



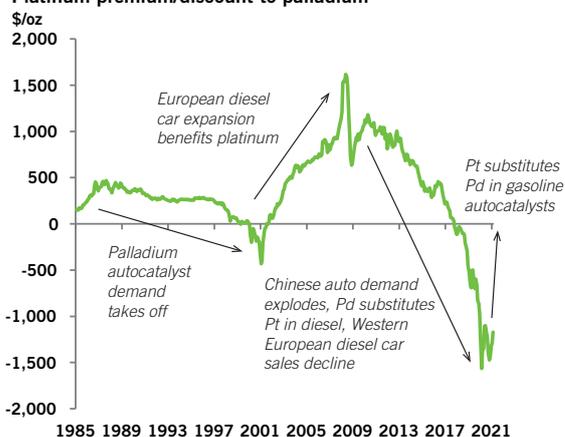
MARKET SPOTLIGHT

Is platinum's price rise due to substitution or seasonality?

The platinum and palladium markets have become increasingly unbalanced, with platinum having large industrial surpluses while palladium had significant deficits. This has been reflected in the metals' price performance over the last few years. Palladium became more expensive than platinum in September 2017, something that had happened only once before from late 1999 to 2001.

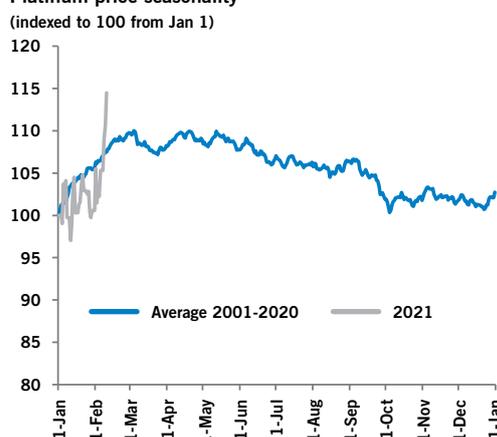
Platinum's persistent and widening price discount to palladium has made substitution attractive and prompted autocatalyst fabricators to investigate substituting some platinum for palladium in gasoline autocatalysts. The switch is most compelling in North America where the savings are greatest as the larger vehicles have higher PGM loadings in the catalysts. European and Chinese automakers are also reported to be looking at shifting to using more platinum. Those three regions account for more than 60% of global light-vehicle sales and 6.1 moz of palladium demand.

Platinum premium/discount to palladium



Source: SFA (Oxford), Bloomberg

Platinum price seasonality



In the near term, the amount of substitution will not be large. Some North American models are likely to use the new catalysts which will be a modest boost to platinum demand and similarly cut palladium demand. Not all manufacturers will use the new catalysts and the roll-out will take some time for those that do. In the medium term, if manufacturers in China and Europe also use new catalysts then that could make a more meaningful impact on platinum and palladium demand. At some point this may result in the price gap closing, but for now platinum is still more than \$1,000/oz cheaper than palladium and the trend to increasing substitution is likely to remain on track.

Platinum's price rise is more than is typical seasonally but with central banks pumping liquidity into the markets, perhaps it is platinum's turn to benefit from the easy money. Also, Anglo American Platinum's smelter outage has reduced refined metal availability. However, platinum also has a second positive news story with the burgeoning hydrogen economy drawing attention to its use in PEM-based fuel cells and electrolyzers. This is also more about demand in the future than today. However, platinum's brighter future and its relative cheapness compared to palladium and gold could see the price continue to trade at a higher level than seen in recent years.



PRECIOUS METALS REVIEW

79 Au Gold

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,825	0.63%	1,855	10/02/2021	1,808	08/02/2021
€/oz	1,505	-0.13%	1,529	10/02/2021	1,497	12/02/2021

A stronger US dollar is weighing on the gold price. The US dollar has steadily strengthened since the start of the year but edged lower last week as optimism around increasing government spending grows. US president Joe Biden's \$1.9 trillion relief bill is expected to be fast-tracked through Congress in the next few weeks.

However, the possible jump in inflation once the economy starts to recover will be positive for gold over the longer term. The gold price has retreated 4.8% in the year-to-date, marking the weakest start to the year of all the precious metals.

47 Ag Silver

	Close	Weekly change	High	Date	Low	Date
\$/oz	27.31	1.32%	27.81	09/02/2021	26.71	11/02/2021
€/oz	22.52	0.55%	22.98	09/02/2021	22.04	11/02/2021

Global silver demand is forecast to reach 1 billion oz in 2021, rising 11% year-on-year and marking an eight-year high, largely driven by industrial end-users. Industrial demand is projected to increase by 9% year-on-year to 510 moz this year (source: The Silver Institute), with the roll-out of 5G technology in

consumer electronics expected to boost silver offtake. The silver market is forecast to remain in surplus, however, which will limit upside for the price to an extent. Silver traded sideways before slipping lower, but outperformed gold last week.

78 Pt Platinum

	Close	Weekly change	High	Date	Low	Date
\$/oz	1,254	11.57%	1,272	11/02/2021	1,142	08/02/2021
€/oz	1,035	10.78%	1,049	11/02/2021	949	08/02/2021

The platinum price surged to a six-year high last week. Technically speaking, the price has broken above the 2016 high and is now heading for potential resistance at \$1,290/oz. The price rally may be the result of a temporary squeeze on liquidity in the market. Anglo American Platinum's smelter outage last year reduced refined output of platinum, and the additional buying in the market by Anglo reduced metal availability further. However, lease rates have retreated after a spike last

April, which confirms that long-term supply is not a concern. Despite South Africa's supply disruption, weak industrial demand kept the platinum market in surplus last year and is expected to remain that way for the foreseeable future. Investors helped to absorb most of the surplus in 2020 so the price stands a chance of being supported if that level of demand is maintained through 2021 as well.



