

The Investment Case for Platinum

Paul Wilson, CEO

World Platinum Investment Council

7 June 2022



World Platinum Investment Council (WPIC) established: Nov 2014



Hybrid
ASIA PACIFIC
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CONFERENCE
6-7 June 2022
InterContinental Singapore

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WPIC Mission

Promoting global investor demand for platinum by providing actionable insights and platinum investment products and channels

www.platinuminvestment.com

Selected WPIC Product Partners



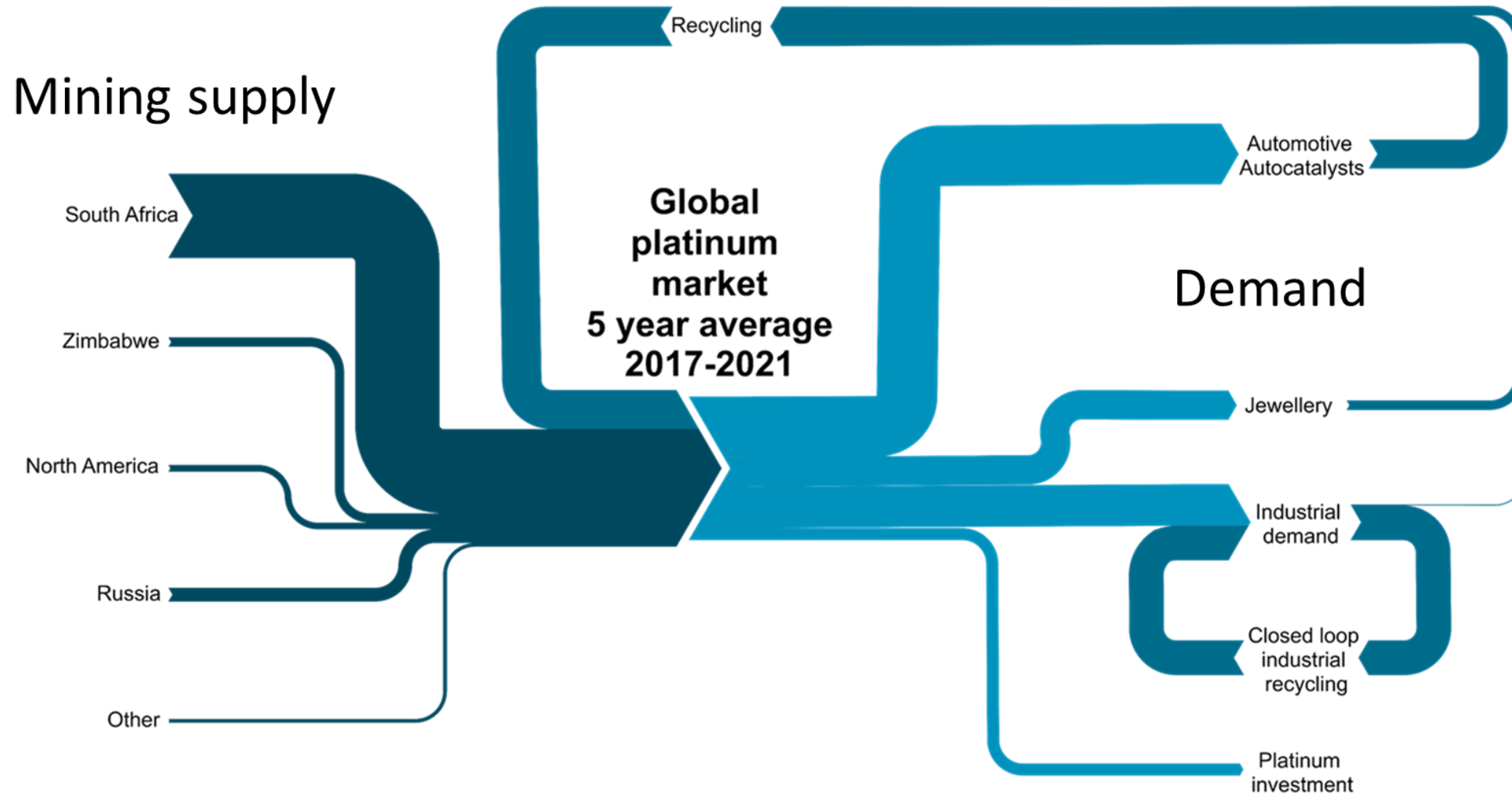
Platinum is 30 times more rare than gold



- Marina Bay Sands hotel infinity pool
- 1,425 m³, 55 stories up (191m)

