

PRECIOUS APPRAISAL



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PRECIOUS METALS REVIEW

Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,848	1.96%	1,849	03/03/2023	1,805	28/02/2023
€/oz	1,741	1.27%	1,742	03/03/2023	1,702	28/02/2023

Dollar to revert to depreciation? Strong inflation figures in Europe signal that ECB interest rates have more upside than the Fed's this year. Latest data indicate that inflation in the EU has not yet peaked, as it appears to have done in the US. Eurozone headline inflation may have continued to cool marginally thanks to the warmer winter and lower energy prices, but the core measure shows no sign of slowing, rising month-on-month at the fastest pace since September 2022 in February to 5.6% year-on-year. Germany and France's inflation lead the EU, hitting 8.7% and 6.2% year-on-year in February, respectively. The market implied maximum rate for the ECB to try to tame price rises is now at 3.85% (currently 2.5%), suggesting at least two more 50 bp hikes before the summer. This is a more aggressive path than the three further 25 bp hikes the futures market currently expects for the Fed. The potential variance in monetary policies by the second half of the year could lead to further dollar weakening as a more aggressive ECB should strengthen the euro. Further dollar weakness could lift the gold price.

Central banks' affinity for gold likely to continue. Gold buying by central banks in January continued the trend that was cemented in H2'22. Net purchases totalled 31 tonnes in the month. The largest buyer was Turkey which added 23.3 tonnes to its reserves and was also the largest reporting gold purchaser last year, adding 147 tonnes. Turkey has been increasing the proportion of gold in its central bank reserves since 2013. Over the last 10 years, the proportion of its total reserves held in gold has grown from 3.9% to 27.6%, as of 2022. The People's Bank of China also added to its gold holdings in January, adding 14.9 tonnes, about 50% of the volume of additions seen in each of the final two months of 2022. It is possible that central banks will continue to be net buyers of gold in 2023, though it is unlikely that levels will reach last year's record 1,135 tonnes of net additions.

Gold was oversold at \$1,805/oz last week, and the price bounced as dollar strength eased. The gold price finished the week in the positive for the first time since January.

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Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	21.10	1.04%	21.18	01/03/2023	20.42	28/02/2023
€/oz	19.88	0.35%	20.22	28/02/2023	19.14	27/02/2023

India's economic outperformance to buoy silver demand. In 2022, India's silver imports topped 9,500 tonnes – 66% higher than the pre-pandemic average and 281% above the previous two years' average. Demand was suppressed during the pandemic as incomes were squeezed, particularly in rural areas. Restrictions prevented festival celebrations which is when significant demand is usually stimulated. In 2022, levels of silver imports (and inferred demand) were strongly correlated to the silver price. Recorded imports jumped in Q3'22 when the silver price averaged below \$21/oz, and were greatly reduced at the beginning and end of the year when the price averaged over \$22/oz. The year-on-year increase was likely to be a result of enthusiastic consumer demand, as festivities were resumed, and restocking by retailers and industrial users. Demand in India is likely to be lower this year as most pent-up demand has been satisfied. However, it is entirely possible that demand will remain strong and in the upper range of pre-pandemic levels. India's GDP growth is forecast to outperform most other nations this year, and so silver demand should be buoyed. If international silver prices rally significantly, however, expect imports to drop.

The silver price has been underperforming gold, pushing the gold:silver ratio above 88. Last week silver was more oversold than gold, but it has failed to rally as much, showing gold's favoured safe-haven status with investors amid uncertainty in the global economy.

