

Copper



10-year forecast

Q1 2024



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Key takeaways

Our long-term analysis of the copper market has identified four key takeaways:

1.

Copper demand to rise at a CAGR of 2.6% between 2023 and 2034:

Consumption will still be supported by energy transition demand. Copper will be required to connect batteries to electric vehicle powertrains, in the electric motors themselves and in the charging infrastructure. Copper will also be required for solar energy and wind power, but within energy transition sectors it is the EV space that will see the strongest growth in demand.

2.

Copper production (from all sources) will grow at CAGR of 2.2%:

Most of this growth will occur in the first half of the forecast period. Primary supply will rise at a CAGR of 2.0% and will continue to dominate supply. Primary production's share of total supply will peak at 67% in 2029 but will gradually slip to 64% by 2034 as mines close. Solvent extraction/electrowinning (SX/EW) production will be lower in 2034 than in 2023. A rise in production in the Democratic Republic of the Congo will drive near-term supply higher but in the long-term, this supply will not be able to offset the fall in SX/EW production in Chile due to ore depletion.

3.

Secondary supply growth to rise at a CAGR of 4.9%:

Efforts to improve sustainability, coupled with slow concentrate supply growth, should result in higher production from secondary sources.

4.

Market to be in deficit in 2024, from a balance in 2023:

Weaker-than-expected near-term production growth will keep the market in deficit in 2024, from a balance in 2023 (a deficit of only 3,000 tonnes). The market will return to balance in 2025 but we forecast renewed deficits in the following two years. The 2028-2031 period will be one of surpluses, but the final three years of the forecast period will see supply growth slow. As a result, we see an investment requirement for an additional 1,364,000 tonnes of capacity by 2034.

Key takeaways

Changes in forecasts

Our apparent demand forecasts have been reduced, mostly because of lower-than-expected 2023 demand. Our macro forecasts also point to slower demand growth in 2025.

By 2026, our demand forecasts are 795,000 tonnes below our previous forecast, but this gap is expected to gradually narrow from that point on.

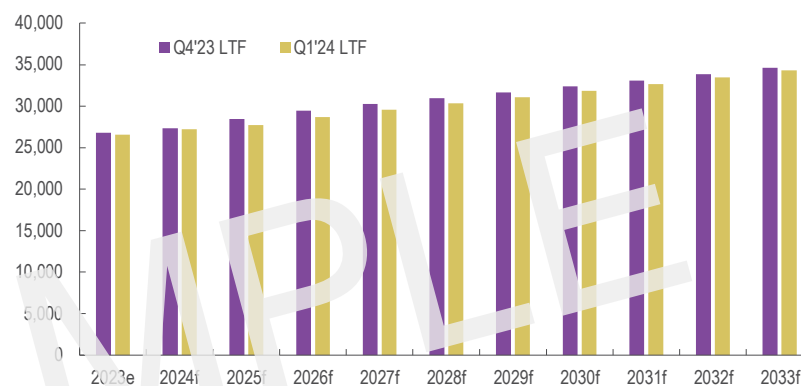
By 2033, our demand forecast is 317,000 tonnes lower than previously.

We have also revised our supply forecasts, with 2023 production revised up by 276,000 tonnes, but our 2024 forecast is only 76,000 tonnes higher than previously forecast.

Slower supply growth means refined production is expected to be lower than previously forecast from 2025.

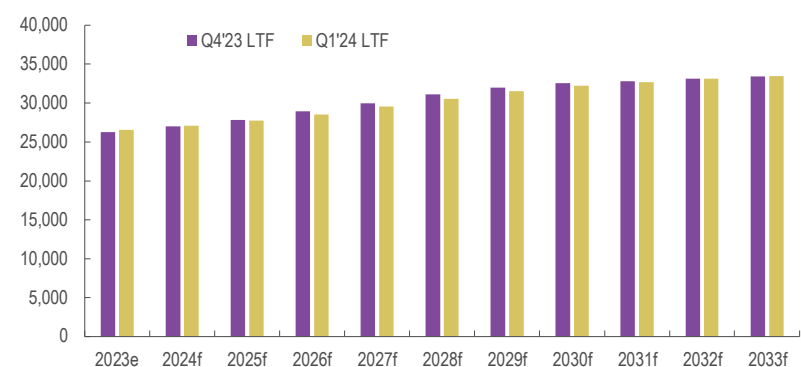
In 2028, refined supply is 582,000 tonnes below our previous forecast, but this gap will then narrow. Our new 2033 forecast is slightly higher than previously expected.

Changes in apparent demand forecast
'000 tonnes Cu



Source: Fastmarkets

Changes in refined supply forecast
'000 tonnes Cu



Source: Fastmarkets

Key takeaways

Apparent demand

Apparent demand will rise at a CAGR of 2.6% between 2023 and 2034, to reach 35.1 million tonnes.