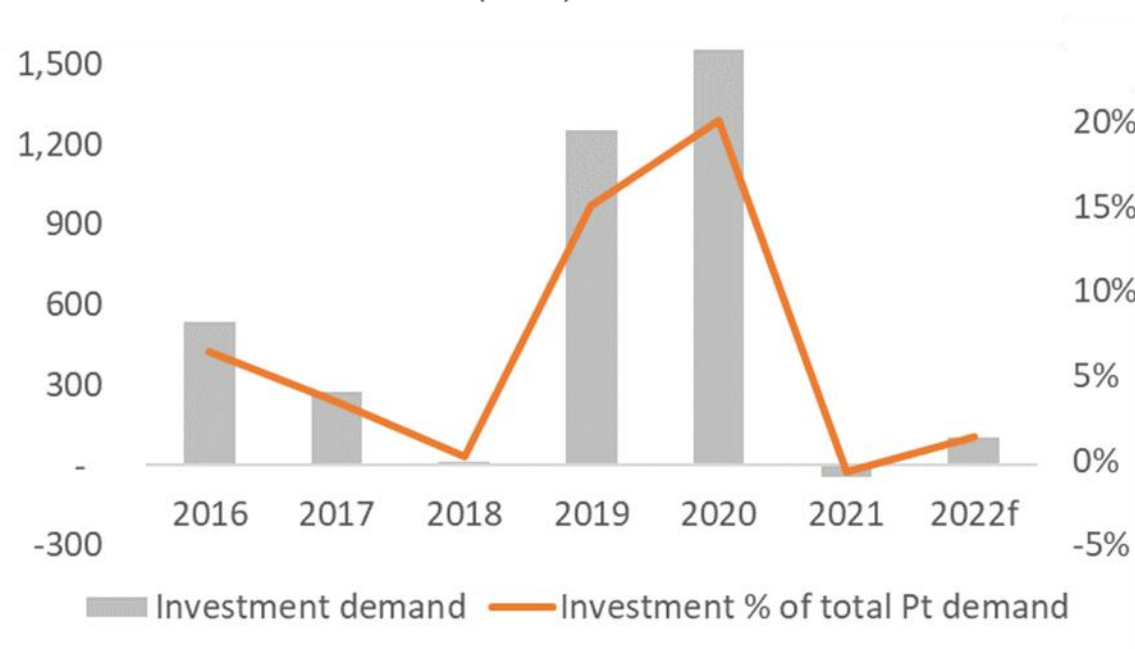
- All gold ever produced = Fill 7 pools this size
- All platinum ever = Almost knee deep in 1 pool
- Melting points: Au: 1,064 °C, Pt: 1,768 °C
- Physically backed ETFs: Au: US\$240 bn, **Pt: US\$4 bn**

250 t (8 moz) per annum Platinum Market

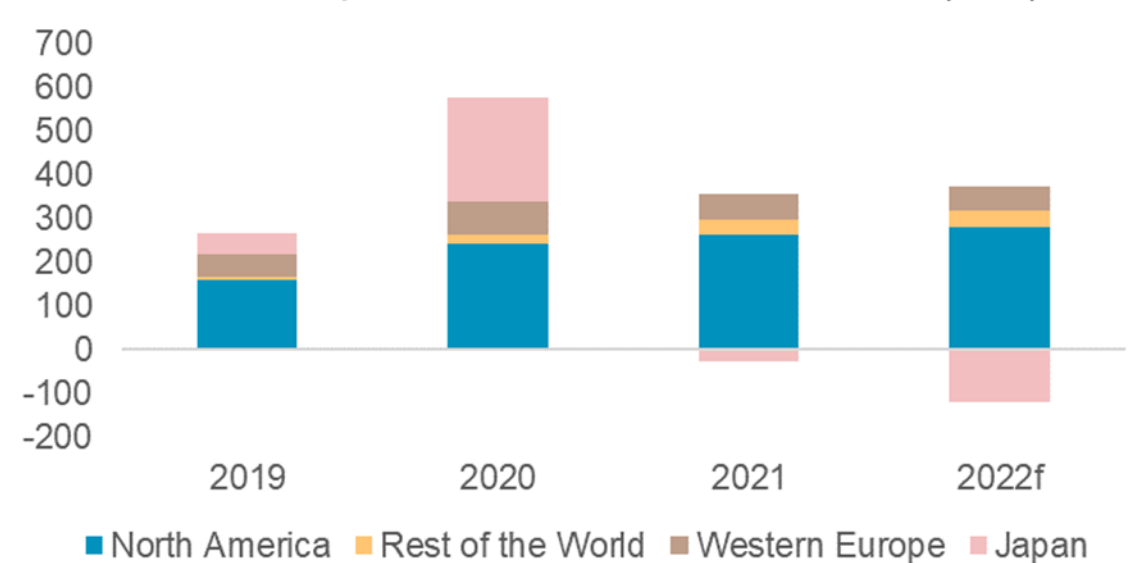


More products and high global risk has increased investment

Global Pt investment (koz) and % of total Pt demand



Global platinum bar and coin sales (koz)

