

PRECIOUS APPRAISAL

No. 36

14th October 2024

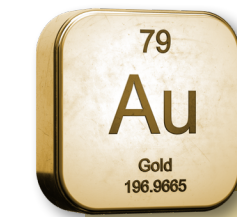
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PRECIOUS METALS REVIEW

Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	2,659	0.20%	2,660	07/10/2024	2,605	08/10/2024
€/oz	2,430	0.37%	2,430	11/10/2024	2,375	08/10/2024

Repricing of Fed rate cut path could be less supportive of gold in Q4'24.

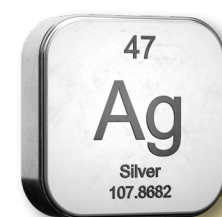
The recent bumper US payroll figures showed the addition of 254,000 new jobs in September – much higher than the consensus forecast of 140,000. This rise and the hotter than expected September CPI, along with the release of the September Fed meeting minutes showing many officials were hesitant to cut by 50 bp, have raised US bond yields across the curve and erased 25 bp of cuts from expectations of cumulative rate cuts by year-end. This is likely to be less detrimental to dollar strength than the previous path, and the dollar may now continue to firm, particularly if other central banks around the world continue to reduce interest rates, weakening their own currencies. The knock-on effect is likely to be a less-supportive environment for dollar-denominated gold. Nonetheless, despite the recent pull-back in the gold price, the yellow metal appears to be comfortably in a new trading range above \$2,500/oz, and technical indicators suggest that it could retain this level in the short term.

Gold dropped early last week but found support at \$2,605/oz as it hit the 30-day moving average. The price finished the week's trading roughly in line with the previous weekly close.

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Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	31.61	-2.69%	32.06	07/10/2024	30.12	08/10/2024
€/oz	28.89	-2.52%	30.05	07/10/2024	27.48	08/10/2024

Silver production is being held back as demand rises. Approximately 60% of mined silver production comes from base metal mining, primarily as a by-product of lead, zinc and copper. The zinc and copper concentrate markets are expected to be in a deficit this year. This is the result of a fall in mine output in zinc, and rising smelter capacity in copper as mined supply is increasing. Spot treatment charges offered by smelters to miners for the right to smelt metal concentrates have slipped into negative territory this year. This indicates a tight market for copper and zinc concentrates. Consequently, by-product silver supply could be constrained, and other areas of silver supply are suffering too. Peru’s silver production has been in steady decline since 2017, mainly as a result of the closure of primary silver mines. Annual production in 2023 of 97.8 moz was 41 moz lower than in 2017. Since the majority of primary silver supply is a by-product of other metals, it is largely inelastic to the silver price and the apparent deficit between supply and consumption. Silver demand is forecast to rise by 2% this year to 1,219 moz, while supply, net of recycling, is predicted to contract by 1% year-on-year (source: The Silver Institute). Silver demand growth is being driven by solar cell production in China and is expected to reach a third consecutive record this year.

The ‘release valve’ for the silver market when under-supplied is the large volumes of above-ground stocks that can be consumed by industry if required. Global silver bullion inventories are estimated to be around 1,230 moz, excluding consumer bars and coins (source: The Silver Institute). A sufficiently high silver price is needed to incentivise investors to liquidate physical holdings. Supply is expected to lag demand growth from energy transition demand, so a drawdown of physical stocks may become necessary. This is supportive over the long term for the silver price.

After failing to break through resistance during the previous week, the silver price fell back to \$31.61/oz.

