MANAGEMENT DISCUSSION AND ANALYSIS

RESULTS FOR THE YEAR ENDED 31 DECEMBER 2022

For the purpose of the management discussion and analysis, the Group's results for the year ended 31 December 2022 are compared with results for the year ended 31 December 2021.

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)
Revenue	3,254.2	4,255.0	(24%)
Operating expenses	(1,682.6)	(1,587.3)	(6%)
Exploration expenses	(30.8)	(21.3)	(45%)
Administration expenses	(16.0)	(20.8)	23%
Net other income	10.6	99.8	(89%)
EBITDA	1,535.4	2,725.4	(44%)
Depreciation and amortisation expenses	(790.1)	(898.0)	12%
EBIT	745.3	1,827.4	(59%)
Net finance costs	(284.8)	(323.6)	12%
Profit before income tax	460.5	1,503.8	(69%)
Income tax expense	(217.0)	(583.3)	63%
Profit after income tax for the year	243.5	920.5	(74%)
Attributable to:			
Equity holders of the Company	172.4	667.1	(74%)
Non-controlling interests	71.1	253.4	(72%)

Profit attributable to equity holders of the Company

MMG's profit of US\$243.5 million for the year ended 31 December 2022 includes profit attributable to equity holders of US\$172.4 million and profit attributable to non-controlling interests of US\$71.1 million. This compares to a profit attributable to equity holders of US\$667.1 million and a profit attributable to non-controlling interests of US\$253.4 million for the year ended 31 December 2021. Amounts attributable to non-controlling interests relate to the 37.5 per cent interest in Las Bambas not owned by the Company.

The following table provides a reconciliation of reported profit after tax attributable to equity holders.

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)
Profit after tax – Las Bambas 62.5% interest	118.4	422.3	(72%)
Profit after tax – Other continuing operations	154.6	232.4	(33%)
Exploration expenses	(30.8)	(21.3)	(45%)
Administration expenses	(16.0)	(20.8)	23%
Net finance costs (excluding Las Bambas)	(81.7)	(94.7)	14%
Other	27.9	149.2	(81%)
Profit for the year attributable to equity holders	172.4	667.1	(74%)

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Overview of operating results

The Group's continuing operations comprise Las Bambas, Kinsevere, Dugald River and Rosebery. Exploration, corporate activities and other subsidiaries are classified as 'Other'.

		Revenue		EBITDA			
Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)	
Las Bambas	2,086.8	2,965.2	(30%)	1,121.9	2,047.3	(45%)	
Kinsevere	421.5	437.3	(4%)	131.7	137.6	(4%)	
Dugald River	484.3	482.9	0%	210.2	212.7	(1%)	
Rosebery	259.9	365.2	(29%)	98.6	203.3	(52%)	
Other	1.7	4.4	(61%)	(27.0)	124.5	(122%)	
Total	3,254.2	4,255.0	(24%)	1,535.4	2,725.4	(44%)	

The following discussion and analysis should be read in conjunction with the financial information.

Revenue decreased by US\$1,000.8 million (24 per cent) to US\$3,254.2 million compared to 2021 due to lower sales volumes (US\$667.8 million) and lower realised commodity prices (US\$333.0 million).

Sales decreased by US\$667.8 million compared to 2021 driven by lower sales of copper concentrate (US\$484.3 million) and molybdenum concentrate (US\$61.7 million) at Las Bambas due to 173 days of road blockages throughout the year (2021: 106 days) and the forced suspension of operations between 21 April 2022 to 10 June 2022 due to protest activities by neighbouring communities. Rosebery zinc and lead concentrate sales volumes were lower by US\$99.7 million driven by lower production due to COVID–19 impacts on workforce availability earlier in the year as well as lower ore grades, in line with the currently planned mining sequences.

Unfavourable commodity price variances of US\$333.0 million were driven by lower realised prices for copper (US\$345.4 million), silver (US\$34.7 million), gold (US\$8.0 million) and lead (US\$1.6 million). This was partly offset by higher realised prices for zinc (US\$46.9 million) and molybdenum (US\$9.8 million). Price variances also include mark-to-market adjustments on open sales contracts and the impacts of commodity hedging.

Revenue by Commodity Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)
Copper	2,227.7	3,050.4	(27%)
Zinc	547.1	575.8	(5%)
Lead	72.9	89.3	(18%)
Gold	151.5	174.4	(13%)
Silver	135.8	194.0	(30%)
Molybdenum	119.2	171.1	(30%)
Total	3,254.2	4,255.0	(24%)

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Price

Average LME base metals prices were lower in the year ended 31 December 2022 compared to the prior corresponding period for all metals, except for zinc and molybdenum.

Average LME Cash Price ¹ Year Ended 31 December	2022	2021	Change % Fav/(Unfav)
Copper (US\$/tonne)	8,815	9,315	(5%)
Zinc (US\$/tonne)	3,485	3,005	16%
Lead (US\$/tonne)	2,153	2,205	(2%)
Gold (US\$/ounce)	1,801	1,800	0%
Silver (US\$/ounce)	21.75	25.17	(14%)
Molybdenum (US\$/tonne)	41,411	34,930	19%

Sources: zinc, lead, and copper: LME cash settlement price; Molybdenum: Platts; gold and silver: LBMA. 1 LME (London Metal Exchange) data is used in this report under licence from LME; LME has no involvement and accepts no responsibility to any third party in connection with the data; and onward distribution of the data by third parties is not permitted.

Sales volumes Payable Metal in Product Sold Year Ended 31 December	2022	2021	Change % Fav/(Unfav)
Copper (tonnes)	272,132	322,008	(15%)
Zinc (tonnes)	185,606	213,554	(13%)
Lead (tonnes)	36,461	43,808	(17%)
Gold (ounces)	89,049	97,209	(8%)
Silver (ounces)	6,707,204	7,621,998	(12%)
Molybdenum (tonnes)	3,156	4,935	(36%)

Payable Metal in Product Sold Year Ended 31 December 2022	Copper Tonnes	Zinc Tonnes	Lead Tonnes	Gold Ounces	Silver Ounces	Molybdenum Tonnes
Las Bambas	221,918	-	-	62,901	3,293,364	3,156
Kinsevere	49,048	-	-	-	-	-
Dugald River	-	140,980	19,116	-	1,342,406	-
Rosebery	1,166	44,626	17,345	26,148	2,071,434	-
Total	272,132	185,606	36,461	89,049	6,707,204	3,156

Payable Metal in Product Sold Year Ended 31 December 2021	Copper Tonnes	Zinc Tonnes	Lead Tonnes	Gold Ounces	Silver Ounces	Molybdenum Tonnes
Las Bambas	272,299	-	-	59,673	3,581,185	4,935
Kinsevere	48,096	-	-	-	-	-
Dugald River	-	153,992	18,988	-	1,184,179	-
Rosebery	1,613	59,562	24,820	37,537	2,856,635	-
Total	322,008	213,554	43,808	97,210	7,621,999	4,935

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Operating expenses include expenses of operating sites, excluding depreciation and amortisation. Site expenses include mining and processing expenses, changes in inventories, royalty expenses, selling expenses and other operating expenses.

Total operating expenses increased by US\$95.3 million (6 per cent) in 2022, driven by higher consumable unit prices across the group (US\$157.2 million), particularly for diesel and explosives, due to broader industry cost pressures, and higher mining costs at Kinsevere (US\$42.4 million) attributable to the resumption of mining activities in April 2022.

This was partly offset by favourable stock movement at Las Bambas (US\$70.3 million) due to a higher net build-up of finished goods reflecting lower copper concentrate sales volumes and favourable exchange rate impacts at the Australian operations (US\$31.2 million).

Further detail is set out below in the mine analysis section.

Exploration expenses increased by US\$9.5 million (45 per cent) to US\$30.8 million in 2022 due to higher expenditure at Las Bambas (US\$4.1 million) with exploration activities focused on Ferrobamba Deeps targets. Exploration costs at Kinsevere were also higher by US\$4.1 million with exploration activities concentrating on potential satellite copper targets within a 50km radius of the Kinsevere mine.

Administrative expenses decreased by US\$4.8 million (23 per cent) to US\$16.0 million in 2022 mainly due to the weaker Australian dollar (US\$2.8 million) and lower short term incentive (STI) expenses (US\$0.9 million).

Net other income decreased by US\$89.2 million (89 per cent) mainly due to the gain recognised on the reduction in the Century Bank Guarantee (US\$136.3 million) in 2021, partly offset by the recognition of provisions in 2021 in relation to the VAT 2011/2012 matter in Peru (\$15.5 million) and favourable foreign exchange gains (\$US15.2 million).

Depreciation and amortisation expenses decreased by US\$107.9 million (12 per cent) to US\$790.1 million in 2022. The decrease was due to lower depreciation expenses at Las Bambas (US\$67.1 million) and Rosebery (US\$32.8 million) due to lower mining and milling volumes.

Net finance costs decreased by US\$38.8 million (12 per cent) to US\$284.8 million compared to 2021. The decrease was mainly due to lower debt balances (US\$41.0 million) and a refund of interest from SUNAT (US\$9.5 million), partly offset by higher net interest costs driven by a rising interest rate environment (US\$17.4 million).

