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PRECIOUS APPRAISAL

29th January 2024

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PRECIOUS METALS REVIEW Gold

| 1 | 79 | | | | | | | | |
|---|------------------------|-------|-------|---------------|-------|------------|-------|------------|--|
| | Au Gold 196,9865 | | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE | |
| | | \$/oz | 2,018 | -0.33% | 2,038 | 23/01/2024 | 2,010 | 25/01/2024 | |
| | | €/oz | 1,857 | -0.13% | 1,873 | 23/01/2024 | 1,846 | 24/01/2024 | |

Jewellery – a key Chinese gold demand driver in 2023. Consumption of gold jewellery grew by 8% year-on-year during 2023, to 706 tonnes (source: China Gold Association). The Chinese consumer market recovered following a year of disrupted sales in 2022. A rebound in jewellery sales was expected to some degree, and by the end of the year precious metal jewellery was the fastest-growing retail category, despite the dampening effect of a high yuan gold price. Gold jewellery continues to grow its appeal in China at the expense of platinum, thanks to its greater perceived cultural and investment value. This year, demand appears to continue be strong in the Chinese market, with trading volumes on the Shanghai Gold Exchange exceeding normal levels so far in January.

Gold's upside could be delayed as bets on interest rate cuts are trimmed further. Traders are no longer expecting the first cut to baseline US interest rates to come in March, and see just a 2.5% chance of rate cuts beginning at this week's meeting of the Fed. Just a few weeks ago, markets saw a 90% chance of cuts beginning in March but this is now below 50%. Delaying the rate cuts suggests the consensus is that the US economy is stronger than thought at the start of the year. However, caution must be exercised. Sections of the US yield curve are now close to uninversion (typically a signal of recession within months) and the Sahm Rule recession indicator (based on unemployment rates) is now at a level consistent with recession onset going back to the mid-1970s. When the Fed does decide to cut interest rates, the dollar will likely weaken, which is usually positive for the gold price. Gold has been consolidating above \$2,000/oz, which, when interest rates are cut, could form a solid base from which the price could move higher.

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PRECIOUS METALS REVIEW

Silver

| 47 | | | | | | | | |
|------------------------|-------|-------|---------------|-------|------------|-------|------------|--|
| Ag SANY 107,8692 | | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE | |
| | \$/oz | 22.79 | 1.27% | 23.03 | 25/01/2024 | 21.93 | 22/01/2024 | |
| | €/oz | 20.98 | 1.46% | 21.20 | 25/01/2024 | 20.13 | 22/01/2024 | |

Silver mega-miners performed well last year and aim to continue the trend. The world's top two silver miners, KGHM and Fresnillo, both achieved silver production guidance last year, according to the latest company results. Fresnillo achieved 56.3 moz of attributable silver production, a 4.7% increase versus 2022. The increase was largely due to the completion of the ramp-up at Juanicipio mine which is the largest silver project to come online since 2016. KGHM exceeded guidance by 7.9%, having produced 45.9 moz of silver, a company record. Despite solid production from the top producers, overall silver supply is estimated to have fallen slightly last year to just over 1,000 moz (source: The Silver Institute) with the unexpected shutdown of Newmont's Peñasquito mine, the main contributor to the shortfall. Primary supply in 2024 is likely to recover, with a number of notable projects expected to come on stream, including Bosnia's Vareš mine that entered production last week and which could produce around 2.5 moz of silver this year.

Silver is playing catch-up with gold. Last week, the gold:silver ratio (GSR) reached 92 before retreating back into the high 80s. The level of silver's underperformance relative to gold is similar to that during the first Covid lockdowns and the invasion of Ukraine, though this time the rise in the GSR was driven by a falling silver price rather than a rising gold price. This year, the relative importance of silver's uses as an industrial commodity and a safe haven is likely to fluctuate. The silver price tends to reach its lowest point in the midst of a recession. Silver did rebound later in the week as some traders stepped in to buy the dip. ETF inflows reversed trends, with 15.9 moz of inflows on Wednesday alone, offsetting all outflows since November 2023. By the week's end, the silver price had risen 1.27% to \$22.79/oz.

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PRECIOUS METALS REVIEW Platinum

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|---|---------------------------|-------|-------|---------------|------|------------|-----|------------|
| | Pt Platinum 195.084 | | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE |
| | - Inches | \$/oz | 918 | 2.32% | 919 | 26/01/2024 | 888 | 25/01/2024 |
| | | €/oz | 845 | 2.51% | 845 | 26/01/2024 | 820 | 25/01/2024 |

High chrome prices are supporting South African platinum supply.

