

ESG/FX

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Silver: Constructive Outlook amid Market Dynamics and Low-Carbon Push

Summary

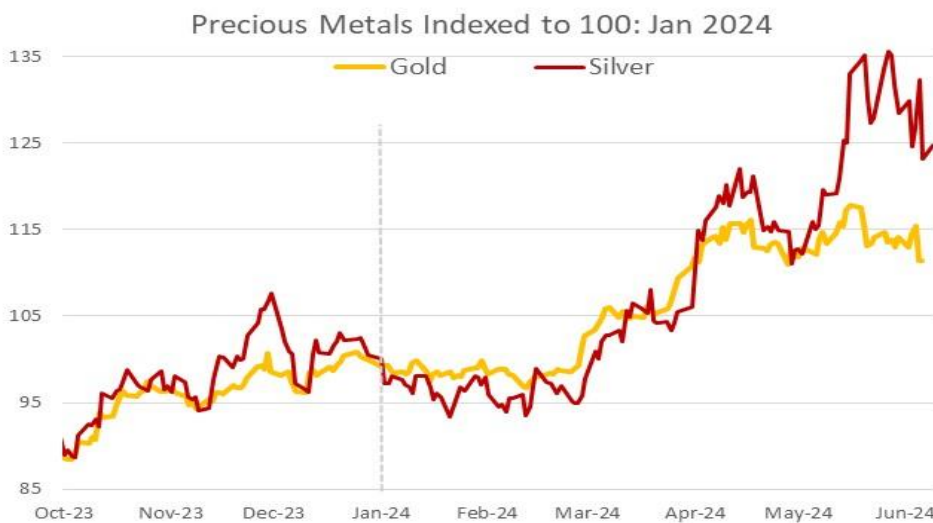
- Silver’s parabolic rise (>30% YTD at one point in May) may have caught many by surprise. Medium term outlook is constructive due to industrial demand prospects and ongoing supply deficits. Demand prospects is promising, given the green transition and how silver has its place for industrial use. Global silver demand is projected to reach 1.2 billion ounces in 2024 from continued growth in industrial end-uses, especially for solar panels, electric vehicles (EVs) and 5G technology.
- Silver’s thermal and electrical conductivity properties make it an important industrial metal for some clean energy technologies e.g. solar panels. With a global push towards a low-carbon future, silver demand is expected to increase in tandem with strong growth expected in the solar sector amid a supply deficit.
- Near-term outlook can vary somewhat due to its volatile nature and that it is also driven by market and macro dynamics, including interest rate cycles, global growth outlook and geopolitics. In the interim, Silver may consolidate, taking cues from moves in gold prices while June FOMC looms. Meanwhile, long position in silver looks stretched at current levels. Unwinding of stretched longs can add downward pressure to prices of silver. Bias to buy dips.

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Precious Metals Shimmer



Source: Bloomberg, OCBC Research

Prices of precious metals, including gold, silver have risen sharply this year. The rise can be attributed to various reasons including prospects of central banks easing

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monetary policies, geopolitical concerns, supply and demand dynamics. While gold may have stolen the limelight early in the year for printing fresh highs on multiple occasions, the parabolic rise in silver prices has somewhat caught markets' attention lately.

Silver prices rose more than 30% to more than \$32/oz in mid-May 2024, a level not seen since 2012. Apart from the fundamentals driving the price of silver, gold's sharp rise is likely to have spilled over to silver and subsequently, exacerbated by short unwinding in silver positions.

