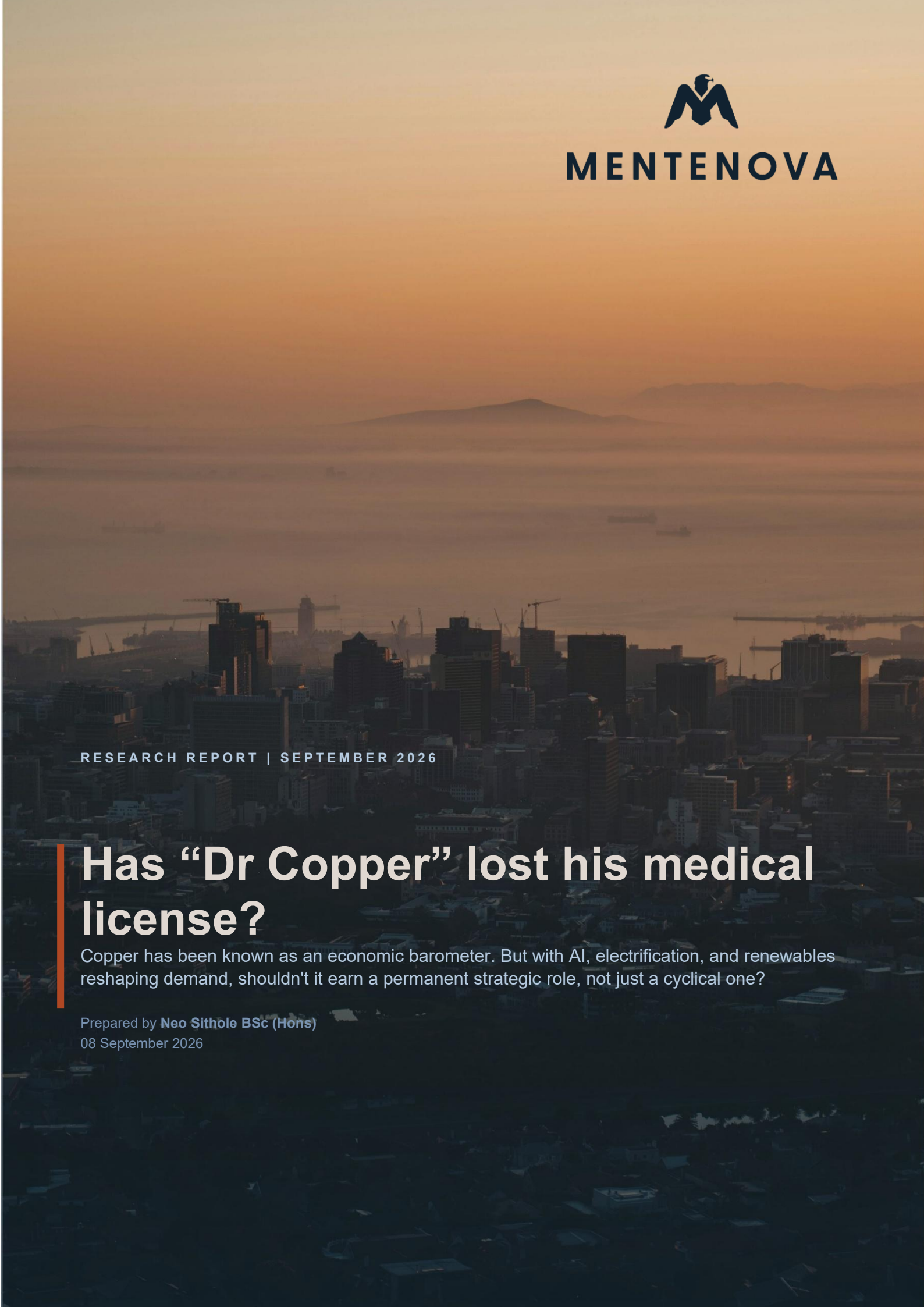


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RESEARCH REPORT | SEPTEMBER 2026

Has “Dr Copper” lost his medical license?

Copper has been known as an economic barometer. But with AI, electrification, and renewables reshaping demand, shouldn't it earn a permanent strategic role, not just a cyclical one?

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Copper has traditionally been one of the market's favourite gauges of global economic activity. But its recent performance raises questions about whether that relationship is changing.

