PLATINUM PERSPECTIVES

Healthy PGM picture benefits platinum

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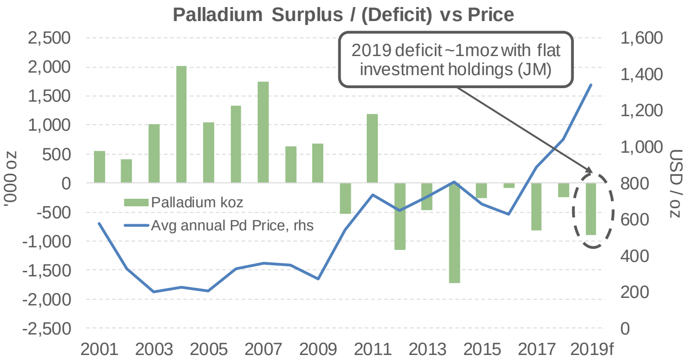
The Platinum Group Metals (PGM) market in aggregate is in deficit. Our forecast platinum surplus for 2019 of 680 koz (partly one-off as discussed below) plus Johnson Matthey's (JM) expected small surplus in rhodium are offset by the palladium deficit in 2019; not unexpected, given the much-discussed shortage of palladium. Johnson Matthey's February 2019 PGM Report suggests palladium's deficit will increase from -29 koz in 2018 to approach -1 moz in 2019 (with zero investment demand), further stretching an already tight supply/demand situation. The practical consequence has been palladium reaching unprecedented prices, currently over $1,500/oz.

The 2019 platinum surplus should be taken in the context of a significant one-off event. Due to an unusual combination of maintenance and plant shutdowns, both planned and unplanned, South Africa is forecast to experience a one-off release of work-in-progress material equivalent to 280 koz of refined platinum. This amount should not repeat in 2020.

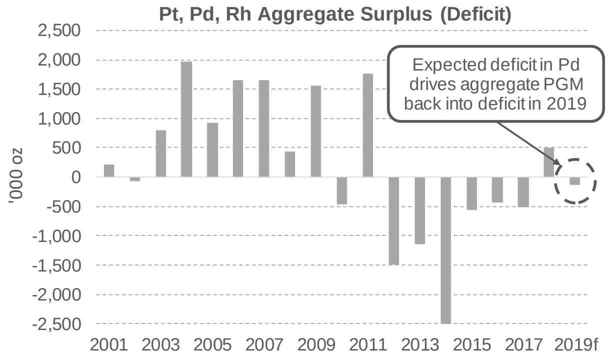
The sharp contrast in market surplus for platinum versus deficit for palladium raises the issue of rebalancing. Historically, when one PGM metal entered into a deficit, particularly if sustained and manifesting itself through elevated market prices, it resulted in significant demand substitution. We saw this mechanism in the 1990s as cheaper palladium substituted for more expensive platinum and again in reverse in 1999-2002 as palladium was replaced by less expensive platinum. A similar mechanism was observed with rhodium.

2019 is palladium's 8th annual consecutive deficit, with little apparent relief on the horizon



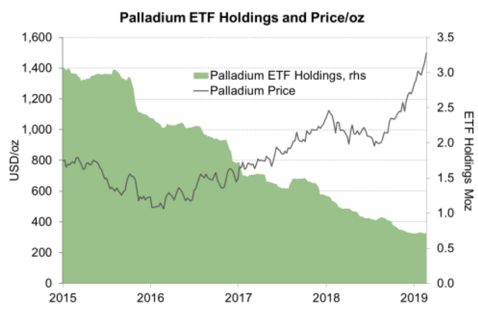
Note: The 2019 estimate is based on Johnson Matthey's statement in its "February 2019 PGM Market Report" of a structural deficit "forecast to approach 1 million oz in 2019" excluding investment; Source: Johnson Matthey, WPIC research

PGM 3E is then in aggregate deficit for 2019, despite the surplus in platinum



Within PGM 3E, we assume Rh surplus in 2019 is identical to Johnson Matthey's 2018 estimate; Source: SFA Oxford, Johnson Matthey, WPIC Research

Rebalancing takes time. With sharply contrasting prices and market balances among quite fungible metals, demand rebalancing seems to be more a question of when rather than whether. Palladium is characterised by growing demand exceeding inelastic supply, driving the price to ever new highs as depleting inventories remain tightly held, in our view. ETF holdings conceptually could release another 700 koz as shown in the graph to the right. The market shortage of palladium is underlined by palladium futures' sustained backwardation (Figure 2 next page). While the palladium cost consequence to auto makers is a material portion of a vehicle's margin, their concern may be reduced as forward purchasing (typically OTC forwards) softens the medium-term profit impact. However, the OEMs recognise that rebalancing is necessary, in our view. Timing remains to be confirmed.