Last week, Eastplats, a minor PGM producer, confirmed its plans to commence underground PGM mining at the Crocodile River Mine on the Bushveld's Western Limb. This mine has been very PGM price-sensitive in the past, though the historically elevated chrome prices at present are helping to support mine revenues. This highlights how important non-PGM by-products can be to South African producers. If the chrome price falls significantly, platinum mine closures in South Africa could be hastened. PGM producers report end-of-year production numbers in late February and early March. More cost-cutting measures are inevitable, plus there is the possibility some will announce production cuts for 2024. In 2015, South African platinum supply was 4.5 moz. Amid low PGM prices in 2016-2017, PGM miners closed out ~350 koz of platinum output from mostly medium-sized operations, which helped to push up the platinum price from a cycle low. This year, platinum production could drop below 4 moz.

Speculative positioning in platinum has pulled back. Non-commercial speculators have cut their net long position by nearly half, from 1,177 koz to 627 koz according to the latest data, as the platinum price has fallen by more than 7.5% since the start of the new year. Speculators tend to be trend followers, amassing peak net short or net long positions at turning points in the platinum price. By the end of last week though, the platinum price had mounted a recovery, finishing the week back above \$900/oz.

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PRECIOUS METALS REVIEW

Palladium

| Pd Palladium 106.42 | | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE |
|---------------------|-------|-------|---------------|------|------------|-----|------------|
| 100.00 | \$/oz | 960 | 2.74% | 977 | 24/01/2024 | 915 | 22/01/2024 |
| | €/oz | 883 | 2.96% | 895 | 24/01/2024 | 841 | 22/01/2024 |

Record light-vehicle sales in China are supporting palladium demand.

Chinese light-vehicle production topped 30 million units last year for the first time ever, contributing to the estimated 9% increase in palladium demand to ~2.9 moz seen in 2023. Despite 6.7 million of these vehicles being fully electric, the popularity of plug-in and full-hybrid vehicles and a remaining market share of >50% pure ICE powertrains meant that gross PGM autocatalyst demand actually grew. This year, however, Chinese palladium autocatalyst demand is estimated to fall to ~2.7 moz. The market share of BEVs is expected to rise, and economic slowdown and import controls could crimp demand for imported Chinese vehicles in Europe, which has become a major light-vehicle export market for China.

The palladium price had a mixed week last week. It rose as high as \$977/oz mid-week, before pulling back, but ended the week higher. The price has held around \$950/oz for the last fortnight on strong support. Both the price and the net short position are now back to the level at which they were just before the rally to \$1,250/oz in December. Is palladium setting up for another short-covering rally? Or will support give way and the price fall further?

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PRECIOUS METALS REVIEW

Rhodium, Ruthenium, Iridium



| | RHODIUM | RUTHENIUM | IRIDIUM |
|------------------|------------|-----------|------------|
| Reporting Week | \$5,200/oz | \$445/oz | \$5,500/oz |
| Previous Edition | \$5,200/oz | \$445/oz | \$5,500/oz |

Batteries are now a cornerstone strategy for truck makers but fuel cell use is growing. All major heavy-duty truck manufacturers are now working on fuel cell powertrains, though the emphasis is currently on fully electric trucks. Sales of fuel cell trucks have been growing incrementally, with the vast majority sold in China where policy support through subsidies and pressure to decarbonise carbon-intensive industries are more favourable to FCEV adoption than in other regions. Chinese commercial FCEV sales totalled 2,973 vehicles last year, a fraction of the 3.3 million total sold. FCEV trucks have advantages over BEVs for heavy trucking in terms of the time to refuel, driving range, and payload, though the charging infrastructure is far less developed. Greater uptake of fuel cell vehicles is positive for ruthenium and platinum demand for fuel cells, and for iridium when used in catalyst membranes in green hydrogen plants. However, it may be a number of years before FCEV sales materialise as significant drivers for these markets.

Last week the small PGM markets were quiet again, with no price movements across the three metals.

