

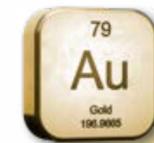
PRECIOUS APPRAISAL

No. 15
22nd April 2024

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PRECIOUS METALS REVIEW

Gold



| | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE |
|-------|-------|---------------|-------|------------|-------|------------|
| \$/oz | 2,395 | 0.00% | 2,418 | 19/04/2024 | 2,324 | 15/04/2024 |
| €/oz | 2,248 | -0.07% | 2,277 | 19/04/2024 | 2,188 | 15/04/2024 |

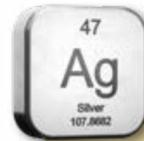
Yesterday's bad news is today's good news for the gold price. The gold price pencilled in a joint record weekly close of \$2,395/oz last week, even as Fed chairman Jerome Powell signalled that he would keep interest rates at current levels for as long as necessary to bring down inflation. US Treasury yields rose across the curve with the short end closing in on 5%, and the US dollar rose to the strongest level in five months. Under normal conditions this would be a headwind for gold, but it seems now that gold buyers are pricing the Fed lagging inflation as it remains stubbornly higher than the 2% target. This driver is compounded by the ongoing risk of regional escalation in tensions in the Middle East.

In terms of demand, there appears to be little supportive action for gold outside of Chinese demand, which has been relatively strong. Withdrawals of 522 tonnes from the SGE in Q1 were the highest since 2019, backed by elevated trading volumes of the Au(T+D) contract (mainly investment-related) that were 25% higher year-on-year in March. Chinese ETFs have bucked the trend of outflows experienced in the rest of the world, having seen four consecutive months of inflows. This has taken total holdings to ~67 tonnes (+32% year-on-year) which goes some of the way to explain why the gold price has reversed its typical relationship with yields and the dollar. The gold price is overbought and showing divergence with the daily RSI, so could struggle to make further headway near term.

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Silver



| | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE |
|-------|-------|---------------|-------|------------|-------|------------|
| \$/oz | 28.63 | -1.17% | 29.02 | 16/04/2024 | 27.95 | 16/04/2024 |
| €/oz | 26.87 | -1.26% | 27.32 | 16/04/2024 | 26.23 | 16/04/2024 |

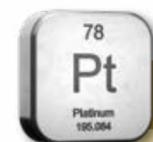
India restocking silver is positive for fabrication demand. Following a 25% decline in silverware and jewellery fabrication in India last year (source: The Silver Institute), trade data suggests restocking is underway which tends to be bullish for short-term demand. Imports of silver picked up in Q4'23 and continued in January (latest data). A total of 637 tonnes of silver was imported at the start of the year, 138% higher than the five-year average and a suggestion that after a slack year, 2024 could see demand rise. India is the largest jewellery fabricator, having consumed 83.7 moz last year, equal to 47% of global jewellery demand (source: The Silver Institute). Outperformance in economic growth and a growing middle class in India could be positive drivers this year, as well as the high gold:silver ratio. With silver perceived as a bargain relative to gold, demand could push higher. The risk is that the silver price outperforms gold later in the year, which could crimp demand to similar levels as those in 2023. Nonetheless, 2023 demand was considerably higher than the 10-year average for Indian jewellery fabrication.

Silver follows gold's lead at high levels. The silver price consolidated around \$28/oz level this week, after slightly retreating from last week's \$30/oz high, mimicking gold's pattern. The gold:silver ratio dipped to a four-month low of 81 before rebounding to above 83, as ETFs experienced significant outflows of 16.8 moz this week. This suggests gold still outperforms silver as a preferred safe-haven asset amid turbulent geopolitics.

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PRECIOUS METALS REVIEW

Platinum



| | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE |
|-------|-------|---------------|------|------------|-----|------------|
| \$/oz | 935 | -6.18% | 978 | 15/04/2024 | 928 | 19/04/2024 |
| €/oz | 878 | -6.19% | 918 | 16/04/2024 | 870 | 19/04/2024 |

Heavy trucks are still heavy hitters for platinum demand despite sales trending lower. New truck sales tend to be cyclical and orders in the US have been in decline for more than a year. The boost to EU HDV registrations in H2'23 from changes to tachograph legislation was likely to have pulled demand forward from 2024 into 2023. Registrations in the EU and US are forecast to decline by 18% and 12% year-on-year, respectively, this year (source: Volvo Group). Manufacturing PMIs are still relatively weak in major markets, which tends to be a good leading indicator for the truck market. Platinum autocatalyst demand from the heavy-duty sector is expected to fall by 3% this year, in line with the rest of automotive PGM demand. However, at ~620 koz demand is still expected to be 6% higher than the 10-year average. Diesel trucks require a higher proportion of platinum to palladium in autocatalysts than gasoline passenger vehicles. Consequently, trucks make up ~20% of total platinum autocatalyst demand, versus just 5% for palladium. Q1'24 registrations declined across all major markets, excluding China, for Volvo Trucks (~15% of global market share truck sales). There is a risk to the downside for platinum autocatalyst demand, particularly if weak growth in Europe continues later in the year.

