Heraeus



14th November 2022

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MARKET SPOTLIGHT

Wall Street and Main Street divided over gold investment

Exchange-traded fund (ETF) holdings have slumped while bar and coin purchases are up this year. Both gold and silver have seen price declines throughout 2022 after spiking to year highs following the invasion of Ukraine. After peaking at 107 moz on 21 April, holdings in gold-backed ETFs have fallen to 94 moz (-12%) in the year to date. Global silver fund holdings have fallen 17%, from 911 moz to 753 moz, since the previous high in March 2022. Net asset value drawdowns for all precious metal funds total \$53 billion for gold funds and \$8 billion for silver equivalents from their peaks, as ETF investors focus on assets with higher yields.

Professional investors predominantly use ETFs. While retail investors buy ETFs, bars or coins, institutional investors trade much larger amounts and so mainly use ETFs. Although gold and silver prices have held up better than the strong dollar and the rise in bond yields might suggest, they are still down since the start of the year and the dollar has been the safer haven. Short interest in iShares Silver Trust, the largest silver ETF, rose rapidly this year to a record high of 60 million contracts, underlining the negative view of silver from the professional investment sector.

Bar and coin investment demand from individual investors has been strong. Investment in relatively small volumes of bars and coins is the domain of retail investment and high inflation may be keeping purchases elevated. Sales data from the Perth Mint shows robust underlying demand for physical silver and gold. Gold saw record sales of 183 koz in October following the highest monthly sales for silver for five years in September. Germany and the US exhibited particularly strong retail demand. Global bar and coin demand grew 36% year-on-year in Q3'22 to 351 tonnes, the strongest Q3 figure since 2011 (source: World Gold Council).

Market sentiment this year has been dominated by US monetary policy. Hawkish Federal Reserve monetary policy has supported a strong dollar. In addition, US Treasury yields, despite remaining negative in real terms, have surged across the curve giving institutional investors higher yielding alternatives to gold.

A Fed pivot could change gold's fortunes. The upside risk for precious metal prices in 2023 may hinge on a change in monetary policy from the Fed. Inflation appears to have already peaked in the US and a deteriorating economic outlook will see the Fed change course. This is likely to result in a weaker dollar and a decline in bond yields, enabling a further rebound in gold and silver prices.

Precious metals investment trends → Change in ETF holdings MoM, rhs Perth Mint bar and coin sales, Ihs moz 8% 3.0 0.2 4% 2.0 1.0 Gold Silver -8% 0.0 Oct-21 Jan-22 Jul-22 Oct-22 21 21 21 22 22 Jul-21

Source: SFA (Oxford), Perth Mint, Bloomberg

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PRECIOUS METALS REVIEW

Gold

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	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE	
\$/oz	1,764	5.40%	1,767	11/11/2022	1,665	08/11/2022	
€/oz	1,707	1.14%	1,726	10/11/2022	1,668	08/11/2022	

Inflation cools before December FOMC meeting. The annual rate of inflation in the US cooled for the fourth month in a row in October to 7.7% year-on-year, the lowest since January and below expectations of 8%. October's reading has prompted the interest rate futures market to increase its bets on a 50 bp rate hike in December over a fifth consecutive 75 bp hike. As of Thursday, last week the chance of a 50 bp hike was 80% (source: CME FedWatch Tool). Lower inflation supports the idea that the Fed will become less hawkish, which could weaken the dollar and boost the gold price.

Agnico Eagle swoops in to take Yamana from Goldfields. The latest in a string of gold mining M&A developments since the pandemic will end with Agnico Eagle assuming full control of the Malartic mine in Canada (previously 50:50 JV with Yamana), and the transfer of Yamana Gold's South American operations to Pan American Silver, the world's eighth largest silver producer. Earlier this year, Agnico Eagle and Kirkland Lake completed a merger of equals which led to the creation of the biggest producer of Canadian gold and the world's third largest gold producer, expected to produce between 3.2 and 3.4 moz in 2022.

Is a split government good for gold? The Republicans will take control of the House of Representatives in the US mid-term elections, dividing the government's legislative body and making it difficult for the Biden administration to pass any future non bi-partisan bills. In terms of major legislation already passed, the Inflation Reduction Act is already through the house and represents \$500 billion in new spending and tax breaks in a bid to boost clean energy while also reducing the budget deficit. Equities tend to benefit from political stability, whereas gold's safe-haven status means it is often popular during times of turmoil.