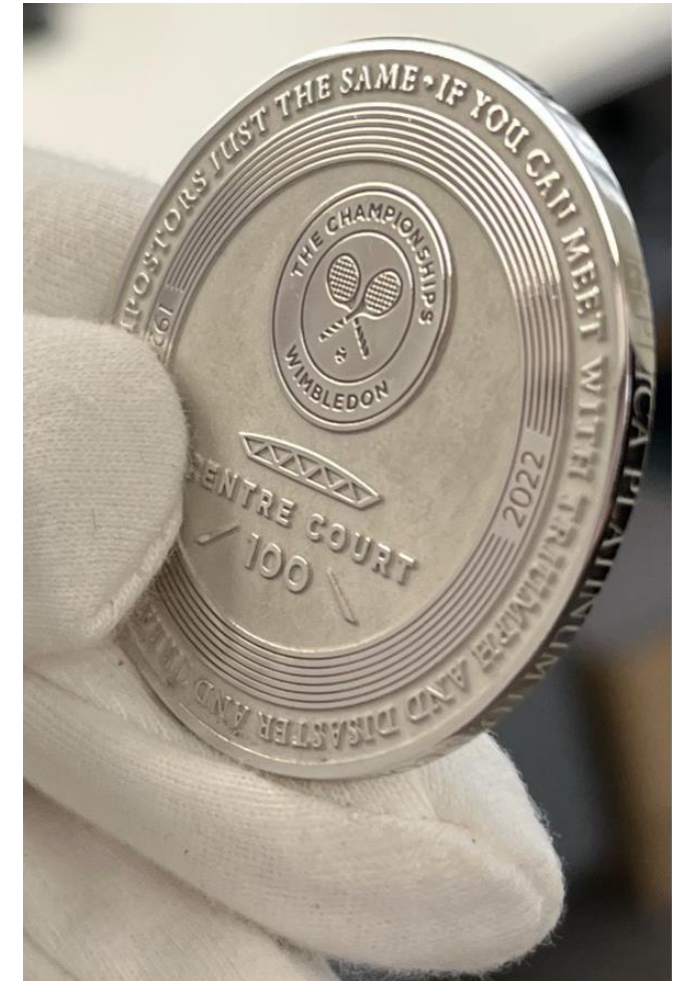


- WPIC partners supported increased bar and coin sales
- ETF switching to high dividend paying PGM equities – poised to reverse

Queen's Platinum Jubilee and Wimbledon 2022



- Jubilee celebrations
- 2 kg platinum Britannia
- 70 g Wimbledon tennis toss coins



WPIC APAC initiatives

- Shanghai office driving APAC since 2017
- WPIC instrumental in inaugural Shanghai Platinum Week 2021
- Metalor China, Bai De Jin, Yue Heng joined growing partner list in 2022
- SBMA bolstering our wider APAC promotion



www.shanghaiplatinumweek.com



SPW 2022 postponed to later in year
New Shanghai Library, Pudong District

Why invest in platinum? Constrained supply & demand growth potential

- Constrained supply – operational in South Africa and Russia risk
- Reactions to security of supply – buffer stocks, China imports
- Increased platinum for palladium substitution
- Green hydrogen boost from Europe energy concerns