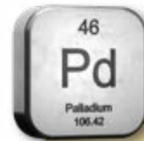
Low prices have forced early closure of a South African shaft. Sibanye-Stillwater has confirmed that one of the shafts at its Marikana operations in South Africa will close after flagging the possibility back in October 2023. The shaft has reserves of PGM to last until 2025, though the fall in the PGM basket price has meant production is currently unprofitable and so it will shut before then. It had originally been intended to close in 2019, though the rally in palladium and rhodium kept production profitable until now. The closure will have minimal impact on South Africa's platinum production this year as the shaft was nearing the end of its life. South Africa's platinum production is forecast to remain stable at ~4 moz this year, though there is downside risk to this number if stubbornly low PGM prices lead to additional closures later in the year.

The platinum price declined by 5% last week after failing to stay above \$1,000/oz during the previous trading week. By Friday's close platinum stood at \$935/oz.

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PRECIOUS METALS REVIEW

Palladium



| | CLOSE | WEEKLY CHANGE | HIGH | DATE | LOW | DATE |
|-------|-------|---------------|-------|------------|-----|------------|
| \$/oz | 1,027 | -4.18% | 1,055 | 15/04/2024 | 999 | 19/04/2024 |
| €/oz | 964 | -4.25% | 990 | 15/04/2024 | 939 | 19/04/2024 |

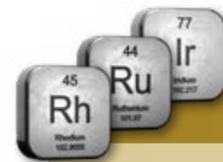
Europe’s swing to hybrids is good for palladium demand. The battle for market share between BEVs and hybrid gasoline cars in Europe is heating up. In March, new registrations of all passenger cars in the EU fell by 5.2% to 1.03 million units. Sales of BEVs fell with the rest of the market, declining by more than 11% year-on-year to 134,397 units. Meanwhile, sales of hybrids (plug-in + standard hybrid) bucked the trend, growing by 8% year-on-year to 372,455 units. Year-on-year, the market share of BEVs was stable in Q1’24 as a whole, at 12%. On an annual basis, BEVs are forecast to reach 17% market share in Western Europe, up from 13% in 2023. It is this growth that is expected to contribute to the 3% decline in Western Europe’s palladium autocatalyst demand this year. However, if consumers tend to prefer hybrids going forward, as they have done in Q1’24, there is a possibility that BEV penetration will underperform expectations, and that palladium demand could remain stable at ~920 koz in Western Europe. As Western Europe is a smaller market than the US or China, the impact of this on the palladium market would be relatively small. However, with the market forecast to be in a deficit this year, any improvement in ICE vehicle sales relative to the BEV market share could help to support the palladium price.

The palladium price outperformed platinum last week, falling 4.18% to \$1,027/oz and widening its premium relative to its sister metal to \$92/oz.

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PRECIOUS METALS REVIEW

Rhodium, Ruthenium, Iridium



| | RHODIUM | RUTHENIUM | IRIDIUM |
|------------------|------------|-----------|------------|
| Reporting Week | \$5,275/oz | \$435/oz | \$5,300/oz |
| Previous Edition | \$5,275/oz | \$435/oz | \$5,300/oz |

Fuel cell vehicle sales are slow but other industries show promise. Data for fuel cell vehicles in California (the US’s only market) for the last six months shows that both the growth and number of new vehicle sales have slowed significantly. A total of 424 vehicles were sold from October 2023 to March 2024, versus 2,044 in the previous six months. The hydrogen mobility sector is nascent, and the relative lack of infrastructure compared to electric vehicle charging points means growth should be expected to be variable. The more appropriate use for FCEVs is in the decarbonisation of the heavy-duty sector, where FCEVs can benefit in range, charging time and payload versus electric trucks. It must be noted, however, that earlier this year MEPs passed a proposal to increase freight weight limits on heavy-duty vehicles in the EU to accommodate the weight of large batteries, which could make it easier for electric trucks to compete with fuel cell competitors.

