

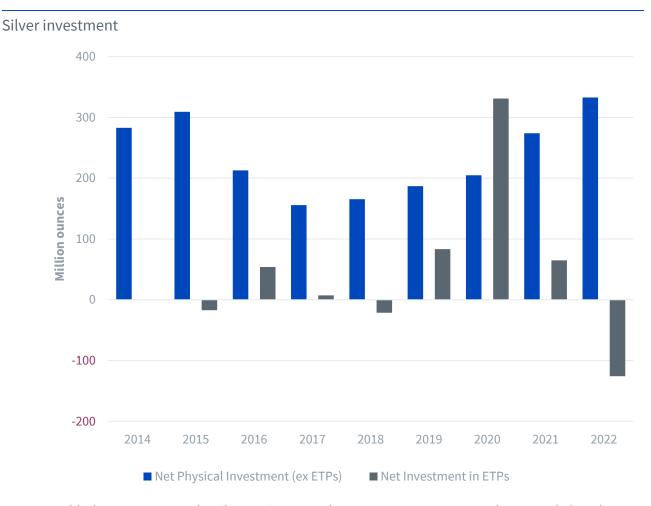
Market Insight

Silver Outlook to Q1 2024: Two-faced silver

May 2023



In 2022 silver became the 'Marmite' of the commodities world. In the UK, Marmite is a brand of yeast extract that's spread on toast and famously divides opinion. People either love it or hate it; very few are indifferent. In the same vein, silver inspired huge enthusiasm with one set of investors while another was quite hostile towards it. There appeared to be little middle ground. More precisely, retail investors loved the metal while institutional investors loathed it.



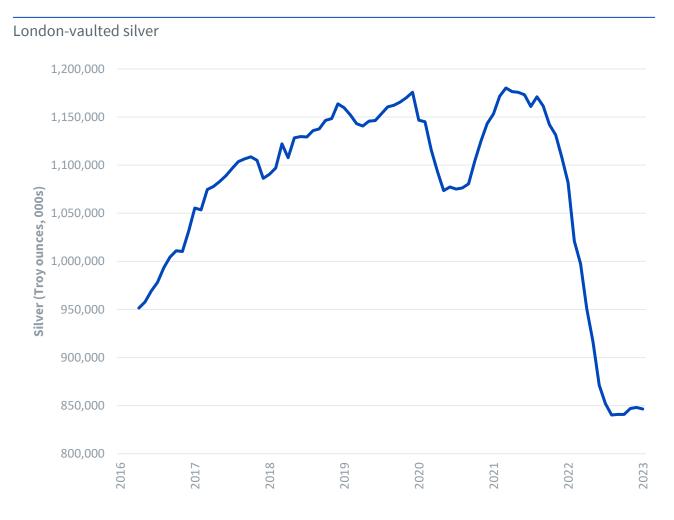
Source: World Silver Survey 2023, The Silver Institute, Metals Focus: 2014-2022. ETP = Exchange Traded Product. **Historical performance is not an indication of future performance and any investments may go down in value.**

Despite initial enthusiasm for the metal among both investor segments immediately after the Ukraine war, investment became bifurcated as the year progressed. Investment in bar and coin (net physical investment ex-ETP), which was mainly retail investment, rose to new highs of 332.9 million ounces (10,356t), a 22%¹ rise over the year and the fifth consecutive year of gain.

In sharp contrast, ETPs saw their largest net outflows since 2011, down 11% year-on-year². Silver ETP investing is still very much driven by the institutional community.

- 1. World Silver Survey 2023, The Silver Institute, Metals Focus: 2014-2022.
- $2. \ World \ Silver \ Survey \ 2023, The \ Silver \ Institute, Metals \ Focus: 2014-2022.$

Corroborating these trends, we saw large outflows from London vaults with silver falling to the lowest levels since the London Bullion Market Association (LBMA) started collecting the data. London-vaulted silver is once again dominated by ETPs and institutional flows.

