

EQUITIES

Intellectual Property

Company	Rating
BHP Group	Outperform
Market Cap	US\$150,196m
Price	A\$43.97/£23.02/R528.80
Price Target	A\$52.00/£28.50/R640.00
TSR	26%/32%/29%
Rio Tinto	Neutral
Market Cap	US\$102,961m
Price	A\$110.14/£48.70
Price Target	A\$122.00/£55.00
TSR	19%/23%
Fortescue Metals	Underperform
Market Cap	US\$41,786m
Price	A\$20.28
Price Target	A\$17.00
TSR	-10%
Mineral Resources	Outperform
Market Cap	US\$8,833m
Price	A\$68.63
Price Target	A\$115.00
TSR	71%
Champion Iron	Outperform
Market Cap	US\$2,110m
Price	A\$6.27/C5.61
Price Target	A\$7.80/C7.00
TSR	31%/31%
Deterra Royalties	Outperform
Market Cap	US\$1,626m
Price	A\$4.64
Price Target	A\$5.00
TSR	15%
Mt Gibson Iron	Neutral
Market Cap	US\$366m
Price	A\$0.47
Price Target	A\$0.50
TSR	8%

Global Iron-ore Miners

Iron ore prices resilient

Key points

- ▶ Weekly shipments from Australian miners rose further with strong performance at RIO; exports from Vale also increased 26% WoW.
- ▶ FMG recently announced its first magnetite from the Iron Bridge project, with grades >68% Fe.
- ▶ We maintain our preferences for BHP given its organic growth options; MIN benefits from the lithium exposure and DRR offers low volatility exposure.

Event

- We analyse the weekly shipping data from key Western Australian, Canadian and Brazilian ports using bespoke berth-by-berth breakdowns, providing insight into the shipment performance of the global iron-ore miners.

Impact

- **Cost curve lowered:** Macquarie Commodity Strategy team recently updated their iron ore cost curve by incorporating the December and March quarter results from iron ore miners as well as the Q1 average 62%Fe benchmark iron ore spot price of \$125/t. Since the June 2022 update, the cost curve (CFR China) has moved lower, driven largely by a ~40% reduction in freight rates, which has more-than-offset increased cash costs.
- **Shipments increased from Australian majors:** The combined shipments for RIO, BHP and FMG rose further, up 11% WoW, with higher throughput at RIO and FMG more than offset lower exports at BHP. RIO's shipments increased by 26% WoW despite shiploader maintenance works at the port of Dampier, according to our bespoke port data. Shipments from smaller ports in April were softer MoM at 102mtpa which was below our implied capacity target of 105mtpa.
- **Vale shipments improved:** Vale's iron ore shipping performance has improved in the past few weeks but has remained below its seasonally adjusted target levels. Vale exports increased last week to its highest level in 8 weeks, driven by higher volumes from Tubarão and PDM following the conclusion of maintenance works. Sailings from GIT also resumed following completion of their maintenance last Wednesday, according to our bespoke port data.
- **First production at Iron Bridge:** FMG recently announced that first magnetite product, at grades higher than 68% Fe, was produced and transported through the 135km slurry pipeline. FMG noted that the Iron Bridge capital estimate remains unchanged at US\$3.9b (FMG share US\$3.0b).

Outlook

- BHP is our preferred large cap exposure as the company boasts stronger organic growth options. Our positive view on MIN is unchanged despite the weaker outlook for iron-ore as the impact is outweighed by our strong outlook for lithium. DRR offers low volatility exposure to iron-ore via its royalty derived from BHP's production at Mining Area C which is tracking ahead of schedule.

Shipments increased WoW

- The combined shipments for RIO, BHP and FMG rose further, up 11% WoW, with higher throughput at RIO and FMG more than offset lower exports at BHP. RIO's shipments increased by 26% WoW despite shiploader maintenance works at the port of Dampier, according to our bespoke port data. We note shipping rates remained below respective seasonally adjusted target level for April due to impacts from Tropical Cyclone Ilsa. Our implied capacity number of 830mtpa assumes 360mt for RIO, 290mtpa for BHP, and 180mtpa for FMG.

Fig 1 Shipments lower in April

Monthly shipment run rate (mtpa)	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	April-23
RIO (mtpa)	329	338	369	318	316	352	303
BHP (mtpa)	266	299	293	291	253	264	279
FMG (mtpa)	174	207	196	185	180	196	168
Majors (mtpa)	769	844	858	793	749	813	751
Roy Hill (mtpa)	76	51	71	68	47	69	67
Utah Point (mtpa)	17	16	21	17	17	19	15
Geraldton (mtpa)	11	11	12	12	11	10	10
Esperance (mtpa)	10	5	8	8	9	11	10
Total	883	928	971	898	832	921	853

Source: Thurlestone, Macquarie Research, May 2023

- Shipments from smaller ports in April were lower at 102mtpa, which was below our implied capacity target of 105mtpa. Shipments from Utah (MIN and Atlas) were lower MoM at 15mtpa while volumes from Geraldton (MGX and Karara Magnetite) were solid at 10mtpa. Exports from Esperance and Roy Hill were at 10mtpa and 67mtpa, respectively.

Full-year guidance versus Macq expectations

- We anticipate RIO's Pilbara operation to ship 334mt in CY23, which is in the upper half of its CY23 shipment guidance of 320-335mt (100% basis). We expect BHP Pilbara shipments (100% basis) to be 286mt for FY23 (283mt in FY22), which is in the upper half of company's guidance range of 278-290mt

Fig 2 Australian Major producers are on track to achieve shipment guidance

(mt)	Low	High	Average	Macq	Variance
RIO (100% basis) – CY23	320	335	328	334	2%
BHP (100% basis) – FY23	278	290	284	286	1%
FMG – FY23	187	192	190	192	(1%)
Vale – CY22	310	320	315	na	na

Source: Company data, Macquarie Research, May 2023

Free cash flow yields solid at spot prices

- Major iron ore miners under our coverage universe are generating solid cash over the short to medium term, with FCF yields upside at spot prices driven by buoyant iron ore prices. At spot prices, FY23E free cash flow yields are 6% for BHP, 5% for RIO, and 11% for FMG. For the smaller names, the spot free cash flow yields are 5% for DRR, (3%) for CIA, and (40%) for MGX. MIN's free cash flow yield at spot is close to zero for FY23 due to capital spending for its iron ore and lithium growth.

Fig 3 Free cash flow yields solid at spot prices

FCF Yield	Macquarie forecasts			Spot Prices		
	FY23e	FY24e	FY25e	FY23e	FY24e	FY25e
BHP Group	8%	12%	5%	6%	11%	9%
Rio Tinto	6%	10%	9%	5%	10%	11%
Fortescue Metals	12%	8%	6%	11%	13%	13%
Mineral Resources	(11%)	12%	32%	(3%)	(10%)	4%
Deterra Royalties	8%	8%	7%	5%	8%	7%
Champion Iron	(2%)	25%	(6%)	(4%)	(3%)	19%
Mount Gibson Iron	3%	56%	67%	(40%)	(4%)	52%

Source: Company data, Macquarie Research, May 2023

Key risks to earnings and valuation

Fig 4 We maintain our preference for BHP and MIN

Company	Code	Market Cap (US\$m)	Rating	Share price	Price target	TSR
BHP Group	ASX: BHP	150,196	Outperform	A\$43.97	A\$52.00	26%
BHP Group	LSE: BHP	150,196	Outperform	£23.02	£28.50	32%
BHP Group	JSE: BHP	150,196	Outperform	R528.80	R640.00	29%
Rio Tinto	ASX: RIO	102,961	Neutral	A\$110.14	A\$122.00	19%
Rio Tinto	LSE: RIO	102,961	Neutral	£48.70	£55.00	23%
Fortescue Metals	ASX: FMG	41,786	Underperform	A\$20.28	A\$17.00	(10%)
Mineral Resources	ASX: MIN	8,833	Outperform	A\$68.63	A\$115.00	71%
Champion Iron	ASX: CIA	2,110	Outperform	A\$6.27	A\$7.80	31%
Champion Iron	TSX: CIA	2,110	Outperform	C\$5.61	C\$7.00	31%
Deterra Royalties	ASX: DRR	1,626	Outperform	A\$4.64	A\$5.00	15%
Mount Gibson Iron	ASX: MGX	366	Neutral	A\$0.47	A\$0.50	8%

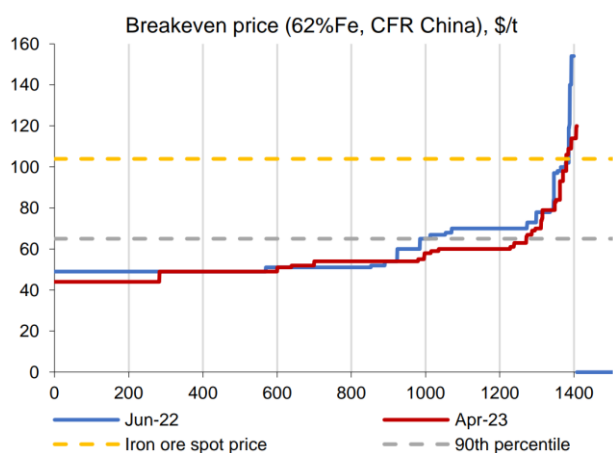
Source: Company data, Bloomberg, Macquarie Research, prices as at close on 04 May 2023

- **BHP Group (BHP):** Movements in iron ore, copper, and coal prices present the most significant upside and downside risks to our earnings forecasts and valuation. We make assumptions within our forecasts for production, capex, and operating costs (opex) in addition to exchange rates. Variances in these assumptions versus our base case present material risks both to the upside and downside to earnings forecasts and valuation. Thematically, the accelerating ESG momentum and potential carbon tax could introduce further valuation downside risks, reflected in a higher cost of borrowing and multiple compression.
- **Rio Tinto (RIO):** Movements in iron ore, aluminium, and copper prices present the most significant upside and downside risks to our earnings forecasts and valuation. We make assumptions within our forecasts for production, capex, and opex in addition to exchange rates. Variances in these assumptions versus our base case present material risks both to the upside and downside to earnings forecasts and valuation. Thematically, the accelerating ESG momentum and potential carbon tax could introduce further valuation downside risks, reflected in a higher cost of borrowing and multiple compression.
- **Fortescue Metals (FMG):** Movements in iron ore prices present the most significant upside and downside risks to our earnings forecasts and valuation. Variances in assumptions (production, capex, opex of both core assets and the Iron Bridge Magnetite Project, which is in execution) versus our base case present material risks both to the upside and downside to earnings forecasts and valuation.
- **Mineral Resources (MIN):** Movements in spot iron-ore and spodumene prices present the most material risk to our earnings forecasts for MIN. Variances in these costs versus our base case can have a material impact on our earnings forecasts and valuation for MIN.
- **Champion Iron (CIA):** Movements in iron ore prices that vary compared with our forecasts present the key risk to our earnings estimates and valuation for CIA. Variances in assumptions (production, capex, opex, and shipping rates of both core assets and the Bloom Lake phase 2 expansion, which is in execution) vs our base case present risks (upside and downside) to earnings forecasts and valuation.
- **Deterra Royalties (DRR):** Movements in iron ore prices that vary compared with our forecasts present the key risk to our earnings estimates and valuation for DRR. Any value-accretive royalty acquisitions present key risks to earnings forecast and valuation.
- **Mount Gibson Iron (MGX):** Movements in iron ore prices present the most significant upside and downside risks to our earnings forecasts and valuation. Variances in assumptions (LOM, production, capex, opex) versus our base case present material risks both to the upside and downside to earnings forecasts and valuation.

Cost curve lowered

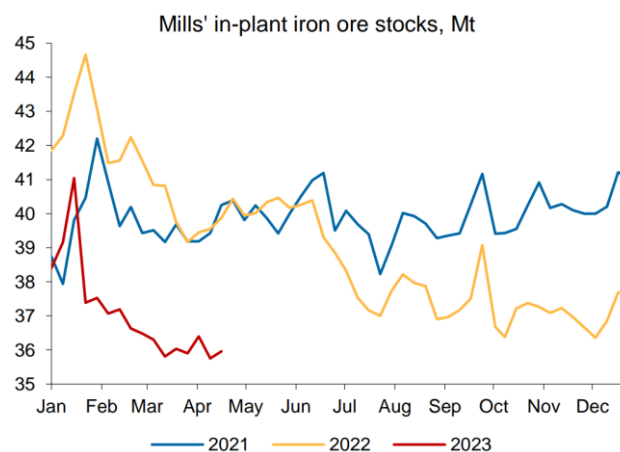
- Macquarie Commodity Strategy team recently updated their iron ore cost curve by incorporating the December and March quarter results from iron ore miners as well as the Q1 average 62%Fe benchmark iron ore spot price of \$125/t. Since the June 2022 update, the cost curve (CFR China) has moved lower, driven largely by a ~40% reduction in freight rates, which has more-than-offset increased cash costs.
- The team calculated the 90th percentile at \$66/t based on a sample group that covers 94% of the seaborne exports. In reality, this will be slightly higher due to the omission of Chinese domestic production and some high-cost supply from our sample, due to a lack of cost data. Still, this suggests that the iron ore price could fall by ~\$30/t from spot until there is a meaningful supply response. However, there are multiple factors that could step in to support prices before the cost curve is truly tested, one of which being restocking by mills taking advantage of the lower iron ore price following almost a year of holding low raw materials inventories.