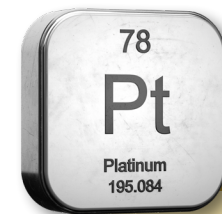
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Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	984	-1.47%	990	07/10/2024	946	09/10/2024
€/oz	898	-1.40%	902	07/10/2024	864	09/10/2024

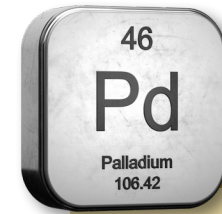
A chrome price slump could spell bad news for platinum miners. Chrome is a by-product from UG2 ores processed in South Africa, and this year it is the largest contributors to miners' revenues, behind platinum, palladium and rhodium. Chrome concentrate prices ran up to \$344/t earlier this year, which is high by historical standards. This is despite Chinese stocks of chrome ore remaining at normal levels. The chrome price has now fallen by 17% from the recent peak and could fall further if stocks remain stable, given the relatively weak outlook for Chinese steel production. If prices do fall, South African PGM operations that rely more heavily on revenue from UG2 ores and their chrome by-product credits to stay profitable would be more marginal. Given that the South African PGM basket price is now estimated to have fallen below the level of the 80th cost centile (where the top 20% highest cost ounces produced are loss-making), the reduction in by-product revenue could threaten platinum supply. Cost controls are now in place across South African PGM operations through retrenchments, overhead reductions and early closure of near end-of-life mining areas. However, the PGM basket price needs to rise to reduce the risk of larger capacity closures.

The recent rise in the net speculators' net positioning to the top of the four-year range preceded last week's 1.47% decline in the platinum price. Both the net position and the platinum price tend to peak at the same time. The positive aspect in this case is that the rise in the net position has mainly been the result of short position closing, which fell from >2 moz at the beginning of September to 904 koz as of 1 October. The long position still has room for additions, based on the historical range, which could be positive for the platinum price.

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Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,070	6.33%	1,090	11/10/2024	995	08/10/2024
€/oz	978	6.51%	996	11/10/2024	906	08/10/2024

Palladium-gold price divergence could power more electronics demand. The current gold:palladium ratio of 2.48 is near the highest it has been in 12 years, thanks to gold’s rise and the consistent decline in the palladium price. Both metals are excellent electrical conductors and are used in electronic components as contacts and connectors. Palladium is also used in multi-layer ceramic capacitors, though the importance of this sub-segment of electrical demand has diminished over time as the high palladium price has led to lower usage. In 2021 and 2022 when palladium was rallying, some was substituted out of electronic devices in favour of, at that point, cheaper gold. Where possible, manufacturers may now look to thrift gold or substitute palladium back in. This could lead to gains for electrical demand for palladium over the next 12 months. Electrical demand for palladium is expected to consume more than 500 koz. However, if the gold price remains elevated with little to no appreciation in the palladium price, additional demand could begin to flow into the sector.

The palladium price could stay above \$1,000/oz in Q4. The palladium price tends to perform well in the final quarter of the year. Over the past 10 years, palladium has appreciated by 0.62% on average in Q4, and December tends to be the standout month. The rally in September was mainly driven by short covering, but the price has now been consolidating and forming a support level above \$1,000/oz and is still >27% above the recent low in August. Tailwinds from easing monetary policy and stagnating BEV sales in Europe and the US should also be supportive over the next few months. Last week the palladium price outperformed the other precious metals, finishing the week’s trading 6.33% higher at \$1,070/oz.

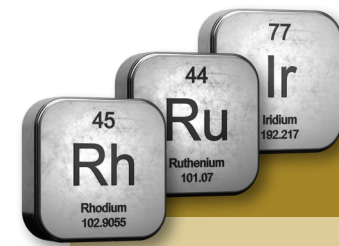
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Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$5,225/oz	\$525/oz	\$5,100/oz
Previous Edition	\$5,175/oz	\$525/oz	\$5,100/oz

Green hydrogen’s moonshot. US-based proton exchange membrane (PEM) fuel cell and electrolyser developer Infinity has delivered a prototype fuel cell unit to NASA for Earth-based testing of its zero-gravity-suitable fuel cell with the goal of using it to generate power in orbit and on the lunar surface. This application of hydrogen technology is clearly far from commercial at this stage but highlights the potential growth in PGM demand it may bring with it. At present, terrestrial demand for green hydrogen is struggling owing to its high cost relative to blue and grey hydrogen, which is stalling the development of electrolyser projects worldwide. However, market growth for PGMs in the green hydrogen sector is expected to accelerate towards the end of the decade.