This research examines the forces reshaping the copper market, from AI and data-centre infrastructure to electrification, renewable energy and constrained mine supply. We consider whether these developments represent a temporary shift in demand or a more fundamental change in copper's role in the global economy and what this could mean for long-term investors.

AT A GLANCE

- **A surprising rally:** Copper has risen 15.1% YTD as of August 2026, despite weak manufacturing activity, a prolonged downturn in China's property sector and an uncertain global growth outlook.
- **A changing demand story:** AI infrastructure, data centres, electrification and renewable energy are creating new sources of copper demand that are less directly tied to the traditional economic cycle.
- **A potential investment shift:** With copper supply increasingly constrained, we explore whether the metal warrants consideration as a strategic exposure to long-term structural themes.

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SECTION 01

Rethinking Dr Copper

For decades, “Dr Copper” was regarded as one of the market’s most reliable economic diagnosticians. Its sensitivity to industrial activity made it a useful signal of the health of the global economy. But 2026 has presented a different picture. Copper has rallied 15.1% as of August despite subdued manufacturing activity, weakness in China’s property sector and persistent uncertainty around global growth.

The divergence raises a bigger question than whether copper is correctly anticipating the next economic cycle. Perhaps the market is responding to a different set of forces altogether. AI infrastructure, electrification, renewable energy and the rapid expansion of data centres are creating new sources of demand, while developing new copper supply remains challenging. The result could be a gradual shift in copper’s role, from a metal that reflects economic activity to one increasingly essential to the infrastructure supporting future growth.

A YEAR OF CONTRADICTIONS

The first half of 2026 has produced an unusual combination of economic signals. Growth expectations remain uncertain, manufacturing activity has been subdued, and China’s property sector continues to weigh on traditional sources of commodity demand. Yet copper prices have continued to climb. Historically, this would have been difficult to reconcile. Copper’s widespread use across construction, manufacturing, machinery and infrastructure has made its price particularly sensitive to changes in economic activity. Strong demand tends to accompany periods of expansion, while downturns typically leave their mark on consumption and prices.

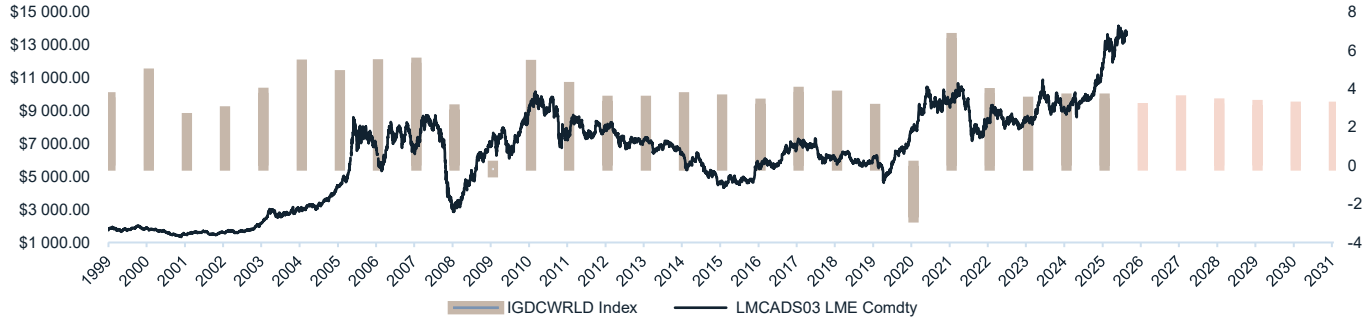
The current divergence suggests that the composition of demand may be changing. Rather than relying solely on traditional sources such as construction and manufacturing, copper is increasingly being pulled into long-duration investment themes. Data-centre construction requires substantial amounts of copper for power distribution and cooling systems. Electrification is increasing copper intensity across grids, vehicles and industrial equipment, while renewable energy projects add further demand for transmission and electrical infrastructure. At the same time, supply is proving difficult to expand. New mines require significant capital, long development timelines and increasingly complex permitting processes. Existing operations also face declining ore grades and rising costs.

The question, therefore, is not simply why copper prices have risen despite a weaker economic backdrop. It is whether the underlying market has changed enough that the old “Dr Copper” framework is no longer sufficient. That distinction is important for investors. If copper demand is becoming increasingly linked to structural investment rather than just the business cycle, its behaviour and potentially its role within a portfolio could look very different from the past.

