1,034	8,281	12,206	(89)	12,117
Share of profit after tax of equity accounted units	431		431	468		468
Profit before finance items and taxation	7,678	1,034	8,712	12,674	(89)	12,585
Net exchange gains/(losses) on external and intragroup net (debt)/cash balances	103	(103)	-	387	(387)	-
Net losses on derivatives not qualifying for hedge accounting	32	(32)	-	(205)	205	-
Finance income	245		245	17		17
Finance costs	(536)		(536)	(55)		(55)
Amortisation of discount on provisions	(592)		(592)	(503)		(503)
Finance items	(748)	(135)	(883)	(359)	(182)	(541)
Profit before taxation	6,930	899	7,829	12,315	(271)	12,044
Taxation	(1,983)	(298)	(2,281)	(2,867)	(16)	(2,883)
Profit after tax for the year	4,947	601	5,548	9,448	(287)	9,161
• attributable to owners of Rio Tinto (net earnings)	5,117	603	5,720	8,943	(281)	8,662
• attributable to non-controlling interests	(170)	(2)	(172)	505	(6)	499

Debt maturity profile

30 June 2023 debt maturity profile¹



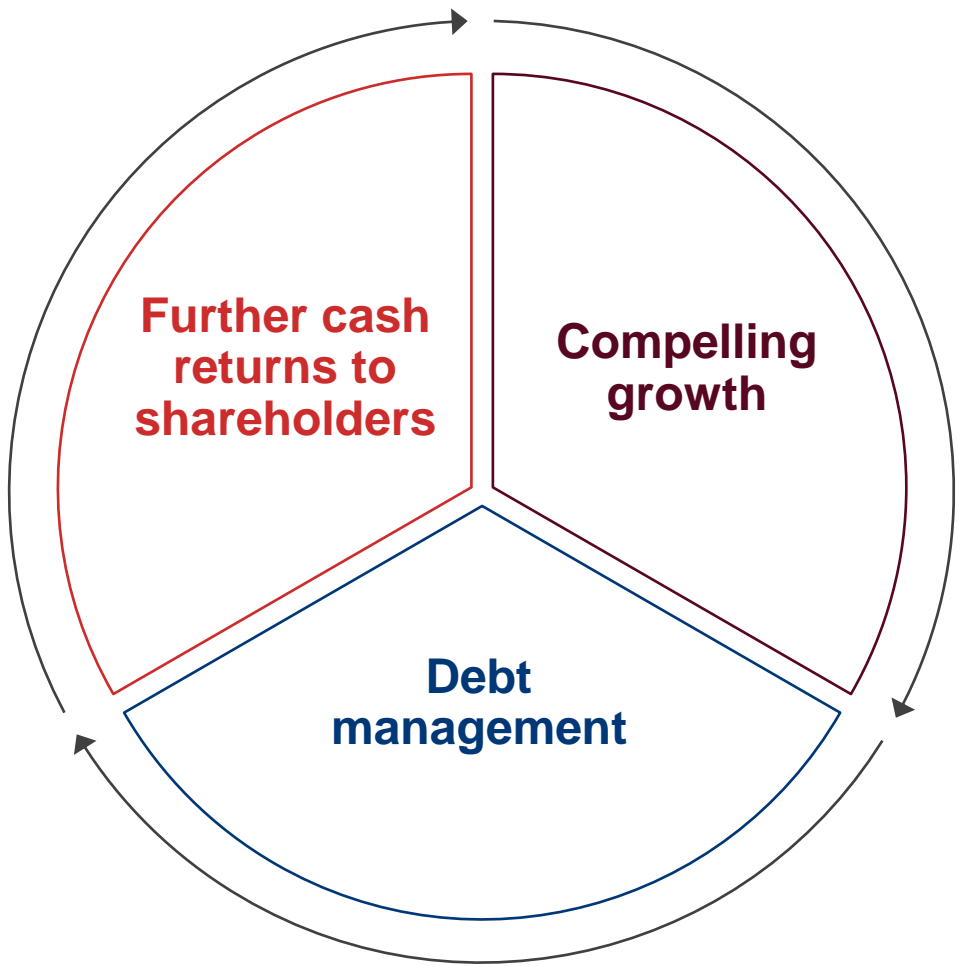
- On 6 March, issued \$1.75bn SEC-registered debt securities, extending the corporate bond debt maturity by ~2 years. Issuance consisted of:
 - \$650m 10-year 5.000% coupon maturing in 2033
 - \$1,100m 30-year 5.125% coupon maturing in 2053
- At 30 June weighted average outstanding debt maturity of corporate bonds ~16 years (~12 years for Group debt)
- No corporate bond maturities until 2024
- Liquidity remains strong under stress tests
- \$7.5bn back-stop Revolving Credit Facility matures in November 2027. It has an additional one-year extension option