Fig 5 Iron ore cost curve



Source: Company reports, Platts, TDM, Macquarie Strategy, May 2023. Note: inc. sust. capex and royalties

Fig 6 A restocking drive could help iron ore price find support before dipping far into the cost curve

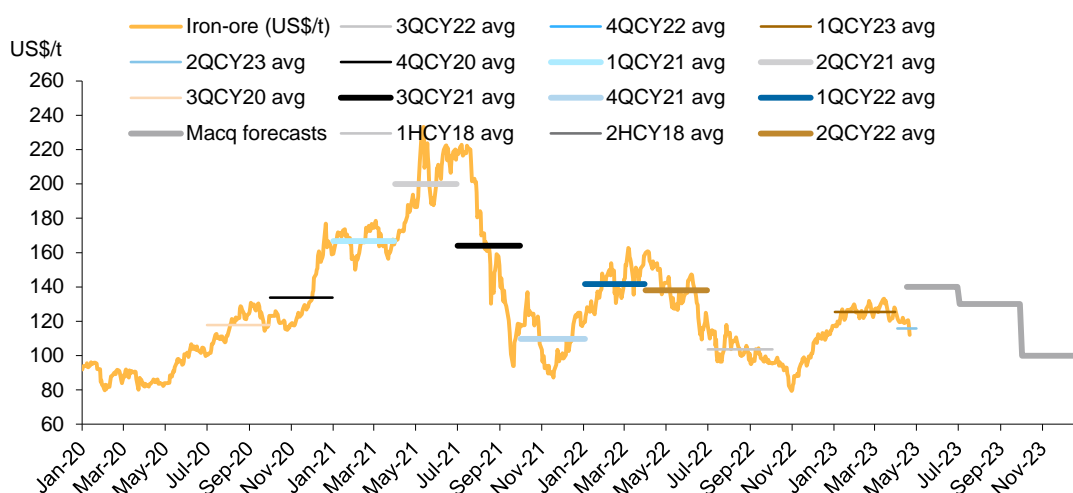


Source: Mysteel, Macquarie Strategy, May 2023

Iron ore prices trading below near-term forecasts

- There was limited steel market updates given China was on the five-day national holiday this week. The benchmark iron ore prices (62% Fe) have remained resilient after the recent correction, trading around US\$105/t during the week.

Fig 7 Iron ore prices are trading below our near-term price forecasts

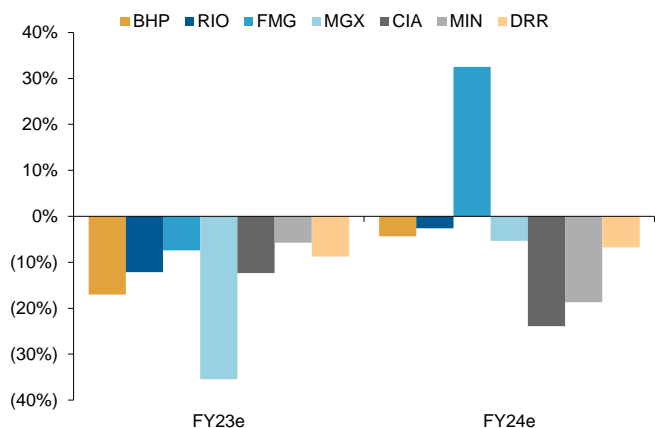


Source: Bloomberg, Macquarie Research, May 2023

Near term earnings downside

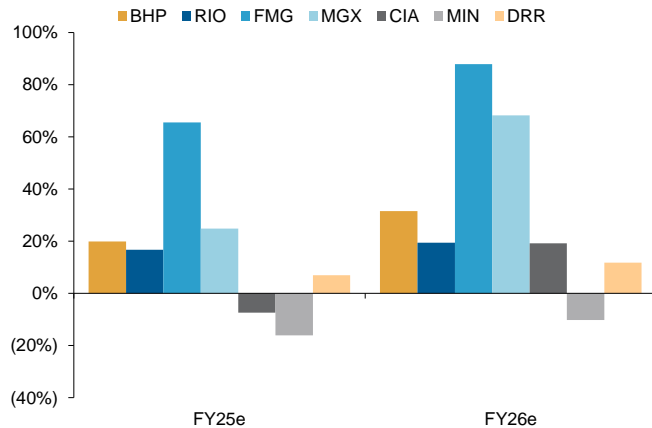
- Spot iron ore prices corrected recently and are trading below our short-term price forecasts which present earnings headwinds for iron ore miners, however upside remains for the medium to longer term. We note smaller miners are more leveraged to iron ore price movements with earnings upside re-emerging over the medium term. BHP's spot price earnings largely match our forecast for FY24E which increase to 20% in FY25E. RIO has a small earnings downside of 3% in FY24E but enjoys an upside of 17% in FY25E. FMG boasts material upside for FY24E-FY26E at 32%-88%.

Fig 8 Small cap iron ore miners are more leveraged to iron ore price movements



Source: Bloomberg, Macquarie Research, May 2023

Fig 9 Most iron ore miners present earnings upside for FY25 and FY26 at spot prices

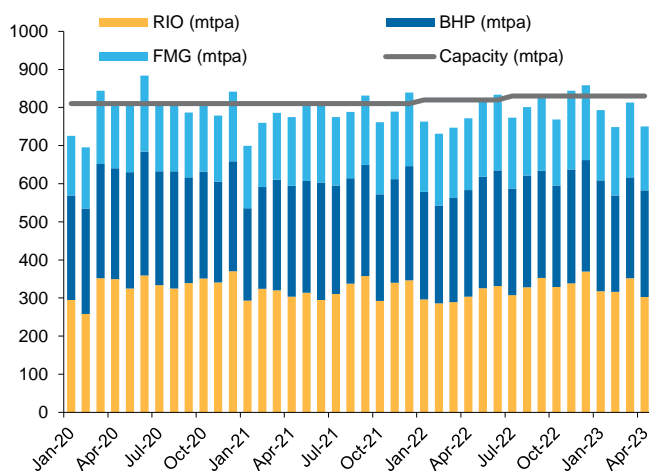


Source: Bloomberg, Macquarie Research, May 2023

Weekly shipments rose further

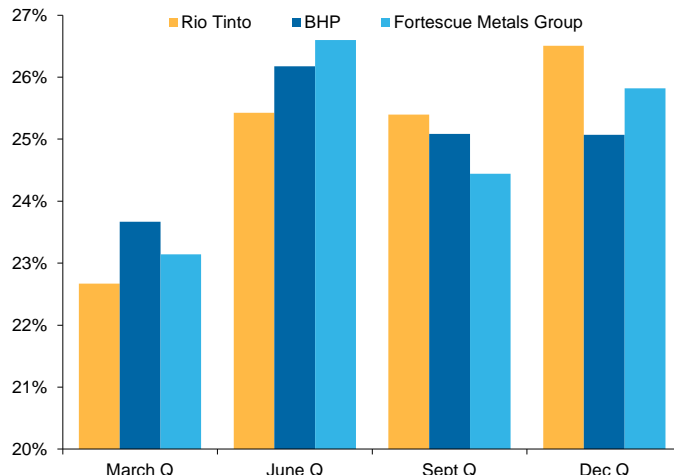
- The combined shipments for RIO, BHP and FMG rose further, up 11% WoW, with higher throughput at RIO and FMG more than offset lower exports at BHP. RIO's shipments increased by 26% WoW despite shiploader maintenance works at the port of Dampier, according to our bespoke port data. We note shipping rates remained below respective seasonally adjusted target level for April due to impacts from Tropical Cyclone Ilsa. Our implied capacity number of 830mtpa assumes 360mt for RIO, 290mtpa for BHP, and 180mtpa for FMG.
- At the March quarterly update, RIO's reiterated its CY23 shipment guidance the 320-335mt (100% basis), while BHP expects to ship 278-290mt iron ore in FY23. FMG maintained its FY23 guidance of 187-192mt. The shipping rates for the June quarter are usually the strongest for BHP and FMG which have a June year-end, supported by improved weather conditions compared to the prior quarter.

Fig 10 Iron ore majors operating below capacity



Source: Thurlestone, Macquarie Research, May 2023

Fig 11 Seasonality impacted by financial year-end

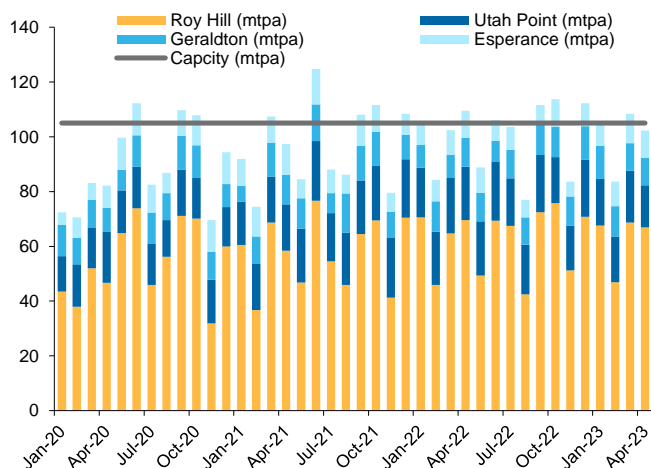


Source: Thurlestone, Macquarie Research, May 2023

Smaller ports shipments stronger

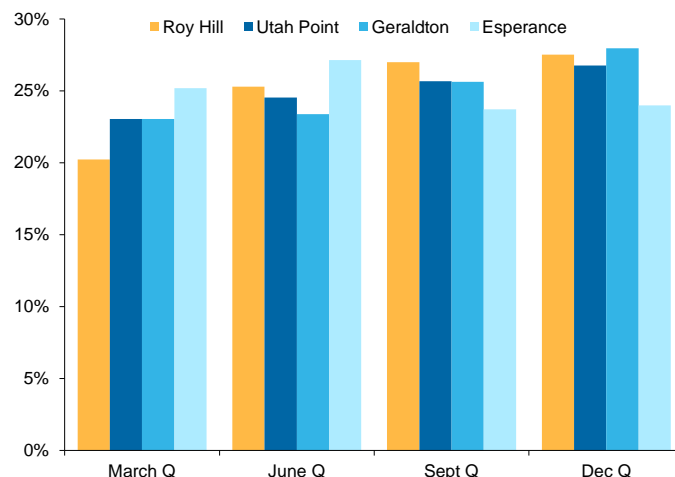
- The combined shipments from Roy Hill, Utah Point, and Geraldton increased further last week with an April shipping rate of 102mtpa. Roy Hill shipped at 78mtpa last week, up from a shipment rate of 70mtpa in the prior week. We note that our implied capacity assumption for the smaller Australian ports is 55mtpa for Roy Hill, 25mtpa for Utah Point, 13mtpa for Geraldton, and 12mtpa for Esperance.
- The historical seasonality for Roy Hill is similar to RIO. However, the quarterly variance for Utah Point and Geraldton is less significant. Given Esperance's location and climate conditions, historically its weakest quarters are the September and December quarters, opposite to Pilbara ports.

Fig 12 April to date exports below long-run capacity



Source: Thurlestone, Macquarie Research, May 2023

Fig 13 Esperance seasonal impacts opposite

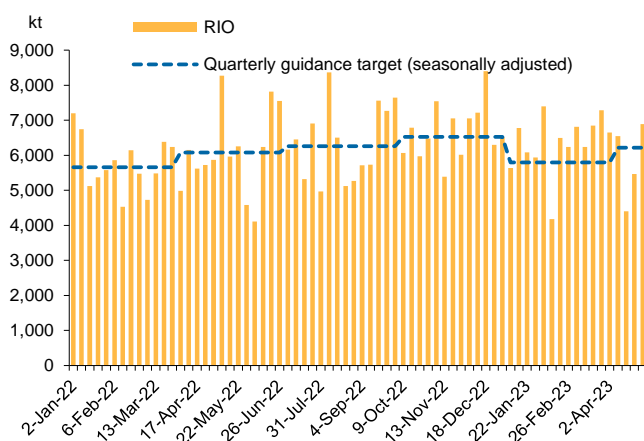


Source: Thurlestone, Macquarie Research, May 2023

RIO's shipments have been volatile

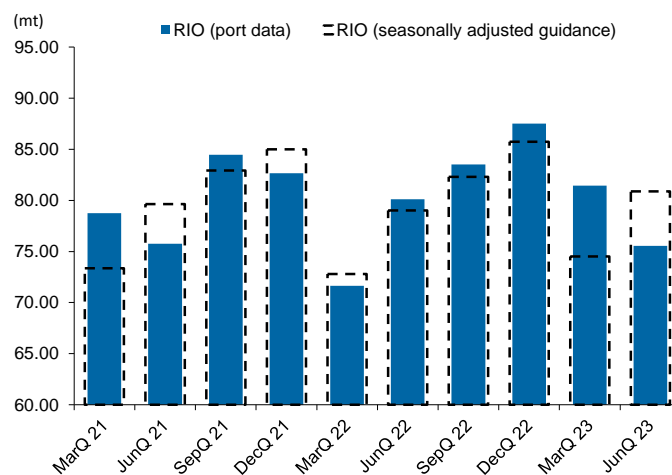
- Shipments from RIO increased 26% WoW to 6.9mt despite shiploader maintenance works at the port of Dampier last week, according to our bespoke port data. However, its June quarter to date shipments have remained below the seasonally adjusted target.
- At the CY22 update, RIO's reiterated its CY23 shipment guidance the 320-335mt (100% basis), implying no growth YoY. We note that the 1QCY23 was the strongest March quarter in RIO's history. Rainfall was abnormally low in most parts of the Pilbara in the period, aside from in the western region around Robe River, which we believe would have been a key contributor to the record shipment result.