Income tax expense decreased by US\$366.3 million, reflecting the decrease in the Group's underlying profit before income tax from the prior year. The effective tax rate for 2022 was 47.1 per cent, with a prima facie income tax rate from operations of 32 per cent, which was impacted by non-creditable withholding tax expenses (7.8 per cent) and Democratic Republic of the Congo (DRC) Special Tax on Excess Profits (STEP) provisions (6.1 per cent).

MINE ANALYSIS: LAS BAMBAS

MANAGEMENT DISCUSSION AND ANALYSIS

Products

Copper Concentrate Molybdenum Concentrate

Ownership



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Revenue (US\$ Million)

\$2,086.8

Ore Milled (Tonnes)

44,043,203

Copper In Concentrate Produced (Tonnes)

254,836

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MINE ANALYSIS: LAS BAMBAS

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Year Ended 31 December	2022	2021	Change % Fav/(Unfav)
Production			
Ore mined (tonnes)	43,178,984	59,878,802	(28%)
Ore milled (tonnes)	44,043,203	48,476,799	(9%)
Waste movement (tonnes)	116,206,593	135,003,377	(14%)
Copper in copper concentrate (tonnes)	254,836	290,097	(12%)
Payable metal in product sold			
Copper (tonnes)	221,918	272,299	(19%)
Gold (ounces)	62,901	59,673	5%
Silver (ounces)	3,293,364	3,581,185	(8%)
Molybdenum (tonnes)	3,156	4,935	(36%)

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change% Fav/(Unfav)
Revenue	2,086.8	2,965.2	(30%)
Operating expenses			
Production expenses			
Mining	(401.2)	(244.1)	(64%)
Processing	(261.5)	(235.8)	(11%)
Other	(403.5)	(413.7)	2%
Total production expenses	(1,066.2)	(893.6)	(19%)
Freight (transportation)	(86.1)	(77.2)	(12%)
Royalties	(59.4)	(89.9)	34%
Other ¹	263.4	185.0	42%
Total operating expenses	(948.3)	(875.7)	(8%)
Other expenses	(16.6)	(42.2)	61%
EBITDA	1,121.9	2,047.3	(45%)
Depreciation and amortisation expenses	(665.7)	(732.8)	9%
EBIT	456.2	1,314.5	(65%)
EBITDA margin	54%	69%	(22%)

1 Other operating expenses include changes in inventories, corporate recharges and other costs of operations. MANAGEMENT DIRECTORS' DISCUSSION REPORT AND ANALYSIS CORPORATE GOVERNANCE FINANCIAL

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Las Bambas produced 254,836 tonnes of copper in 2022, 35,261 tonnes (12 per cent) below 2021 due to continued community protests including an operational shut of more than 50 days in the second quarter. Ore milled grades were also lower than 2021 (0.67 per cent vs. 0.69 per cent) mainly due to processing of lower grade rehandled ores in the fourth quarter of 2022 when mining was impacted by community protests.

Las Bambas' third ball mill was successfully commissioned during the fourth quarter. Supported by the third ball mill, the mine achieved the highest quarter milling throughput since 2020, which was also the second highest quarter throughput in the mine's history.

Production of molybdenum and silver by–products were also 36 per cent and 8 per cent lower respectively due to the reduced ore processing throughput impacted by community protests. Gold production was 5 per cent higher due to higher grades.

Revenue of US\$2,086.8 million was 30 per cent lower than 2021 due to lower copper (US\$482.7 million) and molybdenum sales volumes (US\$61.7 million) and lower realised commodity prices (US\$346.0 million).

Copper sales volumes were 19 per cent lower compared to the prior year, primarily due to increased community protests that caused over 173 days (2021: 106 days) of disruption to concentrate transport in 2022. From early December 2022, Peru has experienced widespread social unrest following the impeachment of Pedro Castillo, the previous President of Peru. The widespread protests have caused disruptions along the Southern Road Corridor, affecting the broader mining industry. Lower molybdenum sales volumes were also impacted by road disruptions and lower molybdenum production due to lower feed grades in 2022.

As a result of transport disruptions, the concentrate inventory levels on site increased to approximately 85,000 tonnes of copper in concentrate at the end of 2022, compared to approximately 59,000 tonnes at the end of 2021. This stockpiled copper concentrate is expected to be drawn down and shipped by the fourth quarter of 2023, subject to the resolution to current nationwide protests followed by stability in concentrate transport logistics.

Total production expenses of US\$1,066.2 million were US\$172.6 million or 19 per cent above 2021. This was mainly driven by higher unit costs of diesel (\$65.0 million), explosives (\$36.9 million) and reagents and grinding media (\$27.3 million). Total production expenses were also unfavourably impacted by lower deferred mine capitalisation costs (US\$63.4 million) as a result of delays to stripping activities caused by persistent community disruptions and focus on ore mining. Increased risk mitigation expenses due to social conflicts (\$34.9 million) also contributed to the higher costs. This was partly offset by lower material mined and milled volumes (\$40.4 million) due to the temporary suspension of operations and deferral of maintenance for the mine fleet (\$12.9 million).

The higher production expenses were largely offset by favourable stock movement of US\$70.3 million due to a net build-up of finished goods (US\$92.9 million) reflecting lower copper concentrate sales volumes, partly offset by a draw-down of ore stockpiles (US\$27.3 million). Royalty expenses were lower by US\$30.5 million reflecting lower revenue and other expenses were also lower by US\$25.6 million predominantly due to favourable foreign exchange rates. Freight costs were higher by US\$8.9 million due to revised sea freight rates in 2022 reflecting current market conditions offset by lower sales volumes.

Depreciation and amortisation expenses of \$665.7 million were 9 per cent lower than 2021 due to lower mining and milling volumes.

C1 costs of US\$1.53/lb in 2022 were below our guidance range of US\$1.60-1.65/lb, however the result was higher than the US\$1.02/lb result in 2021. Higher unit costs were a function of increased prices for energy and consumables and lower production. Excluded from the calculation of C1 costs in 2022 (but reported as part of the Total Operating Expenses) were care and maintenance costs for the period of the shutdown in Q2 of US\$97.4 million. This is to better reflect the direct costs of production.

2023 outlook

Following transport disruptions caused by widespread social unrest in early 2023, Las Bambas was forced to slow down its operation rate due to a shortage of critical supplies in the first two months of 2023. On 11 March 2023 (Peru time), transportation of concentrate recommenced and site operations have returned to full capacity. Following the resumption of concentrate transport, Las Bambas will work to progressively reduce stockpiles of copper concentrate held on site.

Las Bambas copper production for 2023 is expected to be in the range of 265,000 and 305,000 tonnes. This represents an improvement on 2022 but is highly contingent on the swift resolution to the wide-spread political protests that Peru is currently experiencing and a resumption of stability in transport logistics. Subject to a resolution of this social unrest, followed by reaching a comprehensive agreement with the Huancurie community, development of the Chalcobamba deposit is targeted to commence in the second half of 2023.

Las Bambas C1 costs in 2023 are expected to be in the range of US\$1.70 – US\$1.90/lb representing an increase on 2022 due to cost inflation on consumables, higher levels of concentrate transported, lower capitalised mining and increased development and maintenance activities deferred from 2022.

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MINE ANALYSIS: KINSEVERE

Copper Cathode





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Revenue (US\$ Million)

\$421.5

Ore Milled (Tonnes)

2,348,699

Copper Cathode Produced (Tonnes)

49,070

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MINE ANALYSIS: KINSEVERE

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Year Ended 31 December	2022	2021	Change % Fav/(Unfav)
Production			
Ore mined (tonnes)	3,100,273	20,075	15,343%
Ore milled (tonnes)	2,348,699	2,448,517	(4%)
Waste movement (tonnes)	7,087,508	-	n/a
Copper cathode (tonnes)	49,070	48,017	2%
Payable metal in product sold			
Copper (tonnes) ¹	49,048	48,096²	2%

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)
Revenue	421.5	437.3	(4%)
Operating expenses			
Production expenses			
Mining	(62.5)	(20.1)	(211%)
Processing	(118.7)	(85.7)	(39%)
Other	(74.3)	(78.2)	5%
Total production expenses	(255.5)	(184.0)	(39%)
Freight (transportation)	(5.0)	(8.3)	40%
Royalties	(23.6)	(25.9)	9%
Other ³	(10.2)	(54.1)	81%
Total operating expenses	(294.3)	(272.3)	(8%)
Other income	4.5	(27.4)	116%
EBITDA	131.7	137.6	(4%)
Depreciation and amortisation expenses	(27.8)	(29.1)	4%
EBIT	103.9	108.5	(4%)
EBITDA margin	31%	31%	0%

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Kinsevere sold copper includes copper cathode and copper scrap. Kinsevere 2021 sold copper volume is adjusted in this report for inclusive of copper scrap. Other operating expenses include changes in inventories, corporate recharges and other costs of operations.

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MINE ANALYSIS: KINSEVERE

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Copper cathode production of 49,070 tonnes was 1,053 tonnes (2 per cent) higher than 2021 due to the higher average plant feed grade in 2022 (2.18 per cent vs. 2.00 per cent) attributable to the resumption of mining activity in April 2022 and increased supply of higher-grade third-party ores.