Guidance

Balancing near-term returns to shareholders

Personal use only

- 1 **Essential capex**
Integrity, Replacement, Decarbonisation
- 2 **Ordinary dividends**
- 3 **Iterative cycle of**



Group level financial guidance

	2023	2024	2025
Capex			
Total Group	~\$7.0bn ¹	Up to 10.0bn	Up to 10.0bn
Group Growth Capex	\$1.5bn ²	Up to \$3bn	Up to \$3bn
Group Sustaining Capex	~\$3.5bn	~\$3.5bn	~\$3.5bn
<i>Pilbara Sustaining Capex</i>	~\$1.5bn ^{3,4}	~\$1.5bn ^{4,5}	~\$1.5bn ^{4,5}

- Replacement capital of \$2-3bn per year

Effective tax rate	~30%
Returns	Total returns of 40 – 60% of underlying earnings through the cycle

Product group level guidance

	2023 Production Guidance
Pilbara iron ore shipments	320 – 335Mt ¹ (100% basis)
Copper	
Mined Copper (consolidated basis)	590 – 640kt ²
Refined Copper	160 – 190kt
Aluminium	
Bauxite	54 – 57Mt ³
Alumina	7.4 – 7.7Mt
Aluminium	3.1 – 3.3Mt
Minerals	
TiO ₂	1.1 – 1.4Mt ³
IOC pellets and concentrate ⁴	10.0 – 11.0Mt
B ₂ O ₃	~0.5Mt
Diamonds	3.0 – 3.8m carats

	2023 Unit cost guidance ⁴
Pilbara Iron ore (\$/tonne)	\$21.0 – \$22.5
Copper C1 (US cents/lb)	180 – 200

¹In the upper half of the range. Pilbara shipments guidance remains subject to weather, market conditions and management of cultural heritage | ²Includes Oyu Tolgoi on a 100% consolidated basis and continues to reflect our 30% share of Escondida | ³In the lower end of the range | ⁴Iron Ore Company of Canada | ⁴FY23 guidance is based on A\$:US\$ exchange rate of 0.70

Application of the returns policy

Capital return considerations

Comments

Results for HY 2023

- Operating cash flow of **\$7.0bn**
- FCF of **\$3.8bn¹**
- Underlying earnings down 34% to **\$5.7bn**

Long-term growth prospects

- Focused on Oyu Tolgoi
- Simandou project progressing
- Investing in replacing high quality assets in Pilbara and Kennecott
- Ongoing exploration and evaluation programme

Balance sheet strength

- Strong balance sheet with net debt of **\$4.4bn**

40-60 per cent of underlying earnings through the cycle

- **Interim pay-out of 50%** based on (i) Strong financial performance in 2023 (ii) strong balance sheet (iii) outlook

Balanced between growth and shareholder returns

- Defined growth pipeline and a strong balance sheet providing capacity for shareholder return
- Our priority is to generate long-term value by consistently implementing our strategic objectives through the cycle
- We continue to maintain our capital discipline in times of macro-economic challenge and uncertainty
- We have made additional returns in times of surplus cash flow and lower capital needs and we will continue to pay attractive dividends to our shareholders in line with our pay-out policy

Outlook

- China's economic recovery has fallen short of initial market expectations, as the property market downturn continues to weigh on the economy and consumers remain cautious despite monetary policy easing. Manufacturing data in advanced economies showed a further slowdown and recessionary risks remain

Safe Production System and Decarbonisation

Safe Production System (SPS)

Best operator

Building a lasting competitive advantage with our people. We want to empower them to safely run assets that are in control, capable and performing better than any of our competitors.