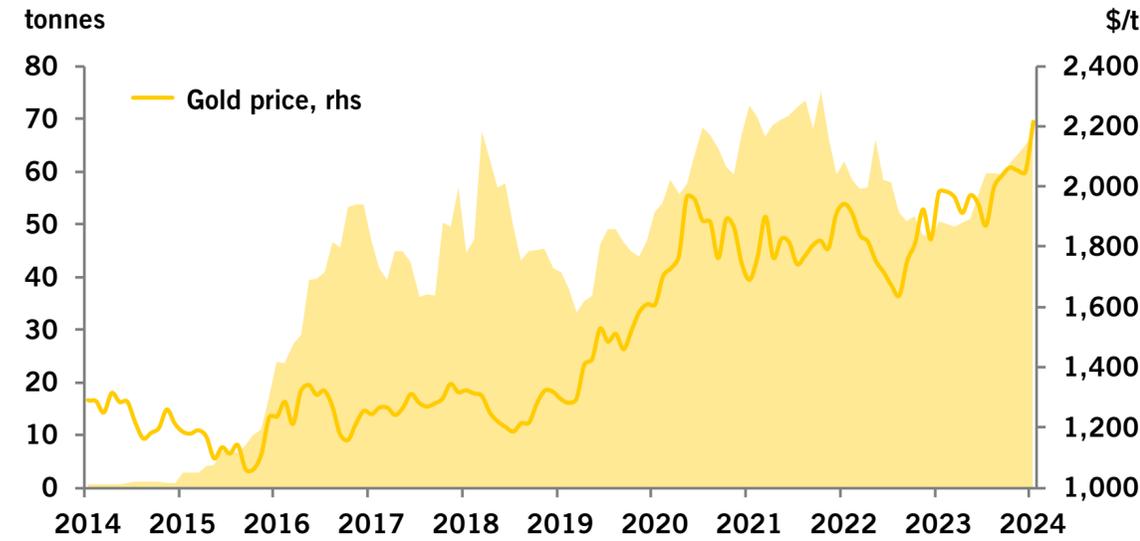
On the industrial side, subsidies worth billions of dollars and euros are expected to help the proliferation of hydrogen production in the next decade. This is likely to add momentum to iridium and ruthenium demand growth as the US and Europe aim to meet their own green hydrogen production goals. Demand for iridium and ruthenium from electrolytic green hydrogen production is expected to be more substantial than from FCEVs in the near term, thanks to subsidisation, though FCEVs have more potential in the longer term.

All three small PGM prices were stable last week.

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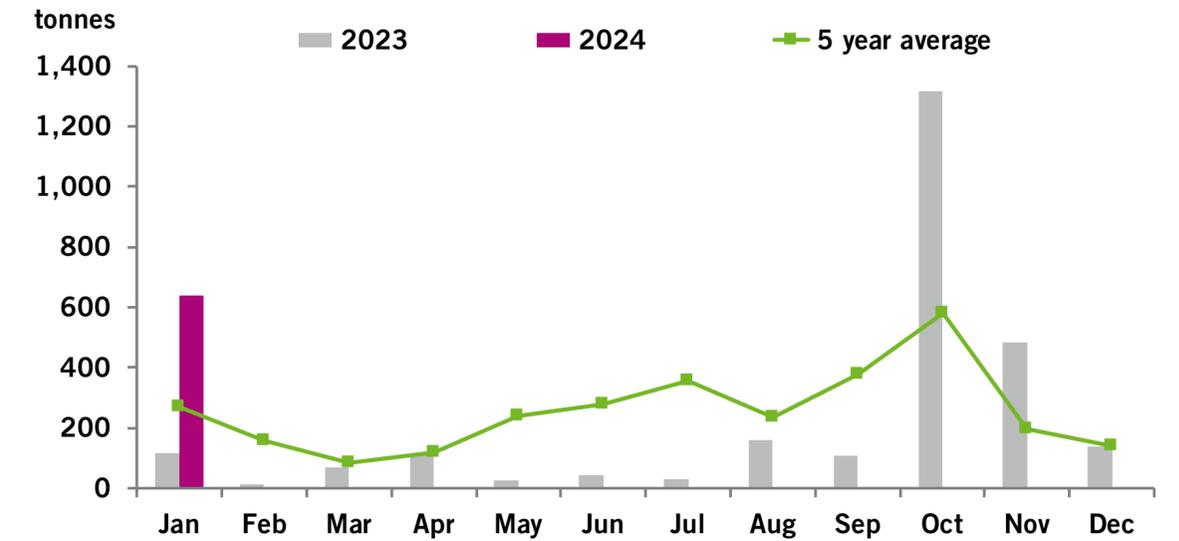
TRENDS AND INVESTMENTS