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Platinum

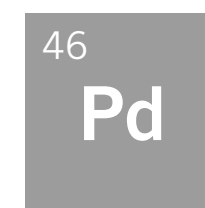
⁷⁸ Pt	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	976	6.41%	980	03/03/2023	915	27/02/2023
€/oz	920	5.57%	922	03/03/2023	867	27/02/2023

Fuel cell demand receives boost from Korean city. Incheon, South Korea's third-largest city, will have 700 fuel cell buses in operation by the end of next year (2,000 by 2030) and could act as a proof of concept for other cities worldwide. The buses are to be supplied by Hyundai and will be the largest fleet of fuel cell buses globally. The hydrogen fuel for this programme will not be green, rather the city will use hydrogen by-product from petrochemical processes, therefore not yet adding potential iridium demand for electrolytic hydrogen production. This model may be an easier way to ensure end-use for green hydrogen fuel before capital expenditure is committed for green hydrogen production capacity. The tightening CO₂ emissions targets seen around the world increase the likelihood that fuel cell public transport will play a growing role in reducing CO₂ emissions from cities and urban areas. For example, in February, Aschaffenburg city and Deutsche Bahn ordered a combined 72 fuel cell buses, and Bremervörde currently has operational hydrogen locomotives. Demand from fuel cells in public transport and trucking could help to support platinum demand, although volumes of fuel cell vehicles are still relatively small compared to traditional diesel powertrains.

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Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,447	3.39%	1,470	27/02/2023	1,397	28/02/2023
€/oz	1,365	2.78%	1,387	27/02/2023	1,319	28/02/2023

Normalised mine supply and autocatalyst recycling lift North American supply in 2023. After flooding and labour issues reduced palladium output at Sibanye-Stillwater’s Montana operations to 325 koz, better conditions mean yield in 2023 is forecast to reach more than 385 koz. A lack of available new vehicles reduced the number of old vehicles being scrapped and, along with supply chain constraints and sourcing issues, resulted in lower recycled palladium production last year. Autocatalyst receipts fell by 37% in H2’22 versus the first six months of the year. Globally, palladium supply from autocatalyst recycling is estimated to have shrunk in 2022. However, secondary supply could rebound to record levels in 2023 if China and the rest-of-world regions continue to see increases and the anticipated recessions in the US and Europe, which tend to reduce scrapping of old vehicles, are not too severe. North America’s palladium recycling accounts for nearly half of the global total at over 1 moz, so a milder recession there would have the most positive impact on secondary supply. Forecast growth in output from Sibanye-Stillwater and Impala Canada’s operations is expected to boost overall North American palladium output this year.

This year could be a bumpy ride for Chinese EV sales. China’s BEV sales fell year-on-year in January for the first time since the middle of the pandemic. January is typically a poor month for all vehicle sales owing to the Chinese New Year holidays. However, the 19% drop in sales versus January 2022 is more likely to be a result of the removal of cash subsidies from the purchase of new energy vehicles (EVs + hybrids + fuel cell), which have been a key driving force in boosting EV sales. Subsidies have gradually reduced since 2019 and now just a 5% tax exemption remains. China’s passenger car sales are estimated to slow in 2023 along with the autocatalyst market. The market share of EVs grew from 16% in 2021 to 27.5% last year. Although this is expected to increase, the pace is likely to slow unless new incentives are announced, or the discounts being offered by EV manufacturers prove effective at stimulating demand. Consequently, palladium autocatalyst demand is expected to remain flat this year in China at 2.6 moz (34% of global demand), with risk to the downside owing to platinum-for-palladium substitution and the EV share edging up only gradually.

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Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$11,300/oz	\$515/oz	\$5,050/oz
Previous week	\$12,250/oz	\$525/oz	\$4,850/oz

Green hydrogen plans keep growing in Europe. Indian multinational conglomerate Essar plans to invest \$2.4 billion in developing green hydrogen and low energy transition projects in the UK between now and 2028. This is just the latest announcement of capital commitment for green hydrogen projects in the European region which are likely to raise iridium demand over the next five years. Many EU countries now have hydrogen roadmaps in place, and the European Commission has set an ambitious target of 10 mt of domestic low-carbon hydrogen production by 2030. Depending on the type of electrolysis used for electrolytic hydrogen production, the rapid scale-up of hydrogen supply and demand could significantly boost the demand base for iridium.

The rhodium price continued to slide last week, closing the week at \$11,300/oz, while both iridium and ruthenium saw modest price rises.

