

PLATINUM QUARTERLY PRESENTATION Q4 2021

London

9th March 2022

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AGENDA: PLATINUM QUARTERLY: Q4 2021, FULL YEAR 2021 AND UPDATED 2022 FORECAST

1. Introduction

Paul Wilson, CEO

2. Platinum Quarterly, fundamentals review

Trevor Raymond

3. Focus on fundamental drivers

Trevor Raymond

4. Questions

Paul Wilson

Trevor Raymond



AGENDA: PLATINUM QUARTERLY: Q4 2021, FULL YEAR 2021 AND INITIAL 2022 FORECAST

1. Introduction

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2. Platinum Quarterly, fundamentals review

- Supply, demand and balance: Q4'21, 2021 and 2022 estimates

Trevor Raymond, Director of Research

3. Focus on fundamental drivers

Trevor Raymond

4. Questions

Paul Wilson

Trevor Raymond



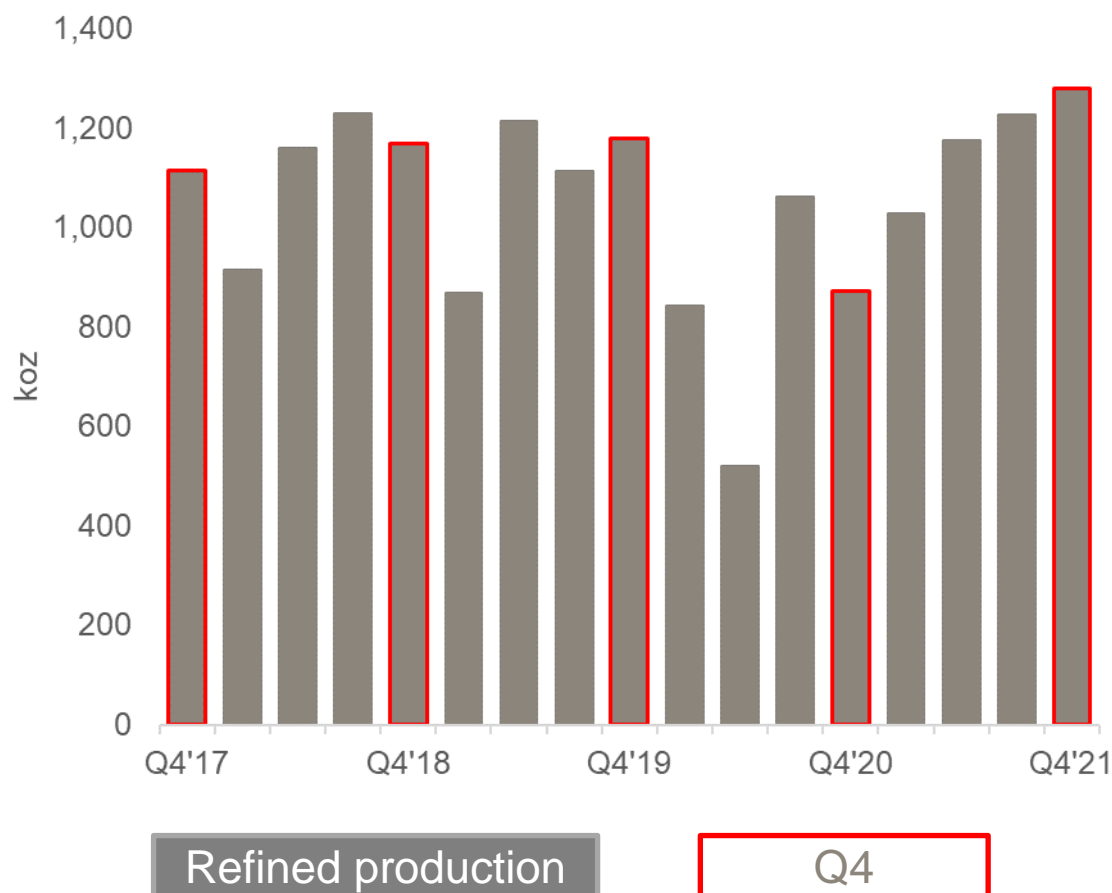
Q4 2021 SUPPLY: TOTAL SUPPLY UP 17% AS ACP BACKLOG UNWIND OFFSETS LOWER RECYCLING

