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Global Copper Miners: In Good Shape for Energy Transition

Deleveraging in the Copper Sector Will Support Future Growth

The critical role of copper in the energy transition will support long-term demand, creating lucrative opportunities for copper miners and in turn a rush to increase the share of the metal in mining portfolios. Many Fitch-rated copper miners both at investment and sub-investment rating levels are conservatively leveraged and have sufficient headroom for growth opportunities.

However, meeting growing demand will be challenging as projects become more expensive and complex due to tightening environmental regulations and riskier operating environments.

Investment-grade miners have had mid-cycle EBITDA net leverage of less than 1.5x, with the exception of Corporacion Nacional del Cobre de Chile (CODELCO; A-/Stable), which is subject to intensive capex and transfers to the government.

Almost all copper miners' ratings are on Stable Outlook in Fitch Ratings' global portfolio despite having leverage below sensitivities during cyclically high prices, as Fitch expects that price normalisation and costs inflation will return leverage to within sensitivities. Only Freeport-McMoRan Inc. (BBB-) is on Positive Outlook reflecting our expectation that EBITDA leverage will remain below the 1.8x positive sensitivity.

Larger miners like Freeport, First Quantum Minerals Ltd. (FQM; B+/Rating Watch Negative) and Antofagasta PLC (BBB+/Stable) aim to enhance brownfield projects with additional mining and/or smelting capacities. Smaller miners like JSC Almalyk Mining and Metallurgical Complex (BB-/Stable), Ero Copper Corp. (B/Stable) and Taseko Mines Limited (B-/Stable) are engaged in debt-funded transformative projects.

Most copper miners aim to decarbonise their operations, with a focus on power sources, which typically account for around half of emissions. Miners will shift to renewables through new power purchase agreements, and some are constructing their own power-generating capabilities.

Soaring Demand to Create Market Deficit

Copper is one of the minerals that are critical to the energy transition. It is used in a broad range of electronic and industrial applications due to its thermal and electrical conductivity. End-sectors include construction, industrial equipment, manufacturing, infrastructure and transport.

Global consumption was 30.6 million tonnes (mt) in 2022, out of which 24.8mt was refined copper and the rest was copper scrap. CRU projects copper demand to increase by 39% to 42.5mt by 2050. The UN Forecast Policy Scenario (FPS) even assumes that copper demand will more than double during this time.

Key demand drivers are the roll-out of electric vehicles (EVs), renewables and related electricity grid infrastructure, without which copper demand would increase only marginally. Within renewables,

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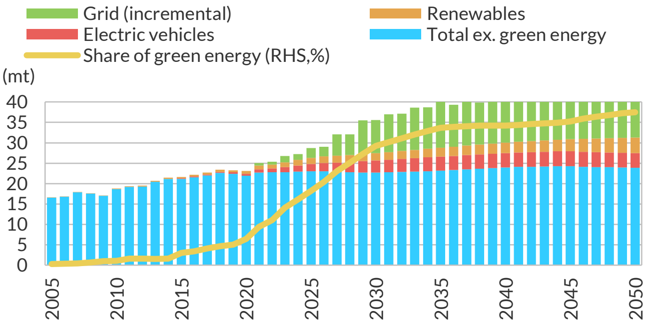
solar and offshore wind power are the most copper-intensive. The latter requires more transmission cabling than onshore wind.

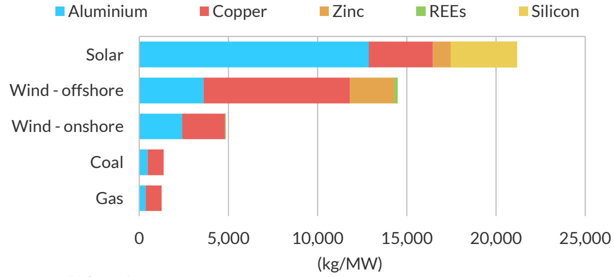
Green Energy to Drive Global Copper Consumption



Source: Fitch Ratings, CRU

CRU estimates that the shortfall between copper demand and supply from existing and committed mines will be 6.7mt in 2033; a sizeable deficit.

Steel and Metal Intensity by Energy Generation Source



Source: Fitch Ratings, CRU

CRU also expects that USD118 billion of initial capex and over 100 projects will be required to fill this gap by 2033.

