

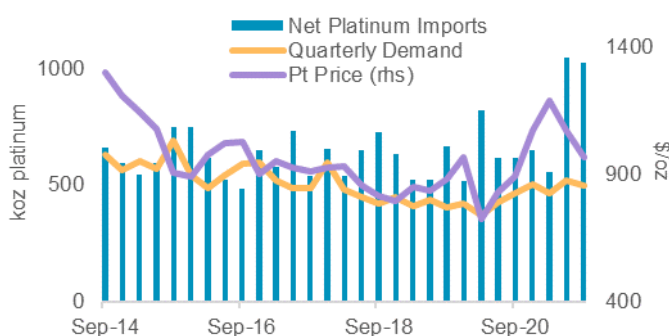
Drivers behind China's excess import trend could move the global platinum market into deficit

China's platinum imports have continued to run well ahead of its estimated demand. Identifying and quantifying this hidden underlying demand, and believing that the drivers continue into 2022, would move the platinum market from a significant surplus into a deficit.

As discussed in our recent [Q3'21 Platinum Quarterly](#), the reason for China's platinum imports continuing to run significantly ahead of estimated demand remains unexplained. Indeed, it is possible that these 'excess' imports could have consumed the forecast 2021 surplus in just the first nine months of the year (769 koz, v excess 9 month imports of 1,154 koz). So why is China importing so much more than its estimated demand? Is consumption genuinely as much as twice estimated levels, or is there an element of speculation involved?

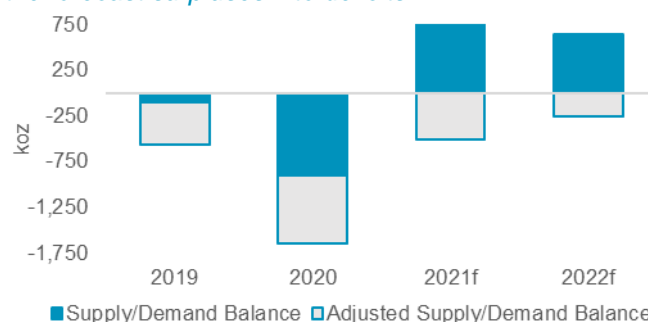
The answer is probably a bit of both: The biggest above-use 'excess' inflows have occurred during quarters of relative price weakness, which would be suggestive of speculation at least in terms of the timing of procuring raw materials. However, with China per-vehicle autocatalyst platinum loadings apparently well below comparable regions, and palladium imports below estimated needs, it is possible that actual platinum automotive demand is higher than forecast due to higher per-vehicle loadings as well as platinum substitution for palladium. Furthermore, there could be some stock-building by jewellery manufacturers and industrial users on availability and price grounds.

China platinum imports have been running well above visible demand levels for a number of years



Source: Bloomberg, Metals Focus, WPIC Research

Including the excess China platinum imports would move the forecast surpluses into deficits



Source: Metals Focus, WPIC Research, Excess imports are defined as total imports less visible demand. For clarity we reduce this by deducting a speculation component calculated by applying the global ratio of investment to total demand in each year to excess China imports.

VAT and import rules in China deter individuals from speculative investment in platinum, but it is possible for platinum fabricators to procure metal opportunistically when prices are seen as offering value. They could also do this, not only for their own needs, but with a view to selling on to other industry users of platinum. The most remarkable datapoint is heavy-duty (HD) autocatalyst loadings in China. Our published platinum automotive demand indicates per-HD vehicle loadings of c.3g Pt, well below the 20-25g seen in comparable regions. Illustrating our point, adding all excess imports to automotive demand in 2021 would increase China HD loadings to 25g, more aligned with the EU and US. In reality loadings are probably less, with substitution for palladium making up some of the difference and stock level uplifts in jewellery and industrial sharing the load.

While we cannot present data behind the demand trends in China, we can show that if they continue at an average of the 2019-2021YTD rate, the forecast 2022 surplus of 637 koz would potentially become a deficit as large as -255 koz.

Currently available data does not adequately explain the reasons for China's significantly higher imports of platinum versus its visible demand requirements. However, there are a number of possible reasons which may contribute. Applying current demand trends to the 2022 outlook would move the market balance from a surplus to a deficit.

