



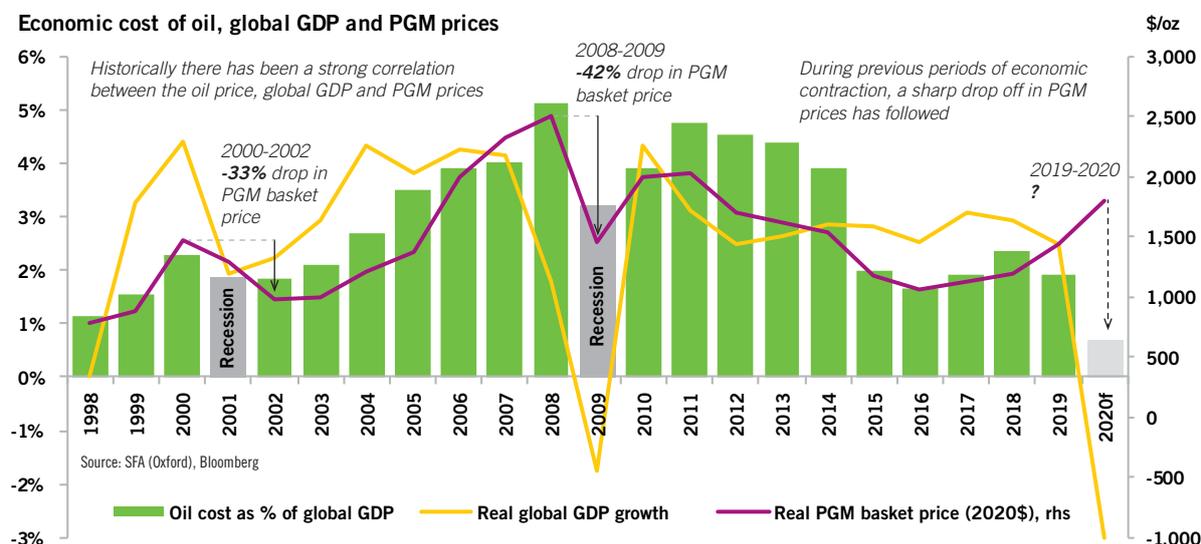
MARKET SPOTLIGHT

Low oil price and negative GDP growth signal lower prices for PGMs

The West Texas Intermediate (WTI) crude oil price went negative last week for the first time in history, owing to too much supply, little demand and a lack of storage. The price plunged on Monday 21 April, the day before the May future delivery expiry date, to as low as -\$40/barrel. The oil futures curve is in contango and this shows low prices and low growth could be here for some time. The lack of demand far exceeds the cut to production by the OPEC+ group as the effects of COVID-19 weigh on fuel consumption.

Precious metal prices could follow the collapse in the oil price. Historically, there has been a strong correlation between the oil price, GDP growth and PGM prices. The past 12 months have seen a very clear divergence in this trend, but now as the global economy grinds to a halt, the oil price could well be a warning of what is in store for PGMs. This is particularly true for palladium and rhodium which are still demanding a high price despite the curtailment to global automotive and industrial demand. Platinum has taken an additional beating from lower jewellery demand, with the effects of COVID-19 on consumer spending accelerating the rate of China's decline.

Economic cost of oil, global GDP and PGM prices



In the face of a global recession, it is unlikely that a low oil price will be enough to incentivise auto sales in the same way it has for consumers in previous years. Historically, lower oil prices in the US have shifted demand towards SUVs and pick-up trucks, supporting PGM demand. A lower oil price is followed by a cut in the retail price of fuel, and the incentive to move to smaller, high-fuel-economy (even electric or electrified) vehicles is diminished. However, forecasts for global car sales have been revised down by as much as 20% this year (source: LMC Automotive) and the global economy is forecast to contract by 3% (source: IMF).

As a result of the destruction to autocatalyst and industrial demand, deficits in the palladium and rhodium markets are expected to have eased significantly. The platinum market surplus has also reduced. The major demand headwinds which PGMs are experiencing this year are forecast to exceed the temporary disruption to mine supply. Even as economic activity gradually resumes, the key markets remain fundamentally under threat from a lack of consumer spending.