SUPPLY		Q4 2020 // Q3 2021	Q4 2021
Refined Production		1,303	1,592
			1,695
	South Africa	873	1,228
	Zimbabwe	115	111
	North America	82	50
	Russia	182	153
	Other	51	51
	Inc(-)/Dec(+) in Producer Inventory	-51	-28
Total Mining Supply		1,252	1,565
Recycling		573	463
			461
	Autocatalyst	422	341
	Jewellery	134	104
	Industrial	17	17
Total Supply		1,825	2,027
			2,135

- South Africa refined supply up 47% YoY (+407 koz)
- Recycling supply down 20% YoY (-112 koz)
- Total Q4 supply up 17% YoY (+310 koz)

Q4 2021 SOUTH AFRICAN MINE SUPPLY: UP 47% YOY ON NO DISRUPTIONS AND ACP BACKLOG UNWIND

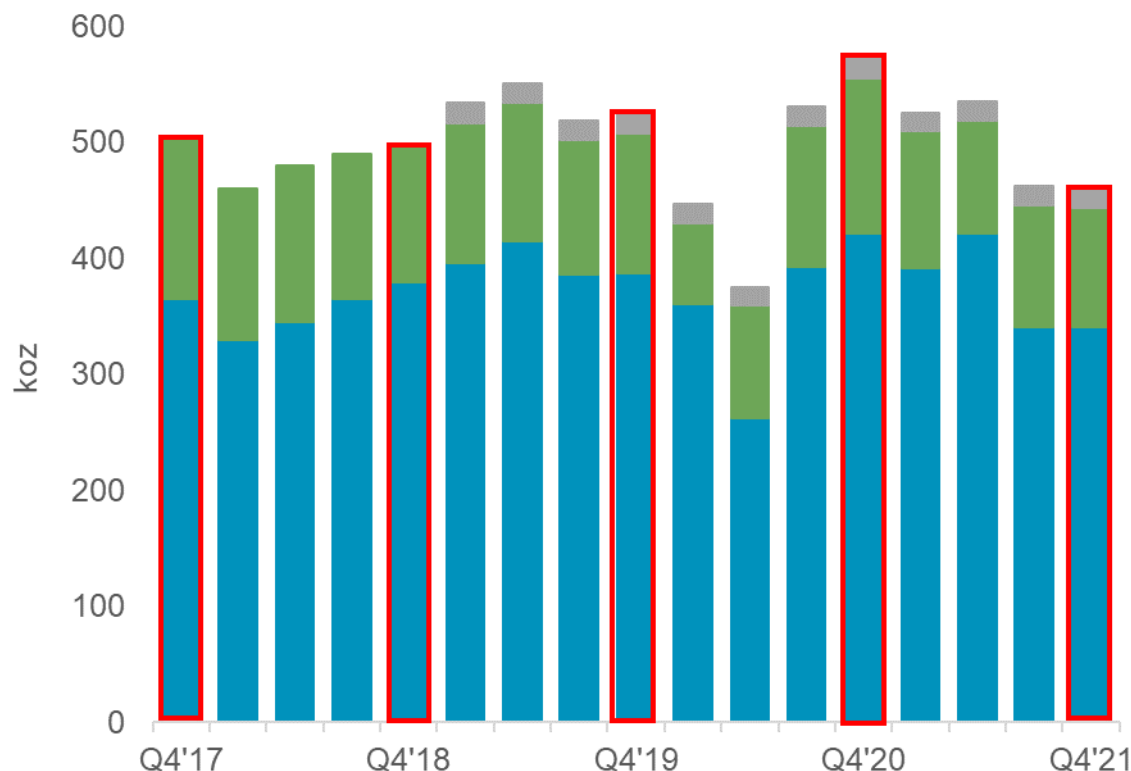
South African refined mine production (koz)



- South African Q4 production up 47% YoY and 4% QoQ
 - Ongoing production stability on increased preventative maintenance
 - Includes most of final unwind of ACP inventory, but excludes material in process pipeline
 - Net of ACP inventory, underlying production remains below 2019 levels

Q4 2021 RECYCLING: DOWN 20% ON REDUCED VEHICLE SCRAPPAGE AND JEWELLERY TRADE-INS

Recycling (koz)