PRECIOUS METALS REVIEW

46 Pd Palladium

	Close	Weekly change	High	Date	Low	Date
\$/oz	2,389	2.06%	2,391	10/02/2021	2,311	09/02/2021
€/oz	1,971	1.30%	1,971	10/02/2021	1,910	09/02/2021

China's car sales surged 30% year-on-year in January to 2.5 million units, marking the tenth straight monthly gain (source: CAAM). The comparison to January 2020 is somewhat distorted, however, as Chinese New Year was in January last year and the pandemic was already spreading in China at that time. The ongoing growth in the world's largest car market is attributed to China's strong economic rebound from Covid-19. This was boosted last month by strong demand typically seen in the weeks leading up to the Chinese New Year (12 February). The pandemic remains largely under control

in China and key economic indicators, including exports, PMIs and retail sales, continue to rise. Continuous improvements in China's economy, as well as higher PGM loadings in autocatalysts to meet stricter emissions standards, are expected to be a key driver of palladium demand this year, increasing 20% year-on-year to an estimated 2.8 moz. However, if the platinum price is benefitting from improved sentiment around its substitution into gasoline autocatalysts to replace some palladium, then the palladium price may struggle to make headway.

45 Rh 44 Ru 77 Ir Rhodium, Ruthenium, Iridium

	Rhodium	Ruthenium	Iridium
Reporting week	\$23,050/oz	\$375/oz	\$5,050/oz
Previous week	\$22,450/oz	\$375/oz	\$4,750/oz

A high rhodium price is incentivising mine restarts in South Africa. Anglo American Platinum is reportedly in talks to sell the Bokoni mine in South Africa, with any purchaser likely to restart the mine. Bokoni was placed on care and maintenance in 2017 owing to the low metal prices at the time. At that point it accounted for ~15 koz of rhodium annually. The mine is a joint venture between Anglo American Platinum (49%) and Atlatsa Resources (51%), although Anglo paved the way towards a sale when it disposed of its 22.5% shareholding in Atlatsa in 2019.

UG2 Reef mines, such as Bokoni, that are currently on care and maintenance are attracting attention owing to their high rhodium grades. If restarted, they could go some way to alleviating the current pressure on the market and given today's prices, are likely to generate good returns. However, there is a long road between

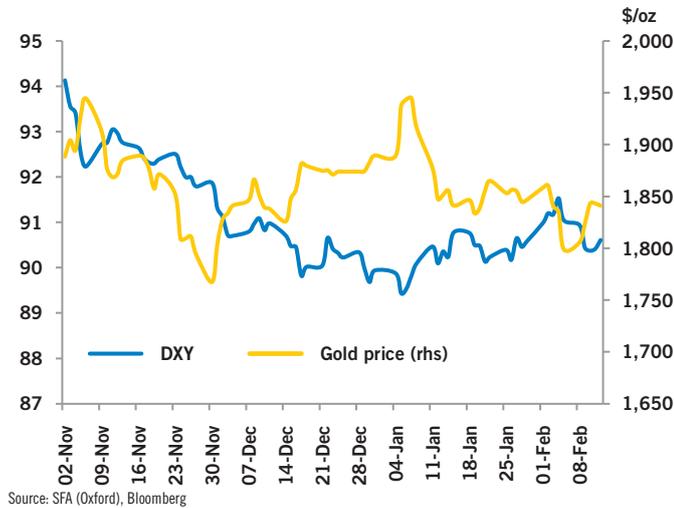
purchase and production. While the rhodium market is expected to remain in deficit in the future (which will keep prices elevated), record prices cannot last forever, and rhodium has a long history of needle-like price spikes followed by major corrections. Increasing rhodium output has the benefit of additional iridium and ruthenium supply, which would help to offset the South African mine depletion that is estimated to impact both markets within a few years.

A record week for prices. Rhodium moved higher again last week, pushing above \$23,000/oz for the first time. Iridium was hot on its tails and jumped above \$5,000/oz to a new record high. Iridium has now rallied more than 50% in the year to date, owing to the liquidity issues which developed from Anglo American's smelter outages last year. Ruthenium held steady for another week.



TRENDS AND INVESTMENTS

DXY: Gold price



Source: SFA (Oxford), Bloomberg

China auto palladium demand



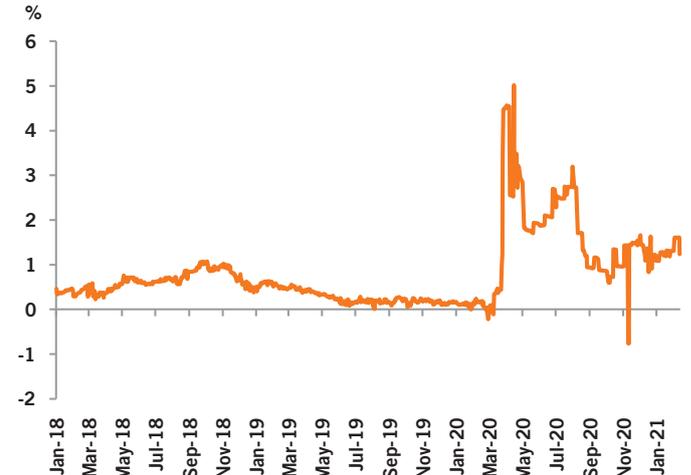
Source: SFA (Oxford)

Platinum price



Source: SFA (Oxford), Bloomberg

Platinum lease rates



Source: SFA (Oxford), Bloomberg

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