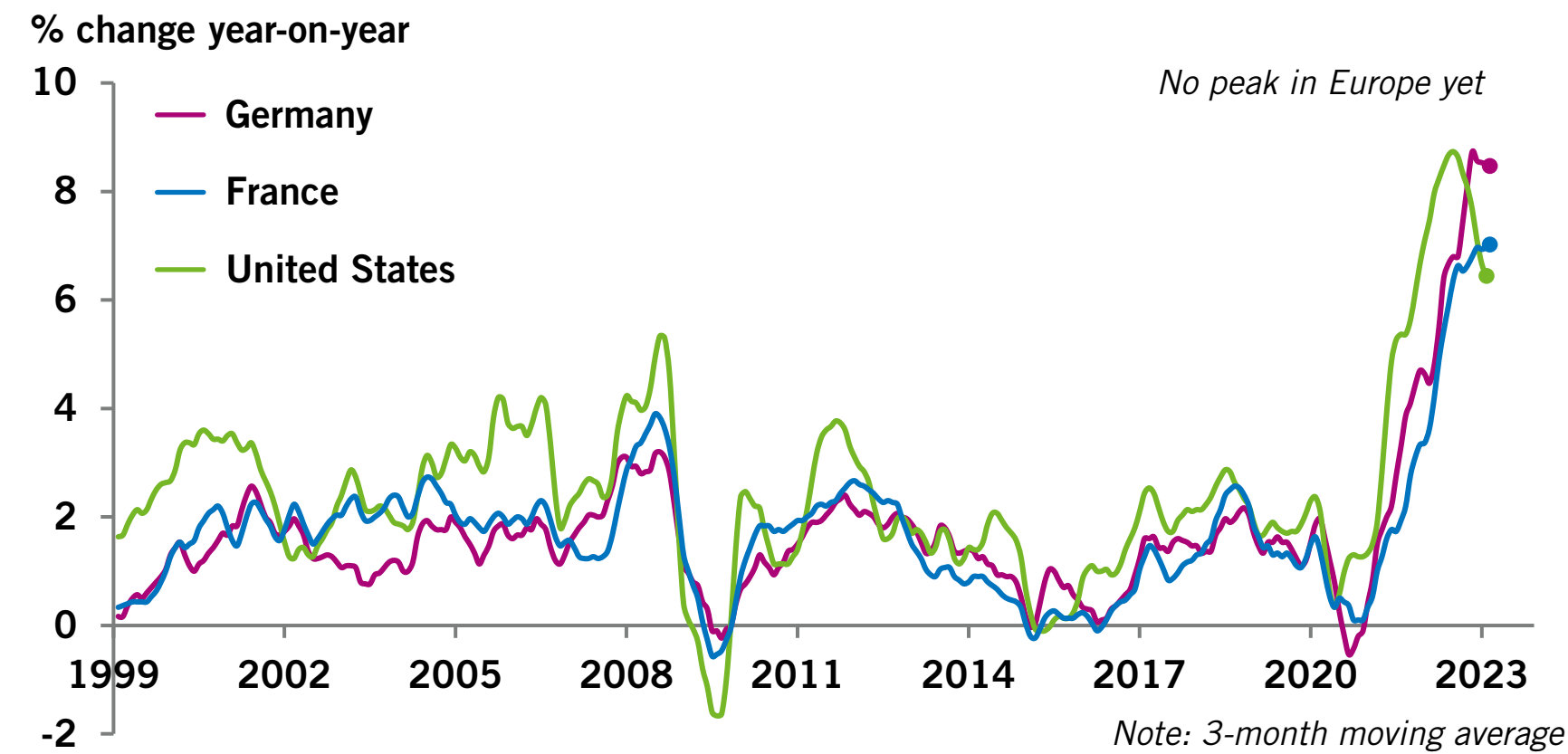
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TRENDS AND INVESTMENTS