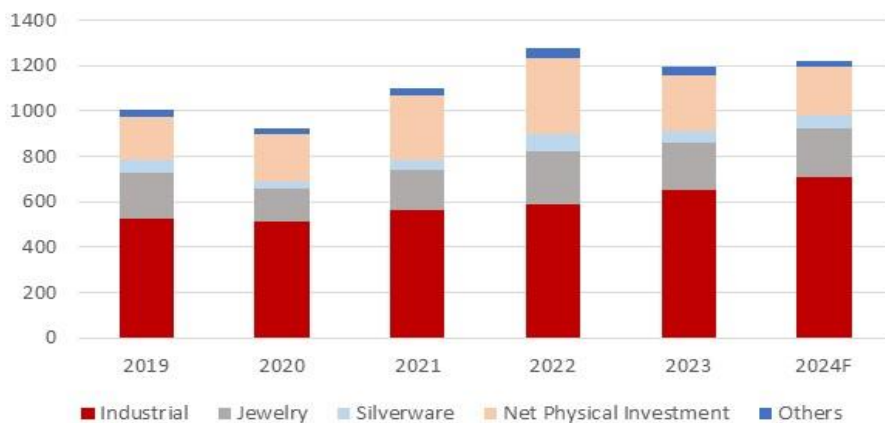
We explore some of the underlying factors, in particular the demand and supply aspects that may underpin the outlook on silver.

Demand Dynamics Favourable

According to the Silver Institute¹, global silver demand may reach 1.2 billion ounces in 2024 from continued growth in industrial end-uses, as well as jewellery and silverware demand. Presently, around 55% of silver consumption falls under industrial usage. As silver has the highest electrical and thermal conductivity of all metals, it has important industrial use in electronic products, including green technologies such as solar photovoltaic (PV) cells and EV batteries.

Strong growth in the solar sector is expected to be a key driver for silver demand, with much of the growth expected to come from China as the global leader in solar PV installations. This comes as more countries are striving towards achieving net-zero emissions. In addition, a clear text on the transition away from fossil fuels was agreed upon at COP28 in Dubai, putting stronger international pressure on countries to adopt low-carbon measures to reduce greenhouse gas emissions.

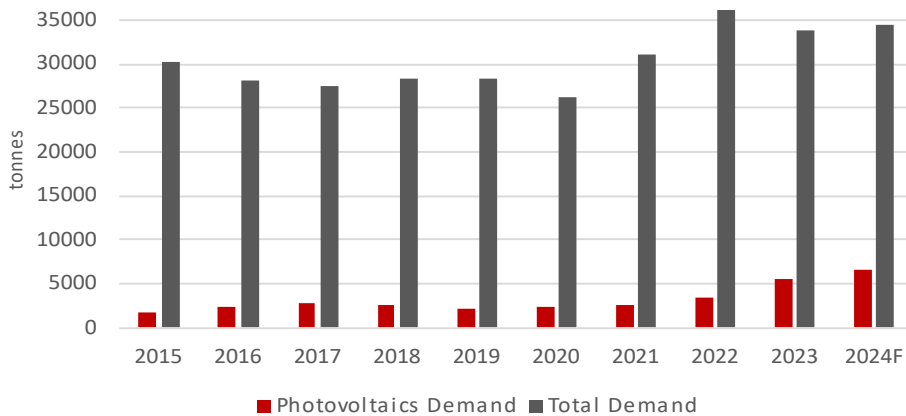
Sectoral Demand for Silver



Source: Metals Focus, The Silver Institute, OCBC Research

¹ World Silver Survey 2024. Silver Institute. (2024, April). <https://www.silverinstitute.org/wp-content/uploads/2024/04/World-Silver-Survey-2024.pdf>

Solar Demand for Silver on a Rise



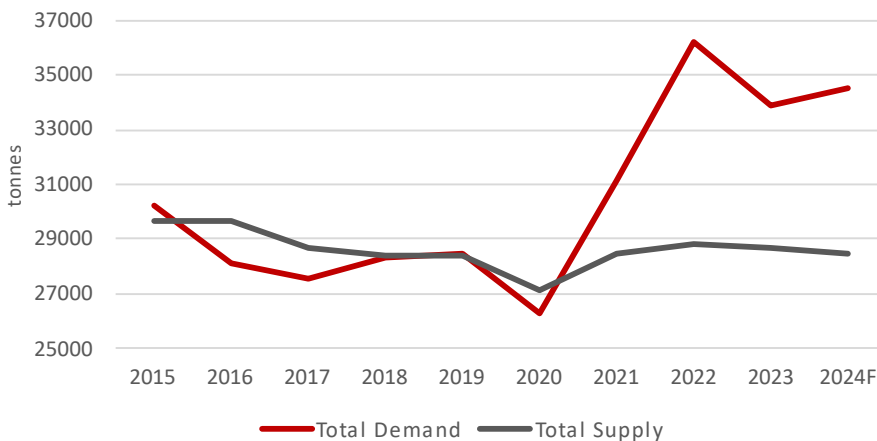
Source: World Silver Survey 2024, OCBC Research

