The Coming Copper Shortage: Drivers, Risks, and Economic Implications

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→ Copper shortage: Recent volatility in the copper market has raised concerns about a potential global shortage driven by supply disruptions and rapidly increasing demand.

→ Sharp drop in Brent crude oil: Over the past week oil market experienced the biggest drop since the beginning of US-Iran conflict.

→ Rising commodity volatility: Geopolitical tensions and supply shocks are increasing volatility across commodity markets and distorting pricing expectations.

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Copper shortage

Copper is one of the most important industrial metals in the global economy. This is due to its extensive use in electrical wiring, electronics, construction, transportation systems, and energy infrastructure. In recent years there has been increasing concern that a copper shortage is imminent and that governments and firms should prepare for it. This shortage is created by the rapid increase in demand for copper in combination with recurring supply disruptions which adds pressure to the copper market.

Firstly, one of the major reasons why supply is so susceptible is because global copper production is concentrated in a small number of countries with total production amounting to 23 million metric tons. Chile is the largest producer, accounting for roughly 23% (5.3 million metric tons) of global copper production, followed by Peru with about 11% (2.6 million metric tons). Other major producers include Indonesia, the Democratic Republic of Congo, and the United States. Because supply is concentrated geographically, disruptions in a few or only one region can significantly affect global production and therefore its price in the market.

Recent events have shown how vulnerable the global supply of copper can be. Disruptions in Chilean mines caused by labour disputes have already slowed production and tightened the overall global supply[1]. These disruptions reduce overall production which reduces export volumes and limits the ability of global markets to restock inventories.

Furthermore, another problem plaguing the supply side of the copper market is the declining ore grades. Declining ore grades means that it takes more energy and the production of more waste rock to obtain the same amount of ore in comparison to previous years. This problem is mainly due to many of the world's largest copper mines being decades old and therefore the copper concentration in the ore is decreasing as well, as the easier ore has already been mined[2]. To add on to the problem of the world's reliance on old copper mines with degrading ores is how slow it is to create new mines. From initial discovery to being able to produce usually takes about 7 to 10 years and a very large capital investment.

This slow development cycle means that the supply side cannot respond quickly when demand increases. Even if mining companies were to begin developing new projects today, the additional copper may not reach the market until the early 2030s[3].

[1] CNBC. "Copper Shortage, Tariff Fears, Mine Disruptions Tighten Prices." https://www.cnbc.com/2026/03/10/copper-shortage-tariff-fears-mine-disruptions-prices-tightness.html

[2] Mining.com. "Copper's Tight Supply and Tariff Risks Set for a Volatile 2026." https://www.mining.com/coppers-tight-supply-and-tariff-risks-set-for-a-volatile-2026/

