

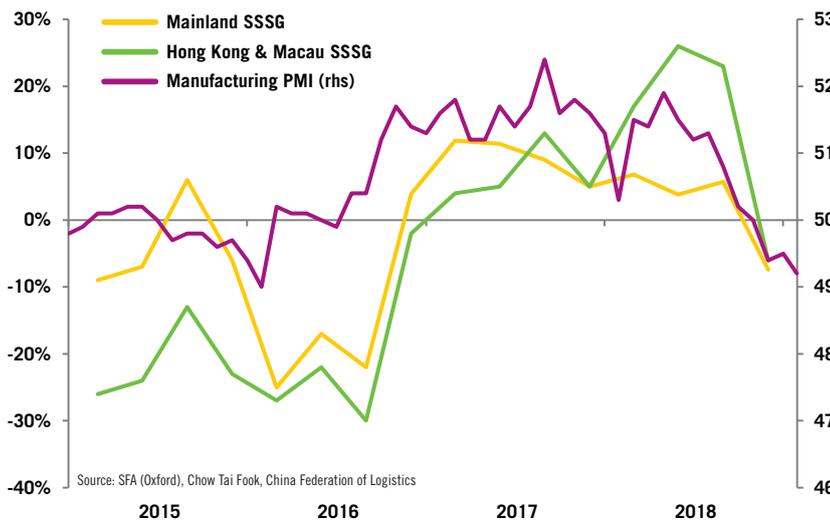


MARKET SPOTLIGHT

Chinese jewellery demand is losing its shine

Jewellery demand in China fell in Q4'18. China is the largest market for gold and platinum jewellery. In 2018, gold jewellery demand in China rose 3% year-on-year to 672.5 t (source: World Gold Council). However, in Q4'18 demand fell 3% year-on-year to 174.8 t as economic growth slowed and the gold price rallied.

Chow Tai Fook China same store sales growth



Chow Tai Fook is the largest jewellery retailer in China and its same-store sales growth for all jewellery turned negative in Q4'18. Other retailers' sales showed a similar trend. Jewellery sales growth trends in the same direction as the manufacturing PMI. Since the manufacturing PMI has continued to decline in January and February and is below 50, which indicates slowing activity, jewellery sales will most likely be weak this quarter.

The government has announced some limited stimulus measures in an effort to boost economic activity but **gold jewellery sales will struggle as the price has rallied further during 2019.**

Platinum jewellery has been underperforming gold jewellery. In 2018, Chinese platinum jewellery demand fell 12% to 1.2 moz. Retailers have been focusing on investment-oriented gold products and high margin gemset jewellery. The large platinum price discount to gold is not being seen at the retail level because of platinum jewellery's higher manufacturing costs. The decline in jewellery demand was expected to ease this year. However, cumulative platinum trading volume on the SGE, which supplies jewellery and industrial manufacturers, is down 15% in the first two months of the year compared to last year. **That trend will need to reverse or platinum jewellery demand will miss expectations, which could depress the platinum price further.**

SGE monthly platinum trading volume





PRECIOUS METALS REVIEW

79 Au Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,312	0.72%	1,320	21/03/2019	1,299	20/03/2019
€/oz	1,163	1.03%	1,164	22/03/2019	1,141	20/03/2019

Gold price looks set to climb. The Federal Reserve emphasised that it would remain patient in raising rates as it lowered its forecast number of hikes this year from two to zero. The market agrees, anticipating no chance of a rate rise this year, and it has maintained more than a 20% probability of at least one rate cut for the last two weeks. The recovery in the gold price this year has been aided by the Fed's change in stance and as long as

market perceptions continue to move in that direction, gold should continue to rise. The two-year Treasury yield fell to 2.45%, comfortably within the Fed's 2.25%-2.5% target range, supporting the view that the Fed will hold interest rates steady. Lower yields also make treasuries less competitive to foreign bonds which can add to dollar weakness, making gold more attractive.

47 Ag Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	15.41	0.64%	15.64	21/03/2019	15.28	20/03/2019
€/oz	13.66	0.94%	13.74	22/03/2019	12.82	20/03/2019

Silver jewellery demand is picking up in the US. In a survey of US jewellers it was revealed that the average growth of silver jewellery sales reported for 2018 was 16%, as more than half of jewellers saw gains (source: Silver Promotion Service). The US consumed around 60 moz of silver jewellery in 2018, around 6% of total global silver demand, as imports grew by 11% to 45 moz. Silver jewellery sales should increase again in 2019, according to the vast majority of jewellers. This is due to silver jewellery being inexpensive and providing the highest margin of any jewellery category, incentivising jewellers to promote sales.

