Heraeus



18th July 2022

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MARKET SPOTLIGHT

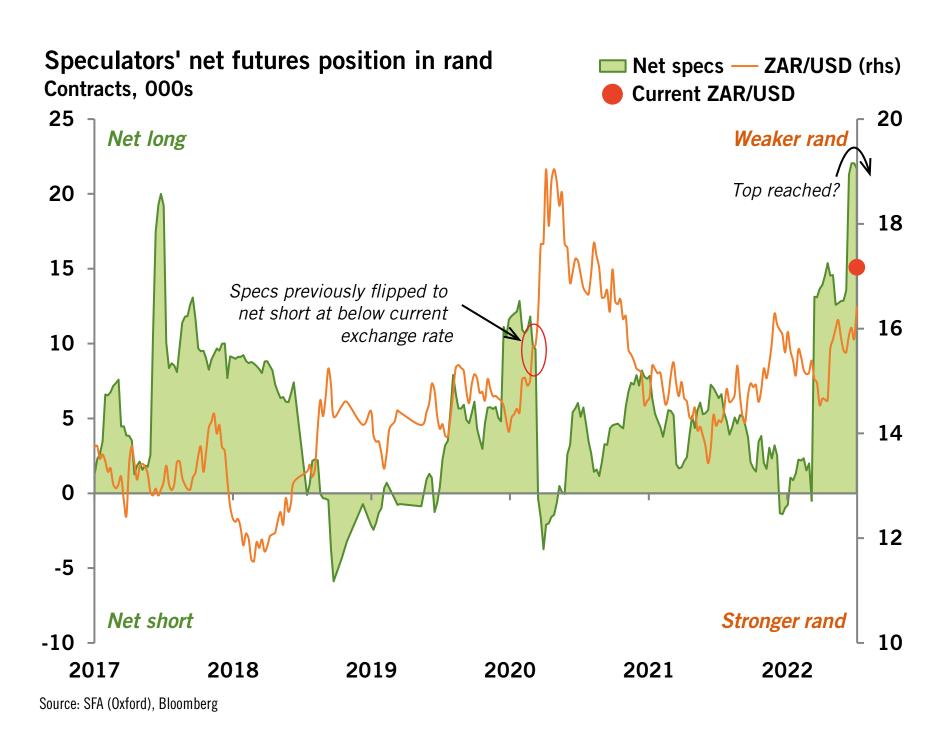
Near-term platinum price weakness may find some relief in a stronger rand

The platinum market is forecast to have a surplus of nearly 650 koz this year. Increased rollout of platinum-rich three-way catalysts combined with robust heavy-duty vehicle demand has contributed to a reduction in the surplus year-on-year. The surplus, however, is an indication of relatively weak market fundamentals for platinum. Global jewellery demand is forecast to stagnate this year, largely owing to Covid lockdowns and lower consumer spending in China. Investment has been lacklustre year-to-date, with net ETF metal outflows to the end of June at 266 koz already offsetting the inflows of 264 koz during the whole of 2021. These dynamics remove price support in the short term.

The rand is presently at a historically weak position against the US dollar. Despite posting net gains of 10% since the Covid-related sell-off in 2020, at 17.16 the rand is the weakest it has been against the dollar in almost two years. Historically, a weak rand is strongly correlated with platinum price weakness.

Foreign-exchange speculators have been betting heavily on the rand weakening further. The specs' net long position on the USDZAR currency pair reached its greatest ever volume of more than 22,000 contracts in late Q2 and may have begun a reversal. Extreme spec positioning tends to occur near the end of trends. A change in the net positioning could be a signal of a change in the direction for the rand and platinum price.

Short-term price pressure persists. Strength in the dollar is largely due to the Federal Reserve's rapid interest rate hikes along with the rising risk of recession in leading economies. It is expected that the Fed will implement another hike of at least 75 bp at the end of July. This will give further support to the dollar versus emerging market currencies such as the rand, potentially pushing the platinum price down further.



