PLATINUM PERSPECTIVES

Stronger China rebound could boost platinum demand in 2023, significantly increasing deficit

Following the easing of COVID restrictions, China's economic growth gained momentum through Q1 2023 (GDP: 4.5%, ahead of 4.0% consensus). March 2023 retail sales and automotive production increased by 10.6% y/y (Q1: 5.8%) and by 14.2% y/y (Q1: -4.2%). Should China's re-opening continue to surprise to the upside, we estimate that platinum demand could increase by an incremental 150 to 300 koz for 2023.

China is the largest consumer of platinum globally (Fig. 1 overleaf), accounting for an average of 32% of total platinum demand over the three years to 2022. Chinese platinum demand peaked at 2,758 koz in 2013. Jewellery has historically dominated Chinese platinum demand (~70% in 2013), however, changing consumer preferences have caused Chinese platinum jewellery demand to decline by 14% CAGR since 2013. Since 2020, growth in Chinese industrial and automotive platinum demand has offset the decline in jewellery demand. China's industrial and automotive platinum demand has increased by 11% and by 39% CAGRs respectively between 2019 to 2022. Industrial demand has been particularly supported recently by a move towards 100% platinum bushings at the expense of removing rhodium.

China's automotive platinum demand could continue replicating recent growth trends as vehicle production growth accelerated through Q1 2023 (Fig. 3) but BEV penetration rates sequentially declined (Fig. 4). After a weak January, China's Association of Automobile Manufacturers (CAAM) reported passenger and commercial vehicle production, which increased by 14% and 21% in March 2023 respectively. Additionally, CAAM data highlighted a slowing rate of light duty vehicle BEV penetration from 24.9% in Q4 2022 to 21.2% in Q1 2023 as Chinese EV subsidies ended from 2023. Slowing BEV penetration growth implies a prolonged need for PGM-containing vehicles.



Edward Sterck

Director of Research +44 203 696 8786 esterck@platinuminvestment.com

Wade Napier

Analyst +44 203 696 8774 wnapier@platinuminvestment.com

Brendan Clifford

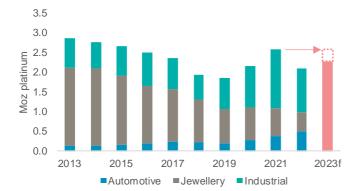
Head of Institutional Distribution +44 203 696 8778 bclifford@platinuminvestment.com

World Platinum Investment Council

www.platinuminvestment.com Foxglove House, 166 Piccadilly London W1J 9EF

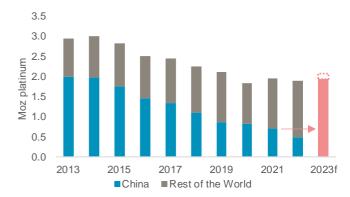
April 2023

A 2023 reopening bounce could result in similar platinum demand growth China reported between 2020 and 2021



Source: SFA (Oxford) (2013 – 2018), Metals Focus (2019 – 2023), WPIC Research

A recovery in Chinese platinum jewellery demand to 2021 levels could support upwards revisions to 2023 forecast



Source: SFA (Oxford) (2013 – 2018), Metals Focus (2019 – 2023), WPIC Research

Exacerbated by COVID lockdowns and broader economic concerns, Chinese jewellery demand declines accelerated in 2022, at -31% y/y to 484 koz. The relaxation of China's COVID policies is expected to underpin a recovery in consumer confidence and platinum jewellery demand. In our latest *Platinum Quarterly*, global platinum jewellery demand is projected to increase by 2% y/y to 1,936 koz in 2023 from 1,894 koz in 2022. Chinese economic data (Fig. 6) highlighted a 13.6% y/y increase in retail gold and silver jewellery sales in Q1 2023 (March: +37%). Chinese data does not capture platinum jewellery. However, should the stronger economic data flow through into China jewellery demand sufficiently to move it back towards 2021 levels, it would add an incremental ~150 koz platinum demand in 2023 vs *Platinum Quarterly* forecasts, although it would remain 65% below peak demand (above right chart).

Should China's sequentially improving economic data underpin a broader based demand pull leading to Chinese total platinum demand returning to 2021 levels of 2,588 koz, that could imply an aggregate ~300 koz of incremental platinum demand relative to our latest *Platinum Quarterly* 2023 forecasts. Notably, incremental platinum demand growth in 2023 would further deepen the forecast supply deficit of 556 koz.

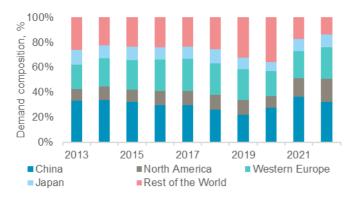
Chinese platinum demand is diversifying. The recent growth in automotive and industrial demand for platinum has compensated for declining jewellery demand.

Should stronger than expected economic growth push 2023 platinum demand back towards 2021 levels, it would increase total demand by ~300 koz and further deepen the projected 556 koz deficit.

Platinum's attraction as an investment asset arises from:

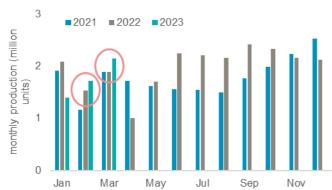
- Supply remains challenged, despite some new investment in mining capacity
- Automotive platinum demand growth should continue due principally to substitution in gasoline vehicles
- The platinum price remains historically undervalued and significantly below both gold and palladium
- Significant excess imports into China are resulting in market tightness and elevated lease rates
- WPIC research indicates platinum market entering sustained, growing deficits from 2023

Figure 1. China is the largest regional constituent of global platinum demand, accounting for an average of 32% of total platinum demand



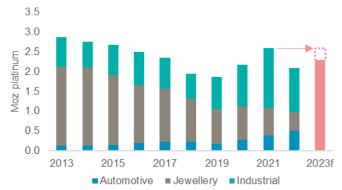
Source: SFA (Oxford) (2013 – 2018), Metals Focus (2019 – 2023), WPIC Research

Figure 3. The trend in February and March shows y/y Chinese passenger vehicle production growth, despite a 4% YTD decline in Q1 2023 as a whole



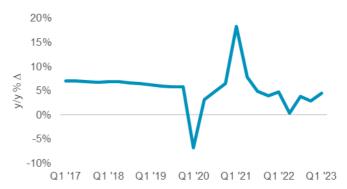
Source: China Association of Automobile Manufacturers, WPIC Research

Figure 5. If a 2023 reopening bounce drives platinum demand back to 2021 levels, it would add ~300 koz to total demand projections



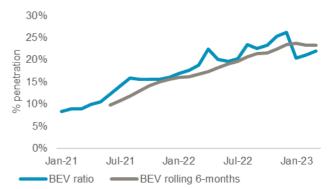
Source: SFA (Oxford) (2013 – 2018), Metals Focus (2019 – 2023), WPIC Research

Figure 2: China's GDP growth accelerated from 2.9% in Q4 2022 to a higher than expected 4.5% in Q1 2023 reflecting easing COVID restrictions



Source: Bloomberg, WPIC Research

Figure 4: The rate of growth in China's battery electric vehicle (BEV) penetration rate has slowed entering 2023 which could imply increased PGM requirements for ICE vehicles



Source: China Association of Automobile Manufacturers, WPIC Research

Figure 6: Chinese retail sales data highlight a strong rebound the gold and silver jewellery category, increasing 37% y/y in March 2023 (+13.6% YTD)



Source: National Bureau of Statistics of China, WPIC Research, *Dashed line represents interpolated data for non-reported months

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.

- 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).
- 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.
- 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