Silver Supply Facing Structural Shortage

High silver demand is also putting a strain on silver supply as primary silver mines are scarce with around 80% of silver supply coming from by-products of lead, zinc, copper and gold production¹. By-product silver output is estimated to decrease as community and government disputes have resulted in some mine closures in South America in 2023. Notable examples include a 4-month-long strike at a Mexican gold-silver mine in 2023 after workers went on a strike over disagreements regarding profits and contract breaches and a 3-year strike at a silver mine in Idaho in 2017 due to accusations of unfair labour practices, causing silver production to fall 77% in 2017 and 80% in 2018 y/y.

Over the past few years, there has also been a decrease in new silver discoveries and a decline in ore grades, leading to production levels falling by nearly 8.2% between 2015 and 2023.

Silver's Demand and Supply



Source: Silver Institute, OCBC Research

In the long-term, the solar sector is estimated to deplete between 85 – 98% of global silver reserves by 2050². As global silver supply is forecast to decrease by 1%, the silver market may remain in a deficit of 215.3 million ounces this year¹.

Additionally, the recycling of silver, which involves recovering silver from solar PV panels, has not been able to fully compensate for the supply deficit. While recycling today accounts for around 18% of silver supply¹, it is severely limited by factors such as the availability of scrap material and the cost-effectiveness of recycling processes, especially for the small amounts found in complicated electronics such as televisions. Regardless, at the current pace of contribution of recycled silver to the overall supply, it is unlikely to keep pace with the increasing demand.

Silver's Role in Enabling the Green Transition

Global policies and regulations are increasingly promoting the implementation of low-carbon strategies to transition away from fossil fuels towards achieving national climate goals. Some technologies and infrastructure that enable the transition to a low-carbon future, including renewable energy technologies and EVs, are heavily reliant on critical minerals such as silver. Silver may also play an important role in novel low-carbon technologies such as carbon capture and storage (CCS). University College London researchers are exploring the use of silver in making CCS technologies more cost-effective, by utilising silver's stability at high temperatures in innovative membranes that separate carbon dioxide from other gases before carbon dioxide can be stored³. Therefore, silver's properties position it as a key player in the transition to a low-carbon economy. However, the industry is also exploring cheaper alternatives like copper although there are uncertainties surrounding lower reliability and performance.

Managing the Impacts of Silver Mining

Silver production is associated with mining-related impacts on the environment and communities e.g. water pollution and habitat destruction. There are net-zero and sustainability initiatives progressing across the mining sector as they seek to build more responsible portfolios to attract global investors.

Major miners are working on areas such as community development, waste and water management, as well as emissions reduction⁴. Increasing the usage of recycled silver is one way to reduce both emissions and the need to produce new metals, to ensure the long-term capacity of solar PV production. The adoption of new and innovative technologies to reduce emissions in mining operations can also support more sustainable production of silver in the long run.

² Hallam, B., Kim, M., Zhang, Y., Wang, L., Lennon, A., Verlinden, P., Altermatt, P. P., & Dias, P. R. (2022). The silver learning curve for photovoltaics and projected silver demand for net-zero emissions by 2050. *Progress in Photovoltaics: Research and Applications*, 31(6), 598–606.

³ UCL. (2022, December 6). Could silver help us tackle climate change?

⁴ EY. (2022, November 11). How silver miners can build long-term competitiveness.