> **Copper has long served as one of the most reliable barometers of global economic health, earning its reputation as 'Dr. Copper' for its ability to anticipate the direction of investment cycles and industrial activity."**
> QNB ECONOMICS

FIGURE 1:

Copper prices have historically moved hand in hand with global GDP Growth



Source: Bloomberg

SECTION 02

Where the evidence points

The metal is no longer a thermometer for the present, but a compass for the future.

THE EVOLUTION OF "DR COPPER"

Among the strongest-performing commodities this year, crude oil and copper have stood out. While oil's performance can largely be explained by geopolitical tensions in the Middle East, copper's rise tells a much broader story. Copper has delivered 15.1% year-to-date, challenging the long-held assumption that the metal simply reflects the strength of the global economy.

Unlike gold, which is often accumulated as a store of value, copper derives its worth primarily from industrial demand. Its applications span electricity transmission, renewable energy infrastructure, electric vehicles, battery technology and, increasingly, artificial intelligence infrastructure.

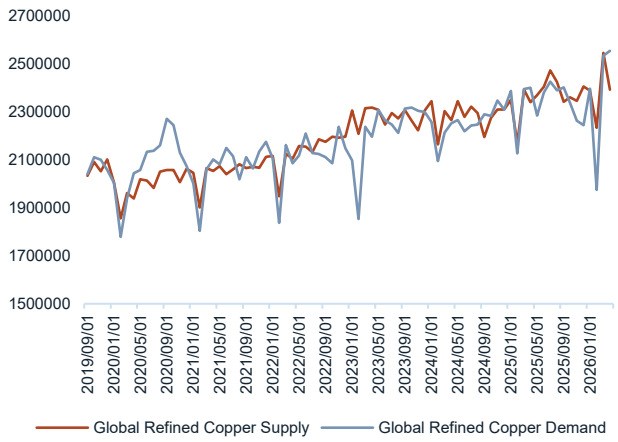
Perhaps the most notable development has been the rapid expansion of hyperscale data centres. Some estimates suggest that a single facility can require as much as 50 000 tonnes of copper. As a result, copper prices increasingly reflect structural changes within the global economy rather than merely cyclical fluctuations in industrial activity. Historically, industrial production and copper prices exhibited a close relationship. Today, that relationship appears to be evolving.

For South Africa, these developments are particularly significant. As a resource-rich economy with a substantial mining sector, South Africa remains highly sensitive to global commodity demand. Sustained strength in copper prices could support investment activity, strengthen mining revenues and provide investors with exposure to several powerful secular themes.

A STRUCTURAL SUPPLY CONSTRAINT

Basic economic principles remain unchanged: when supply struggles to meet rising demand, prices adjust accordingly. Major producing regions, particularly Chile, continue to experience multi-year declines in output as ore grades deteriorate and ageing mines become less productive. At the same time, new copper projects face increasingly lengthy development timelines, often approaching two decades from discovery to commercial production. Even the world's largest diversified miners have guided lower production expectations, highlighting the growing challenges of expanding global supply. Consequently, the market appears to be entering a prolonged period of structural tightness.

FIGURE 2:



Global copper supply and demand dynamics. Source: Bloomberg

Several major institutions now anticipate structural supply deficits extending through 2026 and beyond. The International Copper Study Group expects the market to move into deficit for the first time in over a decade, while JPMorgan and Morgan Stanley forecast increasingly pronounced shortages driven by AI-related demand growth and constrained mine supply. Although Goldman Sachs maintains a more conservative near-term outlook, it similarly acknowledges that long-term structural fundamentals remain firmly supportive.

Although estimates differ, most institutions expect structural forces to outweigh cyclical ones.

KEY POINT

Structural deficit ahead

ICSG, JPMorgan, and Morgan Stanley all forecast supply deficits through 2026, ranging from 150 000 to 600 000 tonnes. The balance of evidence points one way: the market is tightening.

KEY POINT

AI doesn't flinch at high prices

Unlike industrial consumers who cut back when prices rise, AI-related demand is price-insensitive. Data centres are being built regardless of cost, absorbing available supply and fundamentally altering the demand curve.

