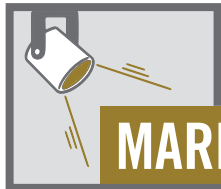


# HERAEUS PRECIOUS APPRAISAL

Heraeus

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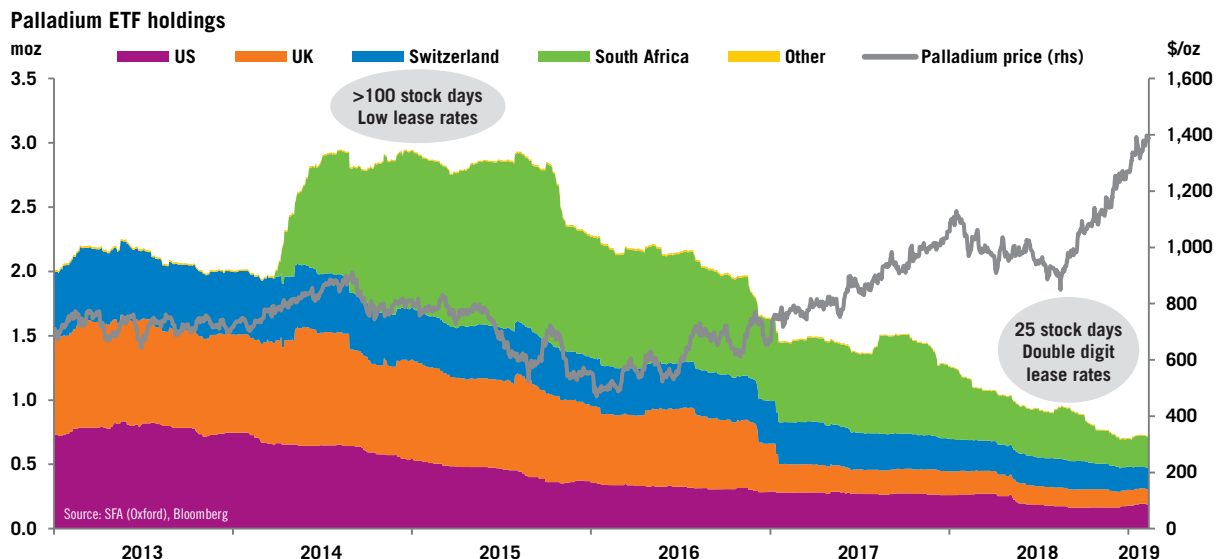
## MARKET SPOTLIGHT

### Visible palladium stocks have fallen by 75%

This year palladium ETF holdings have started to rise in the US (+10 koz) and South Africa (+28 koz). If investors continue to add to their ETF holdings then this will tighten the palladium market further. Most primary producers' output is sponge for industrial users, not bars needed to back physical ETFs. **A rapid increase in ETF demand could further tighten the supply of available metal, pushing up lease rates and the palladium price.**

Physical palladium ETF holdings have fallen by 2.2 moz, from a peak of 2.9 moz in 2014 to 0.7 moz at the end of 2018, so visible stocks have shrunk significantly. Given the substantial market deficits of the last few years, a large proportion of this metal is likely to have been used for industrial purposes. The high lease rates over the last 18 months indicate that there is little metal available to be leased out.

However, there are other sources of stock. Nornickel has created a palladium fund with metal acquired from third-party sources that has delivered over 1 moz to its customers on top of its mine production in 2017-2018.



In the palladium market, deficits have been the normal state of affairs for a long time. In the 1990s and 2000s, there were large sales of stocks from Russia that had been built up during the Soviet period which kept the market well supplied. It is estimated that over 25 moz of palladium stock came out of Russia over a 20-year period, with the last sales occurring in 2013. While the exact level of global stocks is hard to gauge, various sources have estimated a range between 10 moz and 18 moz, or roughly one to two years of demand. While not all of this would be immediately available, there are still several million ounces of metal held as liquid stock, so a chronic shortage is unlikely. The question is: at what price will the holders sell?