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PRECIOUS METALS REVIEW

Silver



France gives PV installations a boost in the medium-term by passing legislation requiring car parks with 400 or more spaces to add solar shades by July 2026, and those with between 80 and 400 spaces by 2028. This project alone is expected to generate 11 GW of solar cell demand, compared to the ~15 GW currently installed in France (source: BP). Strong policy support for solar PV is accelerating capacity installation in Europe and other regions, and thus silver demand for photovoltaic cells. Between 2013 and 2021, global PV growth averaged 25% while silver PV demand has grown at a slower rate of 11% and could reach 150 moz 2022. The difference in growth rates reflects technological developments which are allowing increasingly lower silver loadings per GW. The EU aims to have 600 GW of installed solar capacity by 2030 according to the latest goals, more than three times the installed capacity at the beginning of 2022. Despite thrifting of silver, ambitious goals of growing solar capacity across the globe will lead to continued growth in PV demand for silver and support overall industrial silver demand growth.

The silver price benefitted from a devaluation of the dollar last week in the wake of a cooler than expected US inflation reading. The price finished the week 3.7% higher at \$21.49/oz, but is likely to be tested at around \$22.20, previously a support level which could provide strong resistance.

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PRECIOUS METALS REVIEW

Platinum

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			CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE	
		\$/oz	1,027	7.19%	1,061	11/11/2022	951	07/11/2022	
		€/oz	994	3.77%	1,034	11/11/2022	958	07/11/2022	

Ceramic fuel cell catalysts could undermine future platinum demand.

German car manufacturer Volkswagen is aiding the development of a ceramic fuel cell catalyst membrane that does not require platinum, unlike the type used in current fuel cell passenger car options that utilise platinum and ruthenium. The developer of the technology intends to have the fuel cells in production vehicles by 2026. If cheaper, non-platinum fuel cells become commercialised, it would be a blow to future platinum demand, just as the need for PGMs in internal combustion autocatalysts declines. Platinum usage for hydrogen is forecast to experience strong growth in 2023 as fuel cell vehicles (primarily heavy-duty) become more widely used. In the near term, growth in demand is expected to come from the heavy-duty vehicle sector as fuel cell power is more practical for large vehicles than battery electric powertrains.

Stronger rand helps lift platinum price. The platinum price reached an eight-month high last week after passing \$1,000/oz. The metal has been rallying since early September when news of a delay to Amplats' Polokwane rebuild was released among other supply issues in South Africa, where >75% of platinum is mined. The bullish move came despite a devaluing rand, which would usually push the price lower. Now, the rand and the platinum price appear to be in line again, which provided additional bullish momentum to platinum last week, adding to its recent outperformance of the other PGMs.

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PRECIOUS METALS REVIEW

Palladium

Pd								
		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE	
	\$/oz	2,015	8.95%	2,048	11/11/2022	1,815	10/11/2022	
	€/oz	1,955	4.69%	1,986	11/11/2022	1,826	10/11/2022	

Emerging markets might be outlet valve for autocatalyst demand in 2023. India's festive season provided a boost not just for precious metal demand, but also in automotive sales. Passenger vehicle sales jumped 41% year-on-year against a Covid-impacted market in 2021, whilst also improving on pre-Covid sales by 18% to total 329,000 vehicles in October. Chinese passenger vehicle sales also remained strong in October, up 7% year-on-year to 2.5 million units. Growth slowed from 26% in September, but is still greater than the anticipated 4% for the US October. The outlook for automotive sales is likely to be hampered by recession in the US and Europe in 2023, forecast to result in a slight net reduction of palladium autocatalyst demand. India's palladium demand, although smaller than that of either the US or Europe at 340 koz (2022e), is forecast to grow 8% due to a projected increase in sales plus moderate bump in palladium loadings owing to the final phase of the Bharat 6 emissions regulations that bring the country in line with Euro 6 standards.

