

PRECIOUS APPRAISAL

No. 13
25th April 2022



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MARKET SPOTLIGHT

China's zero-Covid policy is putting the brakes on the auto market

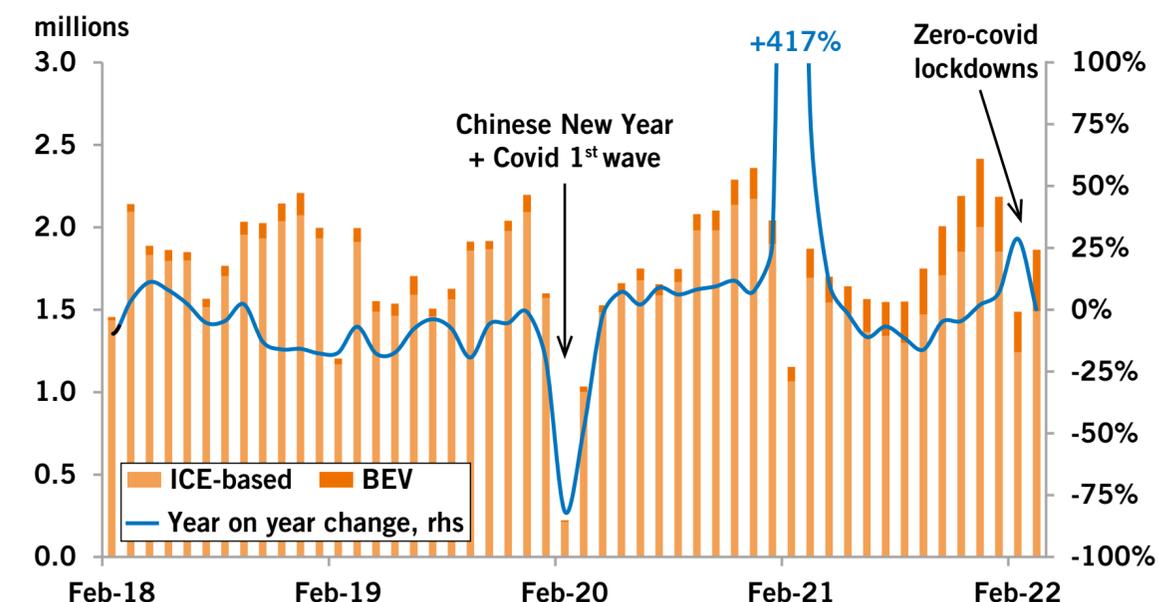
Current Covid lockdowns in China are greater in scale and potentially more impactful than in Wuhan in 2020. This year, more than 80 million people have been subject to strict lockdowns and other new restrictions under China's zero-Covid policy, compared to 70 million under lockdown at the peak of the first wave of the pandemic. Light-vehicle production dropped by 7% year-on-year in 2020, from 24.3 million to 23.3 million, while sales dropped by 2% to 25.3 million.

China is the largest light-vehicle market. The country recorded sales of 26 million units in 2021, most of which were domestically produced vehicles. The Chinese automotive market is primarily gasoline and autocatalyst demand for palladium and rhodium was 2.5 moz and 280 koz, respectively, in 2021 – each accounting for more than a quarter of global demand.

The zero-Covid policy is hitting automotive production and sales. Light-vehicle sales fell 12% year-on-year in March, potentially capturing the effect of lockdown in Shenzhen. As Shanghai entered lockdown on 1 April, any effect on demand from China's largest city will be revealed in April's numbers. Shanghai hosts 28 million people and numerous large automotive plants. The initial lockdowns are estimated to have resulted in a production loss of 300,000 light vehicles (-15%) in March (source: LMC Automotive). The downside impact for the year is forecast to total 1 million units. This will reduce 2022 production to 25 million light vehicles (-4%), reducing autocatalyst demand for palladium, platinum and rhodium by 100 koz, 18 koz and 12 koz, respectively. If subsequent lockdowns occur, continued disruption will result in the number of lost light vehicles surpassing that of 2020.

Lower automotive demand increases the downside risk for palladium and rhodium prices. Nornickel and PGMs have not been included in sanctions, but concerns over the availability of Russian metal saw the palladium price reach a record high in March and the price remains elevated. It seems unlikely that sanctions will be extended to PGMs but while that risk remains, the palladium price has some additional support. Both the palladium and rhodium markets were forecast to have small surpluses this year and reduced automotive production in China will increase the surpluses and put downward pressure on the prices.