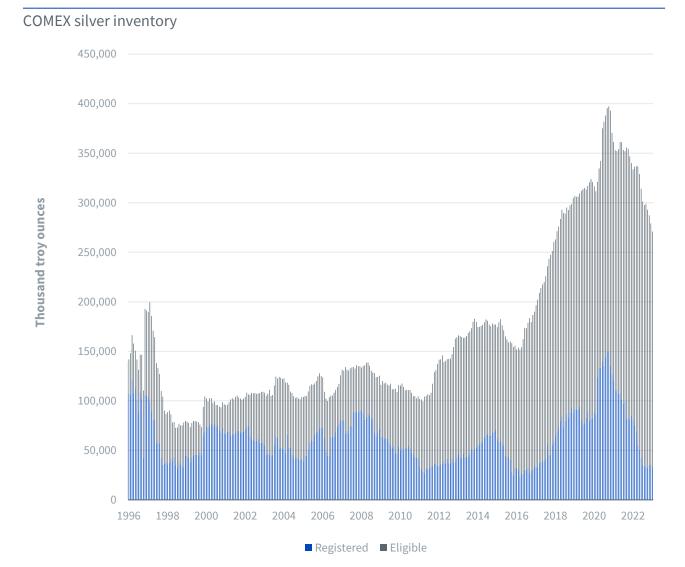


Source: London Bullion Market Association. July 2016 – April 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

Silver stock decline was not unique to London though. Silver held in New York-based CME COMEX vaults (to meet the needs of the silver futures), also fell sharply. Registered inventory³ has fallen to the lowest levels since 2017, and considerably below the elevated levels reached during the COVID pandemic when the CME deliberately increased available inventory to assuage market concerns about metal stocks at a time when transporting them was under stress. Eligible inventory⁴ has also fallen back to 2018 levels but remains more than double 2016 levels.

^{3.} Registered inventory is where a warrant has been assigned for delivery.

^{4.} Eligible inventory meets all the specifications for delivery, in terms of size, quality etc., but has not been assigned a warrant. That is, the owner has not made it available for futures market delivery.



Source: Bloomberg, WisdomTree, January 1996 – May 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

Where did all the silver go?

The silver in institutionally dominated markets went to retail dominated markets.

US retail demand for bar and coin rose to a new high (134 million ounces), up from an average of 93 million ounces between 2010 and 2020⁵. These flows appear quite sticky, with little indication of selling so far this year.

Building on the rally in 2021 which followed 2020's heavy liquidations, Indian physical investment saw a staggering 188% jump last year and touched 79.4 million ounces (2,470t), its highest since the 2015 record. Importantly, while investment demand was lower than previous highs, it was still 40% higher compared to pre-pandemic levels of 2019⁶.

Export data from the UK shows considerable flows to India to satisfy the country's retail markets. Exports to Canada were also elevated and CPM Group indicates that metal was delivered there from the US to meet demands from its retail markets.

- 5. World Silver Survey 2023, The Silver Institute, Metals Focus: 2014-2022.
- 6. World Silver Survey 2023, The Silver Institute, Metals Focus: 2014-2022.

Silver exports from United Kingdom to top countries, January 2022 to December 2022

Destination country	Million Ounces
India	183.3
Canada	75.5
Switzerland	40.8
Turkey	32.9
Germany	16
Spain	10.8
USA	7

Sources: CPM Group, UN Comtrade, May 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

Will institutional money rediscover silver this year?

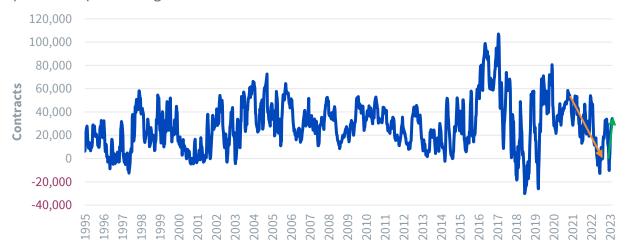
It's clear the Marmite metal was loved by retail and loathed by institutional investors in 2022. Will 2023 be any different?

Speculative positioning in silver futures has been choppy in 2023 with the market being net short in early March. However, the onset of banking woes triggered by the collapse of Silicon Valley Bank (SVB) not only lifted gold futures demand, it also boosted silver futures demand from non-commercial users seeking to hedge their portfolios. The initial short covering sent silver prices considerably higher, from US\$20.05/oz in early March to US\$25.99/oz in early May. Silver prices however have pulled back since then to US\$23.50/oz⁷.

With a number of financial, economic and geopolitical risks underpinning gold, and by extension silver, we believe investors will refrain from outright bearish bets against the metal.

It's yet to be seen if institutional investors will move meaningfully into silver ETPs. Given that economic headwinds harm silver where they support gold, we suspect investors seeking hedges will prefer the yellow metal. That being said, silver is often viewed as a leveraged play on gold, so may see more interest especially as gold <u>reaches fresh highs</u>.