A strengthening of the rand should support the platinum price in the medium term. The current net specs' position at an extreme potentially signals the market may have already priced in a weaker South African economy, owing to Eskom's power supply struggles in addition to the Fed tightening cycle and its impacts on emerging, commodity export-driven economies such as South Africa. Therefore, the recent change in the specs' position could indicate the start of a pivot, with a reversal in the rand and platinum price following.

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PRECIOUS METALS REVIEW Gold

79	
Au	

	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,705	-2.17%	1,745	13/07/2022	1,698	14/07/2022
€/oz	1,690	-1.31%	1,741	12/07/2022	1,688	15/07/2022

Gold's appeal is tarnished by the market's expectation of the Fed's July meeting. The Federal Reserve's slow reaction to rising inflation has allowed the CPI to rise to 9.1% year-on-year in June, up for another consecutive month and now the highest since November 1981. In the lead-up to the release of this data, expectation for a repeat 75 bp interest rate hike at the end of the month was near to 100%. The market expectation is now 80% in favour of a 100 bp hike over 75 bp on 27 July. The immediate reaction in the gold price was muted, but the expectation and implementation of higher rates will keep downward pressure on the gold price. Previous rate hike cycles in 1986, 1999, 2004 and 2015 were all followed by a rise in the gold price of more than 10% over the six months from the start of the cycles. Conversely, the current cycle of reactionary and rapid interest rate hikes has so far resulted in a fall in the gold price of 11% since 16 March, mainly on the strength of the dollar, despite the still deeply negative real interest rates. On the bright side, Federal Funds Rate futures are now pricing in a sooner end to hikes versus one week ago (currently February '23, was March '23), which could give the gold price some relief if this proves to be correct and the dollar weakens.

Covid resurgence in China may hold back a consumer demand recovery.

Following the relaxation of Covid restrictions in Shanghai, the gold market had shown signs of a recovery. Withdrawals from the Shanghai Gold Exchange were up 37 tonnes month-on-month in June to 140 tonnes; this was also an increase of 6% over June 2021. The year-on-year increase is likely to be due to retailer and fabricator restocking after a period of low demand in Q2. Recently, flare-ups of Covid cases have again risen across China – last week, 11 Chinese cities were under partial or full lockdowns, affecting approximately 8% of the population (source: Nomura). The increase in cases related to the new highly transmissible BA.5 subvariant of the virus is likely to result in further lockdowns and subsequently slow economic growth. Lower growth will probably lead to lower gold consumption as the largest demand sector, jewellery (70% of total consumer gold demand), is hit by reduced consumer spending.

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PRECIOUS METALS REVIEW

Silver

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		CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
	\$/oz	18.66	-3.28%	19.41	13/07/2022	18.15	14/07/2022
	€/oz	18.49	-2.45%	19.22	13/07/2022	18.16	15/07/2022

High polysilicon prices may delay large solar projects, temporarily slowing silver PV demand. Polysilicon is an essential component of photovoltaic (PV) cells and is used for cell wafer production. Polysilicon prices have surged in recent weeks to the highest level since 2011, after growing by 288% in 2020-2021. This has been compounded by five factories shutting for planned maintenance this summer in addition to one impacted by fire, on top of continuing Covid and supply chain delays. A drop in the overall prices of solar cells has led to an increase in uptake over the last 10-15 years. In addition, a surge in countries' green energy goals in the last 24 months has resulted in demand for polysilicon rising faster than production can be expanded. Increasing raw material prices are being pushed onto consumers and are likely to impact PV demand as large projects may be delayed to ride out the price spike. This could negatively impact demand in the short term for silver paste used in the cells. PV applications accounted for 114 moz of silver in 2021 - around 10% of global silver demand. New polysilicon production capacity, due to come online later in Q3, will help to ease the market tightness, allowing PV production to meet additional demand. Installed capacity growth rate was 19% in 2021 and is likely to continue at a similar pace, while PV silver demand is also forecast to increase.

