Heraeus

PRECIOUS APPRAISAL

Precious Metals





15th January 2024

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PRECIOUS METALS REVIEW Gold

1	79						
	Au Gold 196.9665	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
	\$/oz	2,048	0.15%	2,062	12/01/2024	2,013	11/01/2024
	€/oz	1,869	0.13%	1,879	12/01/2024	1,838	11/01/2024

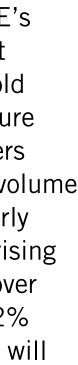
Tepid US investor sentiment towards gold could heat up in 2024.

Globally, investors in gold ETFs reduced their holdings by 8.2 moz last year, mainly from June onwards. Positive sentiment for gold investment seemed to fade in the US following the mini banking crisis in May as attractive money market yields again became the focus. Five straight months of negative fund flows over the summer and into the autumn followed. Investor sentiment flipped back to positive late in the year as the market-assessed probability of US interest rate cuts grew, and the gold price rose above \$2,000/oz. Gold ETFs have shed 897 koz of holdings so far in January, continuing the trend from late 2023. Overall investor sentiment seems at odds with near record prices when assessed by January's ETF outflows, declining physical bullion sales from the US Mint and relatively low open interest in the futures markets. Last week's hotter than expected US inflation reading again dampened expectations of an interest rate cut in March. When the Fed does pivot to rate cuts, gold could receive a boost and investors' attitudes may change.

Chinese gold demand proxies are strong. Trading volume for the SGE's Au9999 contract reached a seven-year high last week. This contract has physical delivery and tends to be used by Chinese banks and gold wholesalers in the jewellery industry, and so can be used as a measure of industry sentiment. January volumes tend to be higher, as jewellers stock up prior to the Chinese New Year holiday, though last week's volume is notable. Additionally, the premium paid on gold in China has nearly doubled since 2 January to \$64/oz on 11 January, also suggesting rising demand. Chinese consumers appear to be favouring gold jewellery over alternatives such as platinum. However, with yuan gold prices just 2% from all-time highs, it is possible that the robust wholesale demand will fail to immediately translate into robust retail demand.







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PRECIOUS METALS REVIEW Silver

1	47						
	Ag Silver 107.8682	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
	\$/oz	23.22	-0.08%	23.53	12/01/2024	22.48	11/01/2024
	€/oz	21.19	-0.09%	21.42	12/01/2024	20.54	11/01/2024

Areas in China are reaching the limit for rooftop photovoltaic installations.

China's record year of solar installations in 2023 is reportedly causing issues for some parts of the country's electricity grid. It is possible that more than 150 regions in the country have no space for additional distributed photovoltaics (source: Photovoltaic Energy Circle). Recently, China has emphasised localised rooftop solar installations over large-scale farms. However, with a shift back to large solar farms, China can continue the growth of its solar fleet which contributed greatly to silver demand last year. Globally, solar silver demand is estimated to have totalled a record 190 moz. The rapid fall in solar cell prices helped to propel installations higher last year, and this is likely to continue in 2024, though a drop in rooftop installations could be a limiting factor. Silver is the largest single cost component of fabricating solar cells, so if the silver price rallies this year, the cost of panels could also rise.

The silver price finished last week much where it started, moving just 0.08% lower in the week to 23.22/oz.



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PRECIOUS METALS REVIEW Platinum

	78 Pt Platinum 195.084							
			CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
	100.004	\$/oz	917	-4.85%	963	08/01/2024	912	11/01/2024
		€/oz	837	-4.85%	878	08/01/2024	833	11/01/2024

Platinum jewellery demand is forecast to increase this year from a low **base.** After a challenging year in 2023 when demand for platinum jewellery fell to a multi-decade low, demand is forecast to rise modestly this year – though there is significant risk attached. A slight recovery of 3% is forecast to take global platinum jewellery demand to 1.4 moz this year as the major Asian markets see moderate improvements. However, global macroeconomic headwinds and a growing preference for gold in China could cap any meaningful upside. Chinese jewellery consumption has seen the largest contraction in the last decade versus other markets. In fact, the decline in Chinese platinum jewellery demand has had more than double the impact on the platinum market than the decline of diesel autocatalyst demand in Western Europe. Since their respective peaks in 2014 and 2016, Chinese jewellery and Western Europe's autocatalyst demand in 2023 have fallen by 1.5 moz and 740 koz. Overall platinum demand is forecast to rise by 1.5% this year, ensuring the market remains in a deficit, though with recessions looking likely in Europe and the US, price upside may be limited over the next 12 months.