Fig 14 RIO's weekly shipping rate has been more volatile than its peers



Source: Thurlestone, Macquarie Research, May 2023

Fig 15 RIO's 2QCY23 to date shipments below its seasonally adjusted target

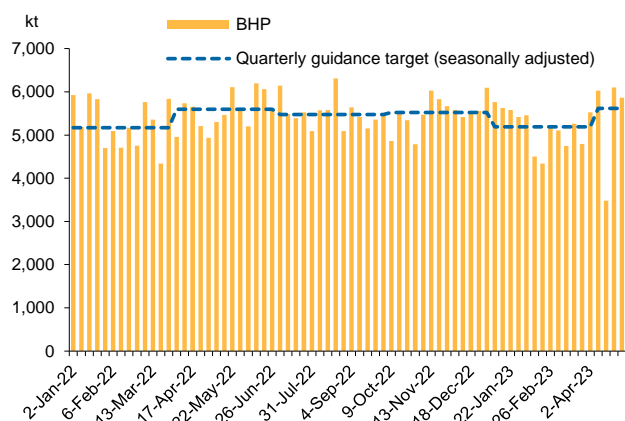


Source: Thurlestone, Macquarie Research, May 2023

BHP shipments have been more consistent

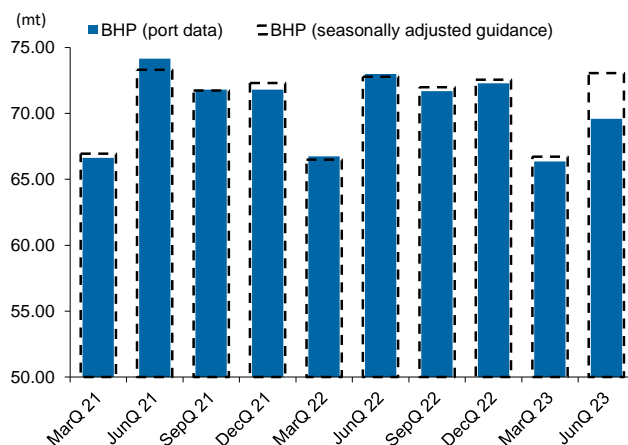
- Shipments at BHP saw a small decline last week, down 4% to 5.9mt. Despite a WoW decline, its shipments remained above its seasonally adjusted target level, according to our bespoke port data. Importantly, BHP confirmed there was no infrastructure damages from the Cyclone April.
- BHP’s shipment performance has been consistent over the past two years; however, we note that there was increased volatility in 2023. BHP’s production bottlenecks remain at Port Hedland; hence any wet weather or mine production issues can be recovered over time. At the March quarterly update, the company reiterated that South Flank remained on track to reach full capacity of 80mtpa by the end of FY24. We forecast FY23 shipments to be 286mt, which is in the upper half of the guided production range (278-290mt,100% basis).

Fig 16 BHP’s shipping rates have been consistent over the last 12 months with an impact from Ilsa in April



Source: Thurlestone, Macquarie Research, May 2023

Fig 17 BHP’s 4QFY23 to date shipments below its seasonally adjusted target

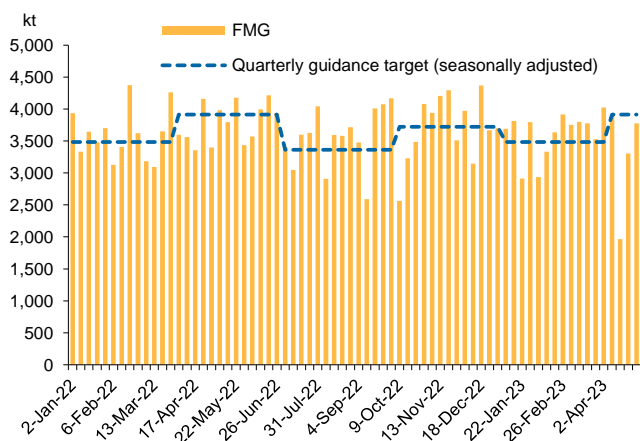


Source: Thurlestone, Macquarie Research, May 2023

FMG volumes have been solid

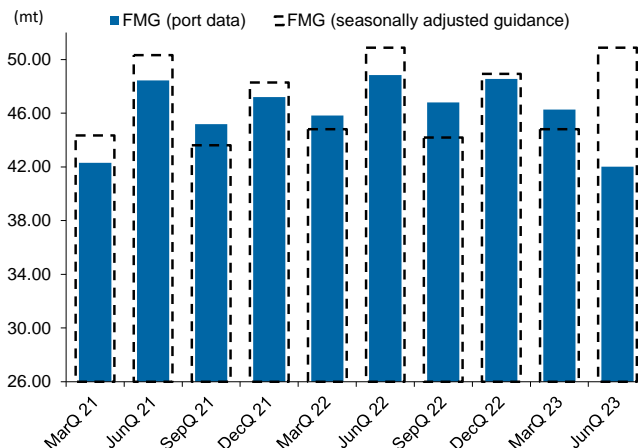
- FMG’s shipment trend is similar to the other Australian Majors, with strong export performance to its June and December quarter flanking a slightly weaker March and September quarter. FMG’s weekly shipping rates increased 14% to 3.8mt, which was largely in line with its seasonally adjusted target.
- At the 3QFY23 quarterly report, FMG kept its FY23 guidance shipment ranges of 187-192mt unchanged. Iron Bridge construction is progressing with first 67% Fe concentrate delivered in April. Iron Bridge is moving into the ramp up phase and should deliver increased volume for FMG in FY24.

Fig 18 FMG volumes last week were above its seasonally adjusted target



Source: Thurlestone, Macquarie Research, May 2023

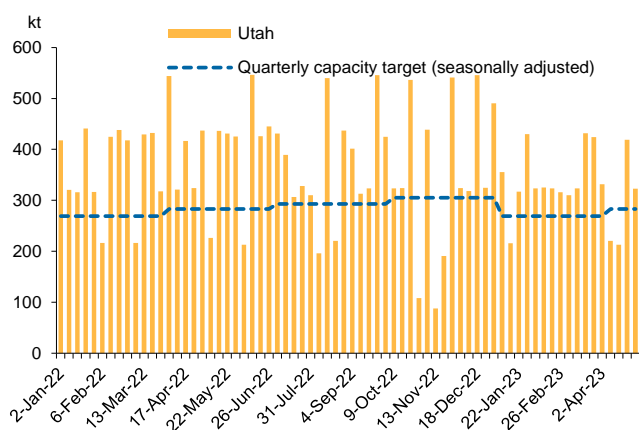
Fig 19 FMG 4QFY23 shipments to date below the seasonally adjusted target level



Source: Thurlestone, Macquarie Research, May 2023

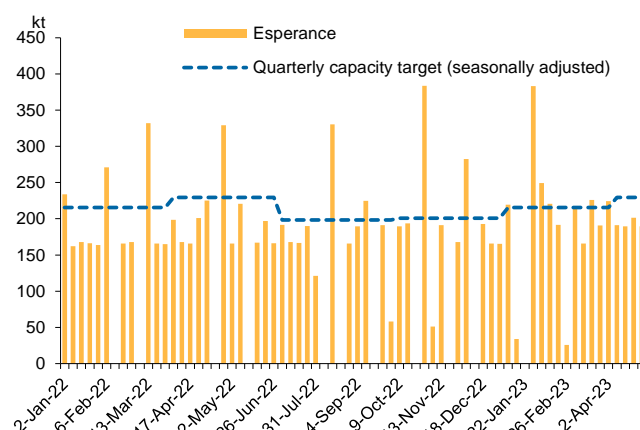
- Shipments from Utah Point reflect both MIN's Iron Valley operation and Atlas Iron's operations. There has been volatility in the shipping rate from Utah Point over the past few years. We note that the capacity of the port is close to 25mtpa; however, the current mine production capacity of Atlas Iron and Iron Valley is closer to 12-13mtpa.
- Shipments from Esperance reflect production from MIN's Koolyanobbing operation. We note that there has been significant volatility in the shipping rate with the port recently reporting a volume record. As Koolyanobbing ramps up to >11mtpa, we expect increased levels of exports from Esperance.

Fig 20 Utah Point shipments have been strong lately



Source: Thurlstone, Macquarie Research, May 2023

Fig 21 Esperance shipments have spiked repeatedly

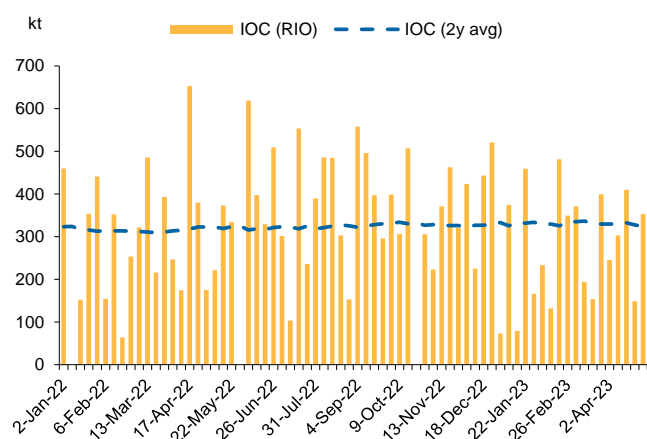


Source: Thurlstone, Macquarie Research, May 2023

Canadian volumes have been variable

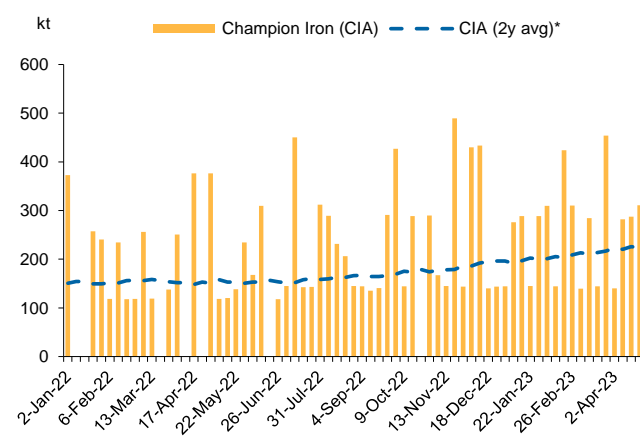
- RIO's Iron Ore Company of Canada (IOC) business reported a mixed result. Production was 16% higher than we had anticipated largely due to higher concentrate output, which was 24% above our estimates. However, shipments were lower than production and broadly in line with our expectations. RIO noted that rail and port loading restrictions impacted shipment volumes during the quarter. At the 1QCY23 production update, RIO reiterated its CY23 IOC guidance of 10.5-11.5mt RIO share. We forecast a shipping volume of 10.9mt in CY23, which is in the lower half of the guidance range.
- The shipment rate for CIA has been volatile but on average in line with expectations. CIA recently commissioned Phase 2 ahead of schedule which will see production capacity double to ~15mtpa over the next 12 months. CIA announced the Direct Reduction Pellet Feed Feasibility (DRPF) Study, which would see it produce 7.5mtpa of high grade 69% Fe product for 20 years.

Fig 22 Volumes from IOC in CY23 to date are broadly in line with its capacity



Source: Thurlstone, Macquarie Research, May 2023

Fig 23 CIA shipments ramping up

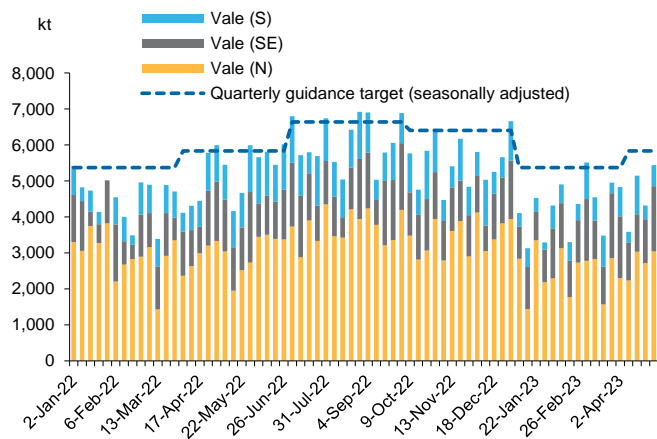


Source: Thurlstone, Macquarie Research, May 2023

Vale shipments improving

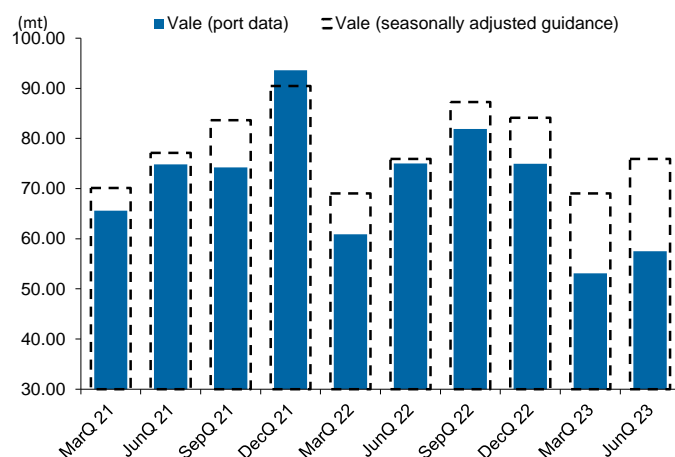
- Vale's iron ore shipping performance has improved in the past few weeks but has remained below its seasonally adjusted target levels. Vale exports increased last week to its highest level in 8 weeks, driven by higher volumes from Tubarão and PDM following the conclusion of maintenance works. Sailings from GIT also resumed following completion of their maintenance last Wednesday, according to our bespoke port data.
- Vale produced 66.8mt iron ore in the March quarter, which was 17% lower than the prior quarter but 6% higher YoY. The company attributed higher YoY production to improved S11d performance and better weather conditions in Mina Gerais. Lower shipments (vs production) in the 1Q reflected port loading restrictions at PDMT due to weather, unplanned maintenance, and some inventory restoration.
- At the March quarterly update, Vale left its 2023 iron ore guidance unchanged at 310-320mt. We note the 1Q production only represents 21.5% of the low end of the full year guidance. The company expects a catch up in shipment in the 2HCY23.