# PRECIOUS METALS REVIEW

## 79 Au Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,316	0.18%	1,320	15/02/2019	1,302	14/02/2019
€/oz	1,168	0.69%	1,173	15/02/2019	1,154	11/02/2019

**Dollar is forecast to weaken, gold approaching resistance at \$1,350/oz.** Analysts are forecasting that the dollar index will weaken by 6% from current levels by Q4'19 and 12% by 2020. The key argument behind this is that the dollar strength built on Federal Reserve rate rises should unwind now that the Fed has signalled it will pause at the current level. With gold currently at \$1,316/oz, it will encounter a band of resistance at \$1,350-1,400/oz if it rises another 3%. However, the dollar has strengthened 0.9% year-to-date while the gold price has climbed by \$30/oz over the same period, as safe haven

buying seems to have increased. Gold ETF holdings have grown 1.7 moz (+2.3%) since the beginning of the year and gold coin sales at the US Mint were up 7% year-on-year in January. If the dollar weakens as forecast and demand for the metal remains high, the gold price should continue to rise. US-China trade meetings also continued last week in the run-up to 1 March, after which the US plans to increase tariffs. Should a deal be reached, the dollar could weaken, potentially giving gold another boost.

## 47 Ag Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	15.65	-0.80%	15.83	12/02/2019	15.49	14/02/2019
€/oz	13.89	-0.27%	14.27	11/02/2019	13.60	11/02/2019

**Downward EU economic revisions tarnish silver.** Approximately 20% of global silver demand is dependent on the euro area and its economy. It produces a sixth of silver jewellery, consumes a fifth of consumer electronics, and represented a tenth of solar panel installations in 2017. The European Commission has downgraded its 2019 forecast for economic growth in the euro area to 1.3%, down from 1.9% in November. Furthermore, the ifo Euro

Area Economic Climate Index, which is based on a survey of economic professionals, has fallen to the lowest level since 2013 when the Eurozone was in recession. Country-specific economic releases show that this weakness is widespread in Europe, so the region might weigh on silver demand growth and the price could struggle.

## 78 Pt Platinum

	Close	Weekly change	High	Date	Low	Date
\$/oz	799	0.22%	799	15/02/2019	780	14/02/2019
€/oz	709	0.74%	709	15/02/2019	691	14/02/2019

**High palladium and rhodium prices help platinum shafts stay open.** Lonmin has announced that the Hossy shaft, which was due to be put on care and maintenance at the end of 2018, is now expected to remain open until the end of the financial year (end of Q3 CY19). This means platinum supply in 2019 is projected to be 30 koz higher than previously anticipated. Higher palladium and rhodium prices have boosted Lonmin's revenue, allowing the company to keep the shaft open. Other South African producers are seeing a similar benefit. With the platinum market already facing a large surplus, this could push the price down further.

**Platinum ETF buying elevated.** Holdings of platinum by ETFs have increased by 330 koz (+14%) in the last five weeks to 2.64 moz. Over the course of 2018, ETF holdings dropped 214 koz. The recent rises have put holdings at the highest level since November 2015 when the price first fell below \$900/oz. Half of the recent buying has taken place in UK-based ETFs (161 koz) while South African ETFs make up about a third (114 koz) and US ETFs added 43 koz. Perhaps platinum is being bought expecting it to follow gold.



# PRECIOUS METALS REVIEW

## <sup>46</sup> Pd **Palladium**

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,433	2.64%	1,437	15/02/2019	1,374	11/02/2019
€/oz	1,269	2.97%	1,274	15/02/2019	1,216	11/02/2019

**A decline in US vehicle sales over next three years could impact palladium demand.** The Center for Automotive Research (CAR) forecasts that US light vehicle sales will decline by 0.4 million to 16.8 million in 2019. A further 0.4 million drop is expected by 2021 before sales begin to climb again in 2022. However, palladium loadings are increasing to meet tightening legislation which offsets most of the decline in demand from sales. As such, a sales drop of 800,000 in the US by 2021 would result in palladium demand falling only 35 koz (-1.3%) from 2018 levels. This is not enough to counteract growth in emerging markets and would not move the market

out of deficit anyway. The forecast decline in sales is based on a downturn in economic expectations over the last few months which adds to an already weak market. Vehicle sales in five of the last six months of 2018 were either flat or negative year-on-year. A further risk to sales highlighted by CAR is the potential impact of US trade negotiations with China, Japan, the EU and the UK. Any increase in tariffs on imported cars could reduce total car sales and it is expected that sales of imported cars will drop more in 2019 than those of US-made vehicles.