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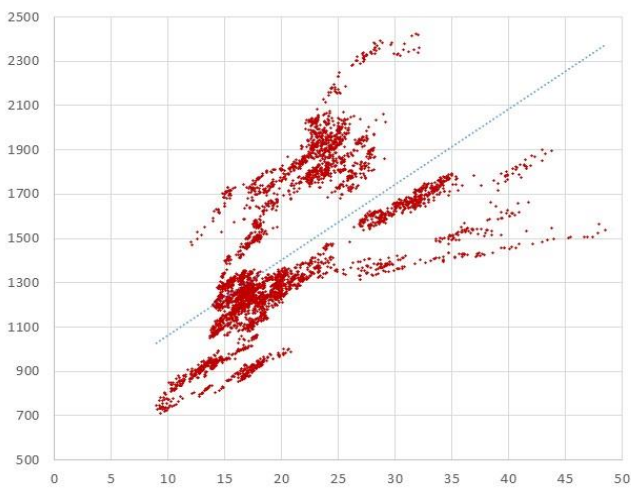
Understanding Silver's Market Characteristics

As highlighted, silver exhibits the characteristics of a precious metal and is also an industrial metal. Silver shares similarities with copper as both metals possess comparable properties. Copper, for instance, is the second most conductive metal after silver, and they are often present in the same products or used interchangeably. As such, prices of copper and silver can at times be highly correlated. According to the Silver Institute, more than 50% of silver is used for industrial purposes and so in a way, prices of silver can be sensitive to global economic cycle.

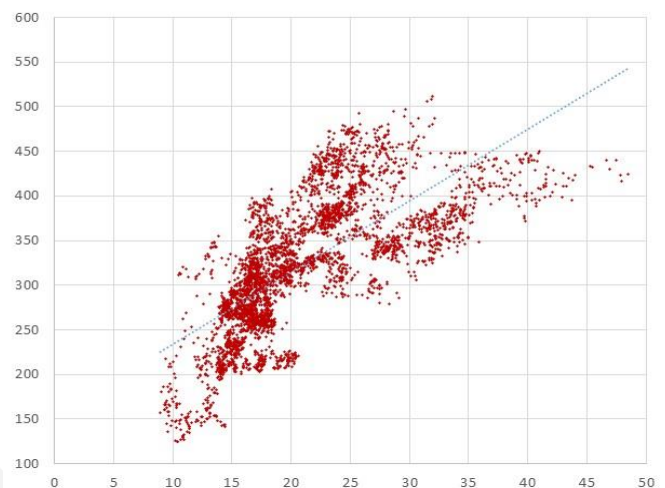
Gold and silver are classified as precious metals. According to World Gold Council data, approximately 48% of gold went to jewellery fabrication over the last 5 years while about 23% of silver went into creation of jewellery and silverware over the same period⁵. Further breakdown shows 23% of silver demand was for net physical investment while 29% of gold demand was for investment, including physical bar, medal coin, etc. In terms of broader market dynamics, silver and gold are influenced by similar factors, including inflation, interest rates, sentiments, geopolitical tensions, etc. As a result, changes in these factors tend to impact both metals in a similar manner, though the magnitude can vary. In summary, gold and silver prices tend to display a strong positive correlation over the years.

This unique dual or hybrid characteristic of silver can be seen with its strong proxy relationship with gold (precious) and copper (industrial).