Last week, the rhodium price rose slightly to \$5,225/oz while ruthenium and iridium stayed stable.

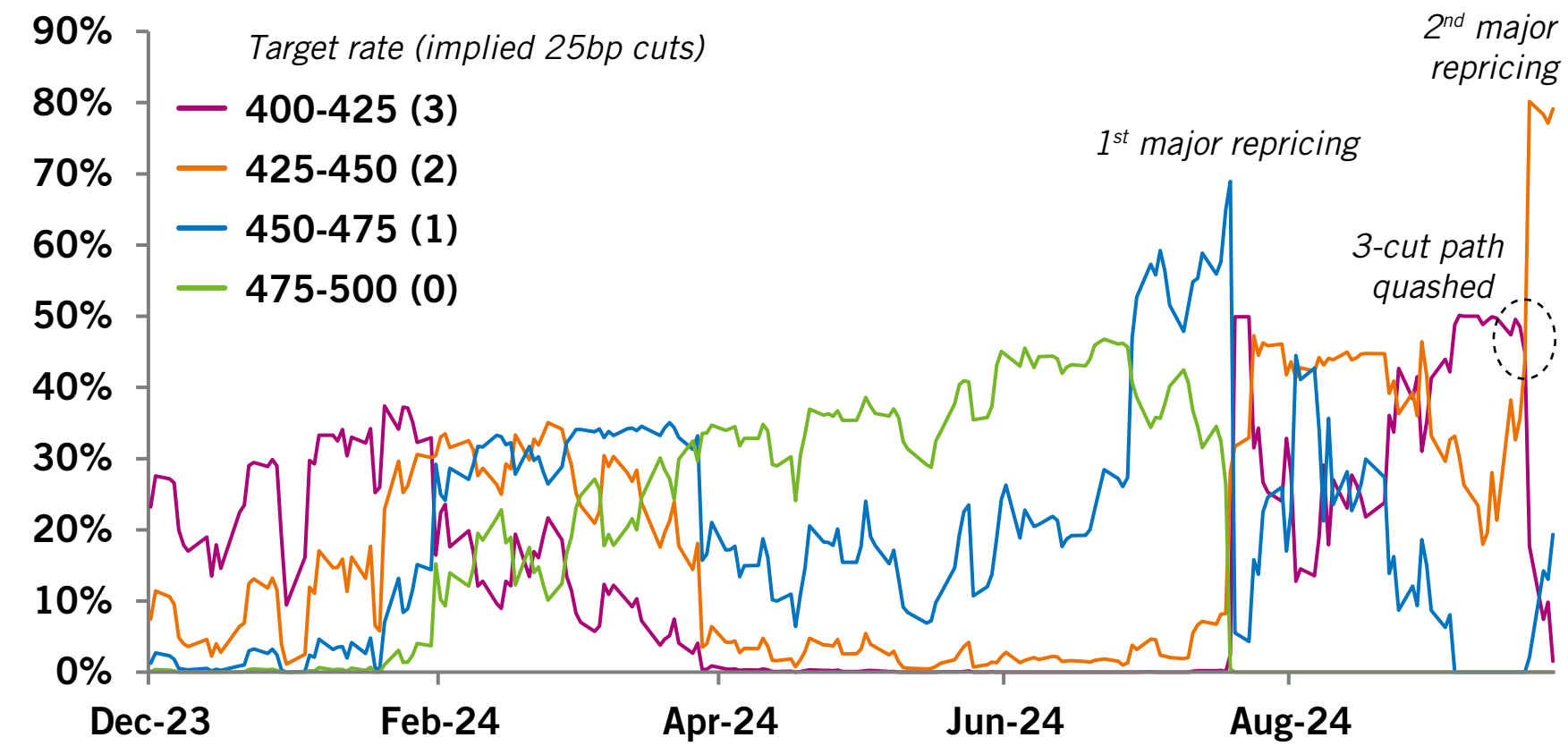