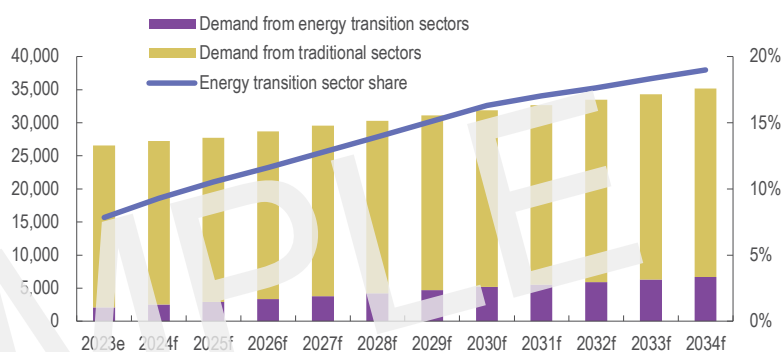
Consumption from energy transition sectors (solar energy, wind power, EVs and EV charging infrastructure) will rise at a CAGR of 11.2% over the same period, while consumption from traditional sectors will rise at a CAGR of 1.4%.

In volume terms, growth will be relatively balanced. Energy transition consumption will grow by 4.6 million tonnes in 2023-2034, while traditional consumption will grow by 4 million tonnes over the same period.

Among energy transition sectors, the EV sector, which groups demand from vehicles and charging infrastructure, which will rise at a CAGR of 13.7% in 2023-2034 - 55% of energy transition demand.

Demand from the wind power will rise at a CAGR of 11.2%, while solar demand will rise at a CAGR of 6.1%.

Apparent refined copper demand forecast
'000 tonnes Cu (LHS), % (RHS)



Source: Fastmarkets, ICSG

Key takeaways

Supply

Possible mine supply will rise at a CAGR of 2.2% between 2023 and 2034. Chile and Peru were the top two producers in 2023, but production in the DRC was barely lower than in Peru. By 2034, DRC mine supply will overtake Peru.

Refined copper supply will grow at a CAGR of 2.2% from 2023 to 2034.

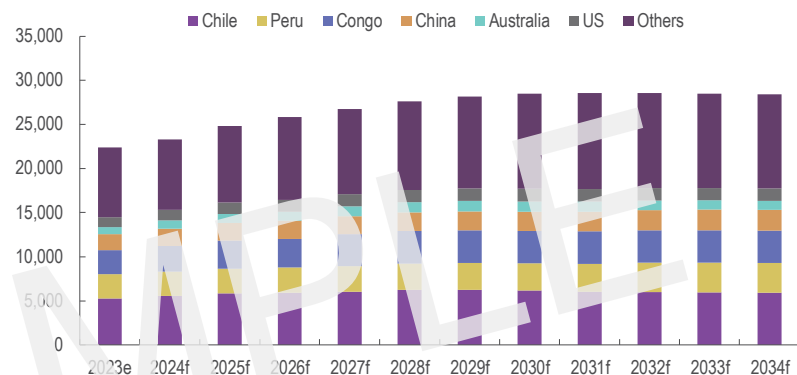
Refined production from secondary sources will rise at a CAGR of 4.9% to reach 7,601,000 tonnes - up from 4,489,000 tonnes in 2023.

Refined supply from primary sources will continue to dominate refined production, reaching 21,741,000 tonnes in 2034, up from 17,491,000 tonnes in 2022 - a CAGR of 2.0%.

SX/EW supply will be flat over the forecast period, with supplies falling at a CAGR of 0.3%. Supply will peak at 4,710,000 tonnes in 2025 before sliding as available feedstock declines.

Mine supply forecast by country (before disruption allowances)

