Heraeus

PREGIOUS APPRAISAL









No. 4
30th January 2023

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PRECIOUS METALS REVIEW Gold

79	
Au	

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,930	0.25%	1,949	26/01/2023	1,911	23/01/2023
€/oz	1,777	0.02%	1,786	26/01/2023	1,759	23/01/2023

Gold prices could receive a boost as the end of interest rate hikes nears.

Federal Reserve bankers have been stressing the need to keep inflation trending lower in the US, and have been making hawkish comments despite reducing the size of interest rate increases before Christmas. Their expectations are for an end-point above 5%. However, market speculators see hikes ending earlier, owing to weakening economic indicators. The latest US manufacturing and services PMIs came in below 50 which points to the US economy continuing to cool. Market specs are betting heavily on the Fed raising the federal funds rate by 25 bp this week, with a second quarter-point hike at the following meeting in March, taking the peak rate to 5%. A less hawkish Fed is likely to lead to a weaker dollar which would support higher gold prices. However, if the Fed surprises the market to the upside later this week and implements a 50 bp hike, the dollar could find some strength and push gold lower.

New highs in local gold prices may crimp gold demand in India.

The Indian gold price reached new record levels last week of ₹5,104/g. As India is a price-sensitive market, high and rising gold prices tend to have suppressive effects on demand. After China, India is the second-largest consumer gold market, importing approximately 656 tonnes of gold last year. Price-related demand pressure could have notable impacts on jewellery and bar sales in Q1'23. India's gold imports fell 75% year-on-year in December to 20 tonnes as the gold price in rupees increased 3.8% during the month. Imports are expected to also be low in January as the local price has continued rallying. Levels of cash-for-gold sales and recycling are likely to be higher in February as long as the price remains high, having a negative effect on net demand.

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Silver

Ag								
		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE	
	\$/oz	23.54	-1.26%	24.29	26/01/2023	22.76	23/01/2023	
	€/oz	21.68	-1.49%	22.27	26/01/2023	20.98	23/01/2023	

Mexican silver production expected to grow this year. Fresnillo, the largest primary silver miner in Mexico and the world, produced 53.7 moz of silver last year – approximately 26% of Mexico's 2022 estimated output of 210 moz. This comes in line with guidance and is slightly above the previous two years' output of 53.1 moz. The company's silver production is predicted to grow by between 6.1% and 19.2% in 2023 as the rampup of the Juanicipio project is set to be completed by Q3'23. Juanicipio is the largest new primary silver mine to come online globally since 2016 and is planned to produce 11.7 moz of silver annually once at full capacity, approximately doubling its 2022 output. Two other large silver-producing nations, Chile and Peru, are facing lower mining output. Declining copper production (with by-product silver) from Chile's largest miners curbs supply, and social unrest in Peru may threaten silver supply further into 2023. Peruvian silver production was 8.5% lower year-on-year to the end of November, and is estimated to have been 33.4 moz by the end of 2022, compared to 41.2 moz in 2021.

The silver price has found support recently at around \$23.50/oz and remains above the 50-day moving average. The addition of 18.6 moz of silver to ETFs last Tuesday helped to maintain this level. The large increase in holdings contributed to the largest single week net additions since the Reddit "silver squeeze" in 2021 and is a reversal of the outflows seen in 2022. Silver finished the week slightly lower week-on-week at \$23.54/oz.

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Platinum

/0	Pt							
			CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
		\$/oz	1,013	-3.41%	1,062	24/01/2023	1,001	27/01/2023
		€/oz	933	-3.65%	976	24/01/2023	925	27/01/2023

Can heavy-duty vehicle sales hold up again in 2023? Commercial vehicle registrations declined by 15% year-on-year in the EU to 1.6 million units, falling below the volume during 2020 at the height of the pandemic in Europe. Heavy trucks (>16 t) saw an increase in registrations of 6.5% on an annual basis in 2022, despite the overall market decline and the uncertain economic outlook for the EU in 2023. Europe's heavyduty platinum autocatalyst demand could exceed 150 koz this year as automotive supply-side issues continue to fade. The possibility of a recession in the Eurozone adds downside risk to the outlook, and continued ECB hawkishness may have restrictive effects on new vehicle orders. Most of any growth in sales will likely come from smaller European countries such as the Balkan states that established a positive growth trend in 2022, while major volume markets such as Germany and France are expected to show lower growth. Overall, the platinum market looks set to remain in surplus in 2023 (ex. investment) but a weakening dollar could help to support the price.

Fuel cell mobility is growing in China. Production of fuel cell commercial vehicles more than doubled in China last year, to 3,327 units across heavy, medium and light commercial vehicles. Absolute production figures are small but growth is expected to continue at pace in the next few years, with demand for platinum in automotive fuel cells forecast to exceed 100 koz globally. Most of the future growth will be in commercial vehicles as part of fleets and short-haul distribution, with China the largest market, as fuel cell passenger vehicles are not currently in a position to compete with BEVs on price. China's heavy-duty market is forecast to rebound this year, helped by the reopening after the end of the zero-Covid policy. Currently, fuel cell mobility has captured a small portion of this, shifting platinum demand from autocatalysts.