Kinsevere revenue decreased by US\$15.8 million or 4 per cent to US\$421.5 million compared to the 2021 due to lower realised copper prices (US\$24.4 million), partly offset by higher copper sales volumes in line with higher production (US\$8.6 million).

Total production expenses increased by US\$71.5 million or 39 per cent compared to 2021. This was mainly driven by higher mining costs (US\$42.4 million) due to the resumption of mining activities in April 2022. Processing costs were also higher than 2021 by US\$33.0 million due to higher unit prices for sulphuric acid (US\$10.8 million) and energy (US\$6.1 million), higher cost of third-party ores driven by increased consumption and price (US\$7.6 million) and higher maintenance cost (US\$1.8 million).

Other operating expenses were lower compared to 2021 (US\$43.9 million) mainly driven by favourable stock movement (\$40.9M) due to net build up of ore stockpiles in 2022 compared to a net drawdown in 2021.

C1 costs for 2022 were US\$2.55/lb, higher than the US\$1.95/lb in 2021 while at the lower end of the guidance (US\$2.50-2.80/lb). Increased C1 costs than 2021 were mainly driven by higher cash production expenses due to the resumption of mining activities, which was partly offset by stronger second-half production.

2023 outlook

Kinsevere copper cathode production for 2023 is expected to be in the range of 40,000 and 48,000 tonnes. This represents the declining oxide ore tonnes with the transition from the mining of oxide ores to the mining sulphide ores. First cobalt production from the Kinsevere Expansion Project (KEP) is expected in 2023.

C1 costs in 2023 are expected to be in the range of US\$2.50 – US\$2.80/lb, largely unchanged from the prior year representing cost pressures from consumable prices, transport costs and power prices, partly offset by an increase in by-product credits from the commencement of cobalt production. From 2024 onwards, higher copper production and cobalt by-product credits are expected to lower the mine's C1 costs considerably when at a steady state of operation, placing Kinsevere in the bottom half of the global cost curve.

MINE ANALYSIS: DUGALD RIVER

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Revenue (US\$ Million)

\$484.3

Ore Milled (Tonnes)

1,844,212

Zinc in Zinc Concentrate Produced (Tonnes)

173,395

Lead in Lead Concentrate Produced (Tonnes)

20,869

MINE ANALYSIS: DUGALD RIVER

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Year Ended 31 December	2022	2021	Change % Fav/(Unfav)
Production			
Ore mined (tonnes)	1,873,332	1,862,862	1%
Ore milled (tonnes)	1,844,212	1,891,701	(3%)
Zinc in zinc concentrate (tonnes)	173,395	180,313	(4%)
Lead in lead concentrate (tonnes)	20,869	20,361	2%
Payable metal in product sold			
Zinc (tonnes)	140,980	153,992	(8%)
Lead (tonnes)	19,116	18,988	1%
Silver (ounces)	1,342,406	1,184,179	13%

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)
Revenue	484.3	482.9	0%
Operating expenses			
Production expenses			
Mining	(111.6)	(91.1)	(23%)
Processing	(68.6)	(73.4)	7%
Other ¹	(69.3)	(71.0)	2%
Total production expenses	(249.5)	(235.5)	(6%)
Freight (transportation)	(18.2)	(12.9)	(41%)
Royalties	(20.7)	(18.6)	(11%)
Other ¹	10.9	(4.6)	337%
Total operating expenses	(277.5)	(271.6)	(2%)
Other income/(expenses)	3.4	1.4	143%
EBITDA	210.2	212.7	(1%)
Depreciation and amortisation expenses	(57.7)	(59.8)	4%
EBIT	152.5	152.9	0%
EBITDA margin	43%	44%	(2%)

Other operating expenses include changes in inventories, corporate recharges and other costs of operations. 1

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MINE ANALYSIS: DUGALD RIVER

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Dugald River produced 173,395 tonnes of zinc in zinc concentrate in 2022, 4 per cent lower than 2021. The reduction is primarily due to COVID-19 impacts on workforce availability early in the year, alongside lower ore feed grade compared to 2021 (10.5 per cent vs. 10.8 per cent). This was partly offset by record high annual zinc recovery rates of 89.3 per cent compared to 87.9 per cent in 2021. In the fourth quarter, Dugald River achieved the highest mining rates in the past two years, driven by better workforce availability and improved equipment utilisation. On a zinc equivalent basis, Dugald River production exceeded 200,000 tonnes for the third consecutive year.

Revenue marginally increased by US\$1.4 million to US\$484.3 million due to higher realised zinc prices (US\$38.8 million) and higher by-products sales volumes (US\$4.2 million). This was partly offset by an 8 per cent drop in zinc concentrate sales volumes (US\$35.0 million) in line with lower production and lower realised silver (US\$5.0 million) and lead prices (US\$1.6 million).

Total production expenses were higher by US\$14.0 million compared to 2021. This was mainly attributable to higher contractor mining expenses (US\$20.6 million) to support the transition to owner miner model for production activities and onboarding of Redpath for development activities and increased development metres. Costs were also impacted by higher unit prices for gas (US\$3.8 million), diesel (US\$1.5 million) and other processing consumables (US\$3.5 million). This was partly offset by favourable exchange rates with the weakening of the Australian dollar (US\$20.9 million).

Freight costs were also higher by US\$5.3 million due to revised sea freight rates in 2022 reflecting current market conditions.

Dugald River's zinc C1 costs were US\$0.84/lb in 2022, lower than our revised guidance of US\$0.85 - US\$0.95/ Ib but higher than US\$0.67/Ib in 2021. Higher C1 costs were attributable to lower production volumes and higher treatment charges.

2023 outlook

Dugald River zinc production for 2023 is expected to be in the range of 170,000 and 185,000 tonnes of zinc in zinc concentrate.

C1 costs in 2023 are expected to be in the range of US\$0.90 - US\$1.05/lb. Cost escalation includes increased mining costs in the current highly competitive market and a soaring domestic gas price. Dugald River is transitioning to an owner miner model for production activities, which will partially mitigate cost escalation. Redpath has been awarded a contract for development to ensure a dedicated focus on these activities. Dugald River has also entered into a long-term solar offtake agreement with energy provider, APA Group. The solar agreement will supply the Dugald River mine with renewable energy to reduce its carbon footprint and provide immediate energy cost savings once operational. The solar farm commissioning period started in February 2023 and we expect it to be in commercial operations in March 2023.

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MINE ANALYSIS: ROSEBERY

Products

Zinc Concentrate Lead Concentrate Precious Metals Concentrate Gold Doré

Ownership

100% MMG Limited

Location: Australia



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Revenue (US\$ Million)

\$259.9

Ore Milled (Tonnes)

896,861

Zinc in Zinc Concentrate Produced (Tonnes)

51,156

MINE ANALYSIS: ROSEBERY

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HIGHLIGHTS

Year Ended 31 December	2022	2021	Change % Fav/(Unfav)
Production			
Ore mined (tonnes)	886,118	1,004,168	(12%)
Ore milled (tonnes)	896,861	1,022,487	(12%)
Zinc in zinc concentrate (tonnes)	51,156	69,454	(26%)
Lead in lead concentrate (tonnes)	18,077	25,053	(28%)
Copper in precious metals concentrate (tonnes)	1,147	1,567	(27%)
Gold (ounces)	26,709	43,010	(38%)
Silver (ounces)	2,178,998	3,375,624	(35%)
Payable metal in product sold			
Copper (tonnes)	1,166	1,613	(28%)
Zinc (tonnes)	44,626	59,562	(25%)
Lead (tonnes)	17,345	24,820	(30%)
Gold (ounces)	26,148	37,537	(30%)
Silver (ounces)	2,071,434	2,856,635	(27%)

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million	Change % Fav/(Unfav)
Revenue	259.9	365.2	(29%)
Operating expenses			
Production expenses			
Mining	(70.5)	(76.5)	8%
Processing	(31.0)	(32.5)	5%
Other	(26.7)	(27.6)	3%
Total production expenses	(128.2)	(136.6)	6%
Freight (transportation)	(10.1)	(8.9)	(13%)
Royalties	(12.8)	(18.8)	32%
Other ¹	(10.2)	2.4	(525%)
Total operating expenses	(161.3)	(161.9)	0%
Other expenses	-	-	-
EBITDA	98.6	203.3	(52%)
Depreciation and amortisation expenses	(46.9)	(79.7)	41%
EBIT	51.7	123.6	(58%)
EBITDA margin	38%	56%	(32%)

1 Other operating expenses include changes in inventories, corporate recharges and other costs of operations.

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MINE ANALYSIS: ROSEBERY

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Rosebery produced 51,156 tonnes of zinc and 18,077 tonnes of lead in 2022. This represented a 26 per cent and 28 per cent drop in zinc and lead production respectively, compared to 2021. The reduction in production from the prior year is mainly a reflection of COVID-19 impact on workforce availability early in the year, declining ore feed grades and resequencing of mining activities in the second and third quarters.

Precious metal production for 2022 totalled 11,087 ounces of gold and 5,624 ounces of silver, with both decreasing compared to 2021 due to mining sequence change and decreasing grades.