## <sup>45</sup> Rh <sup>44</sup> Ru <sup>77</sup> Ir **Rhodium, Ruthenium, Iridium**

	Rhodium	Ruthenium	Iridium
Reporting week	\$2,600/oz	\$275/oz	\$1,460/oz
Previous week	\$2,520/oz	\$280/oz	\$1,470/oz

**Ruthenium to make plastic “green”.** A demonstration plant has been built by Braskem and Haldor Topsøe which uses a ruthenium catalyst to convert sugars into glycolaldehyde, a precursor chemical used to make PET plastic and polyester fabrics. These materials both have huge markets in the hundreds of billions of dollars. To be successful, the demonstration plant will need to show that the process is cost-competitive with existing fossil fuel-based processes. As the sugars required for the process can be derived from plants, this process offers a path to the green production of everyday plastics. The plant is planned to begin production on 1 March, with industrial-scale production scheduled for 2023.

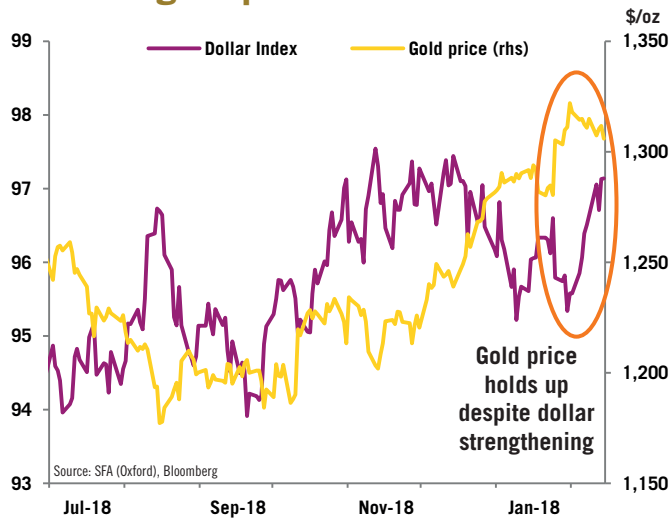
**Passive component producer Vishay has reported strong demand for resistors; positive for ruthenium.** Full-year resistor sales increased 19% in 2018 on a comparable basis, to \$1.01 billion. This indicates strong demand for resistors, of which a subset, thick-film resistors, accounts for a third of total ruthenium demand. With the ruthenium market currently tight, expected growth in this market could lead to further price rises.

Rhodium gained \$80/oz last week to \$2,600/oz, a new eight year high, and is now up \$160/oz in the last month. Robust industrial demand is keeping rhodium well bid. Iridium and ruthenium dropped \$10/oz and \$5/oz, respectively, last week, the first moves for both in two months.

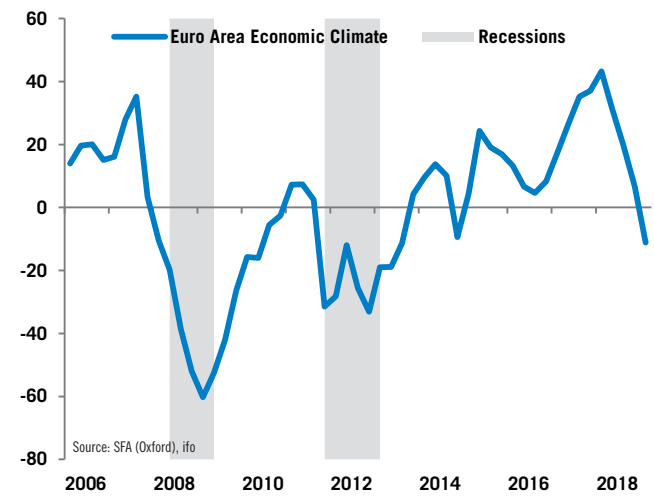


# TRENDS AND INVESTMENTS

## DXY and gold price



## ifo Euro Area Economic Climate Index



## Revenue per oz produced in SA



## Platinum ETF holdings



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