Passenger car sales in China by drivetrain



Source: SFA (Oxford), China Automotive Information Network, Bloomberg

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PRECIOUS METALS REVIEW

Gold



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	1,939	-1.79%	1,998	18/04/2022	1,927	22/04/2022
€/oz	1,797	-1.62%	1,848	18/04/2022	1,779	21/04/2022

Rising bond yields are still not putting off gold investors. The gold price fell by \$60/oz from the intra-week high as US 10-year Treasury bond yields rose to the highest level in more than three years. Despite this, investors stayed loyal, continuing 2022's trend of adding metal into gold-backed ETFs, with overall holdings increasing by 840 koz since 11 April. Physical gold also remains popular. March was the third-best month on record for the Perth Mint's gold bullion sales. The Australian gold dealer shipped 122 koz in March which was a 68% increase on February's sales. Similarly in the US, gold American Eagle coin sales rebounded in March to 240.5 koz. Additional downward pressure on the gold price could come from central bank interest rate hikes as they battle inflation. European Central Bank hawks have broken cover, suggesting a deposit rate hike early in Q3'22 in recent days, and futures markets are now betting on a 75 basis-point hike by the end of the year. However, that would still leave real interest rates firmly negative, keeping gold attractive.

Gold demand in China suffered from the fallout of the zero-Covid strategy in March. Gold withdrawals from the SGE totalled 104 tonnes in March. This was 12% higher than in February, which was impacted by the Chinese New Year, but 38% lower year-on-year. This large fall year-on-year reflects impacts on wholesale demand due to lockdown measures in Shenzhen. Shenzhen is China's gold jewellery fabrication hub – over 70% of jewellery sold in China is made in Shenzhen. April trading at the SGE is likely to be lower still as a result of Shanghai's strict lockdown this month. The Chinese market is the largest for gold jewellery, soaking up 22.5 moz in 2021, a rise of 62% over 2020 as Covid impacts abated. Jewellery demand was expected to continue to grow by an additional 12% in Q1 but will now struggle, as household incomes are curbed in cities under lockdown and economic growth slows.

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Silver



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	24.28	-4.35%	26.22	18/04/2022	24.05	22/04/2022
€/oz	22.51	-4.65%	24.25	18/04/2022	22.26	22/04/2022

Global demand growth to outpace mine supply in 2022. Mine supply of silver is forecast to climb by a moderate 3% in 2022 and recycled supply by 4%, taking the total forecast supply to just over 1 billion ounces (source: The Silver Institute). Demand is predicted to grow by 5% to 1.1 billion ounces, putting the market in a relatively small deficit for the second year in a row. Demand growth is driven primarily by industrial and jewellery/silverware demand, the latter mainly from India. Jewellery fabrication in India jumped by 45% in 2021 to 59 moz and is forecast to grow by a further 30% to approximately 77 moz this year, while global demand increases by 11% to a total of 202 moz. Industrial demand is

the largest section of the market, predicted to reach 524 moz in 2022 (+6% year-on-year), with growth underpinned by a post-Covid economic recovery and increasing use in the green economy – particularly in solar cells. At the start of the year, it was expected that silver would outperform gold as both metals' prices were predicted to rally in 2022. Although both metals' prices are up year-to-date, silver has not performed as strongly as anticipated. Growing supply and waning geopolitical risks combined with hawkish action from central banks could be headwinds for the silver price in H2'22.

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Platinum



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	937	-5.64%	1,026	19/04/2022	932	22/04/2022
€/oz	868	-5.46%	952	19/04/2022	864	22/04/2022

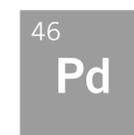
South African platinum production underperformed in Q1. Refined platinum production from Anglo Platinum’s own-managed operations fell by 27% to 334 koz (-124 koz) in the first three months of the year, compared to the same period in 2021. This shortfall was attributed to heavy rains which forced mining at Mogalakwena to move to lower grade areas. Additionally, there was a more normalised smelter throughput compared to Q1’21 which benefitted from processing of work-in-progress stock that had built up during the Anglo Converter Plant shutdown. Refined production guidance is being cut from approximately 2.5-2.8 moz to 2.4-2.6 moz Pt in anticipation of further impacts from Eskom load-shedding and Covid-19 related disruptions. The first quarter is typically the least productive quarter of the year. However, refined production guidance being cut for the year comes as a result of planned maintenance at a smelter and concentrator in Q3’22, limiting the company’s ability to make up the deficit in 2022. The platinum market will continue to be oversupplied with metal for the year given this revision as it represents just a 3% reduction in South African supply – forecast to be around 4.6 moz in 2022. It may, however, bring the projected surplus under 1 moz (ex. investment). The platinum price pushed above \$1,000/oz but failed to stay there, ending the week down 5.6%, and may continue to struggle in what is typically a seasonally weak period.