Revenue decreased by US\$105.3 million (29 per cent) to US\$259.9 million due to lower zinc (US\$40.5 million), lead (US\$15.0 million) and other by-product sales volumes (US\$44.2 million) and lower realised silver prices (US\$11.5 million). This was partly offset by higher realised zinc prices (US\$8.1 million).

Total production expenses decreased by US\$8.4 million (6 per cent) compared to 2021 mainly due to favourable exchange rates with the weakening of the Australian dollar in 2022 (US\$10.3 million), partly offset by higher diesel prices (US\$2.3 million).

Rosebery full-year C1 costs of US\$0.26/lb were at the lower end of revised guidance of US\$0.25 - US\$0.35/lb but higher than 2021 as a result of the lower production rates and lower by-product prices.

2023 outlook

Rosebery zinc production for 2023 is expected to be in the range of 55,000 and 65,000 of zinc in zinc concentrate. This is an improvement on 2022 due to higher ore grades and higher ore mined tonnes due to improved workforce availability.

C1 costs in 2023 are expected to be in the range of US\$0.35 - US\$0.50/lb, an increase on 2022 due to the cost escalation experienced across mining industry, lower anticipated by-product credits and increased treatment charges, which will be partly offset by higher production.

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CASH FLOW ANALYSIS

Net cash flow

Year Ended 31 December	2022 US\$ Million	2021 US\$ Million
Net operating cash flows	832.1	2,551.5
Net investing cash flows	(538.7)	(573.7)
Net financing cash flows	(1,176.5)	(915.2)
Net cash (outflows)/inflows	(883.1)	1,062.6

Net operating cash inflows decreased by US\$1,719.4 million (67 per cent) to US\$832.1 million driven by lower EBITDA (US\$1,190.0 million) attributable to lower commodity prices and lower sales volumes at Las Bambas. Operating cash flows were also unfavourably impacted by net working capital movements (US\$314.8 million) and higher tax payments in Peru (US\$157.3 million), Australia (US\$46.1 million) and the DRC (US\$21.1 million).

Net investing cash outflows decreased by US\$35.0 million (6 per cent) to US\$538.7 million. This was mainly due to final receipt from the sale of Sepon (US\$27.5 million) in 2022. Capital expenditure at Las Bambas was also lower by US\$83.9 million predominantly due to decreased capitalised mining costs. This was largely offset by higher capital expenditure at Kinsevere (US\$60.9 million) attributable to expenditure on the Kinsevere Expansion Project.

Net financing cash outflows was unfavourable by US\$261.3 million (29 per cent) compared to 2021. This was mainly due to a US\$500.0 million early payment on the Las Bambas Project facility and net proceeds received from the share placement in 2021 (US\$299.0 million). This was partly offset by a higher net drawdown on working capital facilities (US\$310.0 million). Financing costs of US\$286.9 million (2021: US\$288.5 million) were consistent between the two periods.

Financial resources and liquidity

	31 December 2022 US\$ Million	31 December 2021 US\$ Million	Change US\$ Million
Total assets	12,535.5	13,024.1	(488.6)
Total liabilities	(8,307.0)	(9,096.1)	789.1
Total equity	4,228.5	3,928.0	300.5

Total equity increased by US\$300.5 million to US\$4,228.5 million as at 31 December 2022, mainly due to the profit for the year of US\$243.5 million.

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The gearing ratio for the Group is defined as net debt (total borrowings excluding finance charge prepayments, less cash and cash equivalents) divided by the aggregate of net debt and total equity as set out in the following table:

MMG Group	31 December 2022 US\$ Million	31 December 2021 US\$ Million
Total borrowings (excluding prepaid finance charges) ¹	5,456.9	6,348.3
Less: cash and cash equivalents	(372.2)	(1,255.3)
Net debt	5,084.7	5,093.0
Total equity	4,228.5	3,928.0
Net debt +Total equity	9,313.2	9,021.0
Gearing ratio	0.55	0.56

Borrowings at an MMG Group level reflect 100 per cent of the borrowings of the Las Bambas Joint Venture Group. Las Bambas Joint Venture Group borrowings at 31 December 2022 were US\$2,981.7 million (31 December 2021: US\$3,762.4 million) and Las Bambas Joint Venture Group cash and cash equivalents at 31 December 2022 were US\$171.8 million (31 December 2021: US\$836.3 million). For the purpose of calculating the gearing ratio, Las Bambas Joint Venture Group's borrowings have not been reduced to reflect the MMG Group's 62.5 per cent equity interest. This is consistent with the basis of preparation of MMG's financial statements.

Under the terms of relevant debt facilities held by the Group, the gearing ratio for covenant compliance purposes is calculated exclusive of US\$2,161.3 million (31 December 2021: US\$2,261.3 million) of shareholder debt that was used to fund the MMG Group's equity contribution to the Las Bambas Joint Venture Group. For the purpose of the above, it has, however, been included as borrowings.

Available debt facilities

At 31 December 2022, the Group (excluding the Las Bambas Joint Venture Group) had available to it undrawn debt facilities of US\$300.0 million (31 December 2021: US\$560.0 million). This was represented by:

(i) US\$300.0 million (2021: US\$300.0 million) that was undrawn and available under a US\$300.0 million revolving credit facility with ICBC maturing in December 2023.

Note: An undrawn US\$80.0 million facility under a US\$85.0 million facility with China Development Bank was terminated in June 2022; and an undrawn US\$180.0 million under a US\$450 million Dugald River project facility with Album Trading Company has matured in June 2022 as the availability period has lapsed.

At 31 December 2022, the Las Bambas Joint Venture Group had available in its undrawn debt facilities of US\$800.0 million (31 December 2021: US\$1,150.0 million). This was represented by:

- US\$650.0 million (31 December 2021: US\$800.0 million) that was undrawn and available under a US\$800.0 million revolving credit facility to support the operations and general corporate purposes of Las Bambas, with the revolving credit facility borrowed from China Development Bank, Bank of China, Bank of Communications and The Export-Import Bank of China maturing in October 2023;
- (ii) US\$150.0 million (31 December 2021: nil) that was undrawn and available under a new US\$350.0 million revolving credit facility provided by Album Enterprises Limited which maturing in August 2023.

Note: A US\$175.0 million revolving credit facility provided by BOC Sydney and a US\$175.0 million revolving credit facility provided by ICBC Luxembourg, for general corporate purposes had expired in August 2022.

Some of the Group's available external debt facilities are subject to covenant compliance requirements. The Group was not in breach of covenant requirements in respect of the Group's borrowings at 31 December 2022. The financial covenants are measured with reference to the financial performance of the Group or its subsidiaries, and may be influenced by future operational performance.

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DEVELOPMENT PROJECTS

Chalcobamba project, the next phase of development at Las Bambas, is located around 3km from the current processing plant. The Peru Ministry of Energy and Mines released the regulatory approval for the development of the Chalcobamba pit and associated infrastructure in March 2022. However, the development of Chalcobamba pit was delayed by the community disruption in 2022.

MMG remains committed to working closely with the Government of Peru and the Huancauire community members to review all of its commitments and to engage in transparent and constructive dialogue. Discussions with the Huancuire community resumed in January 2023 but unfortunately, the dialogue table has been forced to pause due to security concerns amid nation-wide protests. We look forward to progressing these discussions once the social unrest dissipates.

The project is significant for the economy of Peru and will support additional social contributions and financial and business opportunities for local and regional communities. It will underpin a production increase to a range of 380,000 to 400,000 tonnes over the medium term.

Kinsevere Expansion Project, the next phase of Kinsevere development, is progressing. This project will enable the mining and processing of Kinsevere's sulphide copper and cobalt reserves and is expected to extend Kinsevere's mine life for at least 13 years from 2022. It will result in total annual production of approximately 80,000 tonnes of copper cathode and between 4,000-6,000 tonnes of cobalt in cobalt hydroxide once fully ramped up.

All civil work for the cobalt plant has been completed, long-lead time equipment is being shipped to site and the installation of equipment has commenced. Detailed engineering for the concentrator and roaster plant is in progress. Earthworks of the new tailing dam have started. First cobalt production is expected in 2023 and the first copper from the sulphide plant in 2024.

Rosebery mine life extension will be supported by an accelerated exploration program over the next two years. The site continues to engage with the Minister and the Department of Climate Change, Energy, the Environment and Water (DCCEEW) and provide all required information and documentation while awaiting the Minister's decision on the proposed preliminary works at South Marionoak. Concurrently the mine is continuing to investigate potential options for safe and viable short-term capacity increases at existing tailings storage facilities. A sustainable tailings storage solution that supports the Rosebery mine life extension remains a key priority for our operation and we will continue to proactively explore all feasible options.

There were no other major development projects noted during the year ended 31 December 2022.

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MANAGEMENT DISCUSSION AND ANALYSIS

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CONTRACTS AND COMMITMENTS

A total of 685 contracts have been established during 2022, either through market engagements or in-contract renegotiations. The annual operational or capital value addressed by these activities is US\$1,056.48 million.

Significant additional contracting activities were undertaken for all the Company's operations throughout 2022 to ensure the security of supply for critical inputs and other requirements as necessary to enable continued operations and the management of risks in the post-pandemic era as well as other disruptions.