Inflation rates in key economies



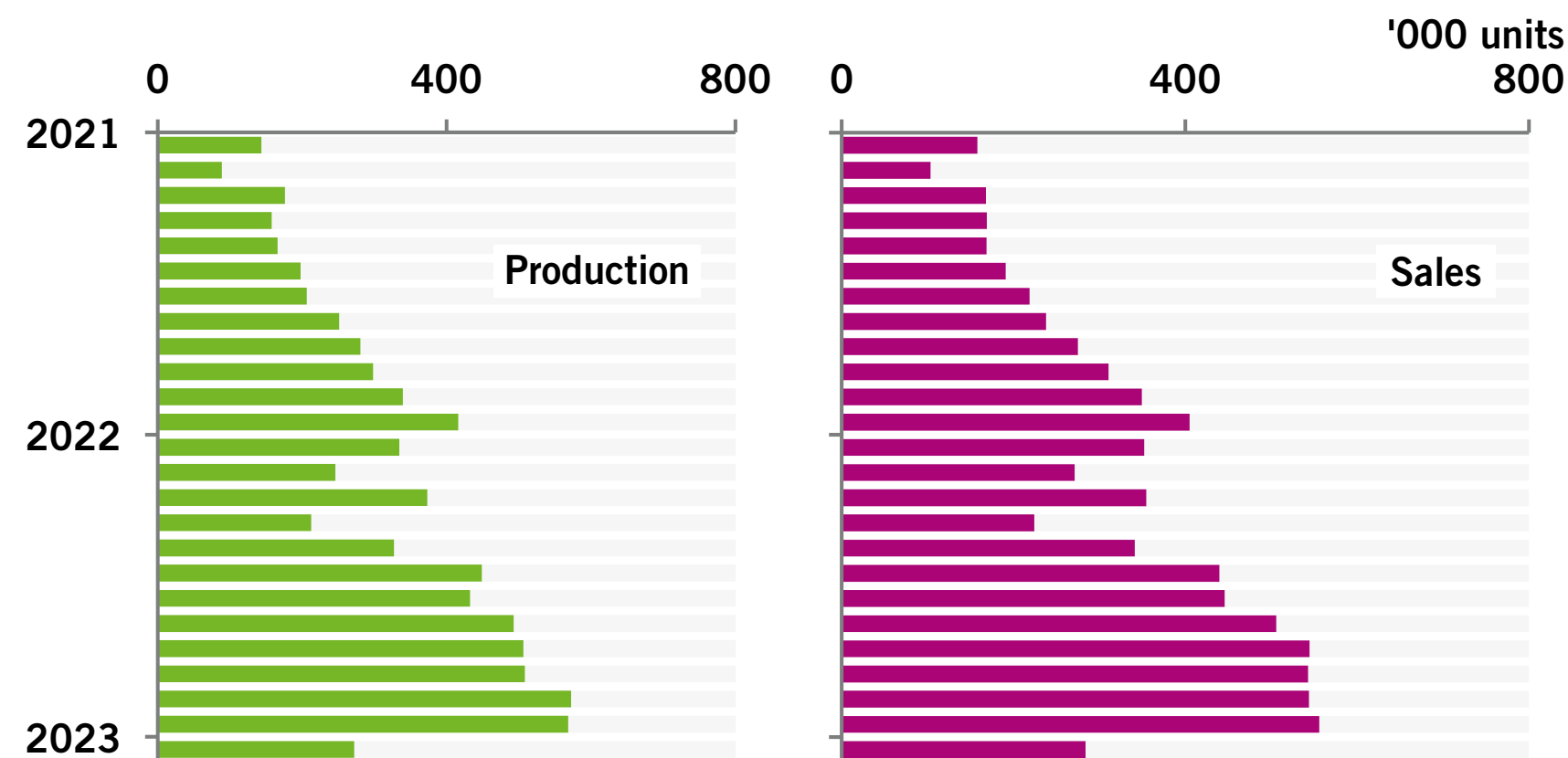
Source: SFA (Oxford), Bloomberg

India silver imports vs. silver price



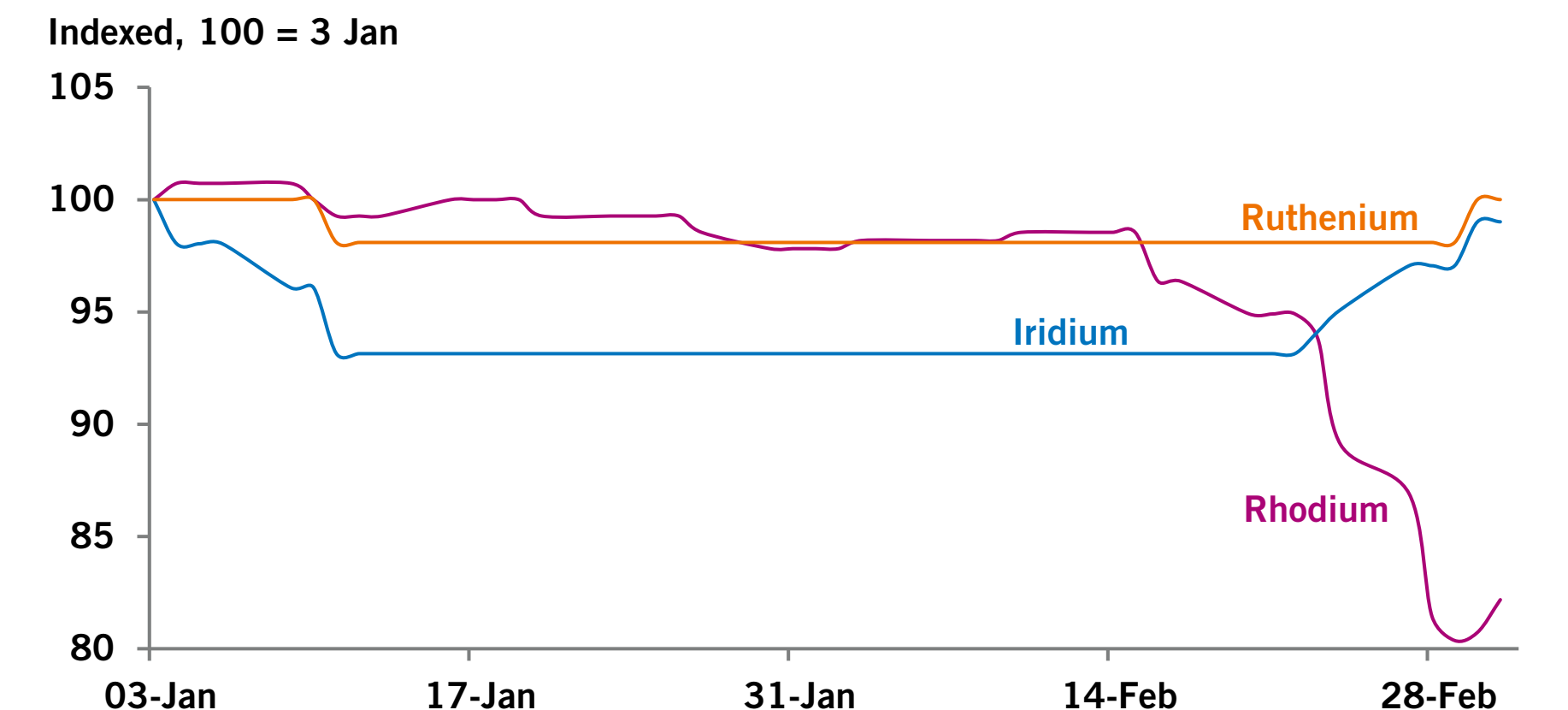
Source: SFA (Oxford), India Ministry of Commerce and Industry, Bloomberg

China EV production and sales



Source: SFA (Oxford), Bloomberg

Small PGM price performance, YTD



Source: SFA (Oxford), Heraeus

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