PRECIOUS METALS REVIEW

79 Au Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,713	1.34%	1,739	23/04/2020	1,660	21/04/2020
€/oz	1,586	2.13%	1,613	24/04/2020	1,531	21/04/2020

All that glitters...is non-essential. Jewellery purchasing in China in January and February saw the most drastic decline among all sectors (including autos). Sales of gold and silver jewellery dropped 41% compared to the same period last year (source: National Bureau of Statistics). If shop closures and national lockdowns were not enough to curb demand, the gold price also worked its way to all-time highs during this period while economic sentiment weakened. Consumer demand in March and April is expected to have rebounded modestly, however. Trading volumes of Au9999 (a proxy for China's physical gold demand) on the Shanghai Gold Exchange in March averaged 16 t per day. This was 114% higher than in

February but still below 2019's monthly average of 18 t per day. Nevertheless, China's consumer gold demand is expected to have fallen by at least 15% in Q1'20, which is traditionally the country's strongest quarter for gold jewellery sales. China is the largest consumer gold market with a 20% share of total gold demand (source: World Gold Council); consumer gold demand is likely to fall considerably short of last year's 2,977 t.

Gold has continued to play its role as a safe haven, as central banks and governments have announced massive amounts of support for economies in lockdown, but this should now be in the price.

47 Ag Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	15.08	-0.34%	15.44	23/04/2020	14.55	21/04/2020
€/oz	13.98	0.22%	14.23	24/04/2020	13.51	21/04/2020

Silver supply set to fall this year. Silver mine production fell by 1% last year to 836.5 moz, marking the fourth year of declines, according to the latest World Silver Survey from The Silver Institute. A further 5% decline year-on-year is forecast for 2020 to 797.8 moz. Overall supply is expected to fall by 4% to 978.1 moz, the lowest since 2009. Unsurprisingly, reduced demand is anticipated across most markets, with industrial

fabrication estimated to fall by 7% to 475.4 moz. The Silver Institute expects that this will be partly offset by a 16% increase in bar and coin demand following strong retail investor interest in 2019. Unfortunately for silver, strong retail buying, including ETF holdings at a record level, have not been enough to help it outperform gold for long and so silver could continue to underperform despite the historically high gold:silver ratio.

78 Pt Platinum

	Close	Weekly change	High	Date	Low	Date
\$/oz	759	-1.93%	788	20/04/2020	717	21/04/2020
€/oz	703	-1.15%	723	20/04/2020	663	21/04/2020

Heavy-duty heavyweights team up for a fuel-cell future. Daimler and Volvo, two leading companies in the commercial vehicle industry, have established a 50:50 joint venture for the development and large-scale production of heavy-duty fuel cell trucks. At current loadings, heavy-duty fuel cell vehicles contain around a third more platinum than their diesel combustion engine counterparts, although this is expected to continue declining over the next few years. Hyundai is launching a fleet of fuel cell trucks in Europe later this year and

German auto supplier Bosch announced it would start manufacturing fuel cells ready to launch in 2022. Platinum in fuel cells, particularly in heavy-duty vehicles, is a small but growing end-use market and may help to offset the demand impact from shrinking diesel demand in the future. After an initial dip on Tuesday following the crash of oil prices, platinum has managed to recover over the course of the week, closing just \$12/oz down, but it remains the weakest fundamentally and a retest of the recent lows is possible in due course.



PRECIOUS METALS REVIEW

⁴⁶ Pd **Palladium**

	Close	Weekly change	High	Date	Low	Date
\$/oz	2,021	-6.57%	2,218	20/04/2020	1,850	21/04/2020
€/oz	1,871	-5.84%	2,042	20/04/2020	1,718	21/04/2020

A 7% decline in palladium supply from South Africa's largest producer this year. Anglo American Platinum (AAP) was responsible for 14.5% of global palladium mine supply in 2019. The company expects to produce 331,000 fewer PGM ounces this year, including 98 koz less palladium, as a result of the shutdowns in South Africa and Zimbabwe. AAP reported a 7% year-on-year decline in total PGM production (Pt, Pd, Rh, Ir, Ru, Au metal in concentrate) in Q1'20, equal to around 61 koz. This was largely due to COVID-19 shutdowns and, to a lesser extent, Eskom power load-shedding at certain mines. Palladium production was down 7% year-on-year to 303.1 koz. Refined production including tolling

decreased by 15% to 743.9 koz owing to the closure of the Anglo Converter Plant earlier in the year. AAP estimates refined production of palladium in FY20 will be 1,000-1,150 koz, down from the previous guidance of 1,100-1,200 koz.