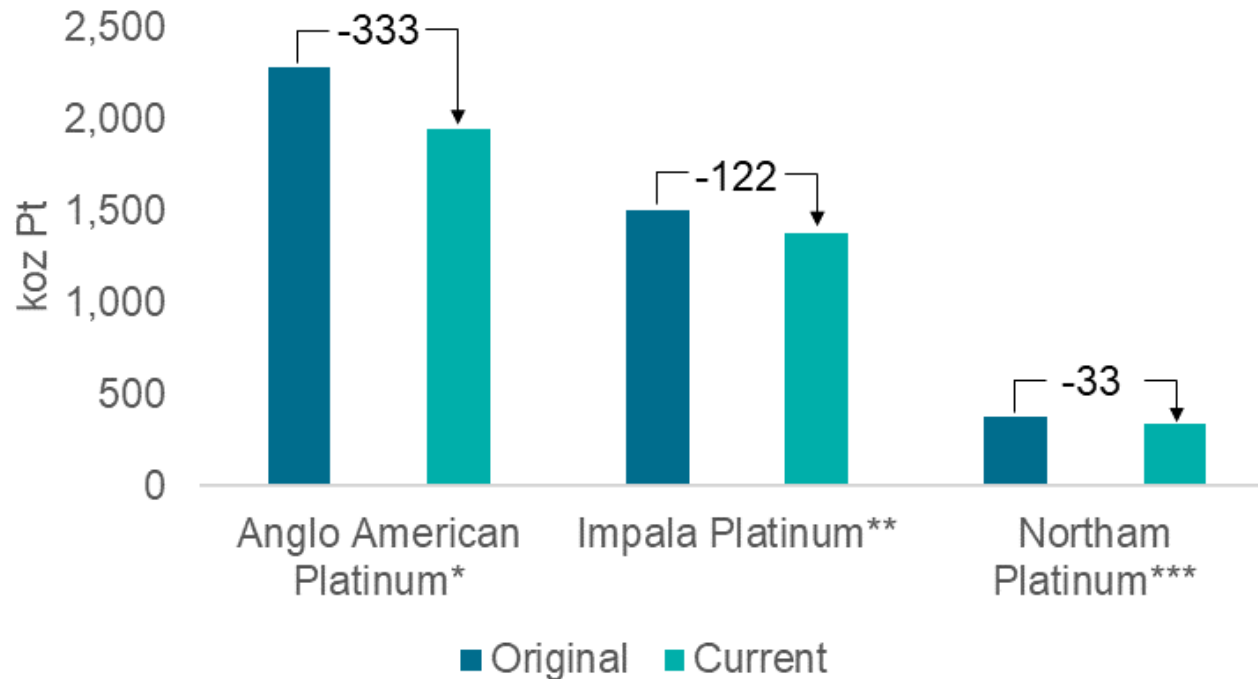


Platinum-based PEM electrolyser (UK)



FCEV truck in service (Hyundai)

Production challenges downgrade company production + Russia risk



- 2022 production guidance reduced by over 450 koz between Q3'21 and Q1'22
- c.600 koz of Platinum supply from Russia at risk

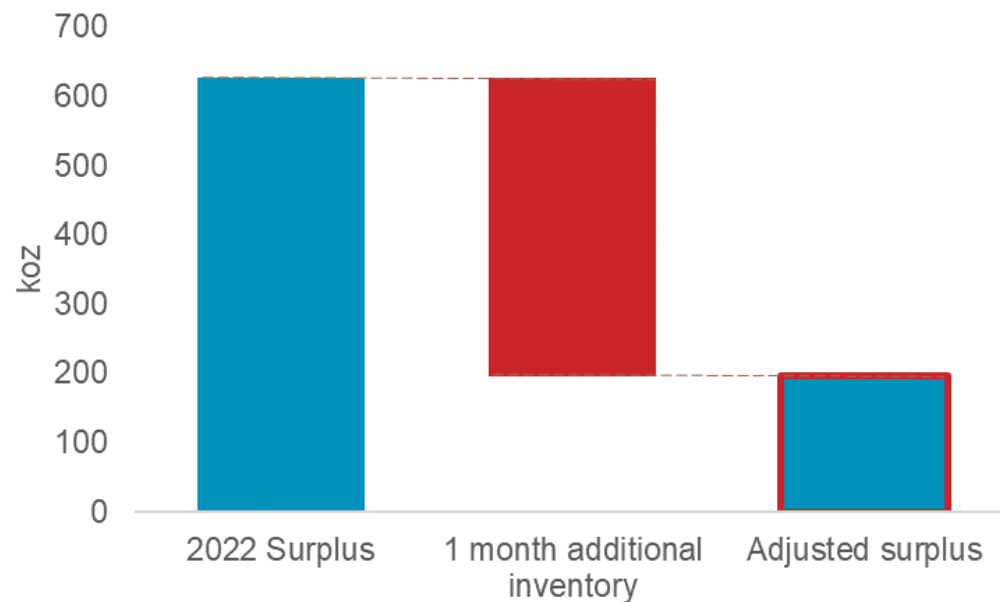
Source: WPIC Research, company reports

*Anglo American Platinum calendar 2022 guidance taken as the mid-point of refined 4E production guidance on 26/07/2021 and 21/04/2022 adjusted by the ratio of Pt:4E guidance for metals in concentrate production issued on the same dates

** Impala Platinum fiscal 2022 guidance (June 2022 year end) taken as the mid-point of refined 6E production guidance on 02/08/2021 and 03/01/2022 adjusted by the average Pt:6E production ratio over the years FY'18 through FY'21