Fig 24 Vale export volumes remained below its seasonally adjusted target



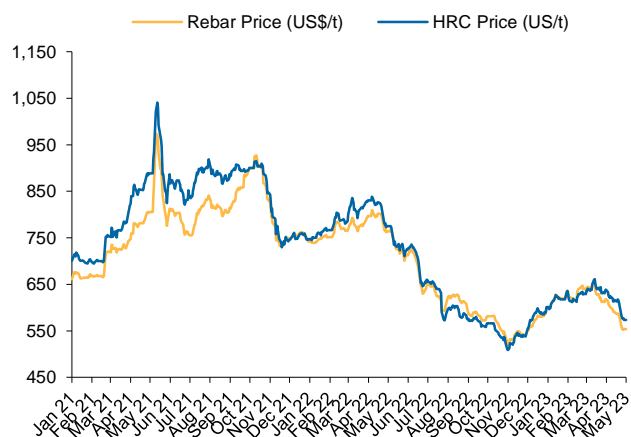
Source: Thurlestone, Macquarie Research, May 2023

Fig 25 Vale 2QCY23 shipments remained below the seasonally adjusted target level



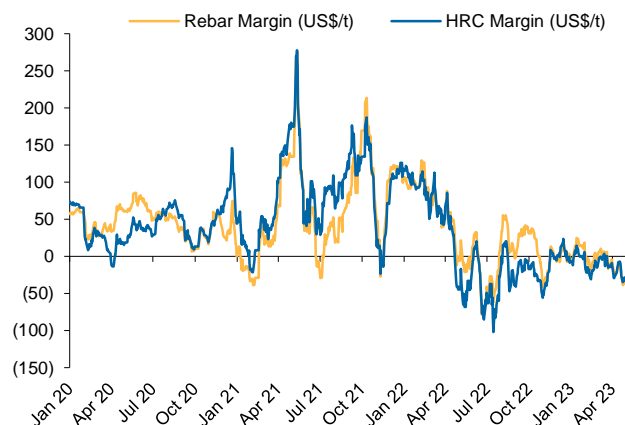
Source: Thurlestone, Macquarie Research, May 2023

Fig 26 Chinese HRC and Rebar prices trended lower



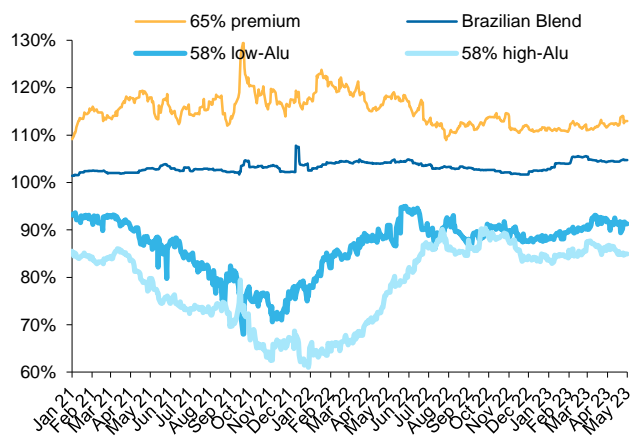
Source: Platts, Bloomberg, Macquarie Research, May 2023

Fig 27 Rebar and HRC margins close to break-evens



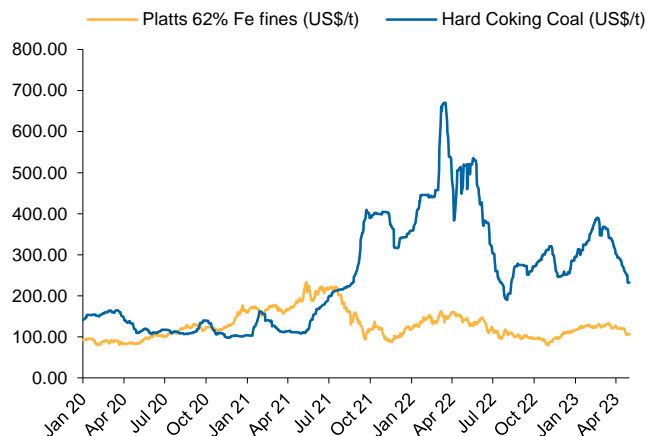
Source: Platts, Bloomberg, Macquarie Research, May 2023

Fig 28 Iron ore quality differentials contracting



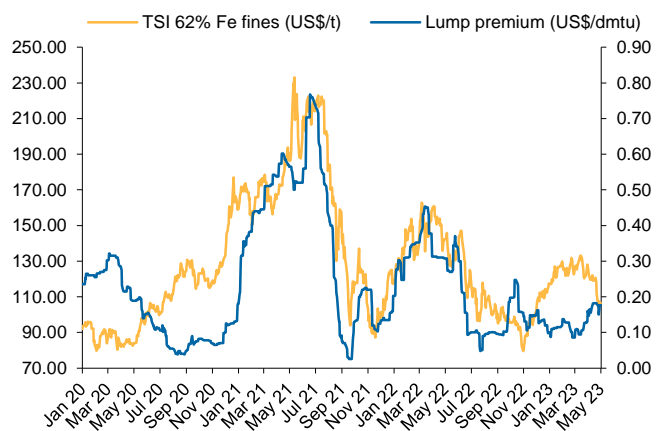
Source: Platts, Bloomberg, Macquarie Research, May 2023

Fig 29 Hard coking coal prices have improved recently



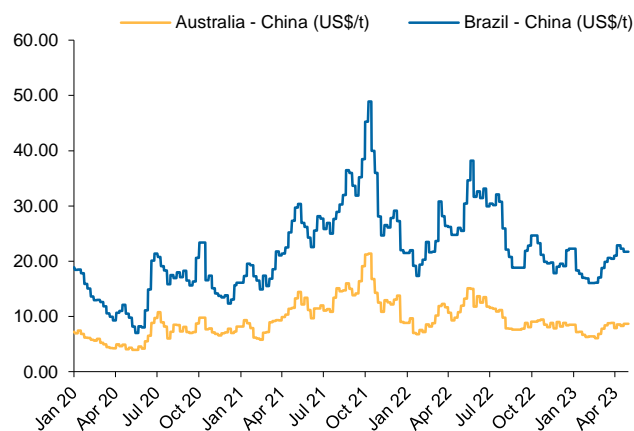
Source: Platts, Bloomberg, Macquarie Research, May 2023

Fig 30 Lump premiums trading at US\$0.18/dmtu



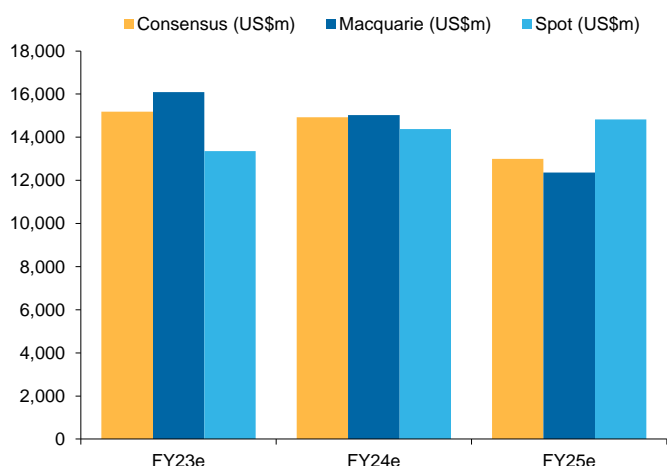
Source: Platts, Bloomberg, Macquarie Strategy, May 2023

Fig 31 Australia-China freight premium declining



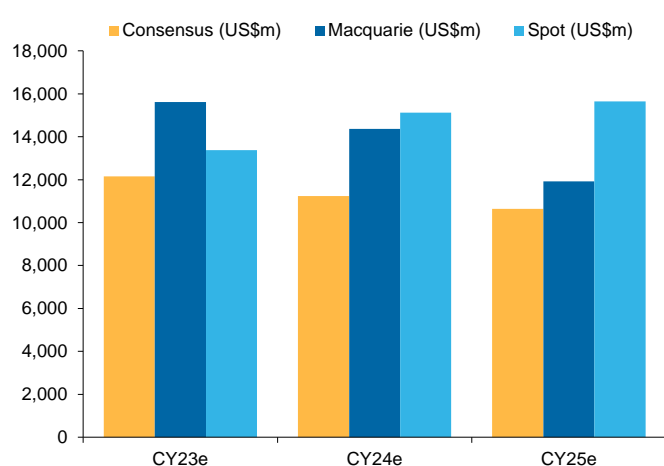
Source: Platts, Bloomberg, Macquarie Research, May 2023

Fig 32 BHP Earnings vs consensus vs spot



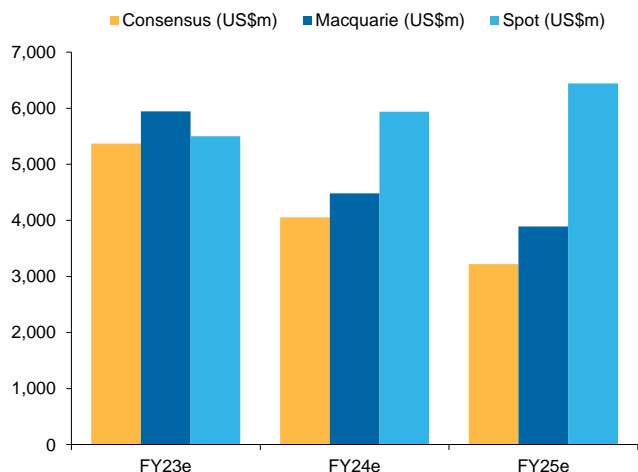
Source: Bloomberg, Macquarie Research, May 2023

Fig 33 RIO Earnings vs consensus vs spot



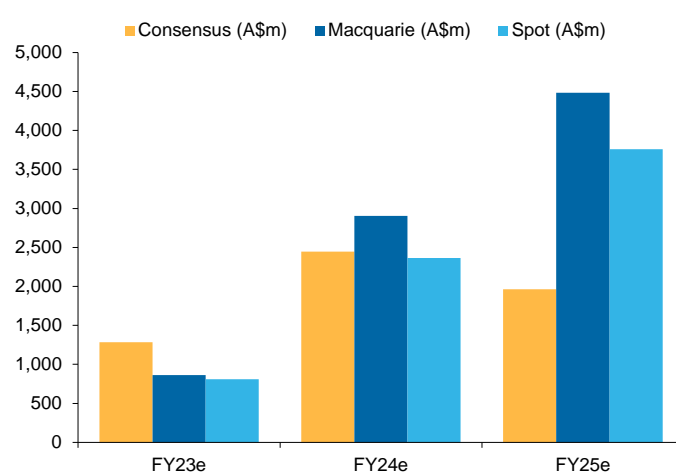
Source: Bloomberg, Macquarie Research, May 2023

Fig 34 FMG Earnings vs consensus vs spot



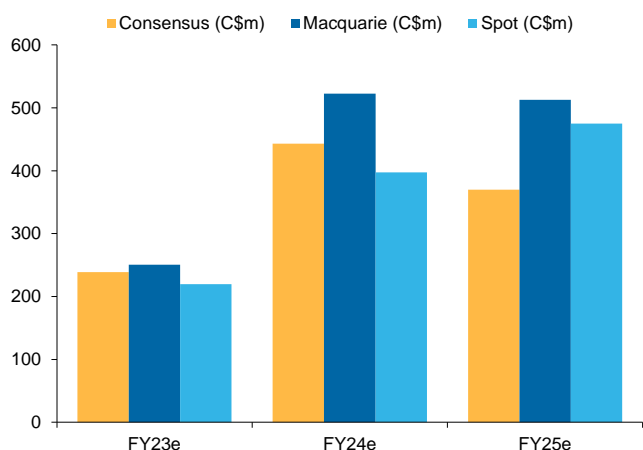
Source: Bloomberg, Macquarie Research, May 2023

Fig 35 MIN Earnings vs consensus vs spot



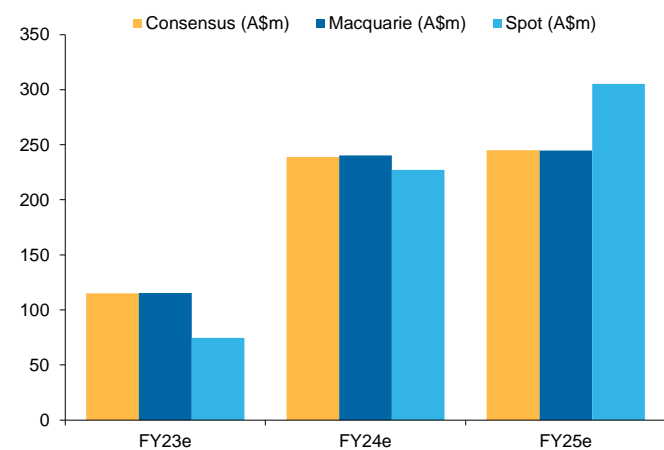
Source: Bloomberg, Macquarie Research, May 2023

Fig 36 CIA Earnings vs consensus vs spot



Source: Bloomberg, Macquarie Research, May 2023

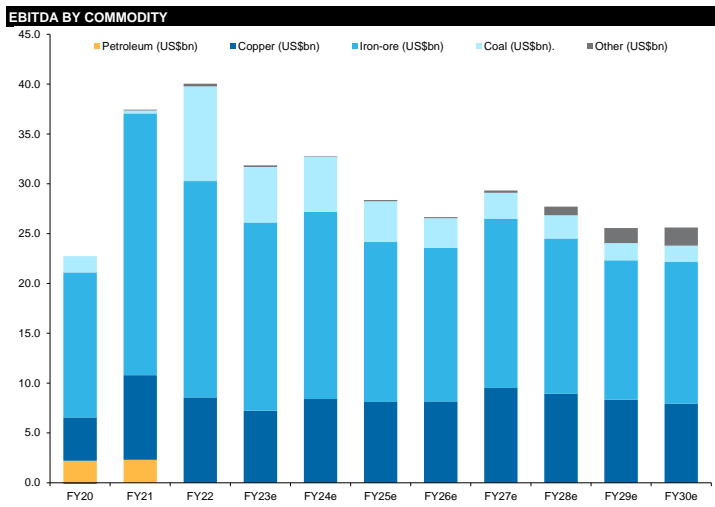
Fig 37 MGX Earnings vs consensus vs spot