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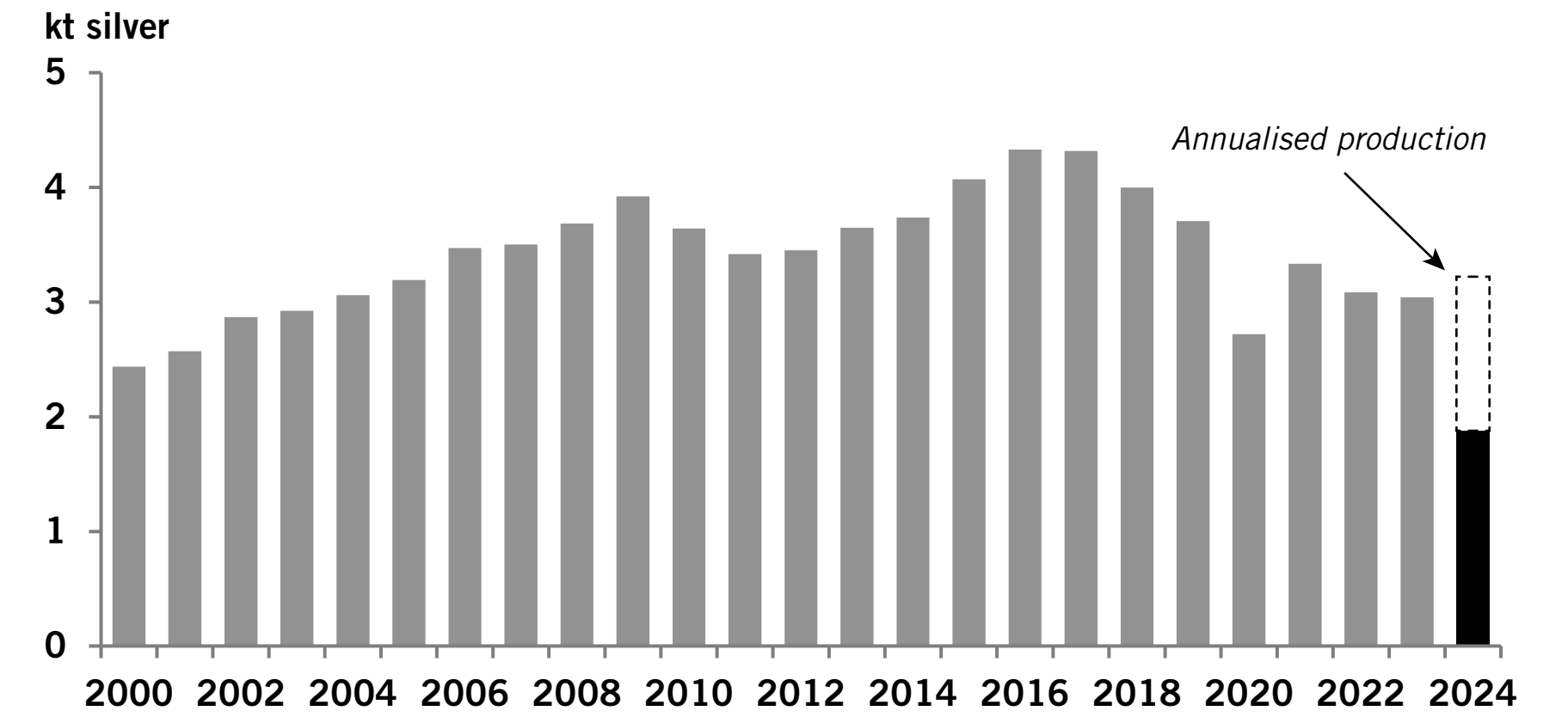
TRENDS AND INVESTMENTS