Silver-Gold Relationship



Silver-Copper Relationship

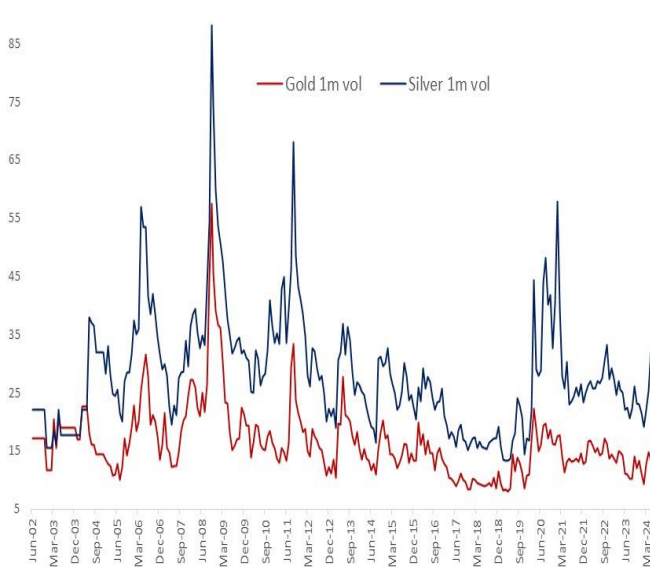


Source: Bloomberg (daily data from 2008 – 2024), OCBC Research

⁵ Gold demand trends full year 2023. World Gold Council. (2024, January 31).

In the world of precious metals, not all volatility is the same. The volatility in silver prices tend to be much higher than gold. And this can be attributed to the differences in the demand profile of silver and gold. As we have indicated above, silver is largely demanded for industrial uses and as such, can be susceptible to swings in economic cycles. But the industrial demand for gold is fairly limited and is less affected by economic downcycles.

Silver volatility higher than gold volatility



Source: Bloomberg, OCBC Research

Eventual Decline in Real Yields Should Further Support Price of Silver



Outlook: Constructive Medium term but Mind the Volatility

The medium-term outlook of silver is constructive due to industrial demand prospects and ongoing supply deficits. Demand prospects are promising, given the green transition and how silver has its place for industrial use. Global silver demand is projected to reach 1.2 billion ounces in 2024¹ from continued growth in industrial end-uses, especially for solar panels, EVs and 5G technology.

To meet renewable energy goals, annual silver demand from this segment could eventually hit 500 million ounces by 2050. Solar alone could account for nearly half of total silver demand by mid-century. Silver is also increasingly in demand for EVs, given its conductivity and efficiency for electrical transmission. Battery electric vehicles can contain up to twice as much silver as internal combustion engine vehicles¹. The Silver Institute forecasts automotive industry demand growing from around 90 million ounces today to nearly 200 million ounces by 2030. That would represent over 15% of total silver demand. Charging infrastructure for EVs is another area that will significantly increase silver requirements in the coming years. 5G communications technology is also likely to double silver demand from around 8 million ounces today to 23 million ounces by 2030⁶.

⁶ Silver to play a critical role in 5G Technologies. The Silver Institute. (2020, March)

One risk to monitor is supply trends and technology advancement. While silver is well known for its superior conductivity, making it amongst the best for both heat and electricity and hence widely used in applications that require efficient wiring, circuitry, thermal conduction, one cannot ignore that ongoing research and potential advancement in technology may avail alternative metal or material that may well challenge silver’s status and its value.

Near-term outlook can vary somewhat due to its volatile nature and that it is also driven by market and macro dynamics, including interest rate cycles, global growth outlook and geopolitics. Our house view expects the Fed to begin its rate cut cycle in 3Q 2024 and we pencilled in a total of 50bps cut for 2024 and another 125bps cut for 2025. Silver prices can strengthen when real rates correct lower. This can happen when Fed embarks on rate cut cycle. Apart from the Fed, other DM central banks, including ECB, SNB and BoC have started their easing cycle and are expected to continue to ease going forward. Collectively, this should boost the appeal of precious metals, including gold and silver. Moreover, precious metals’ risk-off hedge (safe haven proxy) against geopolitical risks and as a portfolio diversifier should continue to play up more dominantly, in driving up gold prices, which in turn should have some spillover effects on the prices of silver.

Silver Technical: Bullish though RSI Near Overbought



Source: Bloomberg (Monthly chart), OCBC Research

Silver (XAG) rose sharply especially over the last couple of months. Last at 29.60 levels. Underlying momentum as seen on monthly and weekly charts remain bullish though RSI is seen near overbought conditions. On the monthly chart, XAG has broken out of its downward sloping trendline resistance and had continued to trade higher on consecutive months. There is room for further upside from a medium-term time frame. Immediate resistance at 30.50 (21 DMA), 32.50 (May high). Breakout puts next resistance at 35.22 (61.8% fibo retracement of 2011 high to 2020 low), 40.80 (76.4% fibo). Buy dips preferred.