Source: Bloomberg, Macquarie Research, May 2023

Fig 38 BHP Group summary financials

BHP Group											
ASX: BHP	Price: (A\$ps)	43.97			Year end: Jun			Rating: Outperform	Up/dn	TSR	
LSE: BHP	Price: (Eps)	23.02			Diluted shares (m)			5,066	ASX Target: 52.00	18%	26%
JSE: BHG	Price: (ZARps)	528.80			LSE Target: 28.50				24%	32%	
	Mkt cap: (US\$m)	150,196			JSE Target: 640.00				21%	29%	
ASSUMPTIONS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Exchange Rate	A\$/US\$	0.73	0.67	0.69	0.70	0.70	0.70	0.70			
Exchange Rate	USDBRL	5.24	5.33	5.79	5.88	5.88	5.88	5.94			
RATIO ANALYSIS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Diluted share capital	m	5,072	5,073	5,073	5,073	5,073	5,073	5,073			
EPS (diluted and pre sig. items)	US¢	609.2	314.5	296.2	243.7	220.9	250.5	228.0			
P/E	x	4.9x	9.4x	10.0x	12.2x	13.4x	11.8x	13.0x			
CFPS	US¢	634.3	411.4	556.0	374.2	356.1	404.4	394.3			
P/CF	x	6.9x	10.7x	7.9x	11.8x	12.3x	10.9x	11.2x			
DPS	US¢	325.0	230.0	223.0	183.0	166.0	188.0	171.0			
Dividend yield	%	11.0%	7.8%	7.5%	6.2%	5.6%	6.3%	5.8%			
Franking Level	%	100%	100%	100%	100%	100%	100%	100%			
Book value per share	US\$ps	9.61	10.09	9.76	10.57	11.69	12.85	13.68			
P/Book value	x	3.1x	2.9x	3.0x	2.8x	2.5x	2.3x	2.2x			
R.O.E. (pre sig items)	%	46%	35%	35%	27%	22%	23%	20%			
R.O.A. (pre sig items)	%	36%	28%	27%	22%	20%	21%	19%			
Interest Cover	x	35.5x	25.5x	37.0x	31.9x	28.0x	31.4x	29.5x			
EBITDA per share	US\$ps	11.04	9.39	9.40	8.00	7.50	8.25	7.80			
EV/EBITDA	x	3.8x	4.9x	4.7x	5.5x	5.9x	5.3x	5.6x			
FCF Yield	%	15%	8%	12%	5%	4%	6%	8%			
EARNINGS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Revenue	US\$m	65,998	57,788	58,836	54,788	53,447	57,154	54,884			
Operating Costs	US\$m	(25,762)	(26,804)	(26,734)	(26,927)	(27,339)	(28,446)	(27,798)			
Operational EBITDA	US\$m	39,336	30,984	32,102	27,861	26,109	28,707	27,085			
Associates	US\$m	720	888	659	528	561	639	644			
Corporate & Other Costs	US\$m	578	102	(40)	(41)	(42)	(43)	(45)			
Underlying Ebitda	US\$m	40,634	31,974	32,721	28,348	26,628	29,303	27,685			
D&A & Impairments	US\$m	(6,198)	(5,418)	(6,100)	(6,230)	(6,311)	(6,345)	(6,677)			
Underlying Ebit	US\$m	34,436	26,556	26,622	22,118	20,317	22,958	21,008			
Adjustments	US\$m	(330)	80	0	0	0	0	0			
Profit from Operations	US\$m	34,106	26,636	26,622	22,118	20,317	22,958	21,008			
Net Interest	US\$m	(969)	(1,043)	(719)	(693)	(726)	(732)	(713)			
Profit Before Tax	US\$m	33,137	25,593	25,902	21,424	19,591	22,226	20,295			
Tax Expense	US\$m	(10,737)	(7,756)	(8,548)	(7,070)	(6,465)	(7,335)	(6,697)			
Net Earnings	US\$m	22,400	17,837	17,355	14,354	13,126	14,892	13,598			
Discontinued operations	US\$m	10,655	0	0	0	0	0	0			
Minority interests	US\$m	(2,155)	(1,883)	(2,329)	(1,990)	(1,916)	(2,182)	(2,031)			
Attributable Profit	US\$m	30,900	15,954	15,026	12,364	11,210	12,709	11,567			
Adjustments	US\$m	(9,581)	140	0	0	0	0	0			
Underlying Profit	US\$m	21,319	16,094	15,026	12,364	11,210	12,709	11,567			
CASHFLOW		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Net Earnings	US\$m	22,400	17,837	17,355	14,354	13,126	14,892	13,598			
Interest/Tax/D&A	US\$m	7,239	4,698	10,372	4,271	5,126	5,963	5,892			
Working Capital/other	US\$m	2,535	(1,663)	481	358	(187)	(336)	514			
Net Operating Cashflow	US\$m	32,174	20,872	28,207	18,984	18,065	20,519	20,004			
Capital Expenditure (cash basis)	US\$m	(6,111)	(6,940)	(8,200)	(9,345)	(10,338)	(10,390)	(7,224)			
Acquisitions/(Disposals)	US\$m	(1,082)	0	0	0	0	0	0			
Other	US\$m	234	(317)	(263)	136	905	1,368	965			
Free cash flow	US\$m	25,215	13,614	19,744	9,775	8,633	11,497	13,745			
Dividends	US\$m	(17,851)	(13,226)	(13,089)	(10,502)	(8,016)	(8,929)	(9,944)			
Minority dividends & payments	US\$m	(2,540)	(1,741)	(2,329)	(1,990)	(1,916)	(2,182)	(2,031)			
New Equity	US\$m	(149)	(1)	0	0	0	0	0			
Debt Drawdown/(Repayment)	US\$m	(2,176)	(1,723)	0	0	0	0	0			
Net Financing Cashflow	US\$m	(22,716)	(16,691)	(15,418)	(12,492)	(9,932)	(11,112)	(11,975)			
Net change in cash	US\$m	2,499	(3,077)	4,326	(2,717)	(1,300)	385	1,770			
BALANCE SHEET		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Cash	US\$m	17,236	14,159	18,485	15,768	14,468	14,854	16,624			
Other current assets	US\$m	11,428	10,603	9,534	8,738	9,155	9,901	8,760			
Property, Plant & Equipments	US\$m	61,295	62,817	64,917	68,032	72,058	76,103	76,650			
Other Non-current assets	US\$m	5,207	5,925	6,363	6,727	7,374	8,168	8,576			
Total Assets	US\$m	95,166	93,504	99,300	99,265	103,055	109,262	110,610			
Debt	US\$m	17,569	16,515	16,515	16,515	16,515	16,515	16,515			
Payables	US\$m	6,687	6,204	5,579	5,113	5,357	5,794	5,126			
Other liabilities	US\$m	22,144	19,607	27,701	23,987	21,871	21,528	19,551			
Total Net Assets / Equity	US\$m	48,766	51,178	49,505	53,650	59,313	65,189	69,419			
Net Debt / (Cash)	US\$m	333	2,356	(1,970)	747	2,047	1,661	(109)			
Gearing (net debt/(nd + equity))	%	1%	4%	(4%)	1%	3%	2%	(0%)			
Gearing (net debt/equity)	%	1%	5%	(4%)	1%	3%	3%	(0%)			
VALUATION		US\$m	US\$	A\$m	A\$/sh	GBPm	GBP	ZARm	ZAR		
Projects	US\$m	102,882	20.31	152,576	30.12	80,376	15.10	1,774,710	350.33		
Iron-ore	US\$m	24,987	4.93	37,057	7.32	19,521	3.67	431,032	85.09		
Copper	US\$m	12,213	2.41	18,113	3.58	9,542	1.79	210,679	41.59		
Coal	US\$m	5,331	1.05	7,905	1.56	4,165	0.78	91,952	18.15		
Nickel & Potash	US\$m	(125)	(0.02)	(186)	(0.04)	(98)	(0.02)	(2,158)	(0.43)		
Group and unallocated	US\$m	18,524	3.66	27,472	5.42	14,472	2.72	319,541	63.08		
Cash	US\$m	(16,515)	(3.26)	(24,492)	(4.83)	(12,902)	(2.42)	(284,884)	(56.24)		
Debt	US\$m	147,297	29.08	218,444	43.12	115,076	21.62	2,540,873	501.57		
Total (WACC 11% nom)	US\$m	147,297	29.08	218,444	43.12	115,076	21.62	2,540,873	501.57		
Price Target (50/50 NPV and 6.0x EV/Ebitda)	AUD	52.00	GBP	28.50	ZAR	640.00					