Fed Funds Rate probability for 18 Dec meeting



Source: SFA (Oxford), CME FedWatch

Peru silver production



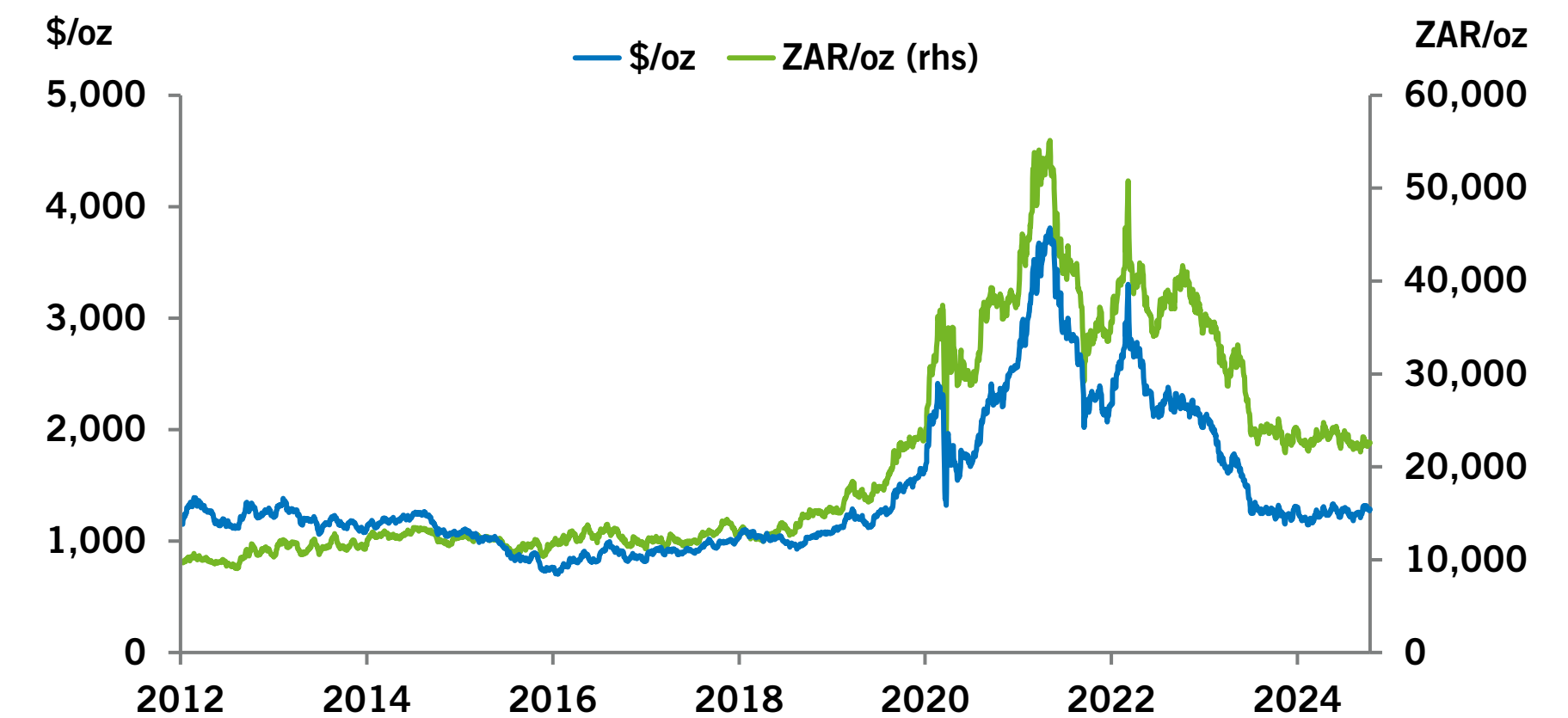
Source: SFA (Oxford), Bloomberg, Dirección de Gestión Minera

Gold:palladium ratio



Source: SFA (Oxford), Bloomberg

South Africa 4E PGM basket price



Source: SFA (Oxford), Bloomberg

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