Solar silver demand set to grow by 10-15% this year. A recent Goldman Sachs report predicts 12% growth in solar installations in 2019, from 96 GW to 108 GW. An IHS publication in December forecast a rise in installations from 105 GW to 123 GW (+18%). It is clear that solid growth is expected which would feed through to higher silver demand from this sector, an additional 10-15 moz (equivalent to 1-1.5% of total silver demand). Goldman Sachs also expects solar installations to increase by 10%, 8% and 5% in 2020, 2021 and 2022, respectively. This would suggest that annual silver demand could climb by another 15-20 moz over those three years.

78 Pt Platinum

	Close	Weekly change	High	Date	Low	Date
\$/oz	848	2.11%	876	21/03/2019	830	18/03/2019
€/oz	752	2.46%	769	21/03/2019	732	18/03/2019

Risk of supply disruption from South African mine strikes has diminished in the short term. The South African courts have ruled against the AMCU's proposed secondary strikes at a wide number of platinum mines. If they had occurred, up to 59% of global platinum supply could have been impacted. Risks are further reduced as a separate ruling could end the primary strike at Sibanye's gold operations if the AMCU is found to be a minority in a count of union membership. There is still a risk of strikes around the middle of this year when wage negotiations commence at the three major platinum operations.

Wesizwe cuts planned output for PGM project by two-thirds. Annual production at its Bakubung mine project, scheduled to start operating in 2021, will now be 1 million tonnes instead of 3 million tonnes as first planned. This means that annual platinum, palladium and rhodium production is reduced by approximately 170 koz, 25 koz and 10 koz, respectively, as Bakubung is a platinum-rich project. Wesizwe cited funding difficulties stemming from poor market conditions as the reason for its revisions. This reflects the current favour for palladium-rich mines as the primary candidates for expansion. As with any project there remains a risk that production could start several years later than is currently planned.



PRECIOUS METALS REVIEW

⁴⁶Pd **Palladium**

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,549	-0.45%	1,615	21/03/2019	1,545	22/03/2019
€/oz	1,372	-0.25%	1,415	21/03/2019	1,368	22/03/2019

The palladium price peaked above \$1,600/oz, an all-time high, after climbing almost \$50/oz in the first two days of last week. The timing of the move made it appear to be a response to news that Russia intends to ban exports of precious metal scrap for six months starting in May. However, the reasoning for the ban is the under-utilisation of domestic refining capacity so the refined metal should still reach the market. It is much more likely that palladium is simply resuming its upward trend after taking a pause, which itself was a reaction to the particularly rapid price rise in late February. The price struggled to hold above \$1,600/oz and on Friday retreated back below \$1,550/oz. The market remains tight although lease rates have eased somewhat.

Car sales' decline in Western Europe impacts PGM demand. Car sales fell 1.0% year-on-year in February. They have been dropping since September with the introduction of the WLTP regulations which disrupted the availability of some car models. With sales down for six consecutive months, the trend is likely to be a consequence of the weakness in the European economy rather than the effects of WLTP. Manufacturing PMIs have been falling, and consumer confidence is down year-on-year. Sales have fallen 3% year-to-date but are currently forecast to rise 1% this year, implying a pick-up in sales later in the year. If this fails to materialise, around 19 koz of palladium and 14 koz of platinum demand will be lost for each percentage point the market underperforms.

⁴⁵Rh ⁴⁴Ru ⁷⁷Ir **Rhodium, Ruthenium, Iridium**

	Rhodium	Ruthenium	Iridium
Reporting week	\$3,300/oz	\$275/oz	\$1,460/oz
Previous week	\$3,170/oz	\$275/oz	\$1,460/oz

Rhodium hits new highs, reaching \$3,300/oz as substantial buying interest has been pushing the price up. The market remains tight so more upside seems likely. With demand expected to continue growing as emissions legislation tightens worldwide, it is not unreasonable to think that prices above \$3,000/oz could last longer than the 33-month period from 2006 to 2008. Ruthenium and iridium prices remain unchanged.