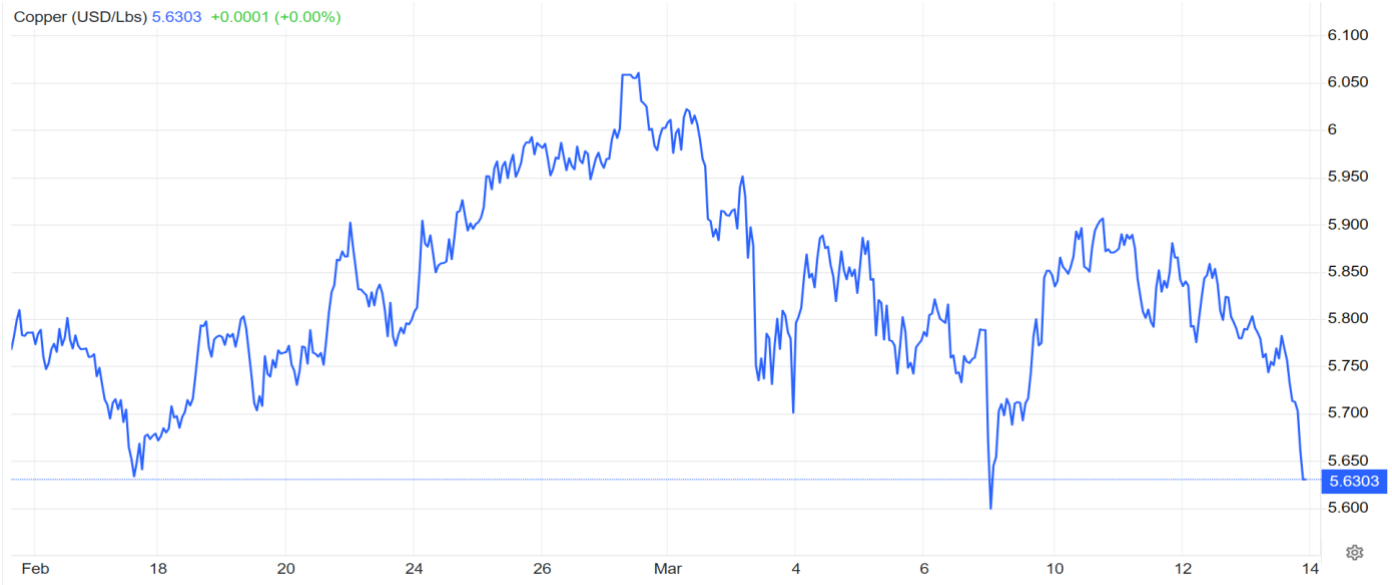
[3] InvestingNews. "When Will Copper Go Up?" https://investingnews.com/daily/resource-investing/base-metals-investing/copper-investing/when-will-copper-go-up/

With current global copper production being estimated at approximately 24 million metric tons per year, while global demand is already approaching 28 million tons annually; this suggests a growing imbalance between supply and consumption[4].

The demand side also explains the expected shortage. Copper demand has been historically been driven by construction, manufacturing, and infrastructure development. Further urbanization in emerging economies leads to upward pressure on copper demand for the construction, transportation networks, and power grids to accommodate the growing population in their urban centers. This is seen clearly with China as it alone consumes almost 50% of the global copper supply to feed its enormous construction and manufacturing sector.

Moreover, the increase in electrification of transport has added new demand pressure as electric cars require far more copper than traditional combustion engine cars. The difference is staggering with a typical car requiring about 20-25 kilograms of copper whereas an electric car requires up to 80 kilograms of copper[5] [Explained: Four Reasons Why Copper Prices Hit an All-Time High Today – Financial Express]. This is reinforced by government promotion of electric vehicles, further increasing demand pressure.

Trade policy is yet another factor contributing to copper market volatility. Tariff concerns especially under the current US Trump administration have introduced further uncertainty into the global copper trade flow. This is due to corporations starting to stockpile copper in expectation for tariffs to be implemented in trying to avoid future higher costs associated with future imports. This will tighten the global supply up until the corporations feel the risk has passed or that it is no longer beneficial for them[6]. Copper markets are also heavily influenced by financial trading through futures contracts and exchange-traded funds (ETFs). Because the market is relatively small in comparison with commodities like oil, changes in investor sentiment can cause significant price movements as seen in the market.



A copper shortage would have broad consequences for the global economy. Due to copper being used in so many important industries, price increases would increase overall production costs for manufacturers, construction companies, and energy producers.

Higher input costs could therefore lead to:

- Increased infrastructure costs
- Higher prices for electronics and vehicles
- Slower construction activity due to difficulties in getting copper
- Inflationary pressure across multiple industries

These effects could ultimately slow economic growth and increase geopolitical tensions as nations seek to secure their copper needs.