Source: BHP, Macquarie Research, May 2023

Fig 40 Fortescue Metals Group summary financials

Fortescue Metals											
ASX: FMG	Price: (A\$ps)	A\$20.28			Year end: Jun			Rating: Underperform	Up/dn	TSR	
	Mkt cap: (A\$m)	62,441			Diluted shares (m)			Target: A\$17.00	(16%)	(10%)	
	Mkt cap: (US\$m)	41,786									
ASSUMPTIONS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Exchange Rate	A\$/US\$	0.73	0.67	0.69	0.70	0.70	0.70	0.70			
Iron-ore (62% CIF)	US\$/dmt	139	117	113	103	100	108	100			
Iron-ore (58% CIF)	US\$/dmt	100	99	87	81	79	85	81			
RATIO ANALYSIS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Diluted share capital	m	3,083	3,093	3,093	3,093	3,093	3,093	3,093			
EPS (diluted and pre sig. items)	A¢	277.3	286.8	211.9	180.1	167.4	195.5	171.2			
P/E	x	7.3x	7.1x	9.6x	11.3x	12.1x	10.4x	11.8x			
CFPS	A¢	303.1	399.8	319.9	335.2	325.4	359.6	320.1			
P/CF	x	6.7x	5.1x	6.3x	6.1x	6.2x	5.6x	6.3x			
DPS	A¢	207.0	180.0	135.0	116.0	106.0	125.0	112.0			
Dividend yield	%	10.2%	8.9%	6.7%	5.7%	5.2%	6.2%	5.5%			
Franking Level	%	100%	100%	100%	100%	100%	100%	100%			
Book value per share	A\$ps	7.75	9.59	9.40	9.97	10.96	12.06	12.33			
P/Book value	x	2.6x	2.1x	2.2x	2.0x	1.9x	1.7x	1.6x			
R.O.E. (pre sig items)	%	36%	30%	22%	18%	15%	16%	14%			
R.O.A. (pre sig items)	%	32%	28%	22%	18%	17%	18%	16%			
Interest Cover	x	56.3x	44.1x	28.5x	27.4x	28.0x	34.4x	43.3x			
EBITDA per share	A\$ps	4.71	5.01	3.90	3.50	3.37	3.83	3.47			
EV/EBITDA	x	4.4x	4.1x	5.3x	5.9x	6.1x	5.3x	6.0x			
FCF Yield	%	9%	12%	8%	6%	6%	7%	6%			
EARNINGS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Sales Revenue	US\$m	17,390	17,402	15,891	15,448	15,509	17,013	16,212			
Other Revenue	US\$m	11	106	41	43	64	86	91			
Total Revenue	US\$m	17,401	17,509	15,932	15,491	15,573	17,099	16,303			
Operating Costs	US\$m	(6,278)	(6,162)	(6,591)	(6,837)	(7,162)	(7,660)	(7,612)			
Operational EBITDA	US\$m	11,123	11,347	9,341	8,654	8,411	9,439	8,691			
Exploration Expense/Write-offs	US\$m	(27)	(161)	(203)	(209)	(214)	(220)	(225)			
Corporate & Other Costs	US\$m	(562)	(798)	(864)	(887)	(910)	(934)	(958)			
EBITDA	US\$m	10,534	10,388	8,274	7,559	7,287	8,286	7,507			
D&A	US\$m	(1,528)	(1,690)	(1,615)	(1,709)	(1,808)	(1,905)	(1,955)			
EBIT	US\$m	9,006	8,698	6,658	5,851	5,479	6,381	5,552			
Net Interest	US\$m	(160)	(197)	(234)	(214)	(196)	(185)	(128)			
Profit Before Tax	US\$m	8,846	8,501	6,425	5,637	5,283	6,195	5,424			
Tax Expense	US\$m	(2,649)	(2,561)	(1,927)	(1,691)	(1,585)	(1,859)	(1,627)			
Minorities	US\$m	0	2	(15)	(56)	(74)	(103)	(90)			
Adjusted NPAT	US\$m	6,197	5,942	4,482	3,890	3,625	4,234	3,707			
Significant Items (post tax)	US\$m	0	0	0	0	0	0	0			
Reported NPAT	US\$m	6,197	5,942	4,482	3,890	3,625	4,234	3,707			
CASHFLOW		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Net Profit	US\$m	6,197	5,942	4,482	3,890	3,625	4,234	3,707			
Interest/Tax/D&A	US\$m	865	2,973	1,622	2,688	2,821	2,931	2,467			
Working Capital/other	US\$m	(282)	(618)	683	662	600	757	757			
Net Operating Cashflow	US\$m	6,780	8,297	6,788	7,241	7,045	7,786	6,931			
Capex	US\$m	(2,399)	(2,842)	(2,721)	(3,636)	(3,716)	(3,901)	(3,400)			
Investments	US\$m	(271)	15	0	0	0	0	0			
Fortescue Future Industries	US\$m	(534)	(447)	(813)	(939)	(963)	(989)	(1,015)			
Free cash flow	US\$m	3,576	5,023	3,254	2,666	2,366	2,895	2,516			
Dividends Paid	US\$m	(6,699)	(3,993)	(3,741)	(2,805)	(2,100)	(2,506)	(2,934)			
Debt	US\$m	1,738	(84)	(770)	(20)	(998)	(20)	(2,120)			
Equity Issuance	US\$m	(138)	(151)	(100)	(100)	(100)	(100)	(100)			
Other	US\$m	0	0	0	0	0	0	0			
Net Financing Cashflow	US\$m	(5,099)	(4,228)	(4,611)	(2,925)	(3,198)	(2,626)	(5,154)			
Net change in cash	US\$m	(1,523)	795	(1,357)	(259)	(832)	269	(2,638)			
BALANCE SHEET		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Cash	US\$m	5,224	5,834	4,477	4,218	3,386	3,655	1,017			
PP&E & Mine Development	US\$m	20,650	21,804	22,909	24,837	26,745	28,741	30,186			
Exploration	US\$m	0	0	0	0	0	0	0			
Total Assets	US\$m	28,375	31,122	30,267	31,738	33,080	35,593	33,899			
Debt	US\$m	6,103	6,063	5,293	5,273	4,275	4,255	2,135			
Total Liabilities	US\$m	11,030	11,209	10,316	10,202	9,358	9,483	7,196			
Total Net Assets / Equity	US\$m	17,345	19,912	19,951	21,536	23,721	26,110	26,703			
Net Debt / (Cash)	US\$m	879	229	816	1,055	889	600	1,118			
Gearing (net debt/(nd + equity))	%	5%	1%	4%	5%	4%	2%	4%			
Gearing (net debt/equity)	%	5%	1%	4%	5%	4%	2%	4%			
ATTRIBUTABLE MINE OUTPUT		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e			
Iron-ore shipped (kt)											
Cloudbreak (mt)	mt	39	36	36	37	38	39	39			
Christmas Creek (mt)	mt	68	71	72	74	76	78	78			
Kings Valley (mt)	mt	38	40	46	48	49	50	50			
Firetail (mt)	mt	30	26	21	0	0	0	0			
Eliwana (mt)	mt	15	18	21	42	43	44	45			
Nullagine JV (mt) - 100%	mt	0	0	0	0	0	0	0			
Iron Bridge (mt)	mt	0	0	6	11	16	21	22			
Belinga (mt)	mt	0	0	1	2	2	2	2			
Total shipments (100%)	mt	189	192	203	214	225	235	236			
C1 Cash costs	US\$/wmt	15.87	17.85	19.53	20.51	21.05	21.50	21.91			
All in cash costs	US\$/wmt	39.20	39.73	40.83	42.21	43.16	44.89	44.83			
CFR 62% Fe Equ costs	US\$/dmt	80.54	60.44	69.28	66.04	66.51	70.32	67.36			
OPERATIONAL OUTLOOK											
Cloudbreak (mt)											
Christmas Creek (mt)											
Firetail (mt)											
Kings Valley (mt)											
Nullagine JV (mt) - 100%											
Eliwana (mt)											
Iron Bridge (mt)											
Belinga (mt)											
RESERVES AND RESOURCES (ATTRIBUTABLE)											
Iron-ore reserves											
Project	Mt										
Cloudbreak	390	57.4%	62.3%	5.3%	2.7%	0.06%	7.9%				
Christmas Creek	689	57.1%	61.9%	6.2%	3.0%	0.05%	7.7%				
Firetail	64	58.8%	63.0%	5.9%	2.4%	0.12%	6.6%				
Kings and Queens	617	56.7%	62.3%	6.6%	2.8%	0.08%	9.0%				
Western Hub	227	60.1%	64.0%	4.6%	2.6%	0.12%	6.1%				
Total Reserves	1,987	57.4%	62.4%	5.9%	2.8%	0.07%	7.9%				
Iron-ore resources											
Project	Mt										
Cloudbreak	759	56.6%	61.7%	6.1%	3.4%	0.06%	8.2%				
Christmas Creek	1,529	56.2%	61.0%	6.6%	3.5%	0.05%	7.9%				
Firetail	208	56.9%	61.3%	7.5%	3.3%	0.12%	7.2%				
Kings and Queens	1,773	55.1%	60.4%	8.3%	3.5%	0.08%	8.7%				
Eliwana	753	58.2%	62.3%	6.1%	3.2%	0.11%	6.7%				
Fortescue Mines	5,168	56.3%	61.1%	7.0%	3.4%	0.07%	8.0%				
Greater Chichester	433	56.4%	60.6%	7.1%	3.8%	0.06%	7.0%				
Greater Solomon	2,416	56.8%	61.3%	6.9%	3.7%	0.08%	7.4%				
Western Hub	1,959	56.8%	62.4%	6.0%	3.0%	0.09%	9.0%				
Nyidinghu	2,461	57.5%	63.0%	4.9%	3.2%	0.15%	8.7%				
Total Resources	13,549	56.8%	61.8%	6.4%	3.3%	0.09%	8.1%				
Magnetite Reserves	Mt										
North Star	642	30.0%	67.1%	5.6%	0.3%						
Magnetite Resources											
Project	Mt										
North Star and Eastern Limb	3,324	24.1%	30.0%	41.6%	2.8%						
Glacier Valley	1,359	20.5%	32.0%	39.8%	2.0%						
West Star	602	20.3%	28.0%	43.9%	3.4%						
Total	5,285	22.7%	30.3%	41.4%	2.7%						
VALUATION											
Projects											
Fortescue Operations	A\$m	76,595	24.76	30,204	9.76						
Iron Bridge	A\$m	8,684	2.81	5,153	1.67						
Belinga	A\$m	255	0.08	209	0.07						
Other resources	A\$m	8,396	2.71	6,174	2.00						
Pilbara Energy	A\$m	1,423	0.46	1,485	0.48						

Fig 41 Mineral Resources summary financials

Mineral Resources								Year end: Jun																														
ASX: MIN	Price: (A\$ps)	A\$68.63						Diluted shares (m)	194.1						Rating: Outperform	Up/dn	TSR																					
	Mkt cap: (A\$m)	13,321							Target: A\$115.00							68%	69%																					
	Mkt cap: (US\$m)	8,833																																				
ASSUMPTIONS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e	ATTRIBUTABLE MINE OUTPUT																													
Exchange Rate	A\$/US\$	0.73	0.67	0.69	0.70	0.70	0.70	0.70	Iron-ore Shipped																													
Iron-ore	(US\$/t)	139	117	113	103	100	108	100	Iron Valley	(kt)	5,200	3,845	3,000	3,000	3,000	3,000	0																					
Spodumene	(US\$/t)	2,326	5,406	5,475	5,800	5,750	5,050	4,125	Wonmuna	(kt)	5,333	6,418	8,000	8,000	8,000	8,000	0																					
Lithium Hydroxide	(US\$/t)	28,287	57,570	67,000	76,000	77,250	68,500	55,750	Onslow Iron	(kt)	0	0	0	19,500	30,000	30,000	30,000																					
RATIO ANALYSIS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e	Marillana	(kt)	0	0	0	0	0	0	0																					
Diluted share capital	m	188.9	194.1	194.1	194.1	194.1	194.1	194.1	Carina	(kt)	0	0	0	0	0	0	0																					
EPS (diluted and pre sig. items)	A¢	211.5	447.7	1,497.1	2,309.6	2,618.6	2,823.3	2,559.5	Koolyanobbing	(kt)	8,679	6,968	7,000	7,000	7,000	0	0																					
P/E	x	32.4x	15.3x	4.6x	3.0x	2.6x	2.4x	2.7x	Other	(kt)	0	0	0	0	0	0	0																					
CFPS	A¢	148.1	345.7	2,477.8	2,731.2	3,065.5	3,125.5	2,617.5	Total	(kt)	19,212	17,231	18,000	37,500	48,000	41,000	30,000																					
P/CF	x	46.3x	19.9x	2.8x	2.5x	2.2x	2.2x	2.6x	Spodumene																													
DPS	A¢	100.0	242.0	803.0	1,255.0	1,418.0	1,540.0	1,402.0	Mt Marion (100% basis)	(kt)	442	521	797	904	904	904	904																					
Dividend yield	%	1.5%	3.5%	11.7%	18.3%	20.7%	22.4%	20.4%	Wodgina (100% basis)	(kt)	22	398	698	819	819	819	819																					
Franking Level	%	100%	100%	100%	100%	100%	100%	100%	Total Spodumene	(kt)	464	919	1,495	1,723	1,723	1,723	1,723																					
Book value per share	x	17.32	19.26	29.44	41.43	54.55	67.26	77.82	Wodgina DSO	(kt)	0	0	0	0	0	0	0																					
P/Book value	x	4.0x	3.6x	2.3x	1.7x	1.3x	1.0x	0.9x	Spodumene Equivalent	(kt)	464	919	1,495	1,723	1,723	1,723	1,723																					
R.O.E. (pre sig items)	%	12%	23%	51%	56%	48%	42%	33%	Lithium Hydroxide (100% basis)																													
R.O.A. (pre sig items)	%	9%	18%	32%	38%	35%	36%	32%	Kemerton I & II	(kt)	0.0	0.0	18.8	43.0	51.6	51.6	51.6																					
Interest Cover	x	6.0x	6.4x	18.7x	32.4x	45.4x	73.3x	(131.8x)	MARBL JV - Qinzhou China	(kt)	0.0	0.0	12.4	25.0	25.0	38.8	50.0																					
EBITDA per share	A\$ps	5.42	10.10	25.06	37.22	41.99	44.00	38.91	MARBL JV - Meishan China	(kt)	0.0	0.0	0.0	1.9	24.3	46.3	50.0																					
EV/EBITDA	x	13.7x	8.1x	3.1x	1.8x	1.3x	1.0x	0.8x	Total	(kt)	0.0	0.0	31.2	69.9	100.9	136.7	151.6																					
Free cash flow yield	%	(3%)	(11%)	12%	32%	38%	42%	35%	SPODUMENE EQUIVELANT SHIPMENTS (100% MOUNT MARION)																													
EARNINGS		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e																														
Sales Revenue	A\$m	3,418	4,794	8,533	13,367	15,952	16,368	13,729																														
Other Revenue	A\$m	0	0	0	0	0	0	0																														
Total Revenue	A\$m	3,418	4,794	8,533	13,367	15,952	16,368	13,729																														
Operating Costs	A\$m	(2,394)	(2,833)	(3,670)	(6,143)	(7,801)	(7,827)	(6,176)																														
EBITDA	A\$m	1,024	1,961	4,863	7,224	8,150	8,541	7,553																														
D&A	A\$m	(352)	(494)	(478)	(616)	(725)	(604)	(509)																														
EBIT	A\$m	672	1,467	4,385	6,608	7,425	7,937	7,044																														
Net Interest	A\$m	(113)	(229)	(234)	(204)	(164)	(108)	53																														
Profit Before Tax	A\$m	559	1,238	4,151	6,404	7,261	7,829	7,097																														
Tax Expense	A\$m	(159)	(378)	(1,245)	(1,921)	(2,178)	(2,349)	(2,129)																														
Underlying profit	A\$m	400	860	2,906	4,483	5,083	5,480	4,968																														
Exceptional items	A\$m	(49)	3	0	0	0	0	0																														
Reported profit	A\$m	351	864	2,906	4,483	5,083	5,480	4,968																														
Minorities	A\$m	(2)	(2)	0	0	0	0	0																														
Attributable profit	A\$m	349	862	2,906	4,483	5,083	5,480	4,968																														
CASHFLOW		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e																														
Underlying profit	A\$m	400	860	2,906	4,483	5,083	5,480	4,968																														
Interest/Tax	A\$m	(68)	301	539	240	185	(20)	(167)																														
D&A	A\$m	352	494	478	616	725	604	509																														
Working Capital/other	A\$m	(404)	(984)	887	(38)	(43)	2	(229)																														
Net Operating Cashflow	A\$m	280	671	4,809	5,301	5,950	6,067	5,080																														
Capex	A\$m	(955)	(2,089)	(3,212)	(1,015)	(955)	(527)	(408)																														
Investments/other	A\$m	11	(37)	0	0	0	0	0																														
Disposals (acquisitions)	A\$m	290	0	0	0	0	0	0																														
Free cash flow	A\$m	(375)	(1,455)	1,598	4,286	4,996	5,540	4,672																														
Dividends Paid	A\$m	(324)	(404)	(930)	(2,156)	(2,537)	(3,012)	(2,917)																														
Equity Issuance	A\$m	(20)	(3)	0	0	0	0	0																														
Debt	A\$m	1,576	(72)	(116)	(49)	(31)	(1,918)	(21)																														
Net Financing Cashflow	A\$m	1,233	(479)	(1,046)	(2,205)	(2,568)	(4,931)	(2,938)																														
Net change in cash	A\$m	858	(1,934)	551	2,081	2,428	609	1,734																														
BALANCE SHEET		FY22	FY23e	FY24e	FY25e	FY26e	FY27e	FY28e																														
Cash	A\$m	2,428	528	1,079	3,160	5,588	6,197	7,931																														
Receivables/Inventories/other	A\$m	942	1,659	3,374	4,748	5,667	5,543	4,374																														
PP&E & Mine Development	A\$m	3,601	5,449	8,183	8,582	8,811	8,734	8,633																														
Intangibles	A\$m	25	24	24	24	24	24	24																														
Other	A\$m	815	521	845	1,104	1,278	1,254	1,033																														
Total Assets	A\$m	7,811	8,181	13,506	17,618	21,368	21,752	21,996																														
Debt	A\$m	3,126	3,118	3,002	2,953	2,922	1,004	983																														
Provisions/other	A\$m	1,414	1,323	4,789	6,624	7,859	7,693	5,907																														
Total Liabilities	A\$m	4,540	4,442	7,791	9,577	10,781	8,697	6,890																														
Total Net Assets / Equity	A\$m	3,271	3,739	5,715	8,041	10,587	13,055	15,106																														
Net Debt / (Cash)	A\$m	698	2,590	1,923	(207)	(2,666)	(5,193)	(6,948)																														
Gearing (net debt/(nd + equity))	%	18%	41%	25%	(3%)	(34%)	(66%)	(85%)																														
Gearing (net debt/equity)	%	21%	69%	34%	(3%)	(25%)	(40%)	(46%)																														
									Net Equity Value (@ 11.50% WACC)																													
									SUM-OF-THE-PARTS EBITDA MULTIPLE TARGET																													
									<table border="1"> <thead> <tr> <th>Projects</th> <th>EV/Ebitda (x)</th> <th>Ebitda (A\$m)</th> <th>A\$m</th> <th>A\$ps</th> </tr> </thead> <tbody> <tr> <td>Mining Services & Processing</td> <td>6.0</td> <td>660</td> <td>3,958</td> <td>20.39</td> </tr> <tr> <td>Iron Ore</td> <td>4.0</td> <td>632</td> <td>2,528</td> <td>13.02</td> </tr> <tr> <td>Lithium</td> <td>5.0</td> <td>2,763</td> <td>13,814</td> <td>71.17</td> </tr> <tr> <td>Net Debt & Investments</td> <td></</td></tr></tbody></table>								Projects	EV/Ebitda (x)	Ebitda (A\$m)	A\$m	A\$ps	Mining Services & Processing	6.0	660	3,958	20.39	Iron Ore	4.0	632	2,528	13.02	Lithium	5.0	2,763	13,814	71.17	Net Debt & Investments	</
Projects	EV/Ebitda (x)	Ebitda (A\$m)	A\$m	A\$ps																																		
Mining Services & Processing	6.0	660	3,958	20.39																																		
Iron Ore	4.0	632	2,528	13.02																																		
Lithium	5.0	2,763	13,814	71.17																																		
Net Debt & Investments	</																																					