Trevor Raymond
Director of Research
+44 203 696 8772
traymond@platinuminvestment.com

Edward Sterck
Analyst
+44 203 696 8786
esterck@platinuminvestment.com

Brendan Clifford
Head of Institutional Distribution
+44 203 696 8778
bclifford@platinuminvestment.com

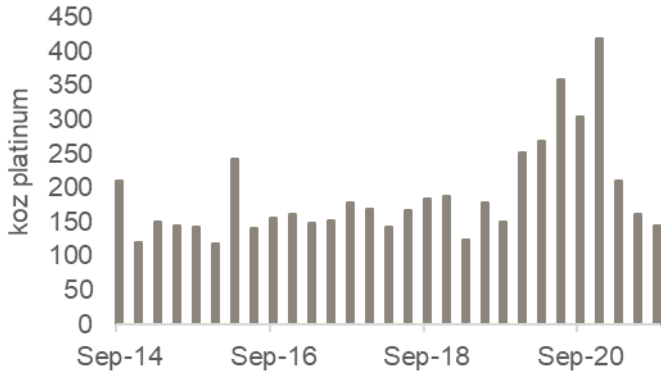
World Platinum Investment Council
www.platinuminvestment.com
166 Piccadilly,
London, W1J 9EF

November 2021

Platinum's attraction as an investment asset arises from:

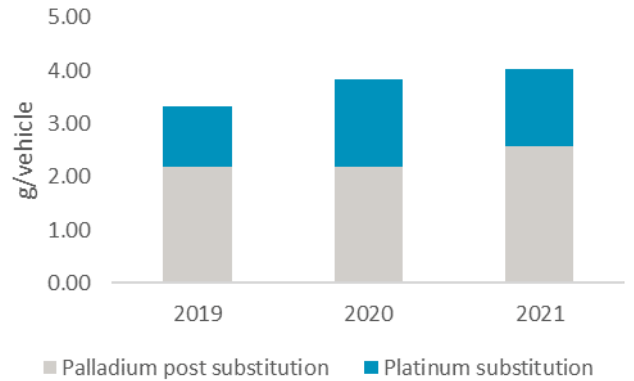
- Supply severely constrained for three more years despite some new investment in mining capacity
- Platinum price remains historically undervalued and significantly below both gold and palladium
- Automotive PGM demand growth should continue due to increasingly restrictive emissions rules
- Market balance and price mismatches between palladium and platinum drive substitution
- Investment demand is softer after two record years, but price and fundamentals remain attractive

Figure 1: China's platinum imports have run ahead of visible demand but its palladium imports have tailed off, suggestive of platinum substitution for palladium



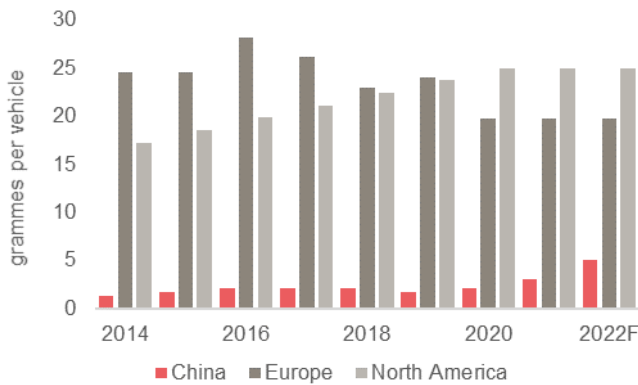
Source: Bloomberg

Figure 2: For illustration, allocating all excess China platinum imports, net of speculation, to light duty gasoline vehicles suggests 30-45% substitution for palladium



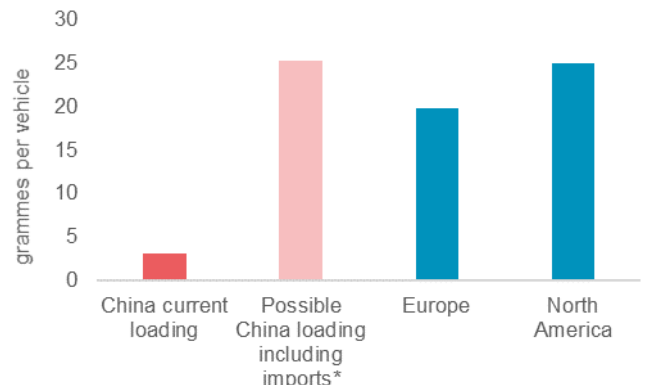
Source: LMC Automotive, WPIC Research, Note: illustration shows all excess platinum imports, also reduced by deducting a speculation component, substituted for palladium

Figure 3: China's excess platinum imports could also mean that per-vehicle loadings are far higher than platinum automotive forecasts suggest



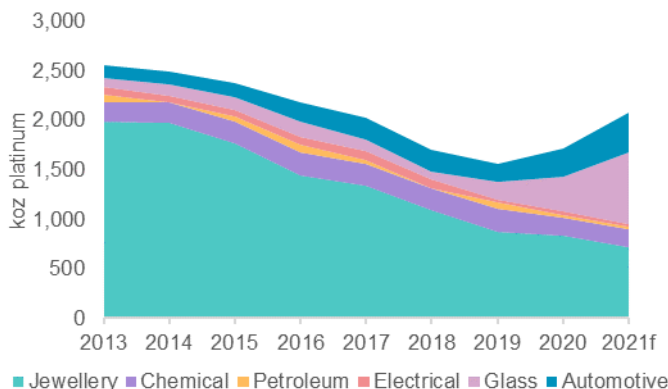
Source: Metals Focus, OICA, WPIC Research