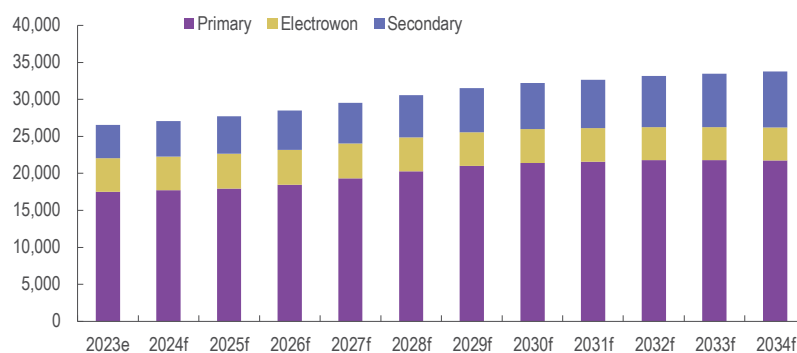
'000 tonnes Cu



Source: Fastmarkets, ICSG

Refined copper supply forecast by type

'000 tonnes Cu



Source: Fastmarkets, ICSG

Key takeaways

Market balance

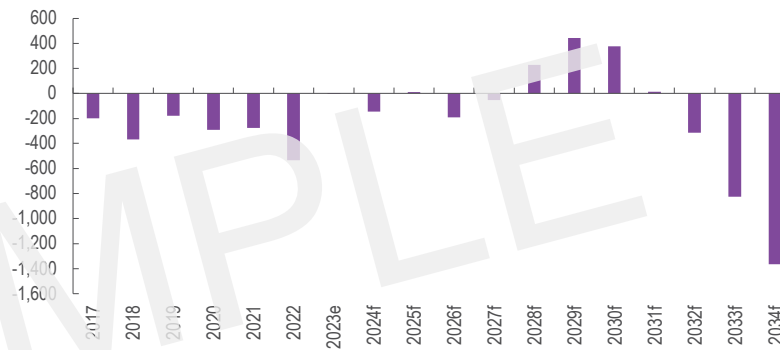
The market was broadly balanced in 2023, but a combination of lower-than-expected guidance and the placing of Cobre Panama on care and maintenance will drag the market back into deficit in 2024.

Nevertheless, a supply response will still occur. We forecast a modest surplus in 2025, followed by small deficits in 2026 and 2027. The market will flip to a surplus in 2028 and this will continue until 2031.

From 2032, slower refined production growth will result in an increasingly undersupplied market. We forecast an investment requirement of 1,364,000 tonnes of refined supply by 2034.

Copper market balance forecast

'000 tonnes Cu



Source: Fastmarkets

Macro-economic outlook & copper

Global economic growth (measured by real GDP at purchasing power parity) grew by 3.1% in 2023, more quickly than the 2.6% we had originally forecast.

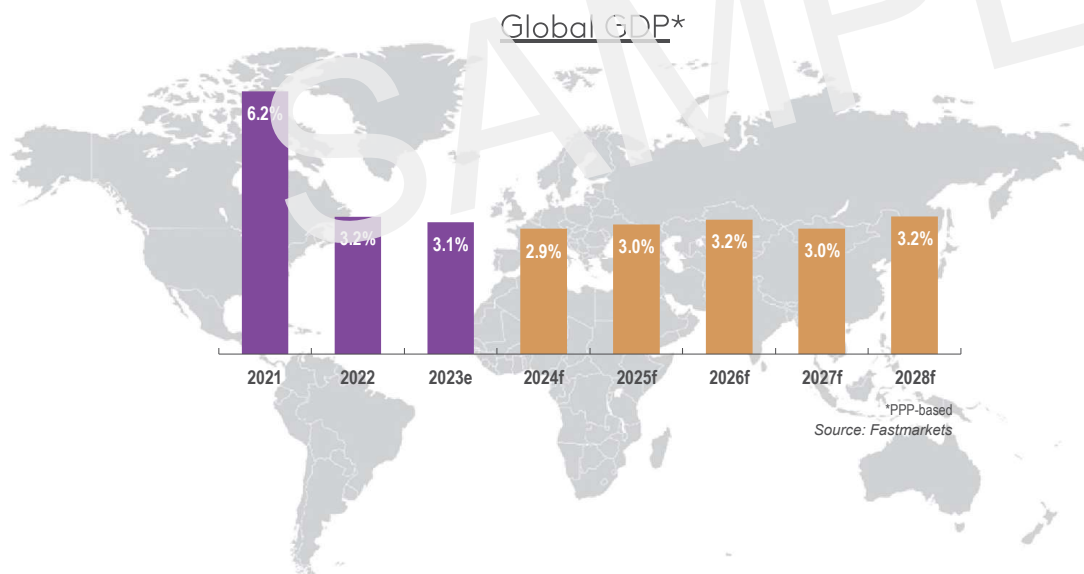
But Fastmarkets' macro-economic team sees global economic growth slowing in 2024 and we now expect the global economy to grow by 2.9% compared to our previous forecast of 3.2%.

Copper should continue to benefit from solid growth drivers, however, thanks to the growth in consumption from energy transition-linked sectors.

Looking at global policies that could have an impact on macro-economic support for the copper market, the key factors will be related to the energy transition in terms of storage and the electrification of transport (particularly land transportation) systems. We have seen an abundance of such policies enacted since 2021, including the US Inflation Reduction Act, the EU Green Deal, the Canadian Critical Minerals Strategy and India's FAME II Strategy.

FAST FACTS

- We expect global economic growth to pick up in 2024 after slower growth in 2023
- Higher overall global economic growth should support consumer demand and, thus, copper consumption





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