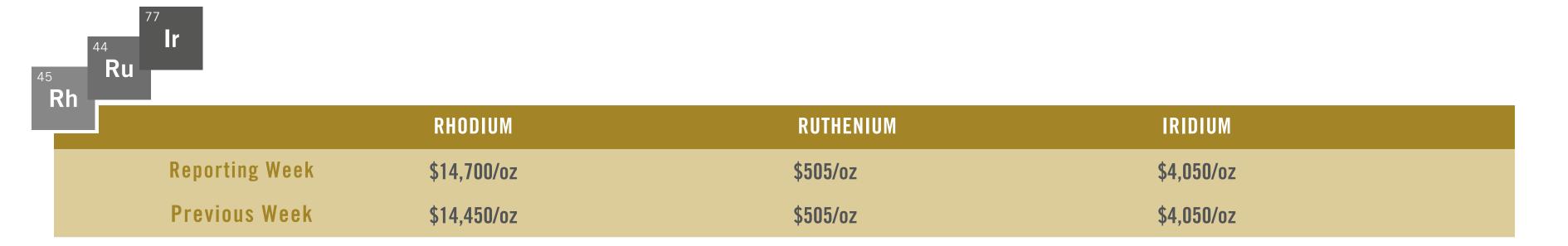
Euro 7 has landed. After much delay and anticipation, the regulations that will govern PGM demand for the last generation of internal combustion engines in Europe has been released by the European Commission. The new package of emissions regulations makes no change for gasoline vehicles, meaning there is likely to be little difference in the amount of palladium used in the majority of vehicles. The market share of gasoline engines was 37.8% in Q3'22 (68.9% including hybrid vehicles) and represents the largest segment by fuel type. The proposed implementation dates – July 2025 for cars and vans and July 2027 for heavy-duty vehicles – are ambitious, and European automotive manufacturers have been sceptical that they can be met. The unchanged engine emission rules for gasoline vehicles introduces downside risk for the palladium price in the medium-term as there will be no demand bump to offset market share lost to BEVs.

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PRECIOUS METALS REVIEW

Rhodium, Ruthenium, Iridium



Global climate change summit spurring investment in green hydrogen production. Egypt, the host country of this year's COP27 UN climate change summit, has announced several programmes to begin production of and increase international cooperation in green hydrogen production. The flagship project is a 100 MW proton exchange membrane (PEM) electrolysis plant to tie in with an existing ammonia production plant and deliver approximately 15 kt of green hydrogen per year. If completed, the electrolysis unit would be the largest in Africa. Global installed electrolysis capacity is estimated to exceed 1 GW by the end of 2022, with approximately 50% of that capacity utilising PEM technology. This corresponds to the relatively small amount of iridium demand for PEM catalysts. Global electrolyser capacity could grow to 134 GW by 2030 (source: IEA). However, of the $\sim 1,500$ announced projects, fewer than 200 are currently in production or have reached the final investment decision stage. The large pipeline of projects implies a rapid growth in iridium demand for hydrogen between now and 2030, assuming most projects reach commissioning stage and electrolyser production can keep up with demand.

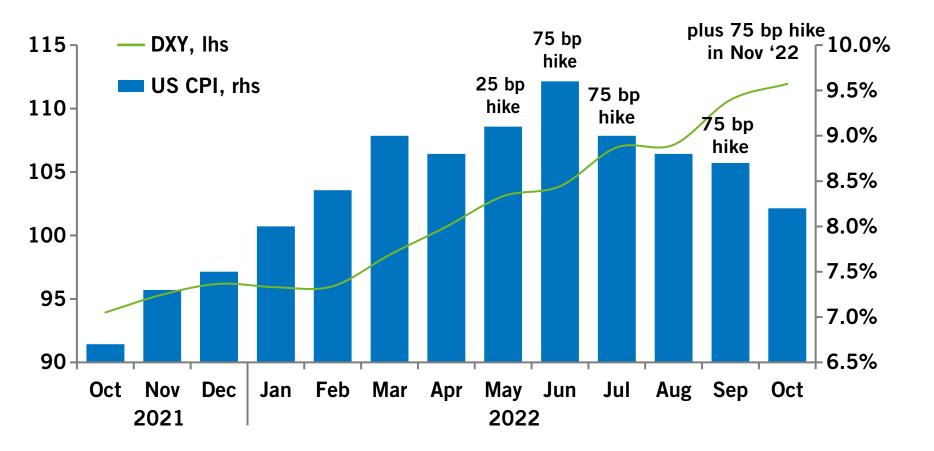
The ruthenium and iridium prices remained stable last week, finishing at \$505/oz and \$4,050/oz respectively, while rhodium edged up to \$14,700/oz.