FIGURE 3:

2026 Copper market outlook from global institutions

Institution	2026 outlook	Primary driver
International Copper Study Group (ICSG)	150 000-tonne deficit	Structural shortage
JPMorgan	330 000-tonne deficit	AI demand and mine closures
Morgan Stanley	600 000-tonne deficit	Supply constraints
Goldman Sachs	160 000-tonne surplus	Conservative outlook
Pacific Securities	50 000-tonne deficit	Demand exceeding supply
Bank of America	Positive long-term outlook	Decarbonisation and artificial intelligence

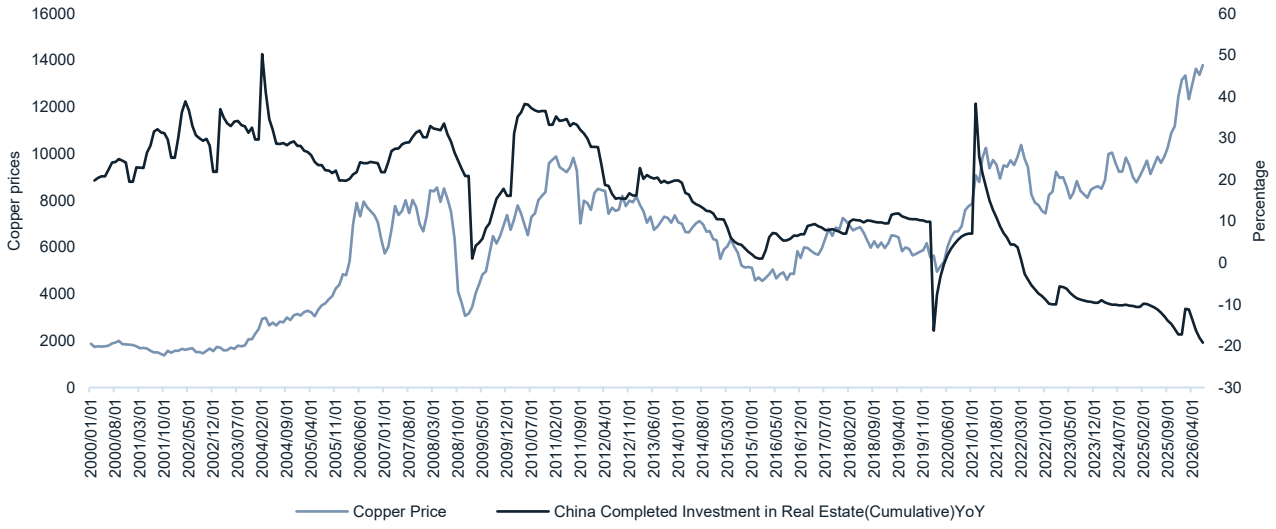
CHINA'S CHANGING RELATIONSHIP WITH COPPER

Perhaps the most compelling evidence that copper's traditional role has changed is its recent relationship with China. Historically, copper was regarded as one of the clearest indicators of Chinese economic growth. Given China's dominance in manufacturing, infrastructure development and property construction, slower economic growth would ordinarily have translated into lower copper prices or vice versa. Despite persistent weakness in the country's property sector, copper prices have remained elevated, reaching record highs earlier this year.

Using year-over-year data from Bloomberg between 1978 and 2022 found that copper prices exhibited only a weak relationship with Chinese economic growth. More recent research using Structural Vector Autoregression (SVAR) models provides a more nuanced explanation. Rather than responding to aggregate economic growth, copper prices are increasingly driven by copper-specific demand shocks, themselves influenced by China's investment composition, producer prices and liquidity conditions. In other words, it is no longer the pace of Chinese GDP growth that matters most, but where investment is directed.

FIGURE 4:

Decoupling of Chinese property prices versus copper prices



Source: Bloomberg

This explains why copper prices have remained elevated despite ongoing weakness in China's property market. Demand from AI infrastructure, electricity grids and strategic industrial investment has offset cyclical weakness elsewhere in the economy. Moreover, China's continued accumulation of strategic copper reserves reflects recognition that copper has become a critical resource within the country's long-term industrial strategy rather than merely another commodity input.

Consequently, AI data centres have effectively become the market's marginal buyer. Unlike traditional industrial consumers, whose demand often weakens as prices rise, AI-related investment is comparatively price-insensitive. This means that incremental demand continues even at elevated prices, absorbing much of the available global supply while mine production remains constrained.

FROM AN ECONOMIC SIGNAL TO A STRATEGIC MOVE

Inflation hedge

Copper may provide an effective inflation hedge through its central role in infrastructure development, manufacturing and electrification.