Autocatalyst

Jewellery

Industrial

Q4

- Recycling flat QoQ and down 20% YoY from an exceptionally high comparable quarter
- As in Q3, used cars being run for longer as semiconductor disruption causes new vehicle shortages
- Jewellery trade-ins were lacklustre on muted demand for new jewellery

Q4 2021 DEMAND: STRONG INDUSTRIAL, SOFT AUTO & JEWELLERY, -VE INVESTMENT - SURPLUS +475 KOZ

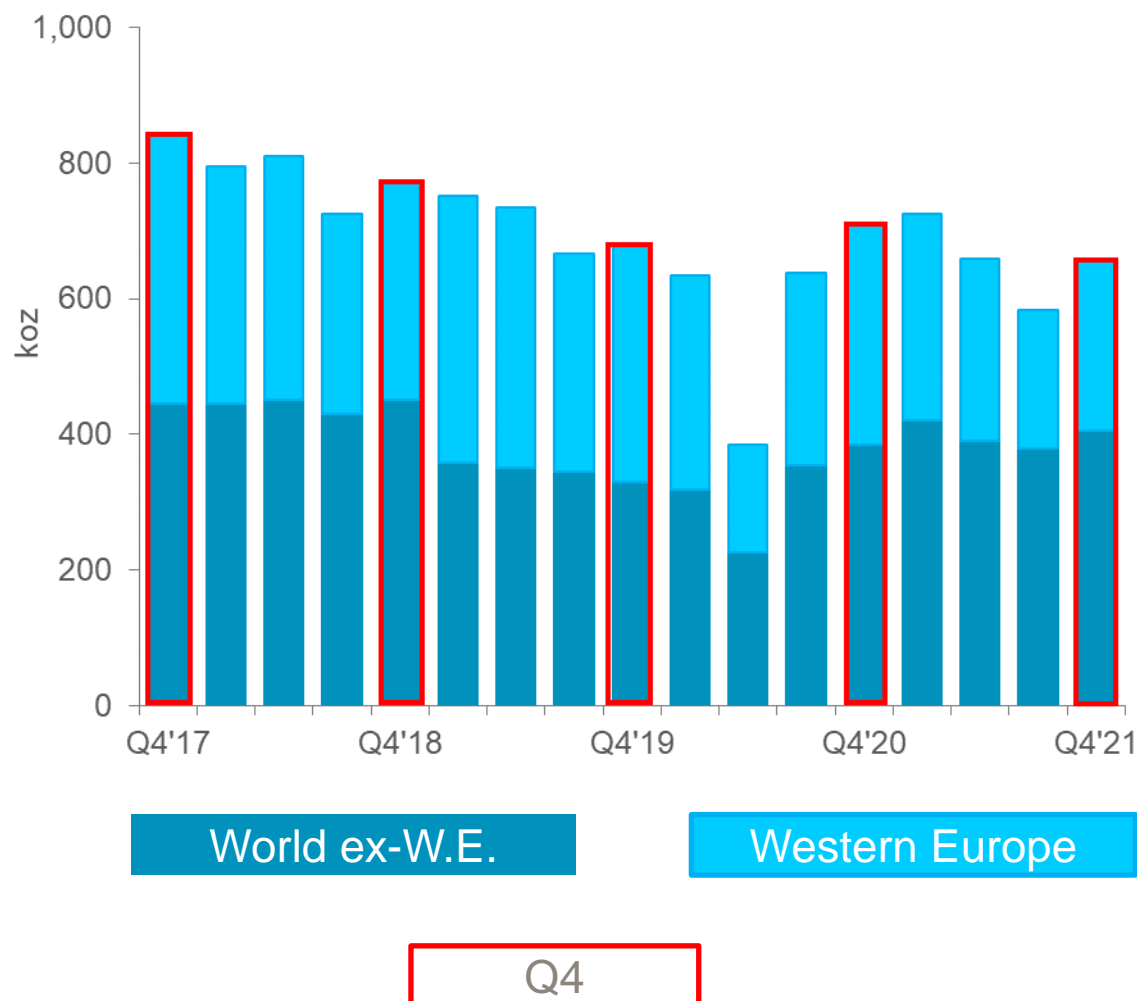
DEMAND		Q4 2020 // Q3 2021	Q4 2021
Automotive		712	582
	Autocatalyst	712	582
	Non-road	†	†
Jewellery		529	481
Industrial		525	596
	Chemical	178	156
	Petroleum	36	46
	Electrical	36	35
	Glass	73	164
	Medical & Biomedical	60	64
	Other	143	132
Investment		135	-282
	Change in Bars, Coins	60	110
	Change in ETF Holdings	76	-219
	Change in Stocks Held by Exchanges	-1	-173
Total Demand		1,901	1,377
Balance		-76	650
			475