Care

Courage

Curiosity



Decarbonisation abatement programmes

Programme	Description & key sites	Funding mechanism	Example project - economics
Pacific Operations Repower	Renewables: smelters Boyne Tomago	<ul style="list-style-type: none"> Long-term market contracts Government partnerships 	<ul style="list-style-type: none"> Commercial solutions achieved through government partnerships and long-term contracts Assets will need to remain competitive
Renewables	Solar & wind renewables Pilbara Weipa QMM Kennecott RBM	<ul style="list-style-type: none"> Capital - build own operate Long-term market contracts 	<ul style="list-style-type: none"> Phase 1 – 230MW solar + 200MWh of on-grid battery storage is value accretive at a carbon price of <\$40/t driven by \$55m reduction in gas displacement costs at current prices
Diesel	HME & Diesel switching Ph I: Bio-fuels Ph II: Fleet electrification Pilbara IOC	<ul style="list-style-type: none"> Capital Land acquisitions (non-edible feedstock) HME 	<ul style="list-style-type: none"> Bio-fuels: comparable cost to diesel¹ and de-risking of technical risk in fleet electrification Diesel cost savings post fleet electrification
Alumina process heat	Electrification of boilers Process & energy efficiency H₂ calcination – replacement Vaudreuil QAL Yarwun	<ul style="list-style-type: none"> R&D Capital 	<ul style="list-style-type: none"> QAL double digestion is value accretive at zero carbon price driven by reducing bauxite, raw material and energy costs A subset of projects are value accretive at a carbon price of \$50/t to \$100/t
Mineral processing	New technologies Electrification of boilers IOC RTIT Borates	<ul style="list-style-type: none"> R&D Capital Government / industry partnerships 	<ul style="list-style-type: none"> IOC steam plant fuel reduction - 40MW electric boiler conversion is value accretive at a zero carbon price The electrification of the boilers will require new commercial renewable energy contracts as well as capital
Aluminium anodes	ELYSIS™ technology All smelters	<ul style="list-style-type: none"> R&D Capital 	<ul style="list-style-type: none"> Commercial scale technology from 2024 Value generation through scale-up later
Nature-based Solutions	High quality offsets 8 large scale sites	<ul style="list-style-type: none"> Capital land acquisitions Operating costs 	<ul style="list-style-type: none"> Development costs of high-quality projects on or near our assets are currently estimated at \$20-50/t CO₂e, the range reflects varying project types and landscapes

Common acronyms

AHS	Autonomous Haulage System	EC	European Commission	Mtpa	Million tonnes per annum	RTFT	Rio Tinto Fer et Titane
AIFR	All Injury Frequency Rate	EMEA	Europe, Middle East and Africa	MACC	Marginal Abatement Cost Curve	RTIO	Rio Tinto Iron Ore
Al	Aluminium	ESG	Environmental, Social, and Governance	MW	Megawatt	RTX	Rio Tinto Exploration
Al₂O₃	Aluminium oxide	EU	European Union	MWh	Megawatt hour	SPS	Safe Production System
ARDC	Arvida Research and Development Centre	Fe	Iron	NbS	Nature-based Solutions	S&P	Standard & Poor's
ASX	Australian Securities Exchange	FOB	Free On Board	NPV	Net present value	T	Tonne
ATS	Aluminium Technology Solutions	FS	Feasibility Study	O&M	Operation & Maintenance	t/ha	Tonnes per hectare
B₂O₃	Boric oxide	GHG	Greenhouse gas	OT	Oyu Tolgoi	tLS	Tonnes of liquid steel
Bn	Billion	GFC	Global Financial Crisis	Pa	Per annum	tCO₂e	Tonne of carbon dioxide equivalent
BF	Blast furnace	Gt	Giga tonnes	PJ	Petajoule	TiO₂	Titanium dioxide
BOF	Blast Oxygen Furnace	GW	Gigawatt	PPA	Power Purchasing Agreement	tpa	Tonnes per annum
BSL	Boyne Smelter Limited	H₂	Hydrogen	PP&E	Plant, Property & Equipment	TWh	Terawatt hour
CAGR	Compound annual growth rate	HBI	Hot briquetted iron	QAL	Queensland Alumina Limited	UB	Ulaanbaatar
CCGT	Combined Cycle Gas Turbine	HG	High grade ore	QMM	QIT Madagascar Minerals	USD	United States dollar
CCUS	Carbon capture, utilisation and storage	HME	Heavy Mining Equipment	R&D	Research and development	VAP	Value-added product
CCS	Carbon Capture and Storage	IEA	International Energy Agency	RBM	Richards Bay Minerals	WA	Western Australia
CO₂	Carbon dioxide	IOC	Iron Ore Company of Canada	RE	Renewable Energy	WTS	Western Turner Syncline
CO₂e	Carbon dioxide equivalent	IRR	Internal rate of return	RRF	Recovery and Resilience Facility	YoY	Year on Year
Cu	Copper	JV	Joint Venture	ROCE	Return on capital employed	YTD	Year to date
DRI	Direct Reduction Iron	LCE	Lithium Carbonate Equivalent	RT	Rio Tinto		
EAF	Electric Arc Furnace	LCOE	Levelised Cost of Energy	RTE	Round trip efficiency		
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortisation	M	Millions				
		Mt	Million tonnes				

Definitions

Calculated abatement carbon price

The levelised marginal cost of abatement at a zero carbon price

Calculation:

Discounted sum of all abatement costs over time at a zero carbon price / Discounted sum of all abated emissions over time

Discounted at the hurdle rate RT uses for all investment decisions

ersonal use only

RioTinto