Diversification benefits

As structural demand increasingly outweighs traditional cyclical influences, copper offers diversification characteristics distinct from conventional equity and bond exposures.

Strategic allocations

Continued investment in AI infrastructure and energy transition projects suggests that copper could become an increasingly important strategic allocation rather than merely a tactical commodity trade.

In the near term, several catalysts warrant close monitoring. China's copper inventories remain exceptionally tight, with Shanghai premiums reaching new highs as physical supplies tighten. Any further policy stimulus or acceleration in State Grid investment could provide additional support for prices. Similarly, developments surrounding US trade policy and tariff implementation may temporarily influence inventory movements and create tactical entry opportunities during periods of market volatility.

FIGURE 5:

Chinese copper imports and stockpiling

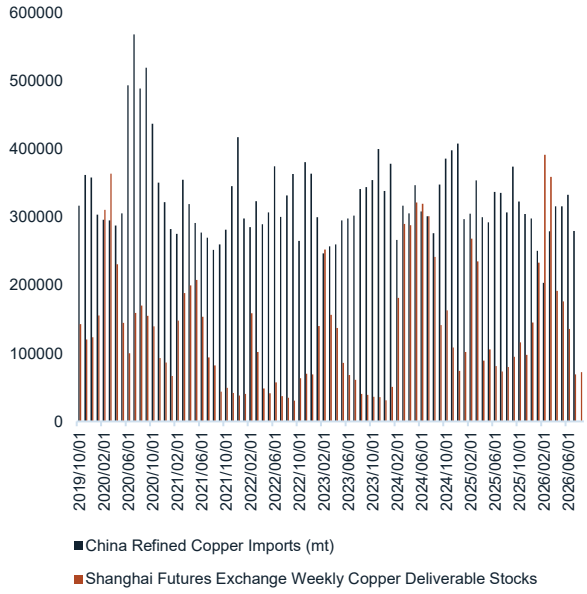
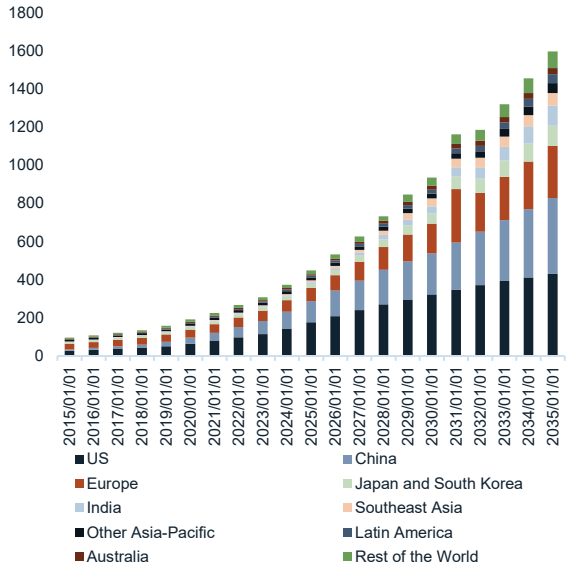


FIGURE 6:

Power demand from AI data centres to quadruple in 10 years



Source: Bloomberg

For South African investors, these structural trends are particularly relevant. Although direct exposure to copper may be limited, domestic mining companies with diversified copper assets provide an avenue for participation in this multi-year investment theme. Selecting high-quality mining businesses with world-class projects may therefore benefit disproportionately as copper markets tighten over the coming decade.

Ultimately, copper's role within the global economy has fundamentally evolved.