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Palladium

46 	Pd							
			CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
		\$/oz	1,623	-6.39%	1,756	24/01/2023	1,611	27/01/2023
		€/oz	1,496	-6.65%	1,613	24/01/2023	1,489	27/01/2023

Sanctions began to bite in Russian palladium production in late 2022.

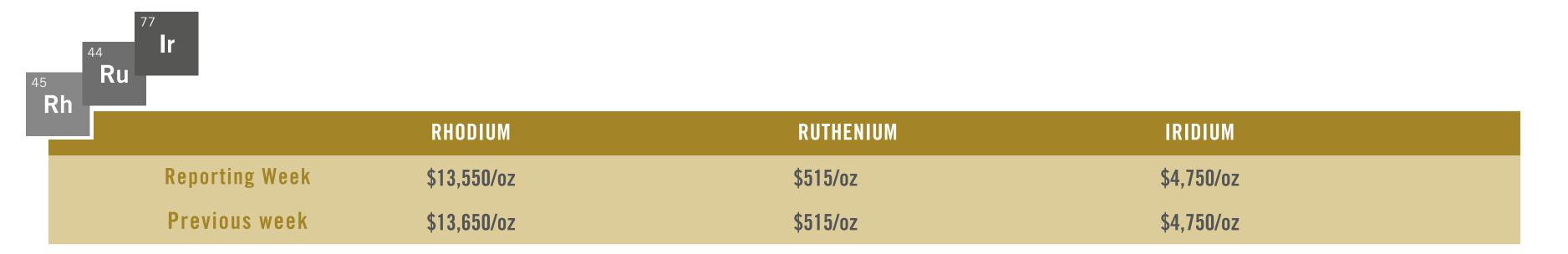
Palladium output from Nornickel was 2.8 moz last year. This was 7% higher year-on-year and was above expectations of between 2.45 moz and 2.71 moz. The increase in production can be attributed to a low base effect from 2021, and the exceeded guidance is a result of the deferral of repairs to one of the company's smelter furnaces from 2022 into this year. Smelter repairs are now scheduled for later this year, and will negatively impact refined palladium supply. Lower quarter-on-quarter production in Q4'22 is attributed to the impact of the current geopolitical situation on logistics and shipping. This effect is anticipated to persist throughout 2023 as the war in Ukraine rumbles on and the West maintains pressure on the Russian government. Palladium supply had been forecast to edge up this year. However, new guidance indicates that the company expects output to be between 2.41 moz and 2.56 moz. Even at the top-end of this range, it would be the lowest palladium production by Norilsk since at least 2009 and would represent a ~250 koz (8.2%) decline over 2022. This downgrade from the largest palladium producer could pull the palladium market into a deficit this year if recessions in the US and EU are mild and result in relatively small downgrades in light-vehicle demand. With the palladium market currently balanced, small changes on either the supply side or demand side could result in increased price volatility.

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Rhodium, Ruthenium, Iridium



High rhodium prices are still incentivising new PGM production.

South Africa's new mine supply pipeline is still supported by the historically elevated rhodium price. At \$13,550/oz, it is six-times higher than the pre-pandemic long-term average price of \$2,044/oz, despite suffering a 55% decline since its all-time high in May 2021. Mine restarts and new supply are being incentivised by high PGM prices, driven particularly by rhodium and palladium. The UG2 Reef, on average, contains a higher proportion of rhodium. Eastplats has reiterated its intention to restart underground mining of UG2 ore at Crocodile River mine which could add a small amount of production. Primary rhodium supply is expected to be relatively flat this year, but with little demand growth the market is forecast to be in slight surplus.

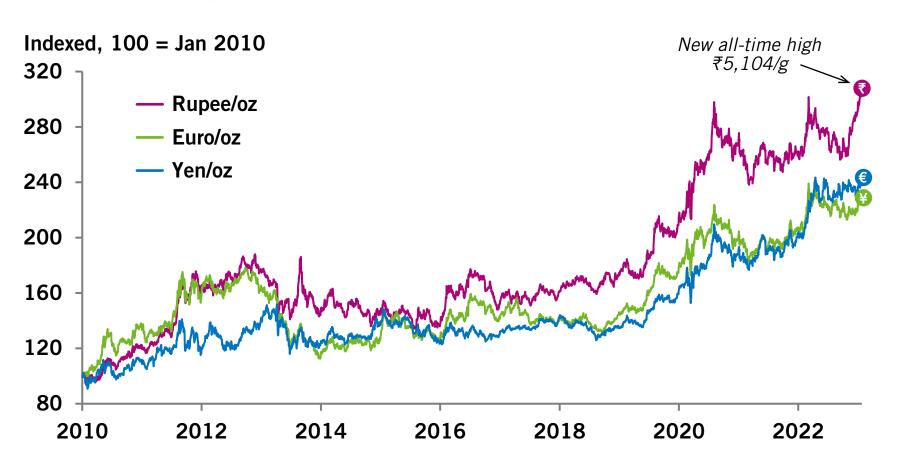
The small PGMs' prices all remained relatively stable week-on-week. Iridium closed at \$4,750/oz, ruthenium at \$515/oz and rhodium moved slightly lower to \$13,550/oz.