Las Bambas

New and revised agreements were finalised to support optimising production and development options for Las Bambas, including contracts for projects construction, mining services, concentrate logistics by truck, general cargo consolidation and transport, mobile equipment maintenance, drilling services, plant shutdown services, equipment renting, major component repair, supply of grinding media, components, spares and other consumables, and contracts for engineering, earthmoving, road maintenance and civil works. Significant activity was also undertaken to maintain the safety and surety of supply under frequent blockades to support continued operations.

Kinsevere

New and revised agreements were finalised for various contracts supporting steady Kinsevere operations. With the resumption of mining activities, the main mining services contract was finalised along with other supporting contracts ahead of the resumption of mining. The relaxation of the COVID-19 controls has enabled more competitive shipping costs and fewer delays caused by quarantine in the second half of 2022. Support towards the Kinsevere expansion project is ongoing with the cobalt plant construction package, third tailing storage facility (TSF3) construction package, roaster-gas plant-acid plant (RGA) EPC contract package and concentration plant design package awarded.

Dugald River

New and revised agreements were finalised for requirements in support of optimising production performance and operations, including contracts related to inbound logistics, goods and services requirements for site infrastructure projects, multiple contracts for the purchase of mobile equipment and contractor services related to the insource of production mining, development mining services, and other site support services. A major ongoing activity during this period was the review of long-term energy options to drive cost reduction and increase uptake of renewable energy.

Rosebery

New and revised agreements were finalised with regards to significant goods and services including outbound rail haulage, inbound logistics, operational mine rehab and development services, fleet maintenance and condition monitoring. Various other agreements included contracts for engineering services and consultancy agreements for project-related requirements, and partial mobile fleet replacement.

Group

New and revised agreements were finalised with regard to various goods and services, including corporate insurance broker service and captive management contracts, market intelligence services contracts, IT-related services and licence agreements, and several professional services consultancy agreements (including services for the human resources, tax, supply, sustainability and social performance, and operational technology).

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PEOPLE

As at 31 December 2022, the Group employed a total of 4,296 full-time equivalent employees (2021:4,238) in its continuing operations (excluding contractors and casual employees) with the majority of employees based in Australia, Peru, the DRC, China and Laos.

Total employee benefits expenses for the Group's operations for the year ended 31 December 2022, including Directors' emoluments, totalled US\$321.9 million (2021: US\$306.3 million). The increase was primarily driven by the closing bonus for the collective agreement at Las Bambas and increased annual salaries as a result of the annual remuneration review.

The Group has remuneration policies that align with market practice and remunerates its employees based on the accountabilities of their role, their performance, market practice, legislative requirements and the performance of the Group. Employee benefits include market-competitive fixed remuneration, performance-related incentives, a limited company equity scheme and, in specific cases, insurance and medical support. A range of targeted training and development programs are provided to employees across the Group that are designed to improve individual capability and enhance employee and Group performance.

EXPLORATION ACTIVITIES

Las Bambas

During 2022 exploration drilling was performed at the Chalcobamba South and Chalcobamba Deeps near-surface, skarn and porphyry copper targets located along the southern margin of the Chalcobamba Deposit. Drilling was also performed at the Ferrobamba East, Ferrobamba Deeps and Ferrobamba South targets. A total of 46 drill holes were completed for 24,374 metres. All core has been logged and assayed.

At the Chalcobamba South target, drilling targeted the extension of mineralisation along the southern edge of the future Chalcobamba pit.

Drilling at Ferrobamba East project targeted breccias associated with elevated levels of gold, silver, copper, molybdenum, lead and zinc in surface rock and soil samples.

Drilling at the Ferrobamba Deeps target is designed to test the depth projection of higher-grade mineralisation currently being mined by the open pit. The targeted mineralisation could serve to deepen the open pit or provide future ore for underground mining activity. A proof of concept study for potential underground mining at Ferrobamba Deeps is underway and will be completed in the first quarter of 2023.

Kinsevere

In the DRC, exploration activities continued to focus on the resource development of satellite copper and cobalt deposits within an operating radius of the Kinsevere mine that may be suitable for economic exploitation and processing at the Kinsevere plant. Exploration also completed scout drilling in the Regional Tshangalele project.

The main activities in 2022 include 1) resource extension and delineation drilling in Mwepu Main, Sokoroshe II, and Kimbwe Kafubu projects, 2) resource testing drilling in Mwepu South and Shandwe South Projects, 3) prospect testing drilling in Tumbwe West, Kamafesa, Tshangalele Central, Mwadingusha East, Mwadingusha West, and Karavia West projects, and 4) geotechnical and hydrogeological drilling in Mwepu Main project.

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Dugald River

Surface drilling continued within the mining lease at Dugald River throughout 2022 to further test the host slate horizons on the periphery of the known deposit and along strike into the southern leases of the Dugald River mine for zinc. A secondary aim was to further test the copper mineralisation through the hanging wall schists, calc-silicate and slate units. Drilling was targeted around the southern-most area of the zinc deposit to improve confidence in the Mineral Resource for mine design as well as testing for copper mineralisation. Drilling was also completed to target disseminated copper targets along the southern periphery of the known zinc lode. Further drilling is planned for 2023 to focus on the periphery of the know zinc orebody. Geophysical studies are planned for 2023 to expand on the geological understanding of the drilling results from 2022.

Underground resource drilling continued with a third drill rig mobilised to site in July. Drilling was conducted to convert areas of Indicated to Measured Resource. Underground Resource Delineation and Reserve Definition drilling continues to expand our understanding of the structural complexity of the Dugald River deposit.

Rosebery

During 2022, in-mine drilling activities continued to focus on Resource Testing, Resource Delineation and Reserve Definition around Z, U, V, H, K and P lenses. These will be a key focus in 2023. Resource Testing programs focussed on Z lens and Oak prospect at the northern extensions of the Rosebery deposit.

Renewed orebody knowledge lead to the identification of new prospects in the West Rosebery domain including Perseus and Sterling prospects, which were tested during the year with follow up work in 2023 to be completed. Surface drilling recommenced during the year testing the host position between the historic Jupiter and Hercules mines.

Drilling totals were impacted for the year against budget due to COVID-19 in Tasmania and gaining access to key underground platforms. Crew and platform availabilities are a primary focus ahead of the growth drilling program planned in 2023.

CORPORATE GOVERNANCE

MANAGEMENT DISCUSSION AND ANALYSIS CONTINUED

Project	Ноје Туре	Meterage (metres)	Number of Holes	Average Length (metres)
Americas				
Las Bambas	Diamond (Chalcobamba Deeps)	565	1	565
	Diamond (Ferrobamba Deeps)	16,841	27	624
	Diamond (Chalcobmaba South)	3,693	9	410
	Diamond (Ferrobamba South)	842	4	210
	Diamond (Ferrobamba East)	2,433	5	487
Africa				
Kinsevere	Diamond (Sokoroshe II Resource)	239	1	239
	Diamond (Sokoroshe II)	707	6	118
	Diamond (Nambulwa - Kimbwe Kafubu Resource)	5,427	22.8	238
	Diamond (Mwepu Main Resource)	3,306	20	165
	Diamond (Mwepu Main Geotech)	927	11	84
	Reverse Circulation (Mwepu Main Hydrogeology)		5	131
	Diamond (Mwepu South Resource)	2,028	12	169
	Reverse Circulation (Karavia West)	2,133	17	125
	Reverse Circulation (Mwadingusha East)	2,876	23	125
	Reverse Circulation (Mwadingusha West)	1,360	10	136
	Reverse Circulation (Tshangalele Central)	1,874	14	134
	Reverse Circulation (Shandwe)	394	4	99
	Reverse Circulation (Tumbwe West)	700	7	100
	Reverse Circulation (Kamafesa)	3,000	20	150
Australia				
Dugald River	Diamond Surface	14,269	17	861
	Diamond Underground	94,676	386	245
Rosebery	Diamond Surface	9,834	15	678
	Diamond Underground	71,170	301	236
Total		239,950	938	256

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MANAGEMENT DISCUSSION AND ANALYSIS

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MATERIAL ACQUISITIONS AND DISPOSALS

The Group made no material acquisition or disposal in the year ended 31 December 2022.

EVENTS AFTER THE REPORTING DATE

Other than the matters outlined below, there have been no matters that have occurred subsequent to the reporting date, which have significantly affected, or may significantly affect, the Group's operations, results or state of affairs in future years.

- On 31 January 2023, SUNAT released its 2016 Income Tax Assessment which was appealed to SUNAT on 28 February 2023;
- Subsequent to 31 December 2022, Las Bambas continued to be impacted by nationwide political protests. During the period, the Group secured critical supplies that enabled production to continue at a reduced rate. On 11 March 2023 (Peru time), transportation of concentrate recommenced and site operations have returned to full capacity. Following the resumption of concentrate transport, Las Bambas will work to progressively reduce stockpiles of copper concentrate held on site; and
- On 2 April 2023, the Board announced that Mr Jiao Jian resigned with effect from 31 March 2023 as the Chairman of the Company and as a Non-Executive Director. The Board will consider and appoint a new Chairman of the Company at a board meeting to be convened in the future.