Load-shedding and miners’ strikes pose potential threats to platinum mine supply. Unplanned breakdowns in South Africa’s power plants reached over 17,000 MW during the Easter weekend, causing stage 2 load-shedding to be implemented on Sunday afternoon, followed by stage 4 later last week. If the situation worsens then mine output could be impacted. In 2019, stage 6 load-shedding caused some lost production. Platinum miners’ pay negotiations are also approaching for Anglo, Impala and Sibanye-Stillwater. The unions currently striking at Sibanye-Stillwater’s gold operations are also those that will be negotiating for the platinum miners. Strikes have typically lasted a few weeks, although in 2014 the strike lasted for five months.

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Palladium



	CLOSE	WEEKLY CHANGE	HIGH	DATE	LOW	DATE
\$/oz	2,394	0.85%	2,493	21/04/2022	2,352	19/04/2022
€/oz	2,219	1.03%	2,291	18/04/2022	2,181	19/04/2022

More of the Russian auto industry is shutting down. Non-Russian automakers have continued idling and closing plants across the country. Renault recently announced an indefinite cessation of own-brand car production in the country. Last week, Stellantis closed an 11,000 unit p.a. plant it co-runs with Mitsubishi producing light commercial vehicles in Russia, as some of the last plants to continue running are shut – mostly due to parts shortages. This will further reduce the supply of vehicles from the country and lower its palladium demand. On the automotive demand side, Russian new car sales fell by 63% in March, following the path of the EU which saw sales contract for the ninth straight month as the war in Ukraine added to supply chain problems. Production of 1.5 million light vehicles was expected in Russia this year but far fewer will be produced, with a potential loss of 50 koz of palladium demand.

Price volatility has eased since the LPPM announced the removal of two Russian refiners from its Good Delivery List. In the US, the CME Group followed suit for NYMEX. Since the announcement, palladium has been trading at an average price of \$2,390/oz, about 6% higher than the week before the announcement.

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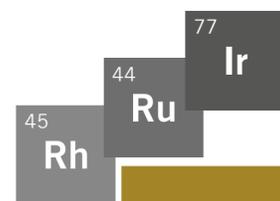
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Rhodium, Ruthenium, Iridium



	RHODIUM	RUTHENIUM	IRIDIUM
Reporting Week	\$19,950/oz	\$695/oz	\$5,750/oz
Previous Week	\$20,450/oz	\$695/oz	\$5,750/oz

Ruthenium demand to be sustained by mass data storage in the medium term. Demand for ruthenium sputtering targets for hard disk fabrication from Japanese fabricator Furuya saw strong growth in H2'21 compared to the same period in 2020. Digital storage demand and investment in data centres providing long-term, high-volume storage options are on the rise. Although ruthenium-based components are seeing a decline in market share, the expanding market still results in significant metal demand – ~300 koz or about a third of total global demand. Furuya's iridium crucible orders for the period reportedly remained strong despite historically high prices, while large-sized iridium product sales slipped. Iridium crucibles are used in the production of surface acoustic wave filters – a key component in smartphones – and account for ~25% of the ~300 koz market.

Since the start of the year global smartphone shipments have stalled, falling 11% year on year in Q1. The Chinese market was worst hit, seeing a 32% decline (-8 million units) in shipments year on year in February. This contraction of smartphones sales is likely to continue into the current quarter and could ultimately result in iridium crucible demand being lower than anticipated.

The rhodium price slipped back last week to \$19,950/oz, whereas the ruthenium and iridium prices both held steady for another week.