In all the global copper market is facing increasing

[4] Trading Economics. "Copper Price Historical Data." https://tradingeconomics.com/commodity/copper

[5] Financial Express. "Explained: Four Reasons Why Copper Prices Hit an All-Time High Today." https://www.financialexpress.com/market/global-markets/explained-four-reasons-why-copper-prices-hit-an-all-time-high-today/4098345/

[6] CNBC. "Copper Shortage, Tariff Fears, Mine Disruptions Tighten Prices." https://www.cnbc.com/2026/03/10/copper-shortage-tariff-fears-mine-disruptions-prices-tightness.html

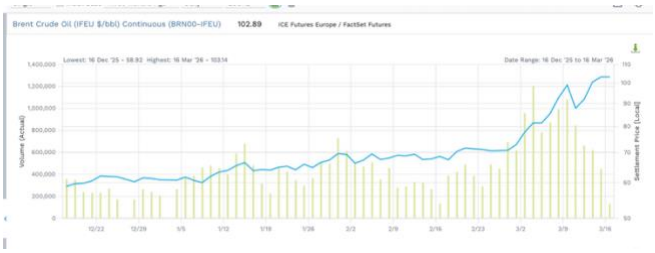
pressure due to a combination of rising demand and constrained supply. Electrification, urban expansion, and industrial growth are pushing copper consumption higher, while declining ore grades, mine disruptions, and slow mine development limit production growth. This will prove to be a big problem in the future which will need to be addressed either by finding suitable alternatives or increase the production of copper.

Brent Crude Overview

According to IEA, the world is experiencing the deepest oil supply crisis in history, because of Iran's successful blockage of the Strait of Hormuz[7].

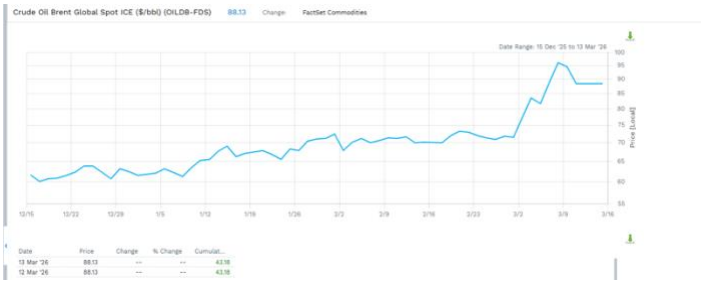
Oil prices increased today, with Brent crude spot settling at $88.13 per barrel, as geopolitical tensions and economic developments influenced expectations about global supply and demand.

Figure 1. Crude Brent Futures



Source: FactSet

Figure 3. Crude Brent Spot



Source: FactSet

This week, Brent spot experienced its first significant drop since the beginning of Iranian war, from $94.35 to $88.13, at which level they stabilized till the end of this week between 9th and 10th of March. The cause for the sharp drop was President's Trump announcement that the war with Iran is going to end soon[8]. As well Trump alleviating sanctions on Russian oil[9]. Unlike falling spot prices, Brent futures kept rising, closing the week at $103. 14 on Friday 13th of March. The increase in futures symbolizes that market expects tighter oil supply in the future. The futures market also experienced a sharp drop because of trump's statement to $87.80, however next day prices resumed their growth. The resumed growth could be justified by Cris Wright (US energy secretary) saying that US navy is not ready to begin escorting oil tankers through the Straight of Hormuz[10]. According to FactSet, the drop in Brent oil futures was caused by IEA weighing large release from strategic reserves[11].

[7] Jillian Ambrose, "Middle East War Creating 'Largest Supply Disruption in the History of Oil Markets'," The Guardian, March 12, 2026, https://www.theguardian.com/business/2026/mar/12/middle-east-war-creating-largest-supply-disruption-in-the-history-of-oil-markets.

[8] Reuters, "Oil Dives, Settles Down 11% After Trump Predicts Middle East De-escalation," Reuters, June 24, 2025, https://www.reuters.com/markets/commodities/oil-dives-settles-down-11-after-trump-predicts-middle-east-de-escalation-2025-06-24/.

[9] Trump Removes Sanctions on Russia to Help Oil Flow Amid Iran Conflict - The New York Times

[10] US Takes U-Turn On Escorting Oil Tankers Through Hormuz, Says Navy 'Not Ready' | World News - News18

[11] Oil futures move lower on media report that IEA weighing large release from strategic reserves

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