Fig 42 Champion Iron summary financials

Champion Iron																
ASX: CIA	Price: (A\$ps)	6.27			Year end: Mar			Rating: Outperform	Up/dn	TSR						
TSX: CIA	Price: (C\$ps)	5.61			Diluted shares (m)			Target: (A\$) 7.80	24%	31%						
	Mkt cap: (US\$m)	2,110			508			Target: (C\$) 7.00	25%	31%						
ASSUMPTIONS		FY20	FY21	FY22	FY23e	FY24e	FY25e	FY26e	ATTRIBUTABLE MINE OUTPUT							
62% Iron ore price	(US\$/t)	94.9	127.9	153.9	116.4	120.0	106.3	97.5	Production							
Realised Price	(US\$/t)	112.9	133.3	161.0	130.6	139.1	130.3	121.6	Bloom Lake (mt) (100%)	7.9	8.0	8.0	11.2	14.7	15.4	15.4
C\$/US exchange rate	(x)	0.77	0.75	0.74	0.79	0.78	0.73	0.71	Kami (mt) (100%)						0.0	0.3
									Total production (mt)	7.9	8.0	8.0	11.2	14.7	15.4	15.7
RATIO ANALYSIS		FY20	FY21	FY22	FY23e	FY24e	FY25e	FY26e	Sales							
Diluted share capital	m	477.6	506.3	524.1	526.9	526.9	526.9	526.9	Bloom Lake (mt) (100%)	7.6	7.7	7.7	10.6	14.6	15.4	15.4
EPS (diluted and pre sig. items)	C¢	15.5	93.2	100.7	47.5	99.1	97.3	80.0	Kami (mt) (100%)	0.0	0.0	0.0	0.0	0.0	0.0	0.3
P/E	x	36.2x	6.0x	5.6x	11.8x	5.7x	5.8x	7.0x	Total sales (mt)	7.6	7.7	7.7	10.6	14.6	15.4	15.7
CFPS	C¢	64.8	123.6	90.6	49.1	114.7	117.7	95.1	Operating cost (C\$/t)							
P/CF	x	8.7x	4.5x	6.2x	11.4x	4.9x	4.8x	5.9x	Bloom Lake (C\$/t)	56.1	54.9	59.4	73.8	69.2	65.0	66.7
DPS	C¢	0.0	0.0	20.0	25.0	35.0	33.0	29.0	Kami (C\$/t)							
Dividend yield	%	0.0%	0.0%	3.6%	4.5%	6.2%	5.9%	5.2%	Operating costs (C\$/t)	56.1	54.9	59.4	73.8	69.2	65.0	65.3
Franking Level	%	0%	0%	0%	0%	0%	0%	0%	CFR Cash cost (US\$/t)							
Book value per share	x	0.79	1.77	2.22	2.69	3.41	4.04	4.58	Bloom Lake (US\$/t)	55.2	48.6	55.3	73.0	62.0	54.7	54.3
P/Book value	x	7.1x	3.2x	2.5x	2.1x	1.6x	1.4x	1.2x	Kami (US\$/t)							
R.O.E. (pre sig items)	%	32%	52%	45%	18%	29%	24%	17%	CFR Cash costs (US\$/t)	55.2	48.6	55.3	73.0	62.0	54.7	53.1
R.O.A. (pre sig items)	%	37%	51%	45%	17%	24%	22%	19%								
Interest Cover	x	3.8x	35.0x	80.3x	19.7x	40.8x	44.5x	40.3x								
EBITDA per share	C\$ps	0.73	1.62	1.78	0.98	1.77	1.75	1.48								
EV/EBITDA	x	6.0x	2.0x	2.2x	4.3x	2.0x	2.3x	3.1x								
FCF Yield	%	7%	21%	(4%)	(2%)	25%	(6%)	(4%)								
EARNINGS		FY20	FY21	FY22	FY23e	FY24e	FY25e	FY26e	ATTRIBUTABLE BLOOM LAKE PRODUCTION (MT)							
Sales Revenue	C\$m	785	1,282	1,461	1,382	2,013	2,001	1,911								
Other Revenue	C\$m	0	0	9	0	0	0	0								
Total Revenue	C\$m	785	1,282	1,469	1,382	2,013	2,001	1,911								
Operating Costs	C\$m	399	424	454	783	1,001	999	1,050								
Operational EBITDA	C\$m	386	858	1,015	599	1,012	1,002	861								
Exploration Expense/Write-offs	C\$m	0	0	0	0	0	0	0								
Corporate & Other Costs	C\$m	37	39	85	84	80	80	80								
EBITDA	C\$m	349	819	930	514	932	922	781								
D&A	C\$m	22	35	44	93	87	91	95								
EBIT	C\$m	327	784	886	422	846	831	686								
Net Interest	C\$m	85	22	11	21	21	19	19								
Profit Before Tax	C\$m	241	762	875	400	825	813	669								
Tax Expense	C\$m	120	297	348	150	303	300	247								
Reported NPAT	C\$m	121	464	527	250	522	513	422								
Minority interests & Abnormals	C\$m	49	0	0	0	0	0	0								
Adjusted NPAT	C\$m	73	464	527	250	522	513	422								
CASHFLOW		FY20	FY21	FY22	FY23e	FY24e	FY25e	FY26e	RESERVES AND RESOURCES (100%)							
Net Profit	C\$m	121	464	527	250	522	513	422	Iron-ore reserves							
Interest/D&A/Tax	C\$m	95	255	(78)	49	93	103	102	Mt	Fe	CaO	SAT	MgO	Al2O3		
Working Capital/other	C\$m	(93)	94	(25)	41	11	(5)	22	Bloom Lake	807	28.9%	2.1%	6.5%	2.0%	0.5%	
Net Operating Cashflow	C\$m	309	626	475	259	604	620	501	Kami	517	28.8%	2.5%	7.0%	1.2%	0.7%	
Capex	C\$m	153	175	560	294	68	747	587	Total reserves	1324	28.9%	2.3%	6.7%	1.7%	0.6%	
Free cash flow	C\$m	157	451	(85)	(36)	536	(127)	(86)	Iron-ore resources							
Dividends Paid	C\$m	0	28	57	103	155	186	145	Bloom Lake							
Equity Issuance	C\$m	182	5	(185)	(2)	0	0	0	Mt	Fe	CaO	SAT	MgO	Al2O3		
Debt	C\$m	45	(3)	124	69	540	(10)	(520)	Measured	379	30.2%	1.4%	4.4%	1.4%	0.3%	
Other	C\$m	(44)	(23)	(4)	14	0	0	0	Indicated	514	28.7%	2.5%	7.7%	2.3%	0.4%	
Net Financing Cashflow	C\$m	182	(49)	(122)	(21)	385	(196)	(665)	Total M&I resources	894	29.2%	2.1%	6.4%	1.9%	0.4%	
Net change in cash	C\$m	128	402	(283)	0	921	(323)	(750)	Inferred	54	26.2%	2.8%	8.0%	2.4%	0.4%	
									Kami	Mt	Fe	CaO	SAT	MgO	Al2O3	
									Measured	537	29.9%	4.1%	7.0%	1.2%		
									Indicated	738	29.5%	3.6%	7.0%	1.1%		
									Total M&I resources	1275	29.7%	3.8%	7.0%	1.1%		
									Inferred	623	29.5%	4.0%	8.1%	1.0%		
BALANCE SHEET		FY20e	FY21e	FY22e	FY23e	FY24e	FY25e	FY26e	EQUITY DCF VALUATION							
Cash	C\$m	299	681	353	327	1,248	925	174	C\$ Valuation							
Other current assets	C\$m	103	171	243	572	619	600	665	Project	C\$m	C\$/sh	A\$m	A\$/sh			
PP&E & Mine Development	C\$m	372	505	1,079	1,279	1,260	1,916	2,408	Bloom Lake	3,500	6.64	3,885	7.37			
Other non-current assets	C\$m	110	184	315	339	351	346	363	Kami	(47)	(0.09)	(53)	(0.10)			
Total Assets	C\$m	883	1,541	1,989	2,517	3,478	3,787	3,610	DRPF	469	0.89	520	0.99			
Other current liabilities	C\$m	113	294	215	266	288	279	309	Undeveloped Resources	236	0.45	262	0.50			
Debt	C\$m	276	216	323	439	980	970	450	Cash	344	0.65	382	0.72			
Other non-current liabilities	C\$m	117	134	289	392	414	410	440	Total debt	(424)	(0.81)	(471)	(0.89)			
Total Liabilities	C\$m	506	644	828	1,097	1,681	1,658	1,199	Corp/G&A	(544)	(1.03)	(604)	(1.15)			
Total Net Assets / Equity	C\$m	377	897	1,162	1,419	1,796	2,128	2,411	NAV @ 12.8 WACC (Nom)	3,533	6.70	3,921	7.44			
Net Debt / (Cash)	C\$m	(23)	(464)	(29)	112	(268)	45	276	Price target 50/50 Blend (NPV and 4.5x EV/Ebitda)		7.00		7.80			
Gearing (net debt/(nd + equity))	%	(6%)	(107%)	(3%)	7%	(18%)	2%	10%								
Gearing (net debt/equity)	%	(6%)	(52%)	(3%)	8%	(15%)	2%	11%								