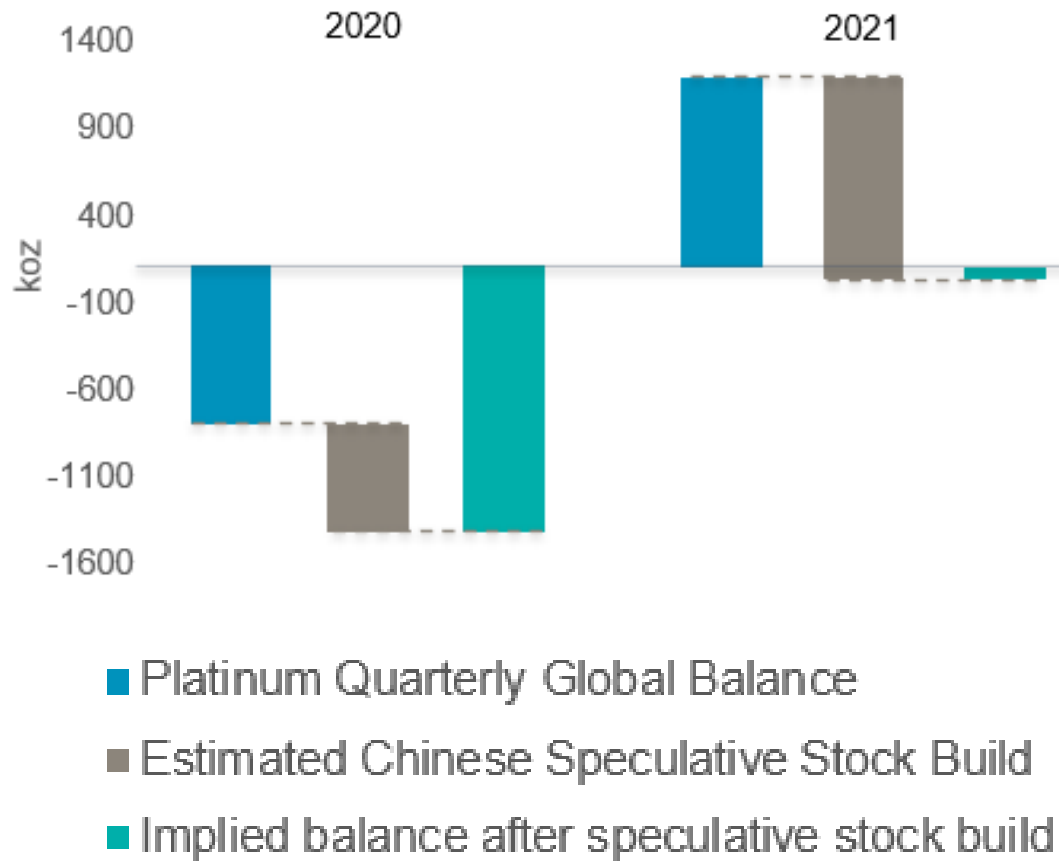
*** Northam Platinum fiscal 2022 guidance (June 2022 year end) taken as the mid-point of 4E sales guidance on 30/09/2021 and 31/03/2022 adjusted by the average Pt:4E production ration over the years FY'18 through FY'21

Security of supply risk could drive short-term buffer stocks



- Insecurity of supply could push automotive and industrial users and financiers to review terms
- Adding one month of buffer inventory for automotive and industrial reduces forecast platinum surplus below 200 koz

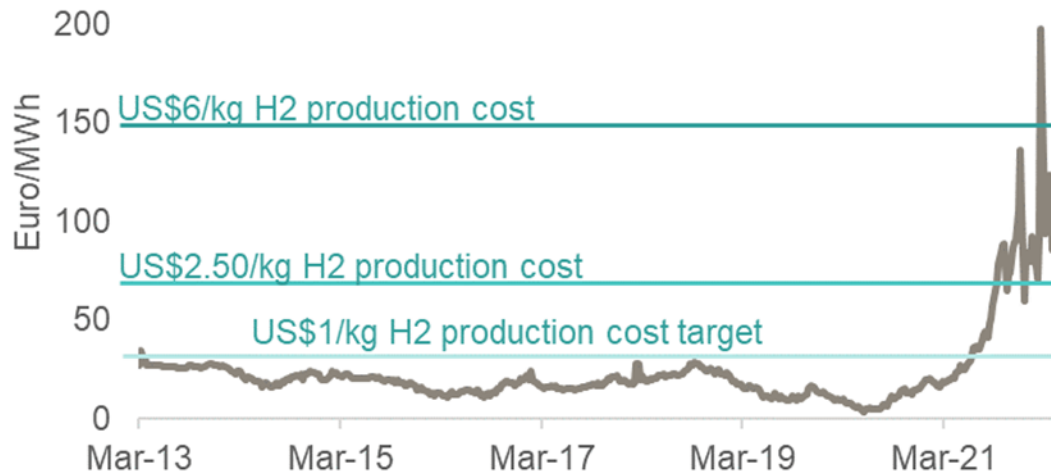
China imports above identified demand exceeded 2021 surplus