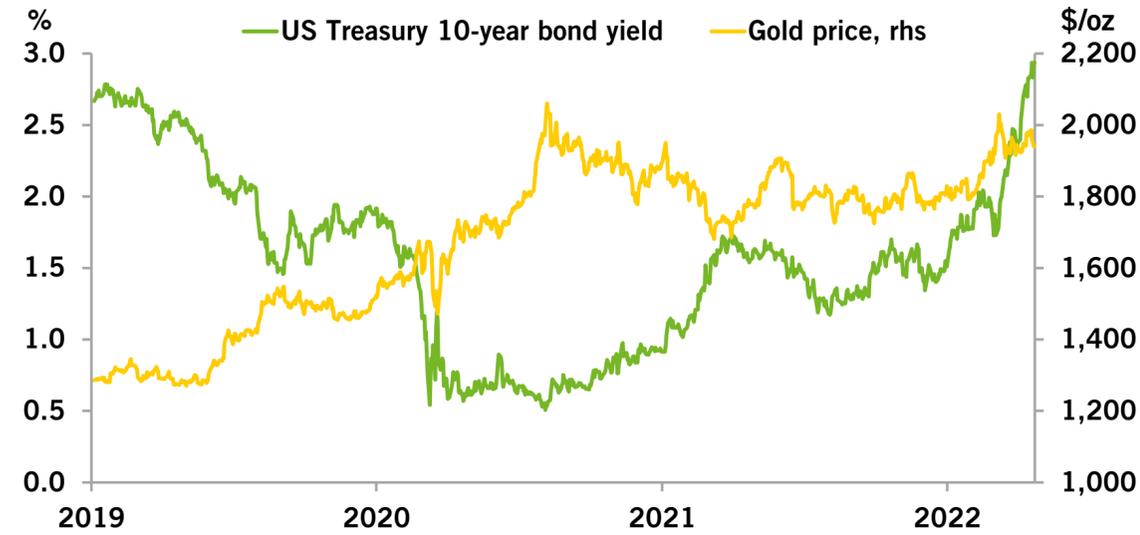
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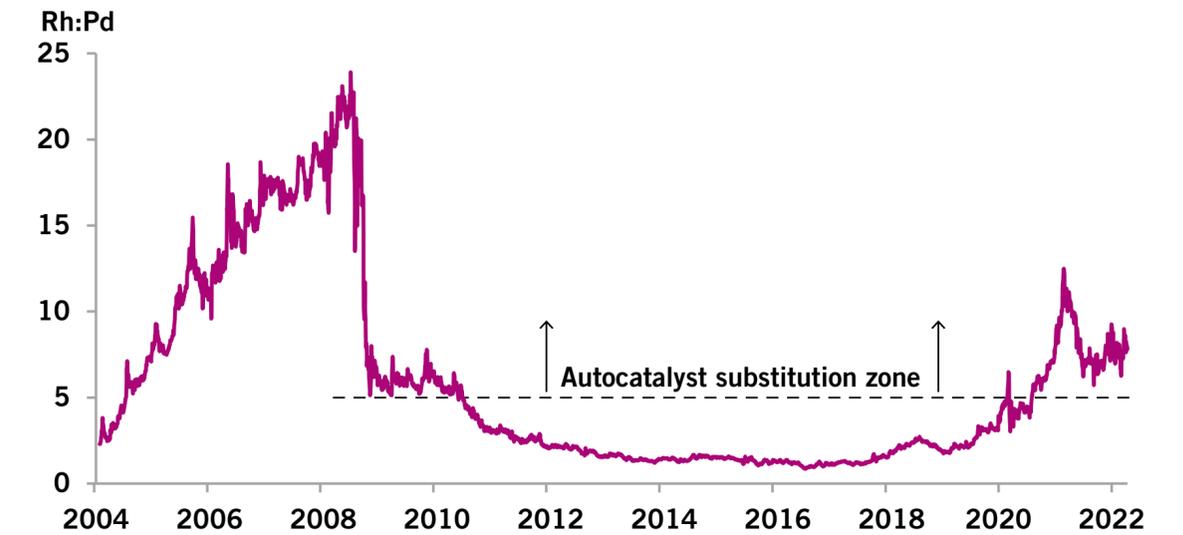
TRENDS AND INVESTMENTS