Source: Bloomberg, March 1995 to May 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

7. Bloomberg, 18 May 2023.

Silver Outlook to Q1 2024: can silver keep up with gold?

As we highlighted in our 'Gold Outlook to Q1 2024', we expect gold prices to reach brand new highs by the end of 2023. Gold is supported by safe haven demand amid stresses in the banking sector and worries about the US budgetary situation. Additionally, a widely expected pivot in monetary policy could remove headwinds against gold. The key question is whether silver can keep up. The gold-to-silver ratio rose to over 90 in March 2023, the highest since September 2022. Following a rally in silver prices in April 2023, the ratio fell to below 80 but is now climbing close to 85 once again (close to a standard deviation above the average since 1990). This is an indication that gold is currently outpacing silver8 (18 May 2023).

Gold and silver historically have a tight relationship. The two metals have a 76% correlation⁹. Usually when gold prices rise, silver prices follow, albeit with a lag. However, gold tends to have a stronger safe haven and defensive status. For this reason, geopolitical, financial and economic shocks tend to support gold more than silver.

Global manufacturing activity is currently facing headwinds. Given that silver has a lot more industrial applications than gold, these headwinds may impact silver more than gold.

Framework

We have long argued that given gold and silver's strong correlation, the main driver for silver prices should be gold's. However, to account for the remaining c.20% of price behaviour that gold doesn't explain, we use the following variables:

- + Growth in manufacturing activity more than 50% of silver's use is in industrial applications (in contrast to gold where less than 10% comes from that sector). We use the global manufacturing Purchasing Managers Index (PMI) as a proxy for industrial demand.
- + Growth in mining capital investment (capex) the more mines invest, the more potential supply we will see in future, so we take a 12-month lag on this variable. Given that most silver comes as a by-product of mining for other metals, we look at mining capex across the top 100 miners not just monoline silver miners.
- + Growth in silver inventory rising inventories signal greater availability of the metal, hence is price negative. We use futures market exchange inventory as a proxy.

Silver forecasts

We believe that silver will outpace gold to gain 20% over the coming year¹⁰ versus 15% for gold. By Q1 2024 we expect silver prices to trade at around US\$28.70/oz, based on our internal forecasts model. That largely reflects silver's historic leveraged play on gold. Our models indicate that for every 1% increase in gold prices, silver has historically risen 1.4%. While the early part of our forecast horizon shows subdued industrial demand, by the end of this period we expect some recovery.

^{8.} Bloomberg, 18 May 2023.

^{9.} Source: Bloomberg, Monthly data, April 2013 to April 2023.

^{10. 31} March 2023 to March 2024.



Source: WisdomTree (forecasts), Bloomberg (historic data), data available as of close 30 April 2023. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

Industrial demand

Global Manufacturing Purchasing Managers Indices (PMIs) softened in April 2023 after several months of improvement. We believe there could be further headwinds to the manufacturing sector as the pressure of a higher interest rate environment continues to soften activity in developed markets. Meanwhile in China, the latest PMI readings show clear disappointment with manufacturing rolling over. That disappointment has been corroborated with weak industrial production data. For now, we believe China's economic recovery is going to be more service driven, with manufacturing lagging behind. We expect the Chinese government to continue to stimulate the economy, but not on the scale we saw in 2008. As global growth eventually picks up though, so will demand for Chinese manufactured goods.

As some developed world central banks pivot monetary policy, manufacturing headwinds may ease. Fed Fund Futures are pricing in interest rate cuts by Q4 2023 and we could see three cuts by January 2024. However, markets are currently pricing two further rate hikes by the European Central Bank (ECB) without any cuts later this year. So industrial activity could remain a constraint.



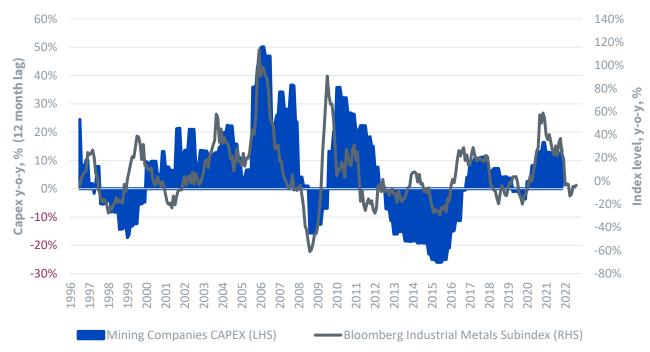
Source: WisdomTree, Bloomberg, S&P Global, Historic: May 2009 to April 2023. Forecasts: May 2023 to March 2024. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

Mining capital expenditure

Metal mining capital expenditure has been rising in recent years. Although it's widely expected to fall short of what's needed to satisfy demand for metals in a scenario where we'd meet our energy transition goals (see the 1.5 degree goal driving the energy transition). Silver, which largely comes as a by-product of mining for other metals, could see greater supply in due course as a result of the higher volumes of general mining activity. However, we acknowledge that declining ore grades and tougher mining conditions may drive capex activity higher without the commensurate increase in mine output.