Source: CIA, Macquarie Research, May 2023

Fig 43 Deterra Royalties summary financials

Deterra Royalties																				
ASX: DRR	Price: (A\$ps)	A\$4.64						Year end: June	Rating: Outperform	Up/dn	TSR									
	Mkt cap: (A\$m)	2,452						Diluted shares (m)	528.5	Target: A\$5.00	8%	15%								
	Mkt cap: (US\$m)	1,626																		
ASSUMPTIONS		FY21	FY22	FY23e	FY24e	FY25e	FY26e	FY27e	OUTPUT BY COMMODITY				FY21	FY22	FY23e	FY24e	FY25e	FY26e	FY27e	
Iron-ore fines	(US\$/t)	154.61	138.50	116.92	112.50	102.50	100.00	107.50	Production											
Iron-ore lump	(US\$/t)	172.93	155.11	125.34	126.00	113.50	115.00	125.00	North Flank				(wmt)	61.6	66.4	59.7	65.0	65.0	65.0	65.0
Freight	(US\$/t)	8.82	12.34	8.23	8.50	9.00	9.50	10.50	South Flank				(wmt)	0.0	44.7	67.5	85.0	85.0	85.0	87.5
A\$/US\$	(x)	0.75	0.73	0.67	0.69	0.70	0.70	0.70	Total				(wmt)	61.6	111.1	127.2	150.0	150.0	150.0	152.5
RATIO ANALYSIS		FY21	FY22	FY23e	FY24e	FY25e	FY26e	FY27e	Shipments											
Diluted share capital	m	528.5	528.5	528.5	528.5	528.5	528.5	528.5	North Flank				(dmt)	57.9	62.1	55.6	61.0	61.0	61.0	61.0
EPS (underlying)	A¢	17.0	33.7	32.1	35.3	29.3	29.1	31.9	South Flank				(dmt)	0.0	41.9	62.8	79.6	79.6	79.6	82.2
P/E	x	27.3x	13.8x	14.5x	13.1x	15.8x	16.0x	14.5x	Total				(dmt)	57.9	104.0	118.4	140.6	140.6	140.6	143.2
CFPS	A¢	15.5	24.2	35.6	36.9	32.0	27.7	31.2	MINING AREA C PRODUCTION (MTPA)											
P/CF	x	29.8x	19.2x	13.0x	12.6x	14.5x	16.7x	14.9x												
DPS	A¢	14.0	33.8	32.1	34.6	28.7	28.5	31.3												
Dividend yield	%	3.0%	7.3%	6.9%	7.5%	6.2%	6.1%	6.7%												
Franking Level	%	100%	100%	100%	100%	100%	100%	100%												
Book value per share	x	0.12	0.22	0.22	0.20	0.15	0.17	0.19												
P/Book value	x	39.7	20.7	20.7	23.3	30.9	26.6	25.1												
R.O.E. (pre sig items)	%	145%	150%	143%	177%	195%	167%	173%												
R.O.A. (pre sig items)	%	152%	168%	166%	207%	232%	197%	204%												
Interest Cover	x	616	301	168	183	149	-911	-824												
EBITDA per share	A\$ps	0.26	0.49	0.46	0.51	0.42	0.42	0.46												
EV/EBITDA	x	17.9x	9.4x	9.9x	9.0x	10.8x	11.0x	10.0x												
Free cash flow yield	%	2%	5%	8%	8%	7%	6%	7%												
EARNINGS		FY21	FY22	FY23e	FY24e	FY25e	FY26e	FY27e	MINING AREA C - LUMP/FINES MIX											
Mining Area C	A\$m	144.4	264.8	252.5	277.1	231.8	227.5	249.2												
Other royalties	A\$m	0.8	0.4	0.7	0.0	0.0	0.0	0.0												
Total revenue	A\$m	145.2	265.2	253.2	277.1	231.8	227.5	249.2												
Corporate and other costs	A\$m	(4.6)	(8.4)	(8.7)	(8.0)	(8.0)	(8.0)	(8.0)												
Foreign exchange gain/(loss)	A\$m	(4.8)	0.0	0.0	0.0	0.0	0.0	0.0												
Ebitda	A\$m	135.8	256.8	244.5	269.1	223.8	219.5	241.2												
Depreciation & Amortisation	A\$m	(0.4)	(0.5)	(0.7)	(1.0)	(1.0)	(0.4)	(0.4)												
Ebit	A\$m	135.4	256.2	243.8	268.1	222.8	219.1	240.8												
Net finance costs	A\$m	(0.2)	(0.9)	(1.5)	(1.5)	(1.5)	0.2	0.3												
Pre-tax Profit	A\$m	135.2	255.4	242.3	266.6	221.3	219.3	241.1												
Tax expense	A\$m	(40.9)	(77.1)	(72.9)	(80.0)	(66.4)	(65.8)	(72.3)												
Underlying earnings	A\$m	94.3	178.3	169.4	186.6	154.9	153.5	168.8												
Exceptional items (post tax)	A\$m	(4.6)	0.0	0.0	0.0	0.0	0.0	0.0												
Reported earnings	A\$m	89.7	178.3	169.4	186.6	154.9	153.5	168.8												
CASHFLOW		FY21	FY22	FY23e	FY24e	FY25e	FY26e	FY27e	PRODUCT SPECIFICATIONS											
Underlying earnings	A\$m	78.3	128.2	188.6	196.9	172.2	147.5	166.5												
Interest/Tax/D&A	A\$m	20.5	8.1	22.6	(3.3)	(8.6)	2.5	(0.2)												
Working Capital/other	A\$m	(16.7)	(8.4)	(23.3)	1.5	5.4	(3.5)	(1.2)												
Net Operating Cashflow	A\$m	82.2	127.8	188.0	195.1	169.1	146.6	165.0												
Capex	A\$m	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0												
Sale of PPE and Other	A\$m	(0.0)	(0.0)	0.0	0.0	0.0	0.0	0.0												
Other	A\$m	(24.4)	0.0	0.0	0.0	0.0	0.0	0.0												
Free cash flow	A\$m	57.7	127.8	188.0	195.1	169.1	146.6	165.0												
Dividends Paid	A\$m	(33.3)	(122.6)	(180.1)	(196.2)	(175.2)	(139.4)	(161.5)												
Equity Issuance	A\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0												

Fig 44 Mt Gibson Iron summary financials

Mount Gibson Iron																								
ASX: MGX	Price: (A\$ps)	0.47		Year end: Jun	Rating: Neutral	Up/dn	TSR																	
	Mkt cap: (A\$m)	551		Diluted shares (m)	1,186	Target: 0.50	8%																	
	Mkt cap: (US\$m)	366					8%																	
ASSUMPTIONS		FY21	FY22	FY23e	FY24e	FY25e	FY26e																	
Exchange Rate	A\$/US\$	0.75	0.73	0.67	0.69	0.70	0.70																	
Spot iron-ore (62% CIF)	US\$/t	154.61	138.50	116.92	112.50	102.50	100.00																	
RATIO ANALYSIS		FY21	FY22	FY23e	FY24e	FY25e	FY26e																	
Diluted share capital	m	1,185.9	1,210.6	1,210.6	1,210.6	1,307.4	1,307.4																	
EPS (diluted and pre sig. items)	A¢	5.4	(3.0)	9.5	19.8	19.2	4.9																	
P/E	x	8.5x	(15.6x)	4.9x	2.3x	2.4x	9.5x																	
CFPS	A¢	14.0	(0.2)	13.0	29.6	32.6	9.9																	
P/CF	x	3.3x	(233.3x)	3.6x	1.6x	1.4x	4.7x																	
DPS	A¢	2.0	0.0	0.0	10.0	10.0	0.0																	
Dividend yield	%	4.3%	0.0%	0.0%	21.5%	21.5%	0.0%																	
Franking Level	%	100%	100%	100%	50%	0%	0%																	
Book value per share	x	0.6	0.4	0.5	0.7	0.8	0.8																	
P/Book value	x	0.8x	1.1x	0.9x	0.6x	0.6x	0.6x																	
R.O.E. (pre sig items)	%	9%	3%	18%	27%	23%	6%																	
R.O.A. (pre sig items)	%	10%	(9%)	15%	24%	29%	7%																	
Interest Cover	x	(16.0x)	249.1x	74.7x	(99.5x)	(29.3x)	(5.2x)																	
EBITDA per share	A\$ps	0.1	(0.0)	0.2	0.4	0.4	0.1																	
EV/EBITDA	x	1.5x	(14.9x)	2.0x	0.2x	(0.4x)	(1.1x)																	
Free cash flow Yield	%	(9%)	(40%)	3%	56%	67%	20%																	
ATTRIBUTABLE MINE OUTPUT		FY21	FY22	FY23e	FY24e	FY25e	FY26e																	
Iron-ore Shipped (kt)																								
Koolan Island	kt	1,781	1,351	2,880	5,050	5,600	2,410																	
Tallering Peak	kt	0	0	0	0	0	0																	
Extension Hill/Iron Hill	kt	1,235	0	0	0	0	0																	
Shine	kt	0	294	0	0	0	0																	
Other	kt	0	0	0	0	0	0																	
Total	kt	3,016	1,645	2,880	5,050	5,600	2,410																	
C1 Cash Costs																								
Koolan Island	A\$/wmt	72	82	79	37	32	47																	
Tallering Peak	A\$/wmt	0	0	0	0	0	0																	
Extension Hill/Iron Hill	A\$/wmt	64	0	0	0	0	0																	
Shine	A\$/wmt	0	145	0	0	0	0																	
Group		82	93	79	37	32	47																	
All-in Cash Costs (FOB)																								
Koolan Island	A\$/wmt	100	121	145	62	53	67																	
Tallering Peak	A\$/wmt	0	0	0	0	0	0																	
Extension Hill/Iron Hill	A\$/wmt	0	0	0	0	0	0																	
Shine	A\$/wmt	0	190	0	0	0	0																	
Group		96	136	145	62	53	67																	
EARNINGS		FY21	FY22	FY23e	FY24e	FY25e	FY26e																	
Sales Revenue	A\$m	330	141	489	767	758	309																	
Other Revenue	A\$m	15	19	11	4	3	0																	
Total Revenue	A\$m	344	160	499	771	761	309																	
Operating Costs	A\$m	(194)	(169)	(276)	(260)	(249)	(144)																	
Operational EBITDA	A\$m	150	(9)	223	511	513	165																	
Exploration Expense/Write-offs	A\$m	0	(2)	(2)	0	0	0																	
Corporate & Other Costs	A\$m	(12)	(18)	(14)	(12)	(4)	0																	
EBITDA	A\$m	138	(29)	207	499	508	165																	
D&A	A\$m	(51)	(31)	(40)	(159)	(183)	(88)																	
EBIT	A\$m	87	(60)	167	340	325	77																	
Net Interest	A\$m	5	0	(2)	3	11	15																	
Profit Before Tax	A\$m	93	(60)	165	343	337	92																	
Tax Expense	A\$m	(28)	74	(50)	(103)	(92)	(28)																	
Minorities	A\$m	0	0	0	0	0	0																	
Adjusted NPAT	A\$m	65	14	115	240	245	64																	
Significant Items (post tax)	A\$m	0	(185)	0	0	0	0																	
Reported NPAT	A\$m	65	(171)	115	240	245	64																	
CASHFLOW		FY21	FY22	FY23e	FY24e	FY25e	FY26e																	
Net Profit	A\$m	65	74	115	240	245	64																	
Interest/Tax/D&A	A\$m	74	(51)	89	212	171	24																	
Working Capital/other	A\$m	28	(26)	(47)	(95)	10	42																	
Net Operating Cashflow	A\$m	166	(2)	157	358	426	130																	
Capex	A\$m	(219)	(208)	(142)	(52)	(59)	(18)																	
Investments	A\$m	0	0	0	0	0	0																	
Other	A\$m	4	(10)	4	5	0	0																	
Free cash flow	A\$m	(49)	(220)	19	311	367	112																	
Dividends Paid	A\$m	(16)	(12)	0	0	(73)	(131)																	
Debt	A\$m	11	(8)	0	0	0	0																	
Equity Issuance	A\$m	1	0	0	0	0	0																	
Other	A\$m	0	0	0	0	0	0																	
Net Financing Cashflow	A\$m	(5)	(20)	0	0	(73)	(131)																	
Net change in cash	A\$m	(54)	(241)	19	311	295	(18)																	
BALANCE SHEET		FY21	FY22	FY23e	FY24e	FY25e	FY26e																	
Cash	A\$m	352	126	144	455	750	731																	
PP&E & Mine Development	A\$m	467	429	438	331	257	186																	
Exploration	A\$m	0	0	2	4	4	4																	
Total Assets	A\$m	898	690	1,114	1,429	1,134	1,044																	
Debt	A\$m	12	8	0	0	0	0																	
Total Liabilities	A\$m	179	157	466	541	73	50																	
Total Net Assets / Equity	A\$m	720	533	648	888	1,060	994																	
Net Debt / (Cash)	A\$m	(340)	(117)	(144)	(455)	(750)	(731)																	
Gearing (net debt/(nd + equity))	%	(90%)	(28%)	(29%)	(105%)	(242%)	(279%)																	
Gearing (net debt/equity)	%	(47%)	(22%)	(22%)	(51%)	(71%)	(74%)																	
OPERATIONAL OUTLOOK		FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23e	FY24e	FY25e	
RESERVES AND RESOURCES (ATTRIBUTABLE)																								
Iron-ore reserves																								
Project		Mt	Fe	SiO2	Al2O3	P																		
Koolan Island		18.7	65.2%	5.0%	0.9%	0.01%																		
Tallering Peak																								
Extension Hill/Iron Hill																								
Shine		2.8	59.5%	8.0%	2.3%	0.08%																		
Total		21.5	64.5%	5.4%	1.1%	0.02%																		
Iron-ore resources																								
Project		Mt	Fe	SiO2	Al2O3	P																		
Koolan Island		48.1	63.7%	7.6%	0.6%	0.01%																		
Tallering Peak		0.0																						
Extension Hill/Iron Hill		1.8	55.8%	9.5%	2.4%	0.07%																		
Iron Hill		3.7	55.0%	12.7%	2.0%	0.08%																		
Shine		10.7	58.4%	9.9%	1.7%	0.08%																		
Total		64.3	58.9%	7.6%	0.8%	0.02%																		
EQUITY DCF VALUATION		Spot Prices		Macquarie Forecasts																				
Projects		A\$m	A\$ps	A\$m	A\$ps																			
Koolan Island		586	0.49	499	0.42																			
Tallering Peak		0	0.00	0	0.00																			
Extension Hill/Iron Hill		0	0.00	0	0.00																			
Shine		0	0.00	0	0.00																			
Undeveloped Resources		34	0.03	25	0.02																			
Unpaid capital		0	0.00	0	0.00																			
Corporate/forwards		(17)	(0.01)	(17)	(0.01)																			
Net cash (debt) + Investments		126	0.11	126	0.11																			
Net Equity Value (@ 12.0% WACC)		729	0.61	633	0.53																			
Price Target (50/50 NPV and 1.0x EV/Ebitda)					0.50																			

Source: MGX, Macquarie Research, May 2023

Important disclosures:

Recommendation definitions	Volatility index definition*	Financial definitions		
<p>Macquarie – Asia and USA Outperform – expected return >10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie – Australia/New Zealand Outperform – expected return >10% Neutral – expected return from 0% to 10% Underperform – expected return <0%</p> <p>Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk</p>	<p>This is calculated from the volatility of historical price movements.</p> <p>Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.</p> <p>High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.</p> <p>Medium – stock should be expected to move up or down at least 30–40% in a year.</p> <p>Low–medium – stock should be expected to move up or down at least 25–30% in a year.</p> <p>Low – stock should be expected to move up or down at least 15–25% in a year. * Applicable to select stocks in Asia/Australia/NZ</p> <p>Recommendations – 12 months Note: Quant recommendations may differ from Fundamental Analyst recommendations</p>	<p>All "Adjusted" data items have had the following adjustments made: Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests</p> <p>EPS = adjusted net profit / efpowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit / average total assets ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares</p> <p>All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).</p>		
Recommendation proportions – For quarter ending 31 March 2023				
	AU/NZ	Asia	USA	
Outperform	56.13%	64.77%	64.49%	(for global coverage by Macquarie, 2.51% of stocks followed are investment banking clients)
Neutral	37.74%	23.98%	32.71%	(for global coverage by Macquarie, 1.83% of stocks followed are investment banking clients)
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