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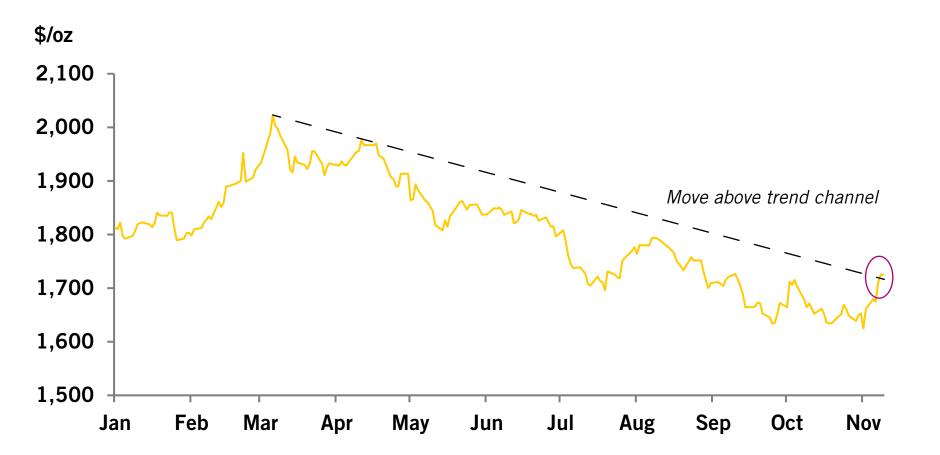
TRENDS AND INVESTMENTS

US inflation and dollar index



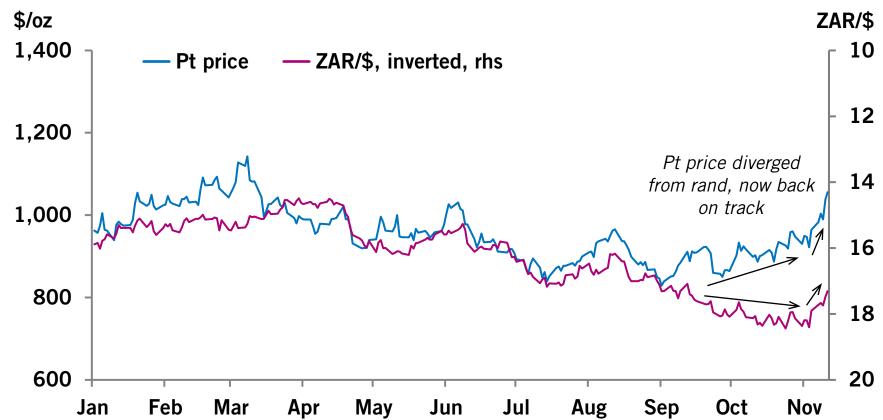
Source: SFA (Oxford), Bloomberg

Year-to-date gold price performance



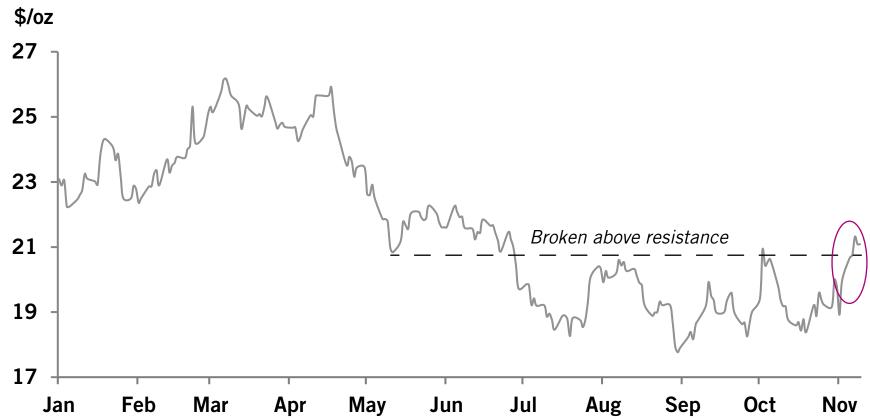
Source: SFA (Oxford), Bloomberg

Platinum price versus South African rand



Source: SFA (Oxford), Bloomberg

Year-to-date silver price performance



Source: SFA (Oxford), Bloomberg

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