Historically, mining capex has been correlated with industrial metal prices, so recent declines in the latter may drive investment activity lower. However, our silver model depends on capex with a 12-month lag, and so rising investment a year ago will weigh on the forecast price.

Metal Mining Capital Expenditure



Source: WisdomTree, Bloomberg, February 1996 to May 2023. **Historical performance is not an indication of future performance and any investments may go down in value.**

Silver inventory

In our model we use silver inventory on futures exchanges as proxy for total silver inventory which isn't a perfect measure. Indeed, outflows from COMEX and London vaults last year largely went to retail investors rather than industrial applications. Silver held by retail investors is similar to inventory in vaults, that is, it's relatively easy to transfer, whereas industrial application of silver is 'spent' meaning it can only be recovered when the manufactured item is recycled. Nevertheless, declines in silver stocks on exchange are indicative of demand strength in certain segments.

We expect COMEX inventory decline to subside. Indian demand for silver will likely normalise after two years of making up for shortfalls in demand during 2020. We expect retail markets to be price sensitive. With silver nearing US\$26/oz¹¹ during the March — May short covering episode, we may find retail demand cool while futures inventory stabilises now excessive shorts have been flushed out.

11. Bloomberg, 18 May 2023.

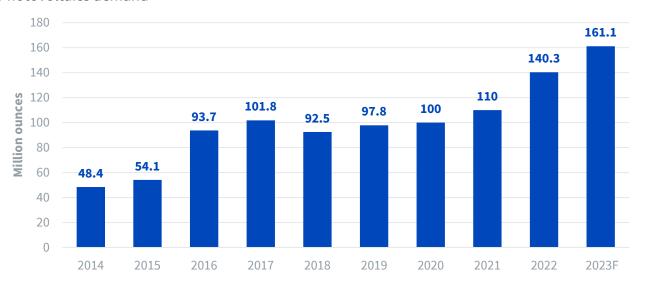
Conclusions on price forecast

Gold prices are likely to be the main driver behind silver prices. Silver acts as a leveraged play on gold. Our models indicate that for every 1% increase in gold prices, silver has historically risen 1.4%. Weak manufacturing and growth in mining production could act as headwinds on silver prices initially. Meanwhile, we expect inventory changes to be somewhat neutral as stocks cease to decline further. According to our internal forecast, silver should end Q1 2024 at \$28.70/oz, with potential gains to over US\$30/oz by the end of 2023.

A new era for solar panel demand

Demand for silver in photovoltaics (solar panels) has entered a new era. After stalling between 2017 and 2021, silver demand is expanding once again as solar installations are rising at a higher rate than silver thrifting. Past years witnessed a thrifting trend where less silver was used in photovoltaics in an attempt to save on costs. Silver accounts for the second largest share of total photovoltaic module costs after silicon wafers, hence the manufacturer focus to contain them. However, newer solar technologies with more efficient power generation may require higher silver loadings in future, reversing this thrifting trend. Metals Focus expects close to a 15% increase in photovoltaic demand for silver this year, after a 27% gain in 2022¹². The Inflation Reduction Act and RePowerEU are clear catalysts spurring higher demand for energy transition technologies.

Photovoltaics demand



Source: World Silver Survey 2023, The Silver Institute, Metals Focus. Historic: 2014-2022. Forecast: 2023. **Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.**

Conclusions

In 2022 institutional investors shunned silver while retail markets lapped it up with immense enthusiasm. In 2023 we may find the markets to be less bifurcated as price-sensitive retail markets cool while institutional markets curb their short positioning in the metal given its strong correlations to gold.

We expect silver to rise more than gold in percentage terms, although silver is unlikely to reach new highs like gold.

The energy transition will likely be a key driver of physical demand as more governments instigate a policy push for renewable sources of energy.

12. World Silver Survey 2023, The Silver Institute, Metals Focus. Historic: 2014-2022. Forecast: 2023.

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