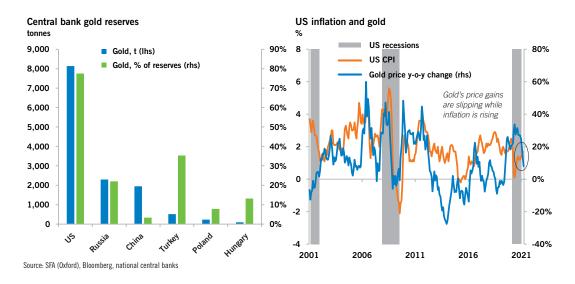


Some central banks are concerned about inflation, but not the Fed

Federal Reserve Chairman Jay Powell thinks higher inflation will be transitory. Unfortunately, his predecessors at the Fed said the same thing about low inflation and that proved to be very long lasting. Other central banks are not so sure. Hungary's central bank recently announced the purchase of 63 tonnes of gold which tripled its gold holdings. One reason given for the purchase was to hedge inflation risks.

Central bank gold purchases turned net positive for the year in March, with Hungary's large gold purchase, after some sales in January. The head of the Polish central bank has also said that the bank should add 100 tonnes of gold over the next few years to lift gold's share of reserves to 20% from around 8% currently.

Gold purchases by central banks in 2020 were much lower than in 2019 and coincided with a sharp drop in jewellery demand and lower technology requirements too. Previously, large central bank purchasers have either stopped buying (Russia, China) or turned sellers (Turkey). Central bank gold buying is likely to remain intermittent without these systematic purchasers and add only moderately to overall gold demand. Gold demand fell 14% last year (source: World Gold Council) as gains in investment demand were unable to offset the other declines. However, that still enabled the gold price to gain 24% during the year.



For gold investors the question is: which will be more important, bond yields or inflation? Changes in the gold price have been well correlated with movements in bond yields; lower bond yields have been accompanied by higher gold prices. With bond yields rising this year, the gold price has fallen. Higher inflation should mean higher bond yields and therefore lower gold prices, but the gold price has been correlated with inflation in the past. That means that if inflation continues to be a concern, the gold price needs to break its connection to bond yields and follow inflation higher.

PRECIOUS METALS REVIEW

⁷⁹ **Au**

Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,767	-0.52%	1,790	29/04/2021	1,756	29/04/2021
€/oz	1,469	-0.21%	1,478	27/04/2021	1,451	29/04/2021

Gold jewellery demand recovered well in Q1'21 after a weak 2020 but remains low compared to historical levels, at 6% below the five-year quarterly average of 505.9 tonnes (source: World Gold Council). Total demand from jewellery fabrication was 477.4 tonnes in Q1'21, a 52% gain from a Covid-hit Q1'20. Growth was led by China at 191.1 tonnes (+212% year-on-year), the highest quarterly total since 2015, aided by the country's strong economic recovery in the wake of the pandemic, a declining gold price and festival purchasing. While Q2 is a seasonally low period for gold jewellery demand in China, sales are expected to be supported by the longer International Day holiday in May and postponed wedding demand from

last year. Indian demand in Q1'21 (102.5 tonnes) also improved year-on-year (+39%) but at a slower rate than China. The ongoing Covid situation in India is expected to seriously impact demand moving into Q2'21. Together, China and India accounted for 52% of total gold jewellery consumption last year. An uncertain outlook for India means global demand is likely to fall below historical levels again this year but improve from the total in 2020 (1,400 tonnes). The gold price rose once the Fed meeting minutes were released but subsequently gave back those gains and ended the week slightly lower. Further upside is anticipated but more strength will be needed to break gold out of its trading range.