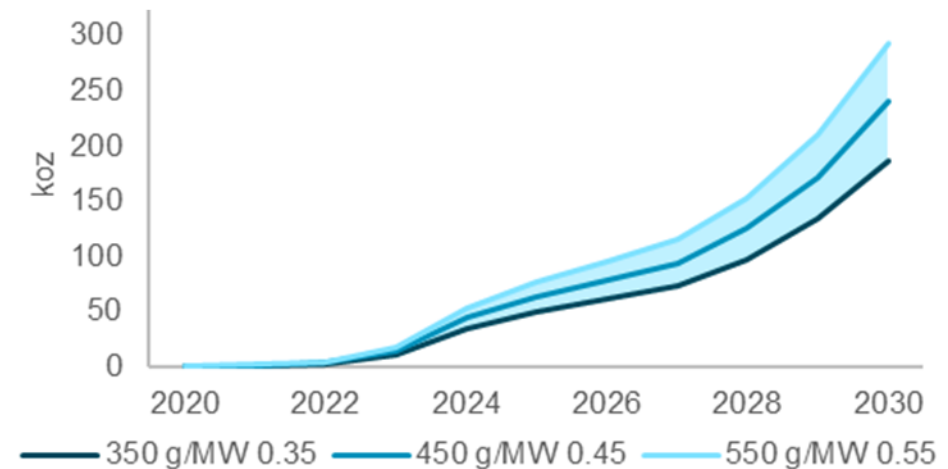
- China imported significantly more platinum than it consumed in 2020 and 2021
- China's excess imports completely absorbed the 1.2 Moz market surplus in 2021
- Insecurity of supply and tight market support continuation of China speculative purchases

Reducing reliance on Russian gas positive for green hydrogen

Energy costs spike over current hydrogen cost

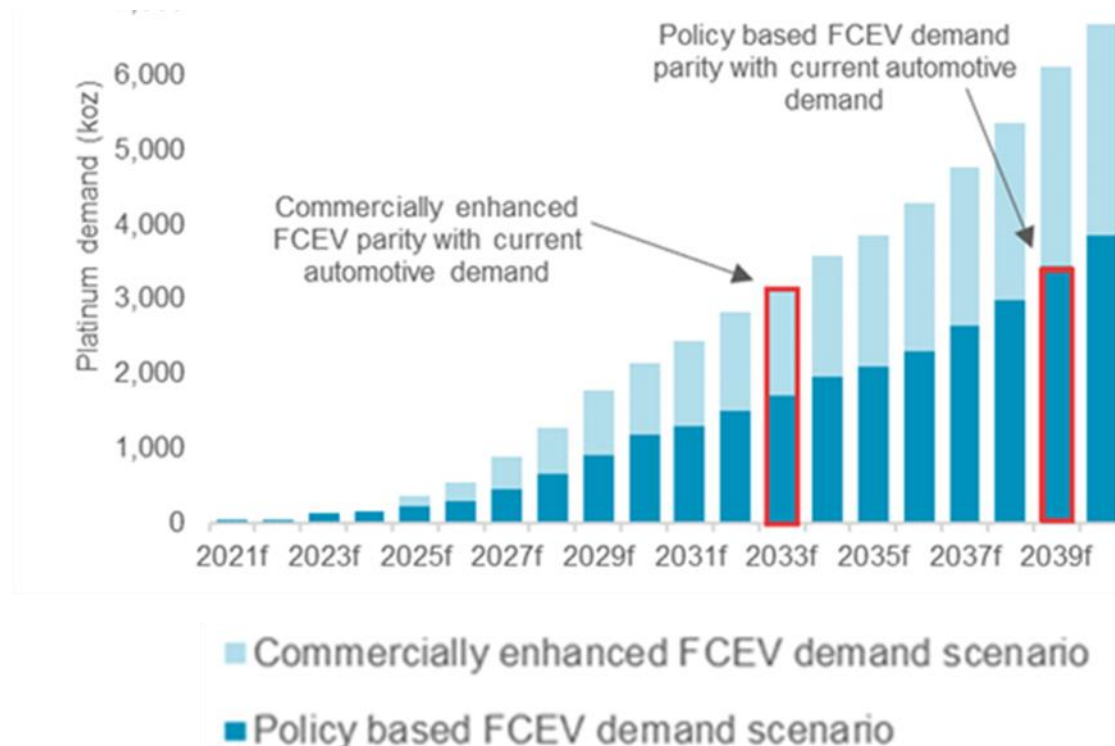
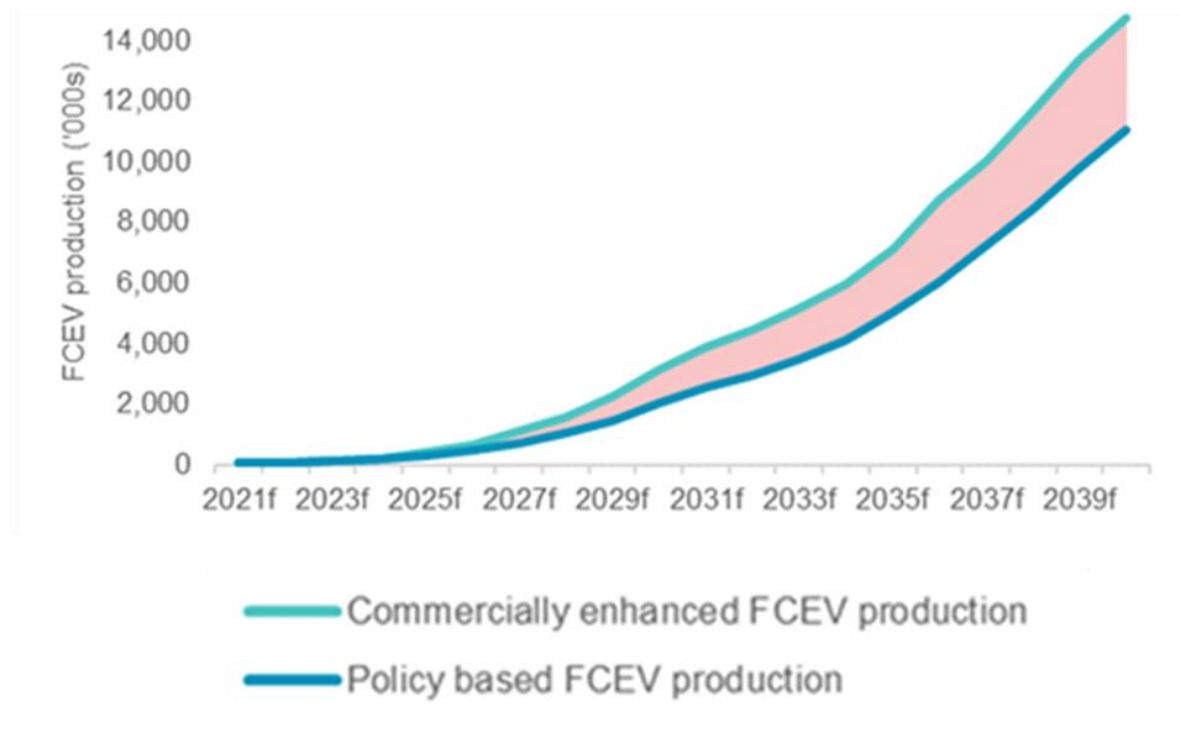