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HIGHLIGHTS

FINANCIAL AND OTHER RISK MANAGEMENT

Financial risk factors

The Group's activities expose it to a variety of financial risks, including commodity price risk, interest rate risk, foreign exchange risk, credit risk, liquidity risk and risk arising from the interest benchmark reform. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group can use derivative financial instruments such as interest rate swaps, collar hedges and commodity swaps to manage certain exposures. The Group does not and is prohibited from entering into derivative contracts for speculative purposes.

Financial risk management is carried out by the Group Treasury function under proposals approved by the Board. Group Treasury identifies, evaluates and manages financial risks in close cooperation with the Group's operating units. The Board approves written principles for overall risk management, as well as policies covering specific areas, such as those identified below.

(a) Commodity price risk

The prices of copper, zinc, lead, gold, silver and molybdenum are affected by numerous factors and events that are beyond the control of the Group. These metal prices change on a daily basis and can vary significantly up and down over time. The factors impacting metal prices include both broader macro-economic developments and micro-economic considerations relating more specifically to the particular metal concerned.

During the year ended 31 December 2022, the Group entered into various commodity trades to hedge the sales prices for copper and zinc. This included:

- Zero/low-cost collar hedges:
 - 9,800 tons of zinc with put strike price ranging from US\$ at US\$3,300/ton to US\$3,700/ton and call strike price ranging from US\$3,800/ton to US\$4,100/ton;
 - 4,400 tons of copper with put strike price ranging from US\$9,500/ton to US\$10,000/ton and call strike price ranging from US\$10,500/ton to US\$10,750/ton.
- Fixed price swap hedges:
 - 4,900 tons of zinc with fixed price ranging from US\$3,030/ton to US\$3,040/ton;
 - 54,000 tons of copper with fixed price ranging from US\$8,267/ton to\$8,582/ton.
- Above hedges settlement ranged from January to March 2023.

A change in commodity prices during the year can result in favourable or unfavourable financial impact for the Group.

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The following table contains details of the hedging instrument used in the Group's hedging strategy:

	Carryi Amount		Ineffectiveness		Settled Portion of Hedging Instrument	Hedging Gain/ (loss) Recognised	Cost of
	Term	Hedging Instrument US\$ Million	Hedging Instrument US\$ Million	Instrument Hedged Item		in Cash Flow Hedge Reserve US\$ Million	Hedging Reserve US\$ Million
Cash flow hedges:							
At 31 December 202	2						
Derivative financial assets/(liabilities)	March 2022 to December 2022	-	-	-	47.0		-
At 31 December 202	1						
Derivative financial assets/(liabilities)	January 2021 to December 2021	-	-	-	(8.0)	-	-

The following table details the sensitivity of the Group's financial assets balance to movements in commodity prices. Financial assets arising from revenue on provisionally priced sales are recognised at the estimated fair value of the total consideration of the receivable and subsequently remeasured at each reporting date. At the reporting date, if the commodity prices increased/(decreased) by 10 per cent and taking into account the commodity hedges, with all other variables held constant, the Group's post-tax profit would have changed as set out below:

	202	22	2021		
Commodity	Increase/(Decrease) Commodity Price in Profit Movement US\$ Million		Commodity Price Movement	Increase/(Decrease) in Profit US\$ Million	
Copper	+10%	(21.5)	+10%	(23.9)	
Zinc	+10%	0.3	+10%	1.1	
Total		(21.2)		(22.8)	

Commodity	Commodity Price Movement	Increase in Profit US\$ Million	Commodity Price Movement	Increase/(Decrease) in Profit US\$ Million
Copper	-10%	21.8	-10%	25.5
Zinc	-10%	-	-10%	(1.7)
Total		21.8		23.8

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(b) Interest rate risk

The Group is exposed to interest rate risk primarily through interest bearing borrowings and investment of surplus cash holdings. Deposits and borrowings at variable rates expose the Group to cash flow interest rate risk. Deposits and borrowings at fixed rates expose the Group to fair value interest rate risk.

The Group regularly monitors its interest rate risk to ensure there are no undue exposures to significant interest rate movements. Any decision to hedge interest rate risk is assessed periodically in light of the overall Group's exposure, the prevailing interest rate market and any funding counterparty requirements. Regular reporting of the Group's debt and interest rates is provided to the MMG Executive Committee.

In 2020, MLB entered into a notional US\$2,100 million 5-year amortising interest rate swap with respect to the floating 6-month LIBOR base rate applicable under its existing project facility, converting the floating rate to a fixed base rate. The main sources of hedge ineffectiveness are considered to be the effects of counterparty credit risks on the hedging instrument, the possibility of LIBOR rates becoming negative and uncertainty associated with benchmark interest rate reform. Further, if LIBOR rates become negative for a period of time, then this corresponding component of the hedging instrument will be ineffective from year two to year five. A floor was purchased on LIBOR at zero for the first year of the hedge instrument.

The following table contains details of the hedging instrument used in the Group's hedging strategy:

		Notional	Carrying Amount of	Favour (Unfavourab in Fair Valu Meas Ineffect	le) Changes e Used for uring	Settled Portion of Hedging Instrument Realised	Hedging Gain Recognised in Cash	Hedge
	Term	Amortising Amount US\$ Million	Hedging Instrument US\$ Million	Hedging Instrument US\$ Million	Hedged item US\$ Million	(losses)	Flow Hedge Reserve US\$ Million	Recognised in Profit or Loss US\$ Million
Cash flow hedges:								
At 31 December 20	022							
Derivative financial assets	June 2020 – June 2025	1,560	113.9	82.1	(82.1)	17.9	55.8	-
At 31 December 2021								
Derivative financial assets	June 2020 – June 2025	1,860	31.8	42.5	(42.5)	(6.8)	29.0	-

In 2020, the Group has entered into a notional US\$2,100 million 5-year amortising interest rate swap with BOC Sydney. The purpose of the arrangement is to fix approximately half of the remaining interest rate exposure accompanying the floating interest rate MLB project facility (borrowings of US\$2,653.6 million outstanding at 31 December 2022, maturing in July 2032) from CDB, ICBC, BOC Sydney and The Export-Import Bank of China for a period of 5 years. The interest rate swap hedge will amortise in line with the MLB project facility and swap the 6-month LIBOR exposure for a fixed rate (0.5568 per cent per annum in the first year and 0.5425 per cent per annum from June 2021 to June 2025);

2 The hedging gain recognised in cash flow hedge reserve is the amount after tax.

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At 31 December 2022 and 2021, if the interest rate had increased/(decreased) by 100 basis points, taking into account the interest rate swap, with all other variables held constant, post-tax profit and other comprehensive income (OCI) would have changed as follows:

		202	2		2021			
	+100 Basi	s Points	-100 Bas	sis Points	+100 Bas	sis Points	Points -100 Basis Points	
US\$ Million	Increase/ (Decrease) in Profit After Tax	Increase in OCI	Increase/ (Decrease) in Profit After Tax	Decrease in OCI	Increase/ (Decrease) in Profit After Tax	Increase in OCI	Increase/ (Decrease) in Profit After Tax	Decrease in OCI
Financial assets								
Cash and cash equivalents	2.5	-	(2.5)	-	8.5	-	(8.5)	-
Financial liabilities								
Borrowings (taking into account the impact of the interest rate swap)	(9.7)	13.6	9.7	(13.6)	(14.8)	26.5	2.9	(24.9)
Total	(7.2)	13.6	7.2	(13.6)	(6.3)	26.5	(5.6)	(24.9)

(c) Foreign exchange risk

The Group operates internationally and is exposed to foreign currency exchange risk. The Group's reporting currency and functional currency of the majority of subsidiaries within the Group is US dollars. The majority of revenue received by the Group is in US dollars. The Group's foreign currency exchange risk arises predominantly from the currency of the countries in which the Group's operations are located. Any decision to hedge foreign currency risk is assessed periodically in light of the Group's exposure, the prevailing foreign currency market and any funding counterparty requirements.

Based on the Group's net monetary assets and financial liabilities at 31 December 2022 and 2021, a movement of the US dollar against the principal non-functional currencies as illustrated in the table below, with all other variables held constant, would cause changes in post-tax profit as follows:

	202	2	202	2021		
	Weakening of US Dollar	Strengthening of US Dollar	Weakening of US Dollar	Strengthening of US Dollar		
US\$ Million	Decrease in Profit After Tax	Increase in Profit After Tax	(Decrease)/ Increase in Profit After Tax	(Decrease)/ Increase in Profit After Tax		
10% movement in Australian dollar (2021: 10%)	(5.6)	5.6	(5.7)	5.7		
10% movement in Peruvian sol (2021: 10%)	(5.2)	5.2	0.7	(0.7)		
Total	(10.8)	10.8	(5.0)	5.0		

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(d) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group is exposed to counterparty credit risk through sales of metal products on normal terms of trade, through deposits of cash and settlement risk on foreign exchange transactions. While the most significant exposure to credit risk is through sales of metal products on normal terms of trade, the majority of sales for mining operations were made under contractual arrangements whereby provisional payment is received promptly after delivery and the balance within 30 to 120 days from delivery. 100 per cent of the trade receivables balance is aged less than 6 months based on invoice date. The carrying amount of the Group's trade receivables at fair value through profit or loss (FVTPL) best represents their respective maximum exposure to credit risk. The Group holds no collateral over any of these balances.