SECTION 03

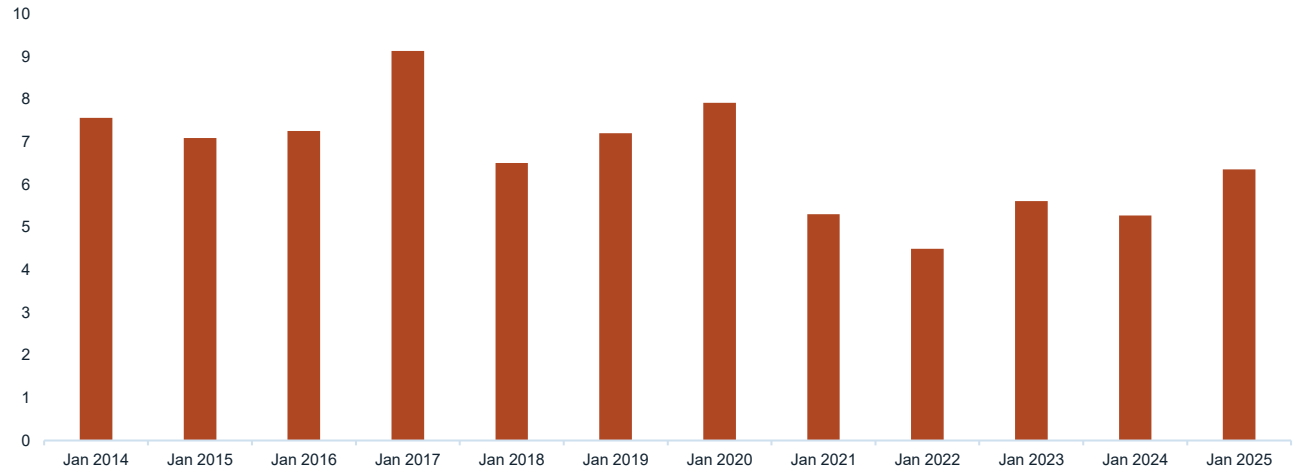
The reinvention of “Dr Copper”

Copper's traditional role as the world's economic thermometer has undoubtedly evolved. The convergence of artificial intelligence, electrification, renewable energy infrastructure and constrained mine supply has transformed the metal from a cyclical indicator into a strategic asset. This does not mean that copper has entirely lost its ability to signal economic conditions. Rather, it suggests that investors must interpret those signals differently.

"Dr Copper" may still be taking the temperature of the global economy, but the diagnosis has become considerably more complex. For long-term investors, the implications are clear. Copper is no longer simply a reflection of economic activity. It is increasingly becoming an investment in the technological, industrial and energy infrastructure that will shape the coming decade.

FIGURE 7:

Copper weights continue to grow within the Bloomberg Commodity Index



Source: Bloomberg.

SECTION 04

Three things to take away

1 A new role for an old metal

Copper is no longer a simple reflection of economic activity. The convergence of artificial intelligence, electrification, renewable energy infrastructure and constrained mine supply has transformed the metal from a cyclical indicator into a strategic asset. This does not mean that copper has entirely lost its ability to signal economic conditions. Rather, it suggests that investors must interpret those signals differently. For long-term investors, the implications are clear: copper is increasingly becoming an investment in the technological, industrial and energy infrastructure that will shape the coming decade.

2 Structural deficits are coming

Basic economic principles remain unchanged: when supply struggles to meet rising demand, prices adjust accordingly. Major producing regions, particularly Chile, continue to experience multi-year declines in output as ore grades deteriorate and ageing mines become less productive. New copper projects face increasingly lengthy development timelines, often approaching two decades from discovery to commercial production. Consequently, most major institutions anticipate structural supply deficits extending through 2026 and beyond, providing a strong fundamental underpinning for prices.

3 Rethinking portfolio exposure

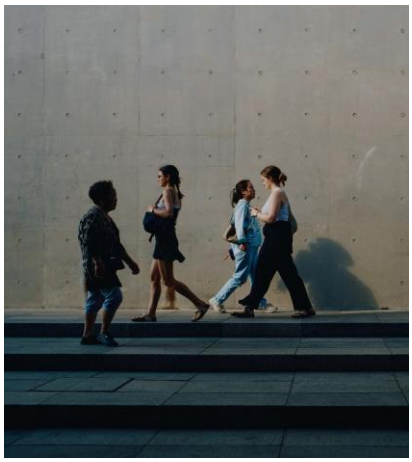
From a portfolio construction perspective, these developments have meaningful implications. First, copper may provide an effective inflation hedge through its central role in infrastructure development, manufacturing and electrification. Second, as structural demand increasingly outweighs traditional cyclical influences, copper offers diversification characteristics distinct from conventional equity and bond exposures. Finally, continued investment in AI infrastructure and energy transition projects suggests that copper could become an increasingly important strategic allocation rather than merely a tactical commodity trade.

SIDEBAR

Catalyst to Watch

In the near term, several catalysts warrant close monitoring

- Chinese inventories are tight, with Shanghai premiums at record levels.
- Further stimulus or grid investment could support prices.
- US trade policy may create tactical entry opportunities amid volatility.



Copper has evolved from a mirror of economic activity into a strategic bet on the structural forces - AI, electrification, and renewables that will define the next decade.



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