Platinum demand from PEM hydrogen electrolyzers



- Europe to replace 20-50 Bm³ of Russian gas with green hydrogen by 2030
- Electrolyser needs add incremental platinum demand
- Growing hydrogen production & distribution boosts FCEV adoption

FCEVs forecast to drive material long-term Pt demand growth



- FCEV penetration at similar pace to BEV over 10 years
- Matches current platinum automotive demand in 2039 or 2033

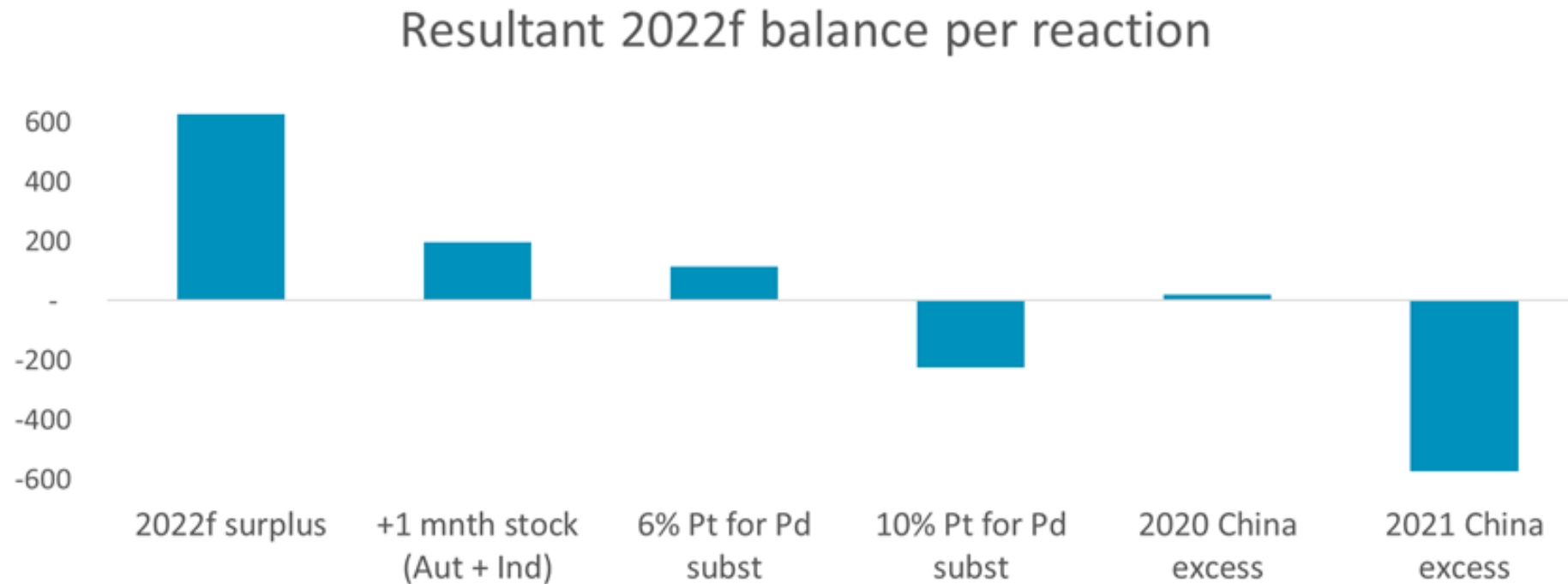
\$1,300/oz Palladium premium and Russia driving more substitution