Investments in cash, short-term deposits and similar assets are with approved counterparty banks. Counterparties are assessed prior to, during and after the conclusion of transactions to ensure exposure to credit risk is limited to acceptable levels. There has been no change in the estimation techniques or significant assumptions made during the year ended 31 December 2022 in assessing the ECL for these financial assets. The limits are set to minimise the concentration of risks and therefore mitigate the potential for financial loss through counterparty failure. Impairment is provided for where the credit risk is perceived to exceed the acceptable levels and there are concerns on recoverability of the relevant assets. The management of the Group considers cash and cash equivalents that are deposited with financial institutions with high credit rating to be low credit risk financial assets.

Other receivables include balances related to various matters including other taxes, indemnities. These balances are assessed at the reporting date considering contractual and non-contractual legal rights to receive such amounts as well as the expectation of recoverability based on expert third party advice and management assessment based on all available information. There are no significant increases in credit risk for these balances since their initial recognition and the Group provided impairment based on a 12 month ECL. For the years ended 31 December 2022 and 2021, the Group assessed the ECL for these balances and considered no significant impact to the consolidated financial statements.

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The Group's most significant customers are CMN, Citic Metal Peru Investment Limited (CITIC Metal), and Trafigura Pte Ltd (Trafigura). Revenue earned from these customers as a percentage of total revenue was:

	2022	2021
CMN	34.5%	38.2%
CITIC Metal	16.2%	16.6%
Trafigura	14.0%	13.2%

The Group's largest debtor at 31 December 2022 was CMN with a balance of US\$85.7 million (2021: US\$18.1 million) and the five largest debtors accounted for 84.0 per cent (2021: 96.2 per cent) of the Group's trade receivables. Credit risk arising from sales to large concentrate customers is managed by contracts that stipulate a provisional payment of at least 90 per cent of the estimated value of each sale. For most sales a second provisional payment is received within 60 days of the vessel arriving at the port of discharge. Final payment is recorded after completion of the quotation period and assaying.

The credit risk by geographic region was:

	At 31 December	
US\$ Million	2022	
Asia	154.0	28.7
Europe	31.2	20.9
Australia	6.4	1.8
Other	21.1	12.5
	212.7	63.9

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(e) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting obligations associated with financial liabilities.

Management utilises short and long-term cash flow forecasts and other consolidated financial information to ensure that appropriate liquidity buffers are maintained to support the Group's activities.

The table below analyses the Group's financial assets and liabilities into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date. The amounts disclosed in each maturity grouping are the contractual undiscounted cash flows for financial instruments.

	Within	Between 1 and 2	Between 2 and 5	Over		Total Carrying
US\$ Million	1 Year	Years	Years	5 Years	Total	Value
At 31 December 2022						
Financial assets						
Cash and cash equivalents	372.2	-	-	-	372.2	372.2
Trade receivables	212.7	-	-	-	212.7	212.7
Other receivables	114.7	145.5	9.9	-	270.1	270.1
Derivative financial assets	75.0	51.0	-	-	126.0	126.0
Other financial assets	1.5	-	-	-	1.5	1.5
Financial liabilities						
Trade and other payables	(535.5)	(217.5)	-	-	(753.0)	(753.0)
Derivative financial liabilities	(0.3)	-	-	-	(0.3)	(0.3)
Borrowings (including interest)	(1,510.1)	(1,357.8)	(2,530.6)	(1,090.5)	(6,489.0)	(5,412.6)
Lease liabilities (including interest)	(32.7)	(25.4)	(59.6)	(85.4)	(203.1)	(138.7)
	(1,302.5)	(1,404.2)	(2,580.3)	(1,175.9)	(6,462.9)	(5,322.1)
At 31 December 2021						
Financial assets						
Cash and cash equivalents	1,255.3	-	-	-	1,255.3	1,255.3
Trade receivables	63.9	-	-	-	63.9	63.9
Other receivables	150.6	135.6	14.3	-	300.5	300.5
Derivative financial assets	0.5	26.7	5.5	-	32.7	32.7
Other financial assets	1.8	-	-	-	1.8	1.8
Financial liabilities						
Trade and other payables	(451.0)	(164.8)	-	-	(615.8)	(615.8)
Derivative financial liabilities	(4.9)	-	-	-	(4.9)	(4.9)
		((0,010,0)	(1,644.1)	(7,366.5)	(6,298.1)
Borrowings (including interest)	(899.6)	(1,610.8)	(3,212.0)	(1,044.1)	(7,500.5)	(0,290.1)
Borrowings (including interest) Lease liabilities (including interest)	(899.6) (30.0)	(1,610.8) (24.8)	(3,212.0) (49.7)	(1,044.1)	(202.7)	(0,298.1) (131.1)

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(f) Risks arising from the interest rate benchmark reform

Interest rate related risks: For contracts which have not been transitioned to the relevant alternative benchmark rates and without detailed fallback clauses, if the bilateral negotiations with the Group's counterparties are not successfully concluded before the cessation of LIBORs, there are significant uncertainties with regard to the interest rate that would apply. This gives rise to additional interest rate risk that was not anticipated when the contracts were entered into.

There are fundamental differences between IBORs and the various alternative benchmark rates. IBORs are forward looking term rates published for a period (e.g. 3 months) at the beginning of that period and include an inter-bank credit spread, whereas alternative benchmark rates are typically risk-free overnight rates published at the end of the overnight period with no embedded credit spread. These differences will result in additional uncertainty regarding floating rate interest payments.

- Litigation risk: If no agreement is reached to implement the interest rate benchmark reform on contracts which have not been transitioned to the relevant alternative benchmark rates (e.g. arising from differing interpretation of existing fallback terms), there is a risk of prolonged disputes with counterparties which could give rise to additional legal and other costs. The Group is working closely with all counterparties to avoid this from occurring.
- Interest rate basis risks: Interest rate basis risk may arise if a non-derivative instrument and the derivative instrument held to manage the interest risk on the non-derivative instrument transition to alternative benchmark rates at different times. The Group will monitor this risk to allow for temporary mismatches of up to 12 months and transact additional basis interest rate swaps if required.

Progress towards implementation of alternative benchmark interest rates

As part of the Group's risk management for transition, new contracts entered into by the Group are linked to interest rates which are not subject to reform to the extent feasible. Otherwise, the Group ensured the relevant contracts include detailed fallback clauses clearly referencing the alternative benchmark rate and the specific triggering event on which the clause is activated.

The Group is planning to transition the majority of its remaining IBOR-linked contracts through introduction of, or amendments to, fallback clauses into the contracts which will change the basis for determining the interest cash flows from IBOR to alternative reference rate at an agreed point in time.

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The following table shows the total amounts of outstanding contracts and the progress in completing the transition to alternative benchmark rates. The amounts of financial assets and liabilities are shown at their carrying amounts and derivatives are shown at their notional amounts.

Financial Instrument	Type of Instrument	Maturing in	Notional Value US\$ Million	Carrying Value US\$ Million
US\$ debt linked to LIBOR ¹	Non-derivative liability	Through July 2023 to July 2032	1,713	1,713
US\$ debt linked to LIBOR designated in cash flow hedge ¹	Non-derivative liability	June 2025	1,560	1,560
Interest rate swap converting LIBOR to Fixed (cash flow hedge)	Derivatives	June 2025	1,560	113.9

1 For the US\$ Debt, the fallback clauses are under negotiation with lenders. This relief does not extend to the requirement that the designated interest rate risk component continues to be reliably measurable and if the risk component is no longer reliably measurable, the hedging relationship is discontinued. The Group has determined that US\$ LIBOR interest rate risk components continue to be reliably measurable.

Country and community risks

The Group conducts all of its operations outside of Hong Kong and, as such, it is exposed to various levels of political, economic and other risks and uncertainties. These risks and uncertainties vary from country to country. Material risks include, but are not limited to, regime or policy change, fluctuation in currency exchange rates, changes to licensing regimes and amendments to concessions, licences, permits and contracts, changing political conditions and governmental regulations and community disruptions. Changes in any aspects above and in the country where the Group operates may adversely affect the Group's operations and profitability. The decline in growth and macroeconomic activity in many developing nations has resulted in governments seeking alternative means of increasing their income, including increases to corporate tax, VAT and royalty rates, coupled with increased audit and compliance activity.

The DRC Government during 2018 made changes to the 2002 Mining Code and Mining Regulations. These changes were enacted (2018 Mining Code) and continue to result in an increased tax burden on mining companies.

Las Bambas has faced continuous community disruptions during 2022. A site invasion in April resulted in 52 days of full operation cessation, due to safety precautions for both protestors and the Las Bambas workforce. Further community disruption continued once Las Bambas recommenced operation with blockades intermittently impacting transport of concentrate to the Matarani port. Late in 2022, the Peru President Pedro Castillo, was impeached, removed from office and arrested. Dina Boluarte was installed as the new President on 7 December 2022. Since that time, community protests have escalated preventing movement of concentrates on the national highways. A total of 173 days of transport disruption were experienced in 2022. As the political situation evolves, the Group will continue to work closely with the relevant authorities and community groups to minimise the potential direct risk of social instability and disruptions to the Las Bambas operations.