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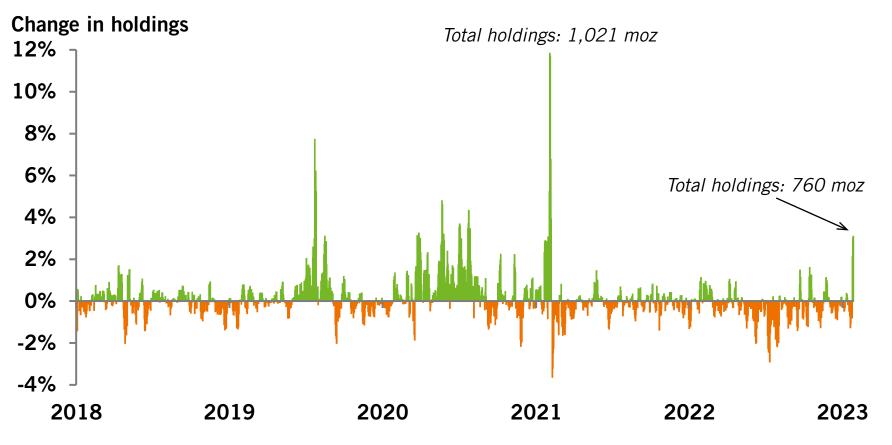
TRENDS AND INVESTMENTS

Gold price performance



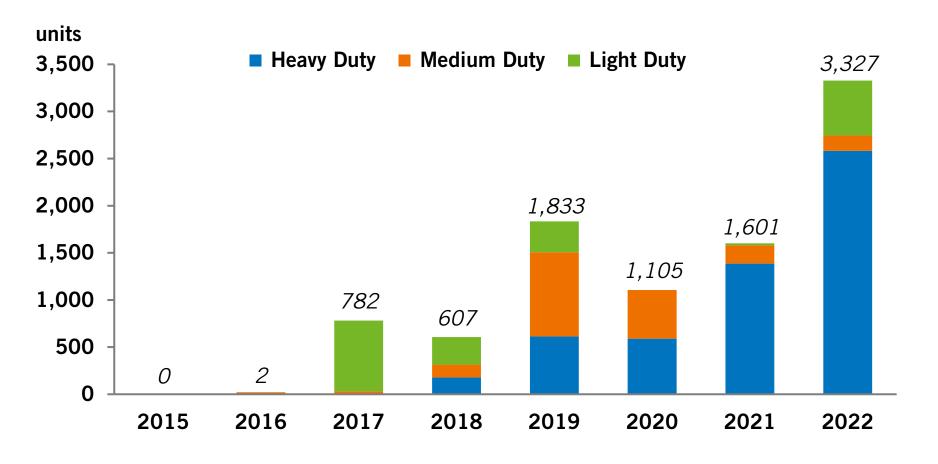
Source: SFA (Oxford), Bloomberg

Weekly changes in global silver ETF holdings



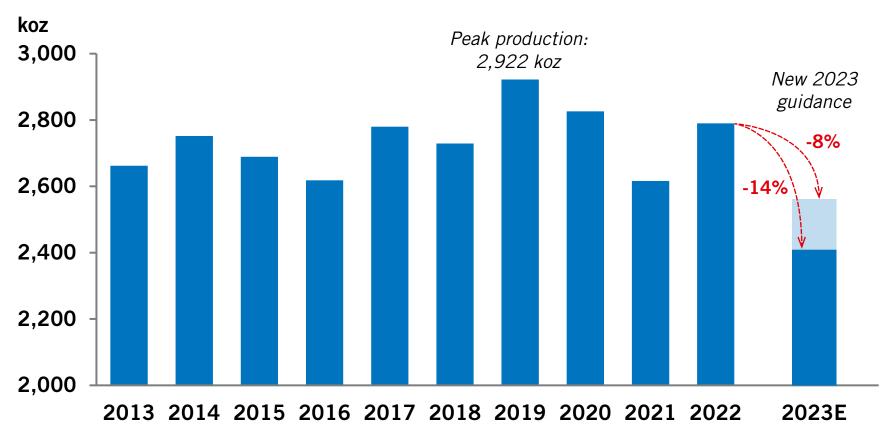
Source: SFA (Oxford), Bloomberg

China FCEV commercial vehicle production



Source: SFA (Oxford), Bloomberg. Note: FCEV = fuel cell electric vehicle

Nornickel palladium production and guidance



Source: SFA (Oxford), Nornickel

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