The platinum price performed poorly last week, falling nearly 5% to \$917/oz after failing to find support at \$940/oz.



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PRECIOUS METALS REVIEW Palladium

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Pd Palladium 106.42		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
IUNA	\$/oz	979	-6.32%	1,027	11/01/2024	972	09/01/2024
	€/oz	894	-6.15%	936	08/01/2024	890	09/01/2024

The race is on between hybrids and EVs in the US market. In 2023, the market share of BEVs in the US reached 7.6%, while sales of hybrids (HEVs, excl. plug-ins) were marginally higher at 7.7% (source: JPMorgan). The more hybrids sold, the more palladium (+ platinum) demand is maintained in the short term, and hybrids tend to have slightly higher PGM loadings than ICE-only vehicles. As the US is the second-largest PGM autocatalyst market, this change could help to support US palladium autocatalyst demand which is forecast to rise 2% this year to 1.7 moz, the highest since before the pandemic thanks to vehicle production growth.

Changes to the IRA that came into effect from the beginning of January exclude more cars from receiving credits via the Foreign Entity of Concern (FEOC) clause but makes those credits more appealing by giving them at the point of sale. So far, around 12% of US dealerships have signed up to provide the incentive programme this year. As the number of eligible BEVs declines, sales of fully electric light vehicles may slow in favour of HEVs that offer better environmental credentials than ICE light vehicles but with much more choice and a lower price point than BEVs.

The palladium price declined for the third week in a row last week, and as of Friday's close was down 13.4% year-to-date.



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PRECIOUS METALS REVIEW Rhodium, Ruthenium, Iridium

44 Ir					
45 Rh Rhodium 102.8055 Rutheralum 101.87		RHODIUM	RUTHENIUM	IRIDIUM	
102,0055	Reporting Week	\$5,050/oz	\$445/oz	\$5,500/oz	
	Previous Edition	\$4,950/oz	\$445/oz	\$5,500/oz	

Low rhodium price could put small PGM production at risk in South **Africa.** South African PGM miners that have seen their revenue boosted by high rhodium prices over the last few years have faced pressure on their margins as the price has fallen (along with palladium) and costs have risen. Of the two main orebodies mined in South Africa, the UG2 Reef is the richest in rhodium, ruthenium and iridium. Deep mines exploiting the reef could be most at risk of closure, given rhodium revenue has fallen significantly and the higher cost of deep-level mining. If these shafts were to shut production, the three small PGMs would be affected. So far, costcutting by South African miners has had only a small impact on output, though some of the industry is likely to be loss-making at current prices, and therefore further cuts could be implemented.

The ruthenium and iridium prices remained flat week-on-week in the second trading week of the year, while rhodium moved \$100/oz higher to \$5,050/oz.