Peruvian silver production down 11.1% in May. Peru, the third-largest silver-producing nation, refined 3,309 tons of the metal in 2021, equivalent to approximately 13% of global supply. The latest data shows production is down 7% year-on-year in the first five months of 2022, and down more than 11% year-on-year in May. This was, in part, due to decreased production at numerous mines, in particular Buenaventura's Uchucchacua mine in the country's Miocene silver belt which shut down 100% of its production in Q1 to allow the mine operator to focus on underground exploration and cost management. Uchucchacua produced 1.2 moz of silver in Q1'21 and should gradually restart operations in the next 18 months. Silver production is highly geographically diversified and this reduction in Peru's domestic production will only slightly cut global output.

After falling sharply on Thursday following Wednesday's CPI data, silver closed the week down 3.3% on Friday afternoon at \$18.66/oz.

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PRECIOUS METALS REVIEW

Platinum

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			CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
		\$/oz	851	-4.98%	890	11/07/2022	830	14/07/2022
		€/oz	843	-5.85%	879	11/07/2022	830	14/07/2022

Japanese platinum bar investors are expected to have been net sellers in Q2, as for much of June the platinum price was more than ¥4,000/g, the trigger price at which selling normally occurs. During July, prices have dropped below ¥4000/g, so investment demand for physical bars in Japan would be expected to rise month-on-month and subsequently probably be higher quarter-on-quarter if platinum stays below the psychological threshold. In Q1 Japanese investors took profits as the price of platinum rose. This resulted in a net disinvestment during the period.

Commercial vehicle production in China picks up in June but is down year-on-year. Demand for PGMs in heavy-duty vehicle autocatalysts is more heavily weighted towards platinum, rather than palladium as in petroleum light vehicles. Chinese heavy-duty platinum autocatalyst demand last year totalled ~260 koz. Heavy-duty vehicle production was expected to fall in 2022, but higher average platinum loadings in line with China VI emissions regulations were predicted to more than offset this, resulting in platinum demand growing by 3%. The year-to-date dropoff in production is greater than anticipated, meaning platinum demand from heavy-duty autocatalysts may decrease in 2022, depending on the strength of the production rebound in H2.

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Palladium

46	Pd								
۹			CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE	
		\$/oz	1,841	-13.89%	2,191	11/07/2022	1,831	15/07/2022	
		€/oz	1,825	-13.12%	2,176	11/07/2022	1,819	15/07/2022	

Light-vehicle sales grow in India, demand recovers in China. India's passenger car sales rose by 19% year-on-year in June to 276,000 units on the back of improving semiconductor chip supply. Government subsidies on gasoline and diesel introduced in May are also helping to insulate consumers from price-related fuel concerns. Palladium automotive demand from India (2022F: 320 koz) is lower than Western Europe's (2022F: 1.3 moz) as India's domestic production is lower. In addition, average palladium loadings are around half as much in India due to the larger engines, on average, in European passenger cars. Automotive sales in China also bounced back by 37% month-on-month, alongside passenger car production which grew 32% to 2,240,000 units in June following severe disruption during April and May due to lockdowns in Shanghai. From 1 June, the purchase tax on new vehicles was cut by half to 5% in an attempt to boost car sales following the Covid wave. China's automotive palladium demand accounted for 27% of total global palladium demand in 2021.

Semiconductor chip lead times plateauing. Chip lead times might have peaked in May. Chronic semiconductor chip shortages have led to an estimated loss of production of 11.3 million vehicles in 2021 (source: Auto Forecast Solutions), plus more this year. An indication of easing of supply chain bottlenecks may result in less severe downgrades to light-vehicle production forecasts for the remainder of the year. Persistently low vehicle inventories in the US point to supply being the limiting factor for the lower sales seen so far this year (-18% year-to-date). However, improved chip availability and deteriorating economic conditions could mean consumer demand for new vehicles becomes the limiting factor.