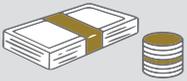
Palladium took a big hit on Tuesday last week as commodities sold off, led by WTI oil. Automakers are starting to re-open plants but when will consumers be able, or willing, to get out and buy cars again? At around \$2,000/oz, palladium is richly priced and could be vulnerable to falling lower.

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

	Rhodium	Ruthenium	Iridium
Reporting week	\$9,250/oz	\$315/oz	\$1,600/oz
Previous week	\$10,450/oz	\$295/oz	\$1,150/oz

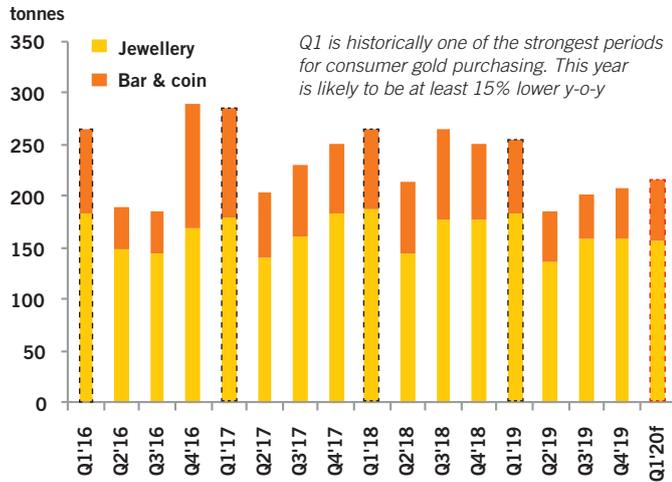
Out of the spotlight, ruthenium and iridium continue to climb. Iridium gained \$50/oz last week, reaching \$1,600/oz (+3%) which is a record high, while ruthenium gained a modest \$10/oz to \$315/oz, levels last seen in 2008. As they are smaller markets than other PGMs, the ruthenium and iridium markets are more likely experiencing a more pronounced impact from South

Africa's supply bottleneck. The country's mining industry has been granted permission to resume production at 50% capacity but getting the metal out of the country is still a stumbling block, with most flights grounded. South Africa accounts for 90% of ruthenium and 80% of iridium supply. Conversely, beaten down by a severe lack of demand, rhodium fell by \$1,200/oz (-11%) last week.



TRENDS AND INVESTMENTS

China consumer gold demand



Source: SFA (Oxford), World Gold Council

Silver mine supply



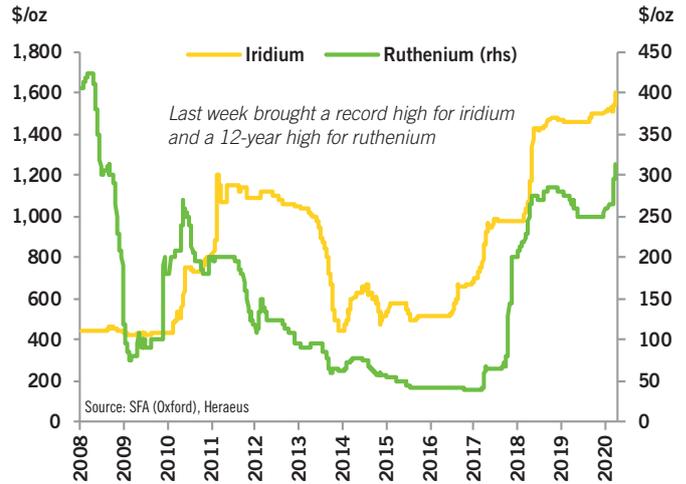
Source: SFA (Oxford), The Silver Institute, Bloomberg

WTI price for May delivery



Source: SFA (Oxford), Bloomberg

Iridium and ruthenium prices



Source: SFA (Oxford), Heraeus

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