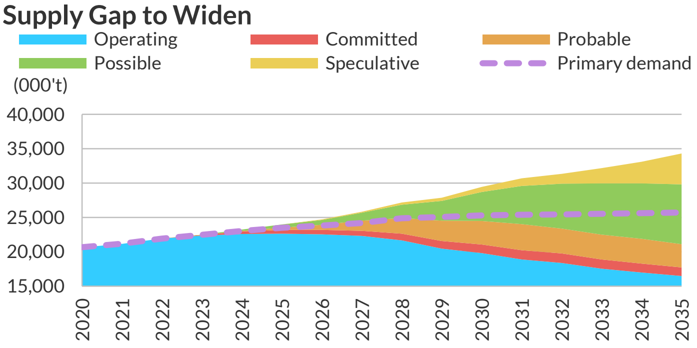
Both greenfield and brownfield projects are becoming more challenging, from permitting to realisation, due to declining ore grades, increasing complexity of deposits, greater regulatory scrutiny and more stringent ESG requirements. Mines are becoming smaller, reducing economies of scale. Mining and refining are also subject to cost inflation.

Fitch-Rated Copper Miners

Company	IDR	Outlook/ Watch	Country of key copper-mining operations	Reserve life[a] (years)	Copper production[b] (000t)	EBITDA[c] (USDm)	EBITDA Net Leverage[c] (x)
Copper-focused miners							
Almalyk	BB-	Stable	Uzbekistan	>60	149	1,456	1.3
Antofagasta PLC	BBB+	Stable	Chile	18	646	2,958	0.1
CODELCO	A-	Stable	Chile	31	1,552	5,878	3.0
Ero Copper	B	Stable	Brazil	20	46	241	0.9
FQM	B+	RWN	Zambia, Panama	25	776	3,085	2.7
Freeport	BBB-	Positive	Indonesia, US, Peru, Chile	25	1,909	7,222	1.3
Hudbay Minerals Inc.	BB-	Stable	Canada, Peru	15	104	563	1.5
Southern Copper Corporation (SCC)	BBB+	Stable	Peru, Mexico	48	926	4,939	0.7
Taseko Mines	B-	Stable	Canada	27	44	116	3.2
Diversified global miners (copper operations only)							
Anglo American plc[c]	BBB+	Stable	Peru, Chile	35	664	2,959	0.6
BHP Group Limited[c]	A	Stable	Chile, Australia	>40	1,574	7,860	0.2
Rio Tinto Plc/Ltd[c]	A	Stable	US, Chile, Mongolia	34	521	3,339	0.2
Teck Resources Ltd.	BBB-	Stable	Canada, Chile, Peru		270	1,837[d]	0.9

[a] Calculations are based on the company estimates. The companies use different conservative cut-off prices for reserve estimates, affecting reserve life. Fitch does not make an adjustment to estimates
[b] 2022 figures. Volumes include production by subsidiaries and proportionate share in joint operations.
[c] Mid-cycle figures
[c] Diversified global miners; EBITDA based on mid-cycle data for copper segment; EBITDA net leverage on mid-cycle data for all segments.
[d] Teck reports gross profit before depreciation and amortisation per segment, instead of EBITDA
Source: Fitch Ratings, companies

Supply Gap to Widen

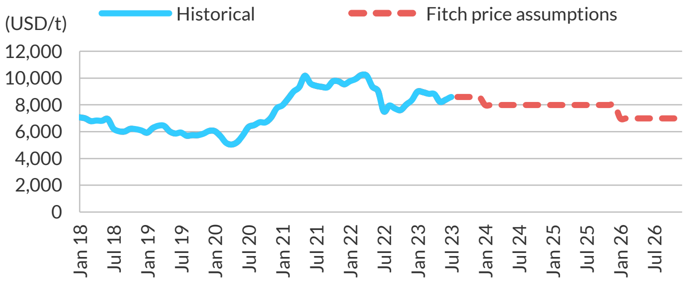


Source: Fitch Ratings, CRU

High capex requirements and rising operating costs will support the long-term copper price. The price may be volatile in the short term due to supply-side disruptions, changes in economic policies, substantial stimulus programmes and economic growth.

Copper Price to Stabilise

LME spot price



Source: Fitch Ratings, CRU

Current Trends

Rising M&A Activity

Miners have been focusing in the past five years on reshaping their portfolios to focus on future-facing commodities. Copper has become one of the most attractive metals given its key role in the energy transition, established market compared to other 'green' metals and the low exposure of demand to the change in technology.

