

Coronavirus lifts safe-haven demand, but hits PGMs

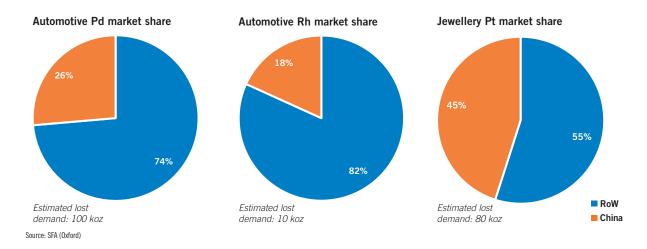
Disruption associated with the outbreak of the novel coronavirus COVID-19 in China will impact precious metal demand across a range of end-uses, including cars and auto parts, electronics and jewellery.

Wuhan, the city at the heart of the outbreak, is a major Chinese automotive hub. The region is home to many car manufacturing plants which have been impacted by government-mandated shutdowns over the past two weeks, including Dongfeng Motor Group, one of the largest joint-venture automakers in China. Plants in nearby provinces and countries have also been affected, with difficulty sourcing Chinese components.

Shutdowns and supply chain bottlenecks could lead to 1.7 million fewer cars being produced in China this quarter (source: IHS Markit). This marks a 27% decline year-on-year. China is the largest automaker in the world, with 21.4 million passenger car units sold in 2019 (source: CAAM), accounting for more than 20% of global palladium demand. Downtime is expected to recoup throughout the year, but auto production is estimated to fall as much as 5% this year, by around 800,000 units (source: China Passenger Car Association). This equates to around 100 koz of palladium and 10 koz of rhodium, which, while not enough to shift the markets into surplus, could alter buying patterns and cause more volatile price movements in the short term.

Gold and platinum jewellery sales will decline sharply in Q1. Many jewellery stores and fabricators in China are closed, but even once restrictions are lifted, many consumers will be reluctant to enter public places such as shopping malls. Initial estimates indicate that jewellery retail sales in China will fall by 50% in the first two months of 2020, **which could reduce platinum jewellery demand by around 80 koz, and gold jewellery by around 1.9 moz.**

However, outside of China, gold is supported by safe-haven demand. Gold ETF holdings have increased by 1.9 moz since the start of the year.



The full impact on demand will not be clear until production resumes. Capacity utilisation rates across most industries are likely to remain low until March at the earliest, with logistical bottlenecks causing further delays. Damaged consumer confidence will continue to impact demand for several months after the virus is contained.

PRECIOUS METALS REVIEW

⁷⁹ **Au**

Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,582	0.87%	1,583	14/02/2020	1,562	12/02/2020
€/oz	1,459	1.90%	1,459	14/02/2020	1,430	12/02/2020

Gold is holding up on continued safe-haven interest and the price is expected to trade sideways to higher. The US yield curve inverted again, and bond yields have been falling as expectations for economic growth have been reined in. This suggests that another rate cut from the Federal Reserve is possible. The interest rate futures market predicts a 44% chance of at least one cut by the June meeting and an 83% chance by December. More monetary easing should be positive for gold.

A high gold price is curbing demand in India. Gold imports into India are reported to have fallen by 48% year-on-year to 36 t in January as local prices held near record highs. India was the second-largest jewellery market in 2019 at 545 t, but demand was down 9% compared to 2018 (source: World Gold Council) as a result of a combination of high prices and weaker consumer spending owing to the economic slowdown. It appears that weak demand has carried into 2020, so jewellery purchases could remain subdued for some time.



	Close	Weekly change	High	Date	Low	Date
\$/oz	17.75	0.34%	17.84	10/02/2020	17.45	12/02/2020
€/oz	16.37	1.36%	16.39	14/02/2020	16.01	12/02/2020

The photovoltaic silver outlook is hazy. Overall silver demand for PV cells and modules is expected to increase this year as a result of cheaper module prices and government support for cleaner energy. However, thrifting will cause silver loadings per cell to decrease and overall silver consumption will be further affected if production falls short of expectations. The China Photovoltaic Industry Association expects the impact of the coronavirus on the domestic PV industry to extend until the third quarter of 2020, which, as the largest solar cell

manufacturing country in the world, will have implications for silver demand this year. Chinese demand accounted for more than 30 moz of silver in 2018, around 38% of global PV requirements.

Silver ETF holdings and speculative futures positions have risen, but this has not helped the silver price which is still modestly underperforming gold. This has moved the gold:silver ratio up to 89.