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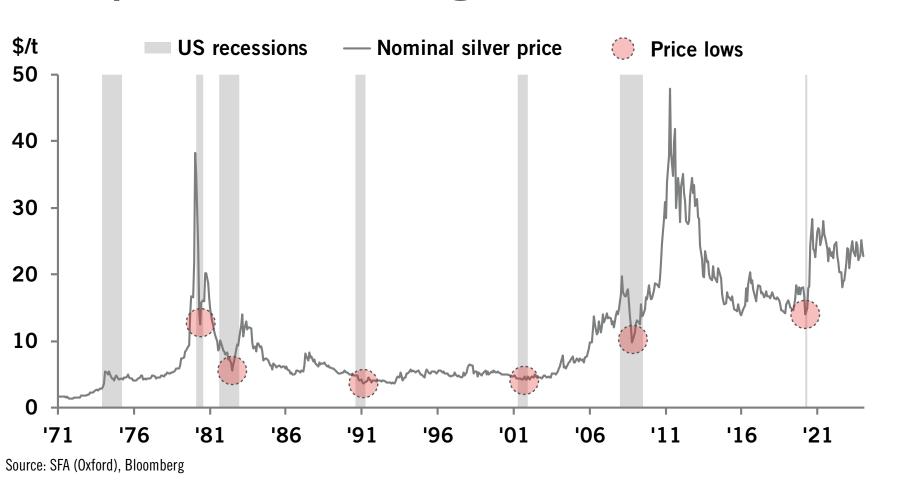
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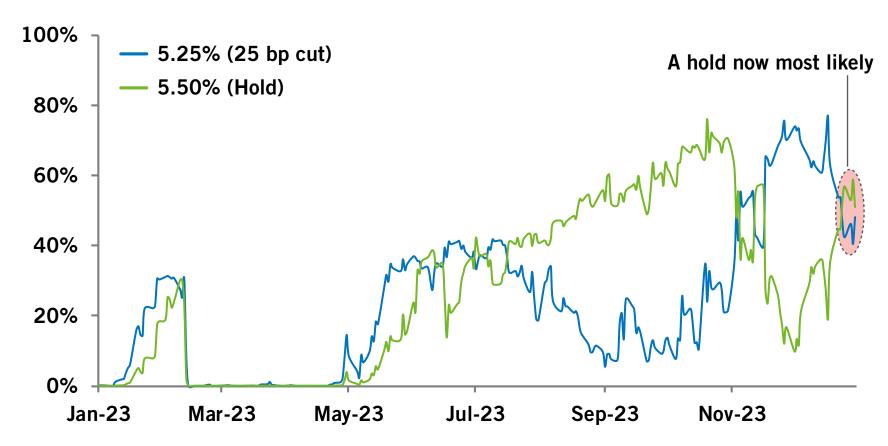
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TRENDS AND INVESTMENTS

Silver price reaction during recession

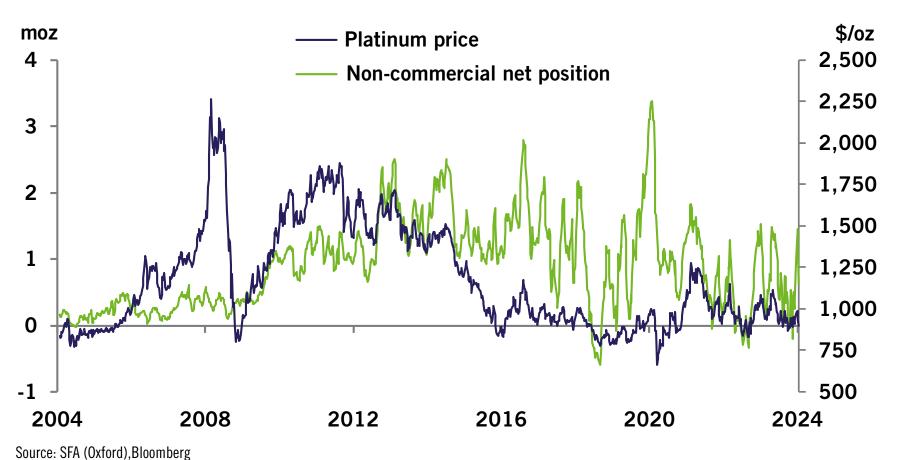


Probability of March Fed meeting outcomes

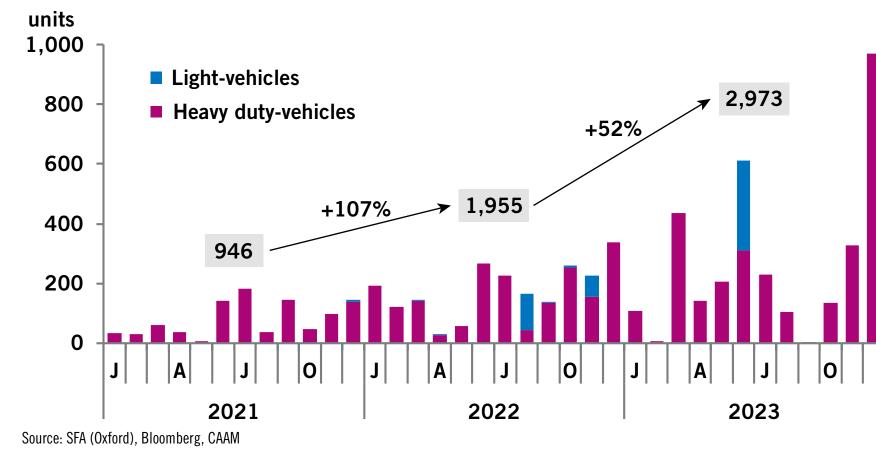


Source: SFA (Oxford), CME FedWatch Tool

Platinum price and NYMEX futures



China FCEV sales history



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