Top Five Deals in 2023 (Pending and Completed)

Target	Acquirer	Amount (USDm)	Payment type	Stake acquired (%)
Vale Base Metals	Manara Minerals	3,400	Cash	10
Mineracao Vale Verde Ltda, Atlantic Nickel Mineracao Ltda	ACG Acquisition Co Ltd	1,000	Cash	100
SCM Minera Lumina Copper Chile	Lundin Mining Corp	800	Cash	51
Copper Mountain Mining Corp	Hudbay Minerals Inc	624	Stock	100
Cangrejos Project	Wheaton Precious Metals Corp	300	Cash	100

Source: Fitch Ratings, Datastream

Top 5 Deals in 2022 (Completed)

Target	Acquirer	Amount (USDm)	Payment type	Stake acquired (%)
OZ Minerals Ltd	BHP Group Ltd	6,361	Cash	100
Turquoise Hill Resources Ltd	Rio Tinto PLC	3,227	Cash	49
Cobar Management Pty Ltd	Metals Acquisition Ltd	875	Cash and Stock	100
LS-Nikko Copper Inc	LS Corp	780	Cash	100
Round Oak Minerals Pty Ltd	Aeris Resources Ltd	204	Cash and Stock	100

Source: Fitch Ratings, Datastream

It is becoming more challenging to develop new capacity as new projects are often complex from a geological, permitting or community perspective. In contrast, acquisitions of operational assets provide lower risk growth opportunities. M&A activity was more active for copper assets than for other individual commodity assets in 2022.

The key benefit of acquisitions relates to miners' enhanced business profiles though improved scale, reserve bases and diversification. However, M&A often increase leverage if debt-funded, may be too expensive at high multiples and may be subject to various risks related to the new asset's integration and development. Fitch takes a holistic view of issuers' acquisitions and assesses the impact on business and financial profiles along with adherence to its strategic framework.

CRU estimates that 45 copper deals were concluded in 2022 for a total amount of USD16.3 billion. The largest acquisitions were that of Oz Minerals by BHP for USD6.4 billion, and Rio Tinto's consolidation of its stake in Turquoise Hill. These deals were positive for the business profiles because they increased the companies' exposure to copper via world-class assets and were financially neutral given very low leverage profiles and sufficient available funds.

The all-share acquisition of Copper Mountain by Hudbay was incrementally positive for its credit profile given the higher earnings of the combined businesses with minimal additional debt.

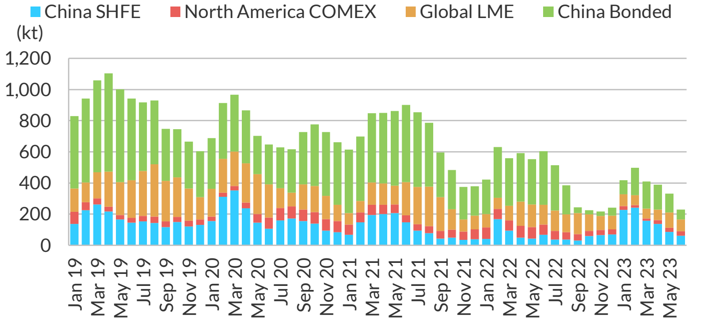
In terms of market balance, M&A activity does not add supply, so the preference of miners to grow inorganically (given that there are limitations on growth spending) rather than invest in new capacity may lead to larger supply gaps.

Increasing Supply-Side Uncertainty

Copper production and logistics has been affected by various factors including weather conditions, social unrest, labour disputes, port constraints and other operational factors. The level of disruption is likely to remain high.

Copper inventories at exchanges remain low. Stock has been just above two weeks of consumption so far in 2023. Low stock fundamentally supports the copper price.

Inventories Remain Low



Source: Fitch Ratings, CRU

Government intervention in the mining sector in some Latin American and African countries has intensified with rising demand for energy-transition commodities, including copper. These governments have been trying to extract greater value from future and existing mining concessions in the form of higher taxes/royalties as well as renegotiated labour rates. Resource nationalism is a risk for supply due to possible operational disruption to current projects and difficulty receiving stability agreements, licences and permitting for new projects. Also, such disputes may negatively affect companies' financial and credit profiles.

For example, the operations of FQM's flagship Cobre Panama mine were disrupted due to a dispute between the company and the Panama government over the final terms of its concession contract. Fitch put the company's 'B+' rating on Rating Watch Negative (RWN) in January 2023 following the Panamanian government's resolution to put Cobre Panama mine on care and maintenance. The company has since reached the agreement with the government on the revised concession contract, which we expect to be passed as law. The revised contract envisages an additional USD395 million of taxes and royalties payable for operations up to end-2022 and at least USD375 million payable per year from 2023 (equivalent to 11% of 2022 EBITDA).

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