Some of the countries in which the Group operates carry higher levels of sovereign risk. Political and administrative changes and reforms in law, regulations or taxation may impact sovereign risk. Political and administrative systems can be slow or uncertain and may result in risks to the Group including the ability to obtain tax refunds in a timely manner. The Group has processes in place to monitor any impact on the Group and implement responses to such changes.

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CONTINGENT LIABILITIES

Bank guarantees

Certain bank guarantees have been provided in connection with the operations of certain subsidiaries of the Company primarily associated with the terms of mining leases, mining concessions, exploration licences or key contracting arrangements. At the end of the reporting period, no material claims have been made under these guarantees. The amount of these guarantees may vary from time to time depending upon the requirements of the relevant regulatory authorities. At 31 December 2022, these guarantees amounted to US\$297.5 million (2021: US\$291.5 million).

Contingent Liabilities - tax related contingencies

The Group has operations in multiple countries, each with its own taxation regime. The nature of the Group's activities requires it to comply with various taxation obligations including corporation tax, royalties, withholding taxes, transfer pricing arrangements with related parties, resource and production-based taxes, environmental taxes and employment related taxes. Application of tax laws and interpretation of tax laws may require judgement to assess risk and estimate outcomes, particularly in relation to the application of tax risks considers both assessments received and potential sources of challenge from tax authorities. Additionally, the Group is currently subject to a range of audits and reviews by taxation authorities in Australia, Peru, Zambia and the DRC. No disclosure of an estimate of financial effect of the subject matter has been made in the consolidated financial statements as, in the opinion of the management, such disclosure may seriously prejudice the position of the Group in dealing with these matters.

Tax matters with uncertain outcomes arise in the normal course of business and occur due to changes in tax law, changes in interpretation of tax law, periodic challenges and disagreements with tax authorities, and legal proceedings. The status of proceedings for such uncertain tax matters will impact the ability to determine the potential exposure, and in some cases, it may not be possible to determine a range of possible outcomes, including timing of resolution or determining a reliable estimate of the potential exposure.

Peru – Withholding Taxes (2014, 2015, 2016 and 2017)

Included within such uncertain tax matters are audits of the 2014, 2015, 2016 and 9 months ended 30 September 2017 tax periods for MLB in relation to withholding taxes on fees paid under certain loans, which were provided to MLB pursuant to facility agreements entered into among MLB and a consortium of Chinese banks in connection with the acquisition of the Las Bambas mine in 2014. MLB received assessment notices from the Peruvian tax authority (National Superintendence of Tax Administration of Peru or "SUNAT"), which advised that, in its opinion, MLB and the Chinese banks are related parties and thus a 30 per cent withholding tax rate ought to be imposed rather than the 4.99 per cent applied. The assessments of omitted tax plus penalties and interest until the estimated date of Peru Tax Court resolution are PEN178.0 million (approximately US\$46.6 million), PEN579.9 million (approximately US\$151.8 million), PEN724.9 million (approximately US\$189.8 million) and PEN532.3 million (approximately US\$139.3 million) for 2014, 2015, 2016 and 2017 tax periods respectively.

In relation to these assessments, having received external legal and tax advice, the Group has formed the view that the Company and its controlled entities are not related parties to Chinese banks under Peruvian tax law. MLB notes that the Peruvian tax law was amended to apply from October 2017 onwards to provide expressly that parties are not related by being under state ownership for the purposes of withholding taxes.

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Peru –2016 Income Tax

In January 2023, MLB received assessment notices from SUNAT in connection with the 2016 income tax audit (2016 Income Tax Assessment). The assessment was issued on the basis that all of the loan interest expensed during 2016 tax year were non-deductible. It is partly based upon the same interpretation of the Peru Income Tax Law by SUNAT as previous assessments in relation to withholding taxes in respect of China bank loans. SUNAT denied all loan interest deductions on the basis that the alleged related party debt should be included in calculating MLB's related party debt to equity ratio. SUNAT also alleges interest payable upon a shareholder loan from a shareholder of MLB, MMG Swiss Finance A.G. is non-deductible, due to the application of the "Causality Principle". Further, SUNAT separately alleges that the accounting treatment of the merger should have resulted in a negative equity adjustment meaning MLB should be regarded as having no equity for the purposes of calculating its thin capitalisation allowance. The Assessment issued by SUNAT for tax, interest and penalties totalled approximately US\$160 million. Similar deductions were also made by MLB in subsequent years which are likely to be subject to the same interpretation by SUNAT.

MLB strongly disagrees with these interpretations. The Group filed an appeal for the 2016 Income Tax Assessment to SUNAT and, if unsuccessful, intends to appeal the assessment to the Tax Court. The Group will also review other avenues for resolution of the dispute, however if MLB is not successful in rebutting or appealing such challenges, this could result in significant additional tax liabilities.

CHARGES ON ASSETS

As at 31 December 2022, certain borrowings of the Group were secured as follows:

- (a) Approximately US\$2,653.6 million (31 December 2021: US\$3,754.2 million) from China Development Bank, Industrial and Commercial Bank of China Limited, BOC Sydney and The Export-Import Bank of China was secured by share security over the entire share capital of MMG South America Management Co Ltd and each of its subsidiaries including MLB, a debenture over the assets of MMG South America Management Co Ltd, an assets pledge agreement and production unit mortgage in respect of all of the assets of MLB, assignments of shareholder loans between MMG South America Management Co Ltd and its subsidiaries and security agreements over bank accounts of MLB;
- (b) Approximately US\$22.0 million (31 December 2021: US\$57.8 million) from ICBC Peru Bank, Banco de Crédito del Peru and Scotiabank Peru was secured by mine fleet equipment procured under asset finance arrangements.

FUTURE PROSPECTS

MMG's vision is to create a leading international mining company for a low carbon future. We mine to create wealth for our people, host communities and shareholders with an ambition to grow and diversify our resource, production and value, by leveraging Chinese and international expertise. Our strong relationship with China draws upon the strength of the world's largest commodities consumer, provides deep understanding of markets and access to its sources of funding.

The Company is focused on maximising value of our existing assets by increasing our safety performance, competitiveness, containing costs, continually improving productivity, building successful relationships with our host communities and governments and growing our resource base. We are actively pursuing our next phase of disciplined growth.

We expect global commodity markets to remain robust, with improved economic growth in China as they enter the post zero-COVID era, and demand for our core commodities will grow, as global decarbonisation efforts accelerate.

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Las Bambas copper production in 2023 is expected to be in the range of 265,000 and 305,000 tonnes. Its annual production is expected to reach 380,000-400,000 tonnes in the medium term with the extended contribution from the Chalcobamba project. The company will continue to progress dialogues with the community members once the social unrest dissipates in Peru. The aim is to reach a long term solution to persistent community disruptions. The continued development of Las Bambas is significant for the economy of Peru and will support additional social contributions and financial and business opportunities for local and regional communities.

MMG expects to produce between 40,000 and 48,000 tonnes of copper cathode at Kinsevere, and between 225,000 and 250,000 tonnes of zinc at its Dugald River and Rosebery operations in 2023.

In the DRC, MMG continues to progress the next phase of Kinsevere Expansion Project, namely the transition to the mining and processing of sulphide ores. This project will extend Kinsevere's mine life and increase copper production back to around 80,000 tonnes of copper cathode per annum and 4,000 to 6,000 tonnes of cobalt in cobalt hydroxide. All civil work for the cobalt plant has been completed, with first cobalt production expected in 2023. First cathode production from the sulphide orebody is expected in 2024. MMG will continue to invest in regional exploration programs focusing on proving up discoveries within an operating radius of the Kinsevere mine.

In relation to Dugald River, the Company continues to focus on safe and sustainable production to deliver annual ore mined throughput of two million tonnes in the future years. This will pave the way for targeted zinc equivalent production to remain at around 200,000 tonnes annually. MMG will also continue to progress renewable energy initiatives at Dugald River having entered into a long-term solar offtake agreement with energy provider, APA Group. This will reduce Dugald River's carbon footprint and provide immediate energy cost savings once supply commences in early 2023. MMG will also continue to support other infrastructure initiatives that seek to provide reliable and cost-effective power including CopperString 2.0, which aims to connect Queensland's North West Minerals Province to the National Electricity Grid.

At Rosebery, an accelerated resource extension and near mine exploration drilling program will be conducted over the next two years to support a mine life extension. MMG remains committed to extending the operating life of this important asset, including significant resource extension drilling and a proactive investigation of all feasible options to secure a sustainable tailings storage solution.

Total capital expenditure in 2023 is expected to be between US\$700 million and US\$850 million. US\$400-450 million is attributable to Las Bambas, including the expansion of the Las Bambas tailings dam facility, Chalcobamba development and Ferrobamba pit Infrastructure. This is subject to the swift resolution to the widespread political protests that Peru is currently experiencing followed by reaching a comprehensive agreement with the Huancuire community on the development of Chalcobamba. At Kinsevere, capital expenditure related to the Kinsevere Expansion Project is expected to be between US\$200-250 million.

MMG will continue to focus on the next phase of growth. Currently the company has no future plans for material investments or capital assets sanctioned by the Board, other than those detailed in this report or announced to the market.