Figure 4: For illustration, allocating all excess China platinum imports to HD loadings in 2021 brings them up to loading levels in comparable regions



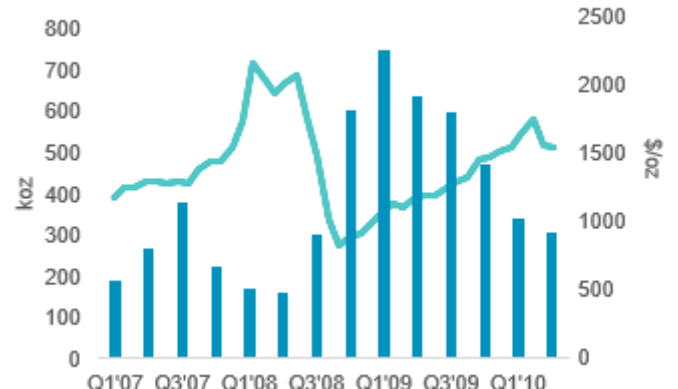
Source: Metals Focus, OICA, WPIC Research, Note: Illustration shows all excess platinum imports allocated to HD loadings

Figure 5: Although glass and automotive demand have grown, they have not yet offset the decline in jewellery demand, which may well benefit from higher stock levels



Source: Bloomberg, WPIC Research

Figure 6: We do know that jewellery manufacturers in China bought more than a million ounces in 2009 on weak price caused by the Global Financial Crisis



Source: Johnson Matthey, WPIC Research

IMPORTANT NOTICE AND DISCLAIMER: This publication is general and solely for educational purposes. The publisher, The World Platinum Investment Council, has been formed by the world's leading platinum producers to develop the market for platinum investment demand. Its mission is to stimulate investor demand for physical platinum through both actionable insights and targeted development: providing investors with the information to support informed decisions regarding platinum; working with financial institutions and market participants to develop products and channels that investors need.

This publication is not, and should not be construed to be, an offer to sell or a solicitation of an offer to buy any security. With this publication, the publisher does not intend to transmit any order for, arrange for, advise on, act as agent in relation to, or otherwise facilitate any transaction involving securities or commodities regardless of whether such are otherwise referenced in it. This publication is not intended to provide tax, legal, or investment advice and nothing in it should be construed as a recommendation to buy, sell, or hold any investment or security or to engage in any investment strategy or transaction. The publisher is not, and does not purport to be, a broker-dealer, a registered investment advisor, or otherwise registered under the laws of the United States or the United Kingdom, including under the Financial Services and Markets Act 2000 or Senior Managers and Certifications Regime or by the Financial Conduct Authority.

This publication is not, and should not be construed to be, personalized investment advice directed to or appropriate for any particular investor. Any investment should be made only after consulting a professional investment advisor. You are solely responsible for determining whether any investment, investment strategy, security or related transaction is appropriate for you based on your investment objectives, financial circumstances and risk tolerance. You should consult your business, legal, tax or accounting advisors regarding your specific business, legal or tax situation or circumstances.

The information on which this publication is based is believed to be reliable. Nevertheless, the publisher cannot guarantee the accuracy or completeness of the information. This publication contains forward-looking statements, including statements regarding expected continual growth of the industry. The publisher notes that statements contained in the publication that look forward in time, which include everything other than historical information, involve risks and uncertainties that may affect actual results. The logos, services marks and trademarks of the World Platinum Investment Council are owned exclusively by it. All other trademarks used in this publication are the property of their respective trademark holders. The publisher is not affiliated, connected, or associated with, and is not sponsored, approved, or originated by, the trademark holders unless otherwise stated. No claim is made by the publisher to any rights in any third-party trademarks

WPIC Research MiFID II Status

The World Platinum Investment Council (WPIC) has undertaken an internal and external review of its content and services for MiFID II. As a result, WPIC highlights the following to the recipients of its research services, and their Compliance/Legal departments:

WPIC research content falls clearly within the Minor Non-Monetary Benefit Category and can continue to be consumed by all asset managers free of charge. WPIC research can be freely shared across investment organisations.

1. WPIC does not conduct any financial instrument execution business. WPIC does not have any market making, sales trading, trading or share dealing activity. (No possible inducement).
2. WPIC content is disseminated widely and made available to all interested parties through a range of different channels, therefore qualifying as a "Minor Non-Monetary Benefit" under MiFID II (ESMA/FCA/AMF). WPIC research is made freely available through the WPIC website. WPIC does not have any permissioning requirements on research aggregation platforms.
3. WPIC does not, and will not seek, any payment from consumers of our research services. WPIC makes it clear to institutional investors that it does not seek payment from them for our freely available content.

More detailed information is available on the WPIC website:

<http://www.platinuminvestment.com/investment-research/mifid-ii>