47 **Ag**

Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	25.92	-0.33%	26.48	29/04/2021	25.72	29/04/2021
€/oz	21.55	-0.01%	21.89	27/04/2021	21.25	29/04/2021

Global silver mine production is estimated to reach a four-year high of 848.5 moz in 2021, according to The Silver Institute's latest World Silver Survey. A year-on-year increase of 8.2% would take silver mine supply to the highest level since 2017 (862.9 moz). Output is expected to be boosted by the ramp-up of several new projects in Mexico this year, in addition to producers returning to full operating capacity. While the high silver price is unlikely to be directly incentivising increased output from miners (the majority of silver is mined as a

by-product of gold or base metals), recycling volumes are projected to reach a nine-year high of 196.2 moz this year owing to the favourable selling environment. Despite the anticipated growth in supply, healthy demand from industrial users is forecast to see the market surplus (excluding ETFs) decline to 23.3 moz this year, down from 80.1 moz in 2020 (source: The Silver Institute). Silver's price action was lacklustre last week and further sideways trading could be in store in the near term.

78 **Pt**

Platinum

		Close	Weekly change	High	Date	Low	Date
\$	oz/	1,203	-2.33%	1,258	27/04/2021	1,178	29/04/2021
€	oz/	1,000	-2.02%	1,041	27/04/2021	975	29/04/2021

R&D targets new technology for hydrogen storage and fuelling. A major PGM producer and a fabricator are collaborating to develop liquid organic hydrogen carrier (LOHC) applications using PGM-based catalysts on fuel cell electric vehicles as an alternative to compressed hydrogen. Using an LOHC means hydrogen can be handled in a similar way to gasoline and use existing infrastructure. The difficulty surrounding the transport and storage of compressed hydrogen is currently a barrier to the widespread uptake of hydrogen for transportation. It is unclear at this stage how much PGM demand

will be generated directly from the technology but, if successful, will support the expansion of the hydrogen economy. This, in turn, will translate into increased demand for platinum in PEM fuel cells and electrolysers. Over the next few years, hydrogen-related applications are expected to contribute the most demand growth for platinum of any industrial sector, increasing by $\sim\!17\%$ on average each year out to 2025 from a low base. Platinum could continue to trade broadly sideways as it is still consolidating after last year's strong rally.



Pd Palladium

	Close	Weekly change	High	Date	Low	Date
\$/oz	2,976	3.97%	3,011	30/04/2021	2,866	26/04/2021
€/oz	2,474	4.29%	2,484	30/04/2021	2,377	26/04/2021

Escalating chip shortage starts to impact full-year vehicle production. Automakers are expanding and extending production cuts owing to the shortage of key semiconductor components, which could reduce palladium autocatalyst demand by several tens of thousands of ounces this year, depending on which models are affected. Ford, one of the world's largest automakers, will produce 1.1 million fewer vehicles in 2021. Earlier in the year, it was anticipated that the shortage would be temporary while supply chains adjust, and manufacturers would be able to recoup lost production later in the year. The trough is now forecast to be in Q2, and Ford has revised down its production for that period by 50%. Chip supply is expected to

remain tight all year and constraints could extend into 2022. The shortage became apparent last year, when semiconductor makers had allocated more capacity to the electronics sector while car production idled during the pandemic. When auto demand rebounded more strongly than anticipated, chip suppliers were unable to meet the orders. The auto industry is palladium's largest demand sector, accounting for 7.3 moz last year. The demand impact appears to be relatively small compared with the lost production from Nornickel's mine flooding incident and the market is still expected to have a sizeable deficit this year. The palladium price moved up to a new high last week, trading above \$3,000/oz for the first time on record.