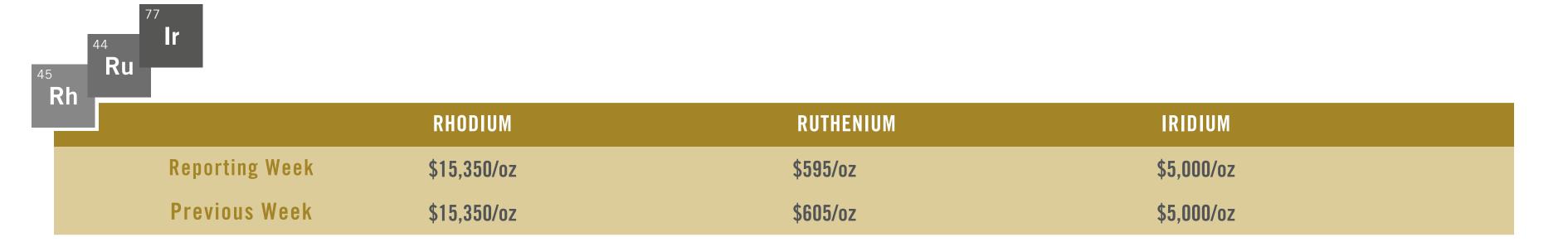
Palladium was the underperformer of the precious metals and PGMs last week. The price fell 13.9% by Friday's close making it the worst week for the palladium price since the end of November 2021.

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PRECIOUS METALS REVIEW

Rhodium, Ruthenium, Iridium



PGM demand receives a dual boost from Australian electrolyser installation. A new proton exchange membrane electrolyser that will

produce green hydrogen to fuel a fleet of fuel cell electric vehicles (FCEVs) will be Australia's largest once installed by Q3'23. The electrodes within the electrolyser stack contain iridium and platinum, while fuel cells used to power the electric vehicles use ruthenium and platinum membrane catalysts. The product ecosystem provides two demand streams for PGMs, while cutting greenhouse gas emissions. Proof of concepts such as this project are key to encouraging the rollout of green technology containing PGMs that currently accounts for only a small percentage of global iridium, ruthenium and platinum demand.

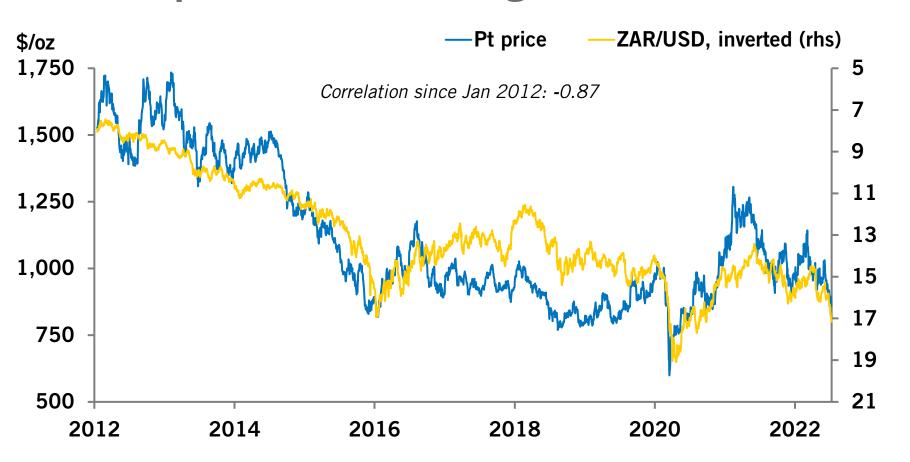
The ruthenium price slipped by \$10/oz last week, while the rhodium and iridium prices held steady.