Gold price vs US Treasury 10-year bond yield



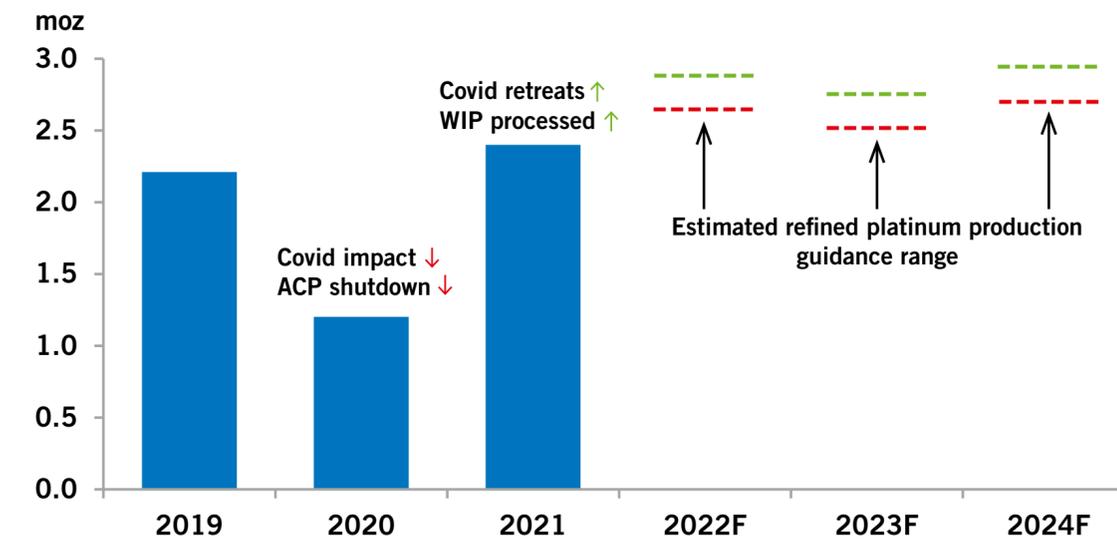
Source: SFA (Oxford), Bloomberg

Rhodium-palladium ratio



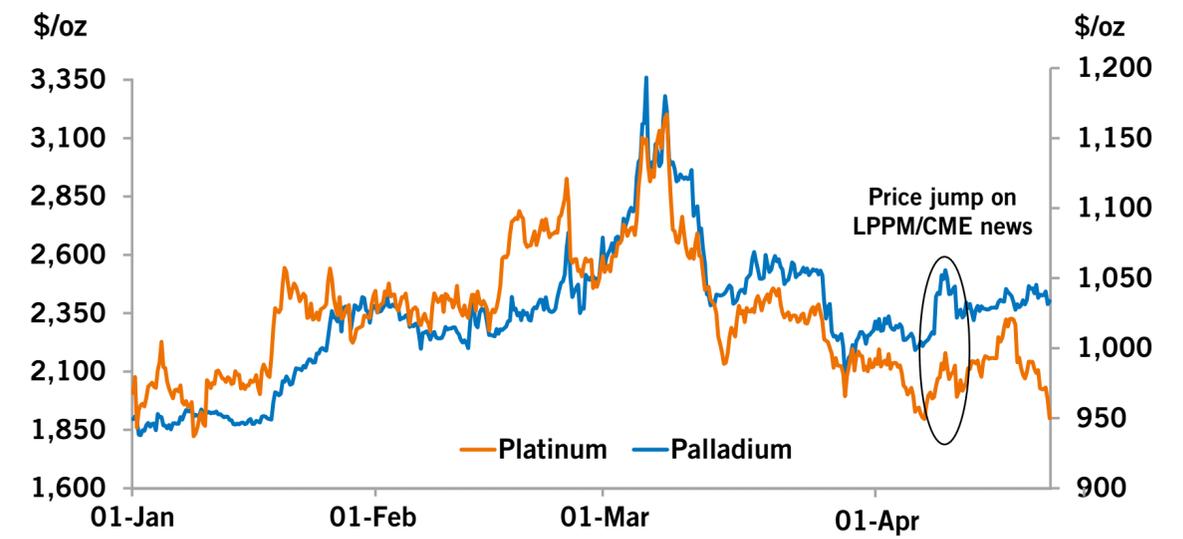
Source: SFA (Oxford), Bloomberg

Amplats' refined platinum output



Source: SFA (Oxford), Anglo American Platinum. Note: refined production includes mined material plus purchases of concentrate.

Platinum vs palladium price



Source: SFA (Oxford), Bloomberg

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