Rhodium, Ruthenium, Iridium

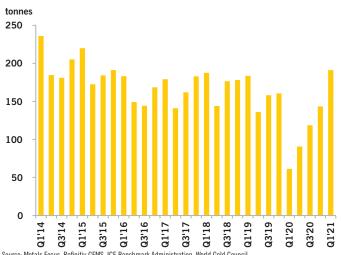
Reporting week \$30,800/oz \$485/oz \$6,750/oz

Previous week \$29,900/oz \$465/oz \$6,750/oz

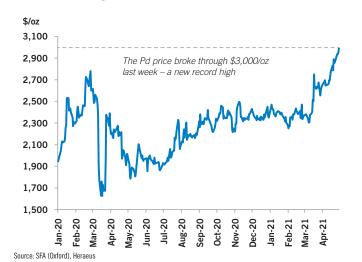
High Rh:Pt price ratio risks further substitution in the glass industry. Rhodium usage in the glass industry contracted by 44% to around 28 koz last year. This was partly due to a price-induced reduction in the amount of rhodium in the platinum:rhodium alloy used for glass-fibre bushings. The impact of the pandemic also reduced glass production which, along with slower expansion of fabrication capacity in certain regions, cut metal requirements. The very high rhodium-platinum price ratio

(25:1) far exceeds the threshold at which fabricators begin to switch to equipment with lower rhodium content. It is likely that manufacturers will look at the potential for even further substitution. However, an alloy with lower rhodium content would reduce the equipment's durability, so the extent to which rhodium can be substituted with platinum is limited. The rhodium and ruthenium prices moved higher last week (+3% and +4.3% respectively), while iridium remained unchanged.

China gold jewellery demand



Palladium price



Heraeus Precious Metals

Europe, Middle East, Africa & other regions Phone: +49 6181 35 2750 edelmetallhandel@heraeus.com

South East Asia Phone: +852 2773 1733 tradinghk@heraeus.com

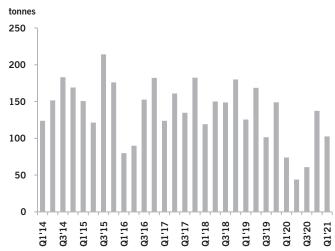
www.herae.us/trading-market-report

DISCLAIMED

This document is being supplied to the recipient only, on the basis that the recipient is reasonably believed to be a professional market participant in the precious metals market. It is directed exclusively at entrepreneurs and especially not intended for the use of consumers. The material contained in this document has no regard to the specific investment objectives, financial situation or particular need of any specific recipient or organisation. It is not provided as part of a contractual relationship. It is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment or as advice on the merits of making any investment. This report has been compiled using information obtained from sources that Heraeus and SFA (Oxford) Ltd ("SFA") believe to be reliable but which they have not independently verified. Further, the analysis and opinions set out in this document, including any forward-looking statements, constitute a judgment as of the date of the document and are subject to change without notice.

There is no assurance that any forward-looking statements will materialize. Therefore,

India gold jewellery demand



Source: Metals Focus, Refinitiv GFMS, ICE Benchmark Administration, World Gold Council

Rhodium:platinum price ratio



Source: SFA (Oxford), Heraeus

United States of America Phone: +1 212 752 2180

Phone: +86 21 3357 5658

tradingny@heraeus.com

tradingsh@heraeus.com

China

The **HERAEUS PRECIOUS** APPRAISAL produced in collaboration with:

SFA (Oxford) Ltd United Kingdom Phone: +44 1865 784366 www.sfa-oxford.com



The Oxford Science Park, Oxford, United Kingdom, OX4 4GA

neither SFA nor Heraeus warrants the accuracy and completeness of the data and analysis contained in this document. Heraeus and SFA assume no liability for any losses or damages of whatsoever kind, resulting from whatever cause, through the use of or reliance on any information contained in this document. However, in so far as a liability claim exists under German law, Heraeus and SFA shall have unlimited liability for willful or grossly negligent breach of duty. Unless expressly permitted by law, no part of this document may be reproduced or distributed in any manner without written permission of Heraeus. Heraeus specifically prohibits the redistribution of this document, via the internet or otherwise, to non-professional or private investors and neither Heraeus nor SFA accepts any liability whatsoever for the actions of third parties in reliance on this document.

Prices quoted are interbank (ofter) prices for gold, silver, platinum and palladium. Rhodium, ruthenium and iridium quotes reflect the Heraeus offer price at the time of writing