Pt Platinum

Į		Close	Weekly change	High	Date	Low	Date
	\$/oz	966	0.14%	977	14/02/2020	954	10/02/2020
	€/oz	891	1.12%	901	14/02/2020	873	10/02/2020

India's young generation will drive platinum demand, according to a report by Platinum Guild International. The Indian market is the fastest-growing platinum jewellery market globally, estimated to have grown by 6% last year or nearly 12 koz. India's large young demographic is predicted to accelerate this growth over the next few years, representing a shift from traditional values (and traditional gold jewellery demand) to a more contemporary

outlook (and platinum pieces). India's platinum jewellery market represents 10% of global jewellery demand at around 200 koz. However, the market will continue to face significant headwinds from the country's slowing economy this year, and the overall weak fundamental outlook for platinum means the price is expected to continue to decline in 2020.



Pd Palladium

Rh'

	Close	Weekly change	High	Date	Low	Date
\$/oz	2,420	4.85%	2,461	14/02/2020	2,307	11/02/2020
€/oz	2,237	6.18%	2,272	14/02/2020	2,120	11/02/2020

China's auto market crashed in January. Chinese car sales are estimated to have dropped by 18% year-on-year in January, impacted by fewer selling days due to the early Lunar New Year holiday and the initial impact of the coronavirus outbreak. February's results are expected to be even worse, with at least two weeks of sales removed from figures as a result of restrictions and shutdowns across China due to the coronavirus. Whether purchases will be delayed or are lost entirely remains to be seen. Unofficial reports suggest that purchases are still being made online, with deliveries being postponed until mid-year, but full-year sales figures will undoubtedly be affected. Even with these problems, the palladium

market is still projected to have a substantial deficit this year owing to increasing autocatalyst loadings in several regions, and this is expected to keep the price trading at a high level.

Nornickel's palladium production was 7% higher in 2019 but is likely to decline in 2020. Nornickel produced 2,729 koz of palladium last year. However, smelter maintenance is expected to reduce palladium production by up to 2.5% this year, with a forecast production of 83-85 t (2,660-2,735 koz). Nornickel is the largest palladium producer in the world, contributing 38% to global mine supply.

Rhodium, Ruthenium, Iridium

 Rhodium
 Ruthenium
 Iridium

 Reporting week
 \$11,550/oz
 \$260/oz
 \$1,520/oz

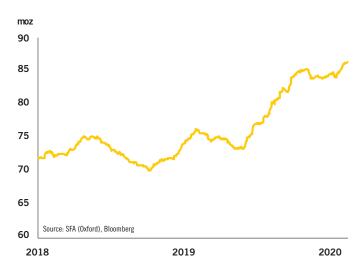
 Previous week
 \$10,850/oz
 \$260/oz
 \$1,520/oz

There are potential headwinds for ruthenium demand from the effects of the coronavirus, with Chinese electrical manufacturing accounting for 10% (around 110 koz) of global demand for the metal. Several semiconductor, chip and smartphone companies with factories in Wuhan or the greater Hubei Province have suspended production or are facing shortages of parts.

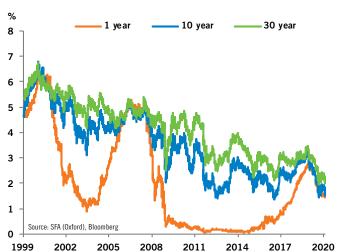
Projections for global smartphone sales for Q1 have been revised down by 12% (source: TrendForce).

The rhodium price broke through \$11,000/oz this week, closing the week 6.5% higher at \$11,550/oz due to ongoing supply constraints and strong Western purchasing. Iridium and ruthenium remained unchanged.

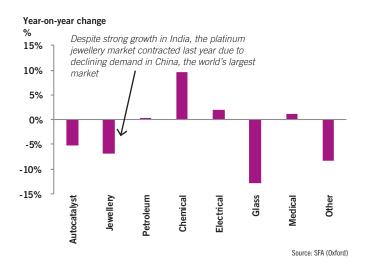
Global gold ETF holdings



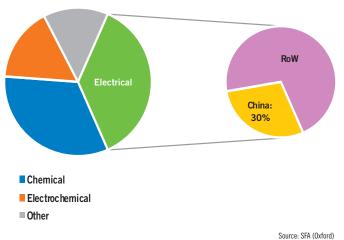
US bond yields



Platinum demand 2018-19



Ruthenium demand



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

United States of America Phone: +1 212 752 2180 tradingny@heraeus.com

China

Phone: +86 21 3357 5658 tradingsh@heraeus.com

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

www.herae.us/trading-market-report

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,

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 (offer) prices for gold, silver, platinum and palladium.

Rhodium, ruthenium and iridium quotes reflect the Heraeus offer price at the time of