Chinese gold ETF holdings



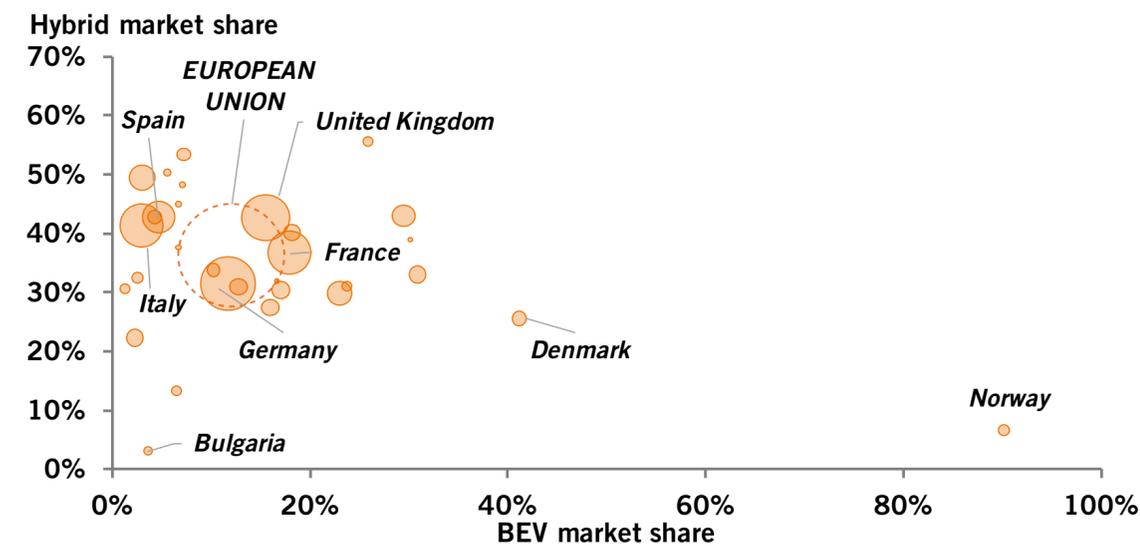
Source: SFA (Oxford), World Gold Council, ETF providers

India silver imports



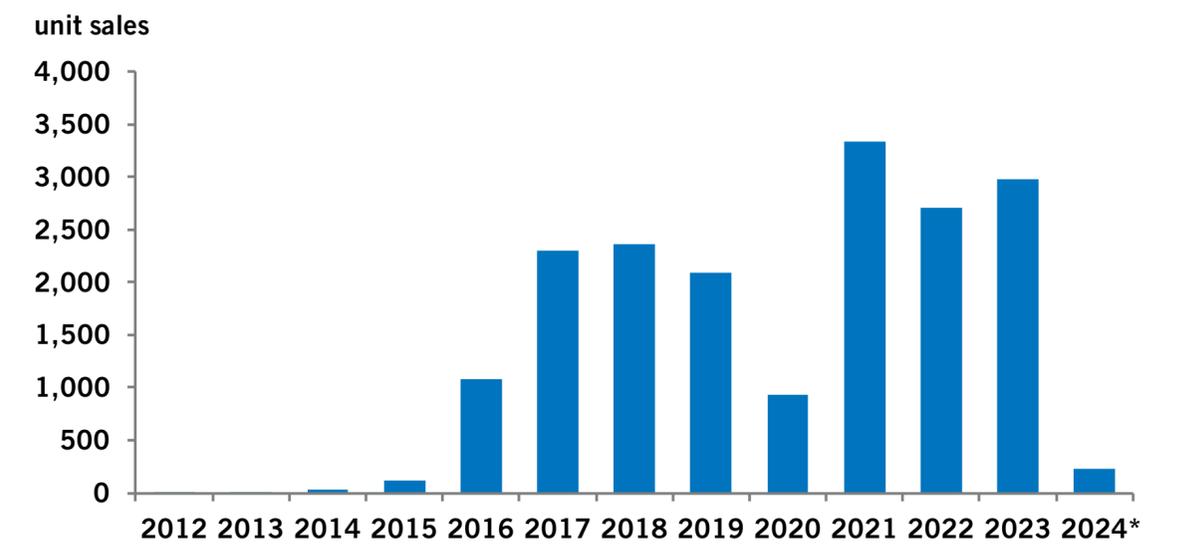
Source: SFA (Oxford), Bloomberg

The European automotive market



Source: SFA (Oxford), ACEA. Bubble size represents total passenger vehicle sales

US fuel cell passenger car sales



Source: SFA (Oxford), Baum and Associates, Hydrogen Fuel Cell Partnership. *YTD

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Heraeus Precious Metals

Europe, Middle East, Africa & other regions

Phone: +49 6181 35 2750
tradinghu@heraeus.com

South East Asia

Phone: +852 2773 1733
tradinghk@heraeus.com

USA

Phone: +1 212 752 2180
tradingny@heraeus.com

China

Phone: +86 21 3357 5658
tradingsh@heraeus.com



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The Heraeus Precious Appraisal is produced in collaboration with:

SFA (Oxford) Ltd

United Kingdom
Phone: +44 1865 784366
www.sfa-oxford.com
The Oxford Science Park,
Oxford, United Kingdom, OX4 4GA



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