Source: Bloomberg, WPIC research

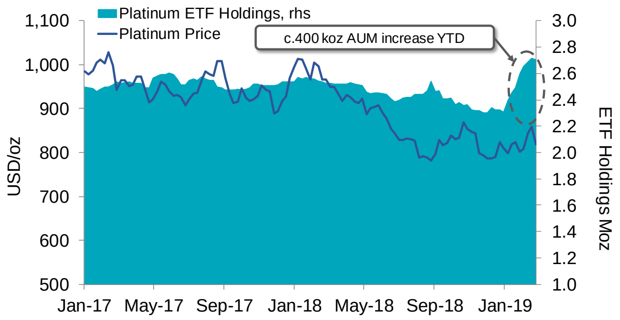
Platinum in six charts – March 2019

World Platinum Investment Council

Platinum's attraction as an investment asset arises from:

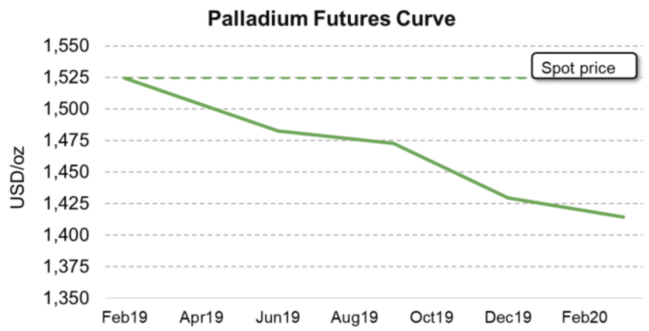
- Supply is relatively constrained with limited investment in new platinum group metal (PGM) mines
- Platinum is at all-time lows relative to gold and palladium
- Total PGM demand growth should continue on increasingly restrictive emissions rules (including China 6)
- Market balance mismatches between palladium & platinum argues for substitution (Pt replacing Pd in gasoline cars)
- Managed money positioning – growing long and short positions

Figure 1: Platinum's ETF holdings have grown by over 400 koz, year to date



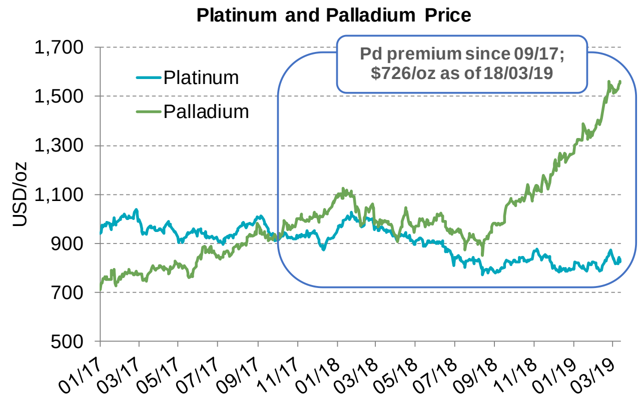
Source: Bloomberg, WPIC Research

Figure 2: Rising PGM autocat demand is carried mainly by palladium, presenting a potential availability challenge



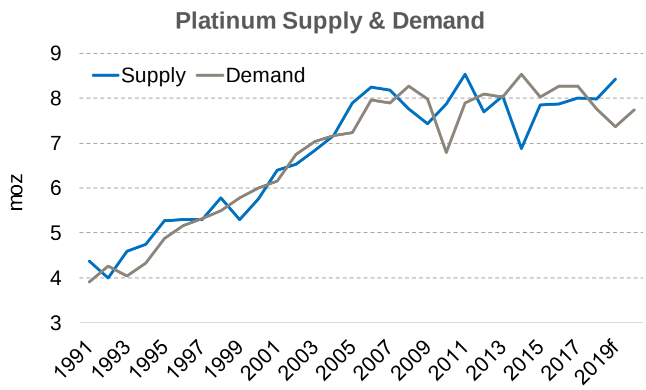
Source: Johnson Matthey, WPIC Research

Figure 3: Palladium's price premium to platinum reflects a tight market and highlights the potential for substitution



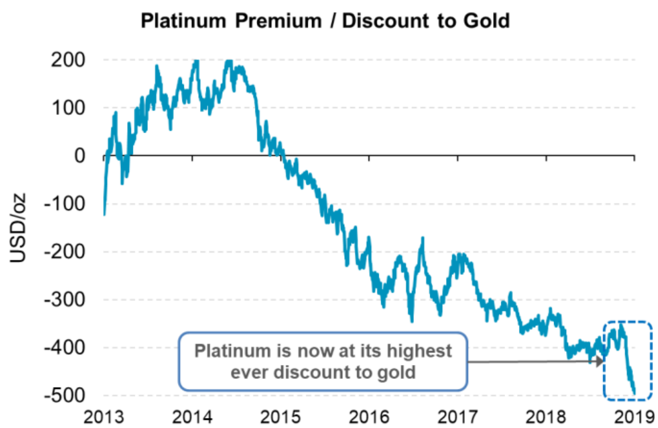
Source: Bloomberg, WPIC Research

Figure 4: Platinum is expected to see a supply surplus over 600 koz this year and next



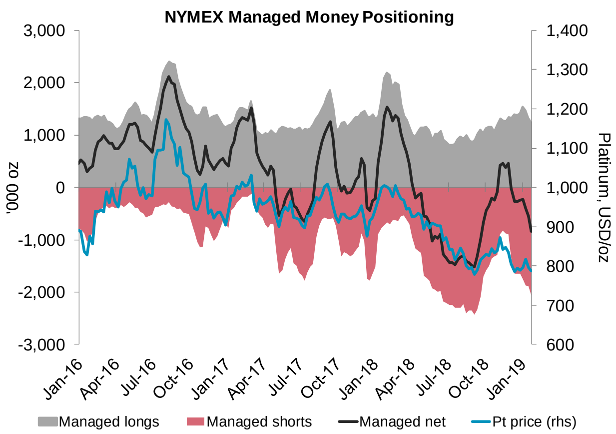
Source: Johnson Matthey, SFA, WPIC Research

Figure 5: Similar to platinum's discount to palladium, the discount to gold is at an all-time high of almost $500/oz



Source: Bloomberg, WPIC Research

Figure 6: NYMEX positioning is net short



Source: Bloomberg, WPIC Research

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