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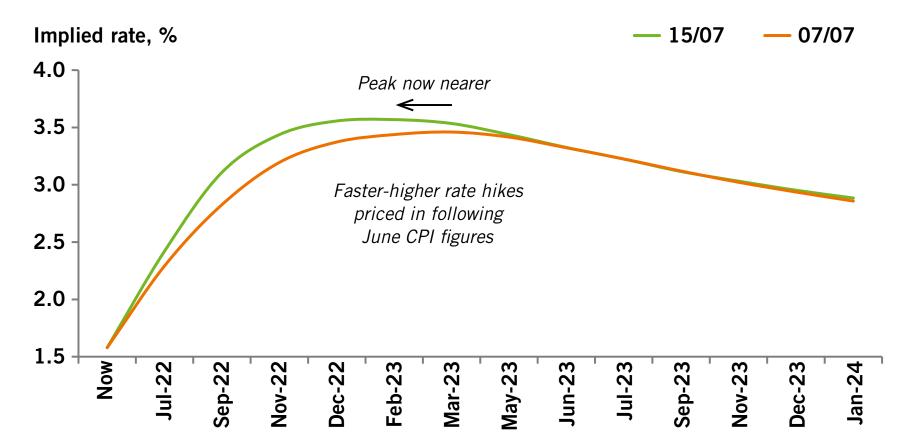
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Platinum price vs. rand strength



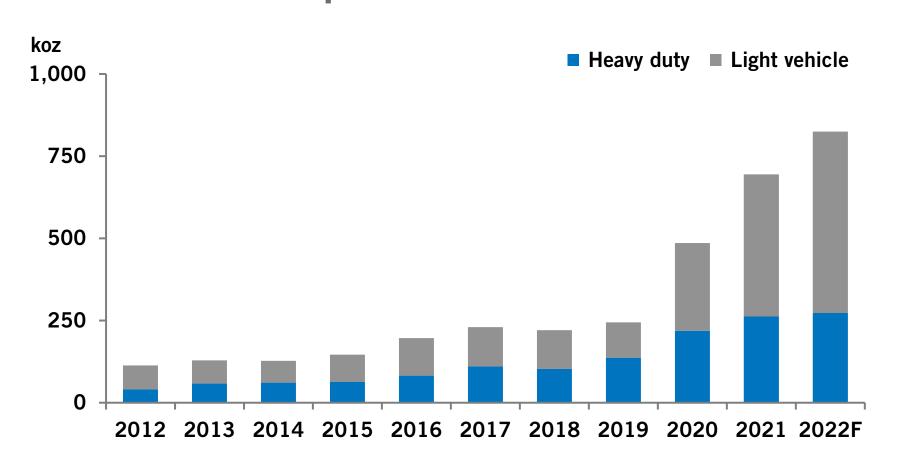
Source: SFA (Oxford), Bloomberg

Fed funds rate futures curve

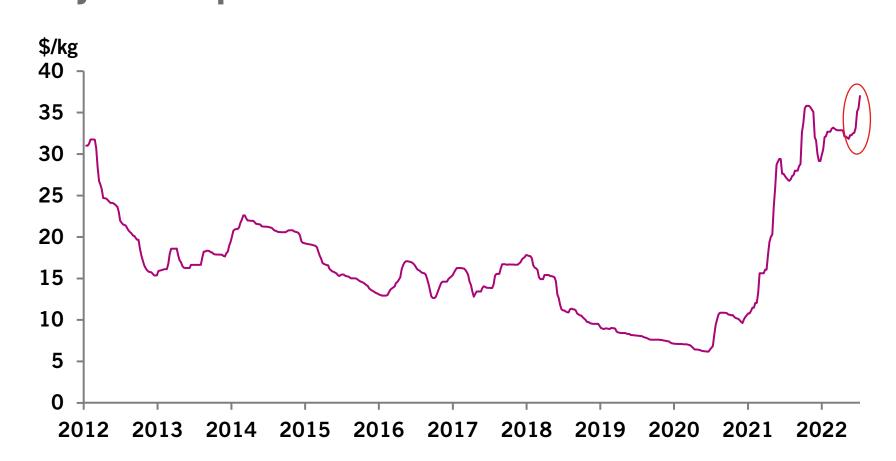


Source: SFA (Oxford), Bloomberg

China automotive platinum demand



Polysilicon price



Source: SFA (Oxford) Source: SFA (Oxford), Bloomberg

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