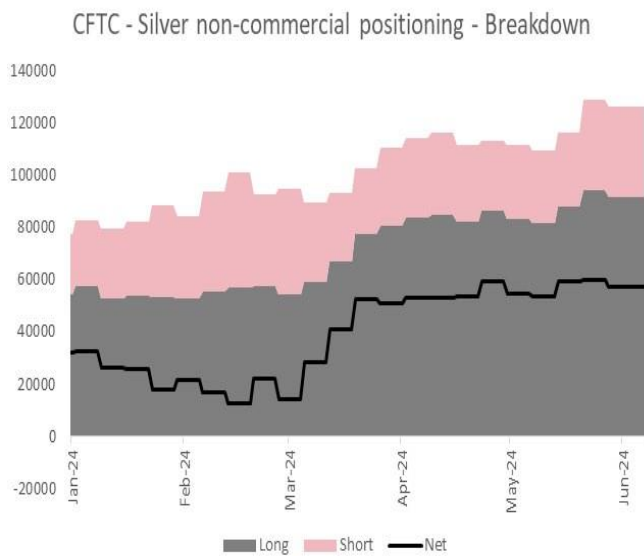
But in the near term, the risk of pullback is not ruled out as bearish divergence appears to be developing on the daily RSI chart (not shown here). Support seen at 29.00 (the low in the recent pullback) and 28.80 (50 DMA). Our bullish view would be at risk of being nullified if silver declines past 25. We would re-assess our view if this scenario plays out.

Market Positioning

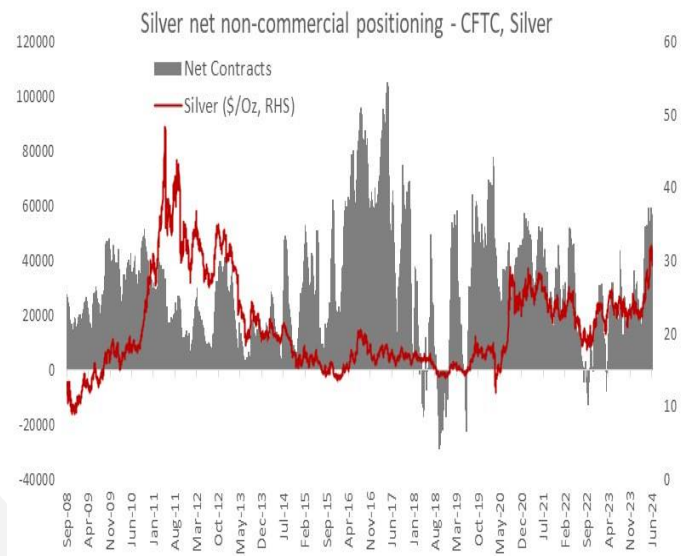
According to The Commitments of Traders (COT) report published by CFTC, short positions in silver rose during Jan – Feb 2024, as net longs fell to low of 12,425 contracts. The subsequent unwinding of short positioning and fresh longs being put on saw net longs rose since Mar. Concomitantly, the prices of silver started to rise, and even rose at a faster pace over Apr-Jun period.

Given the sharp rise in long silver positions, and prices of silver in a short span of time, there may be risk of a corrective pullback in the near term, and this can weigh on prices of silver. But net longs are not high by historical standards. While gold prices have already printed fresh highs on multiple occasions this year, silver prices have yet to test its all-time high. Without sounding overly complacent, we see room for silver prices to test higher in the medium term.

Silver Shorts Picked Up in Early Part of the Year as Net Longs Fell. Subsequent Short Covering Took Place



Silver Net Longs Rose But Not High by Historical Standards



Source: CFTC as of 28 May 2024, Bloomberg, OCBC Research

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