Largest chip resistor manufacturer growing rapidly; positive for ruthenium demand. Yageo manufactures around a third of all chip resistors and saw revenue in this category escalate by 139% last year. Part of this growth is due to expanding market share as some Japanese players retreat. The growth is still a very positive sign for the industry where demand is growing from the rise of electrified vehicles and the Internet of Things, in addition to the general increase in the complexity of electronics. Thick-film chip resistors account for close to a third of total ruthenium demand.

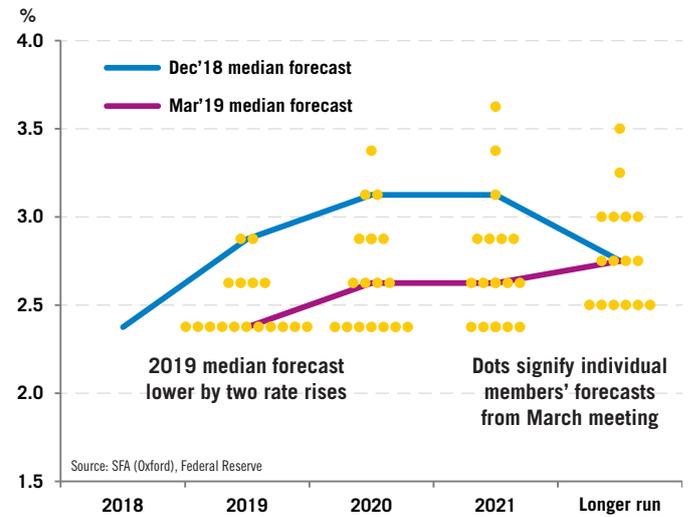


TRENDS AND INVESTMENTS

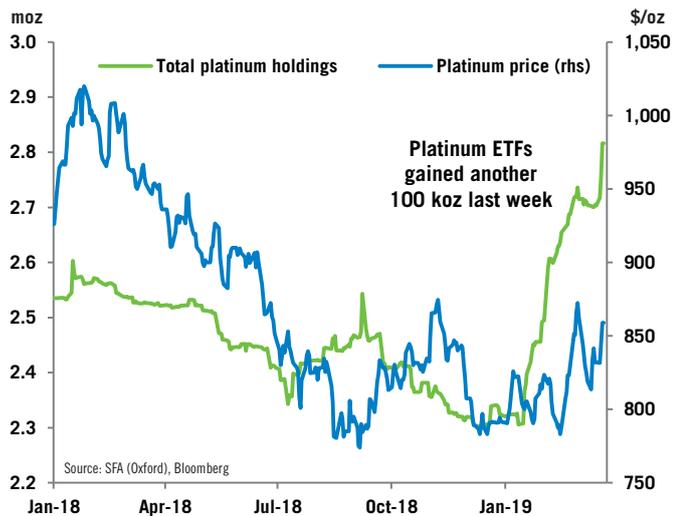
Gold and 2-year Treasury yield



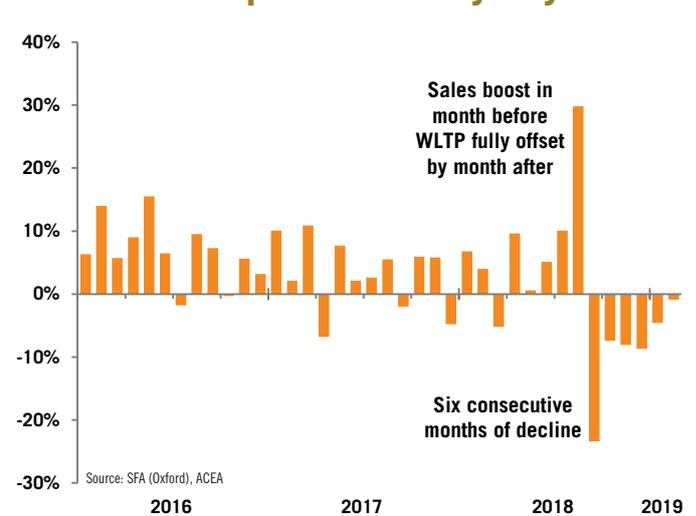
Fed committee interest rate forecasts



Platinum ETFs



Western Europe car sales y-o-y



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



consulting analysts in tomorrow's commodities and technologies

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

www.herae.us/trading-market-report

DISCLAIMER

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 writing.