- Supply risks add to economic benefits
- Platinum substitution for palladium in newly launched vehicles is material
- Automaker savings of c.US\$ 1 billion pa

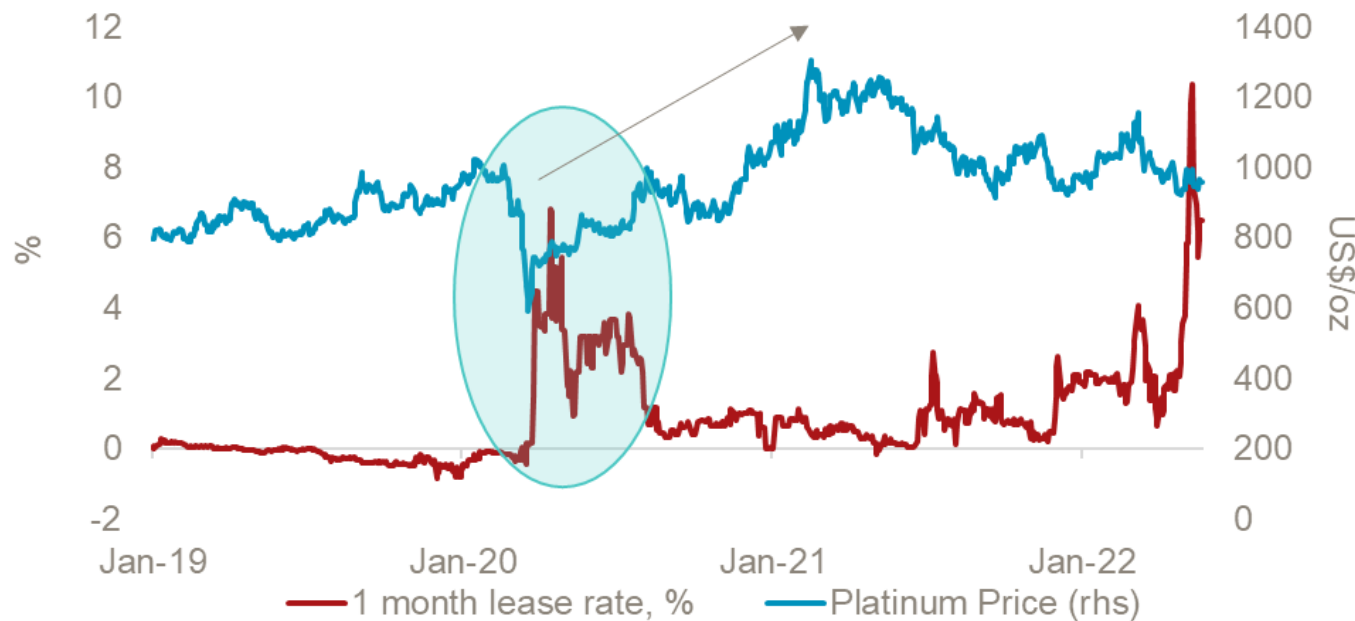
Gasoline vehicles (M)	Annual Pd demand (koz)	Annual newly launched models (%)	Pt for Pd substitution level (%)	Total annual Pt impact (koz)	Automaker savings (US\$M)
58.6	8,529	20%	30%	512	671
			50%	853	1,118

Supply insecurity in 2022 could result in platinum deficit



- Any one action in response to security of supply concerns could materially reduce the forecast surplus – a portion of each could easily cause a deficit

Platinum lease rates imply shortage of near-term availability



- Spike in lease rates to 10% point to possible short-term shortage of platinum metal availability
- Potentially presaging a period of sustained gains in the platinum price, as seen in 2020

Why invest in platinum? Supply risk actions, hydrogen and substitution



- Supply insecurity to override forecast surplus
- Buffer stocks and more China stock buying likely
- Increased platinum for palladium substitution
- Green hydrogen & FCEVs attracting Pt investors
- Short-term shortages of platinum group metals

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info@platinuminvestment.com

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