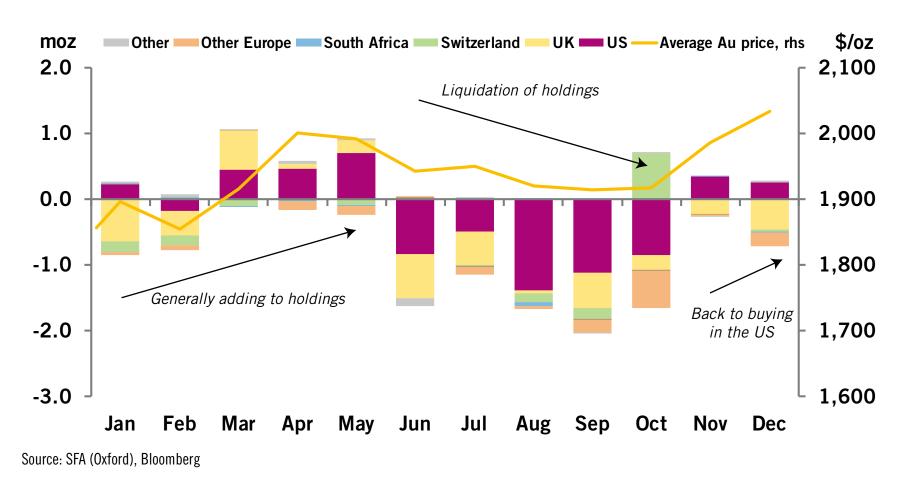


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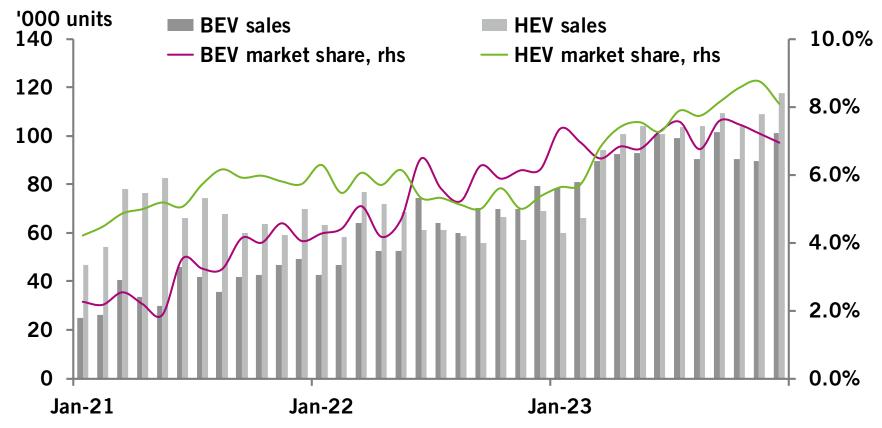
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TRENDS AND INVESTMENTS

Gold ETF in/outflows in 2023

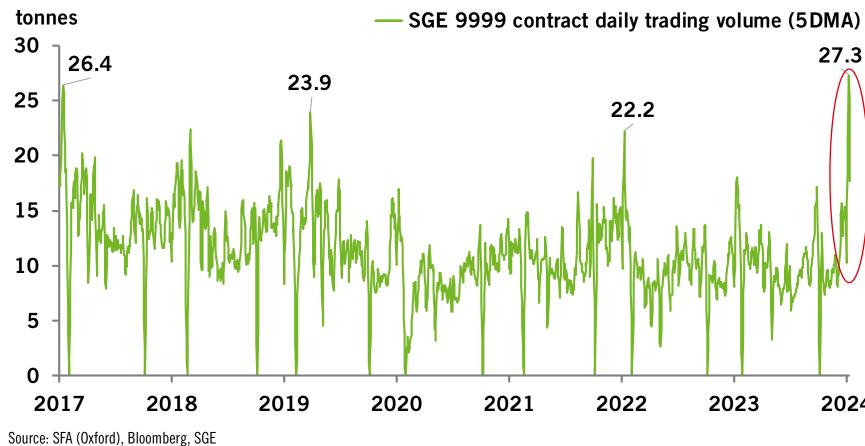


US BEV sales vs. **HEV** sales

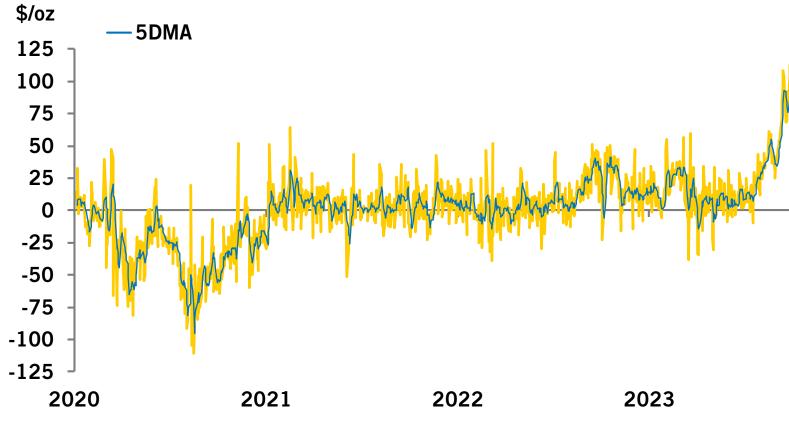


Source: SFA (Oxford), Argonne National Laboratory, Marklines

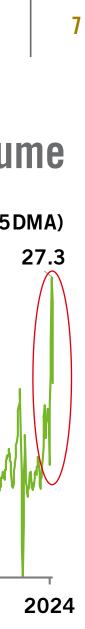
Shanghai Gold Exchange physical contract volume

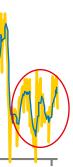


Shanghai gold premium vs. LBMA London price



Source: SFA (Oxford), Bloomberg, SGE







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