Q4 demand changes YoY

- Automotive down 8% (-56 koz)
- Jewellery down 6% (-33 koz)
- Industrial up 17% (+90 koz)
- Investment down by 243 koz
 - Bar and coin up 58% (+35 koz)
 - ETF down -231 koz
 - NYMEX down -47 koz
- Market surplus of 475 koz

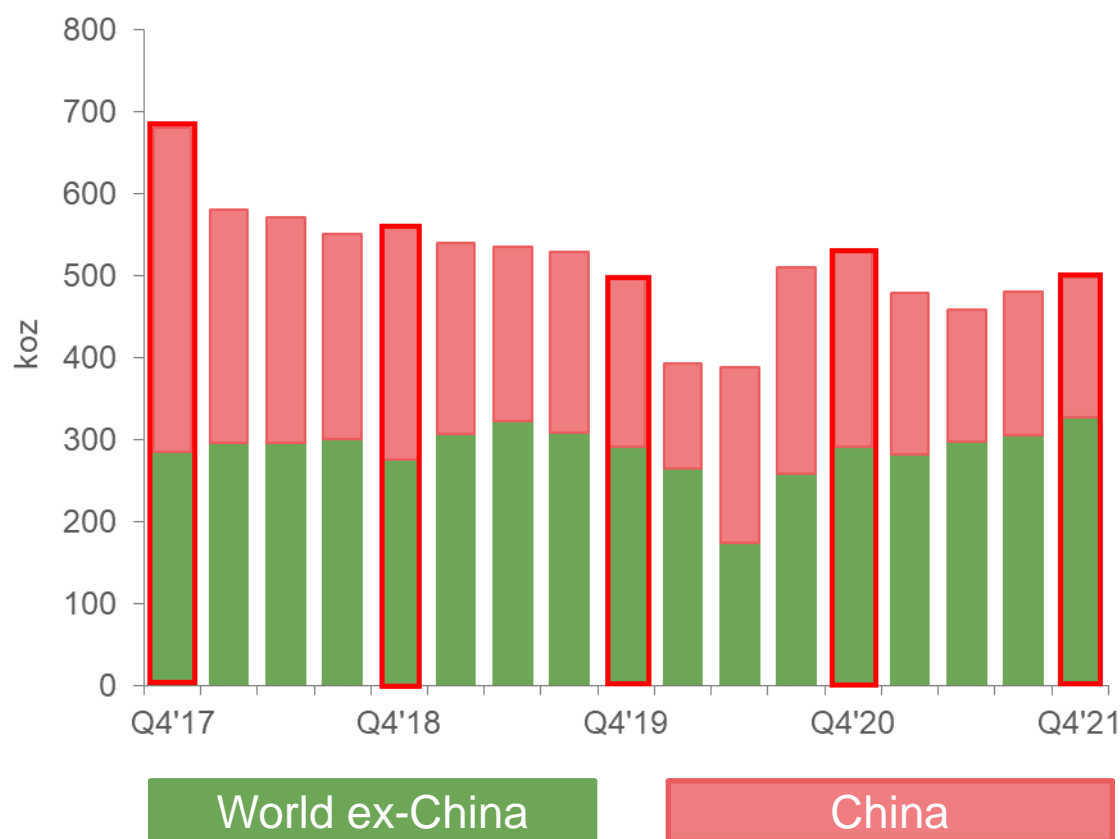
Q4 2021 AUTOMOTIVE: DOWN 8% YOY ON CONTINUED SEMICONDUCTOR CHALLENGES AND DRIVETRAIN MIX

Automotive demand (koz)



Q4 2021 JEWELLERY: DOWN 6% YOY AS WEAK DEMAND IN CHINA AND JAPAN OFFSETS R.O.W. STRENGTH

Jewellery demand (koz)

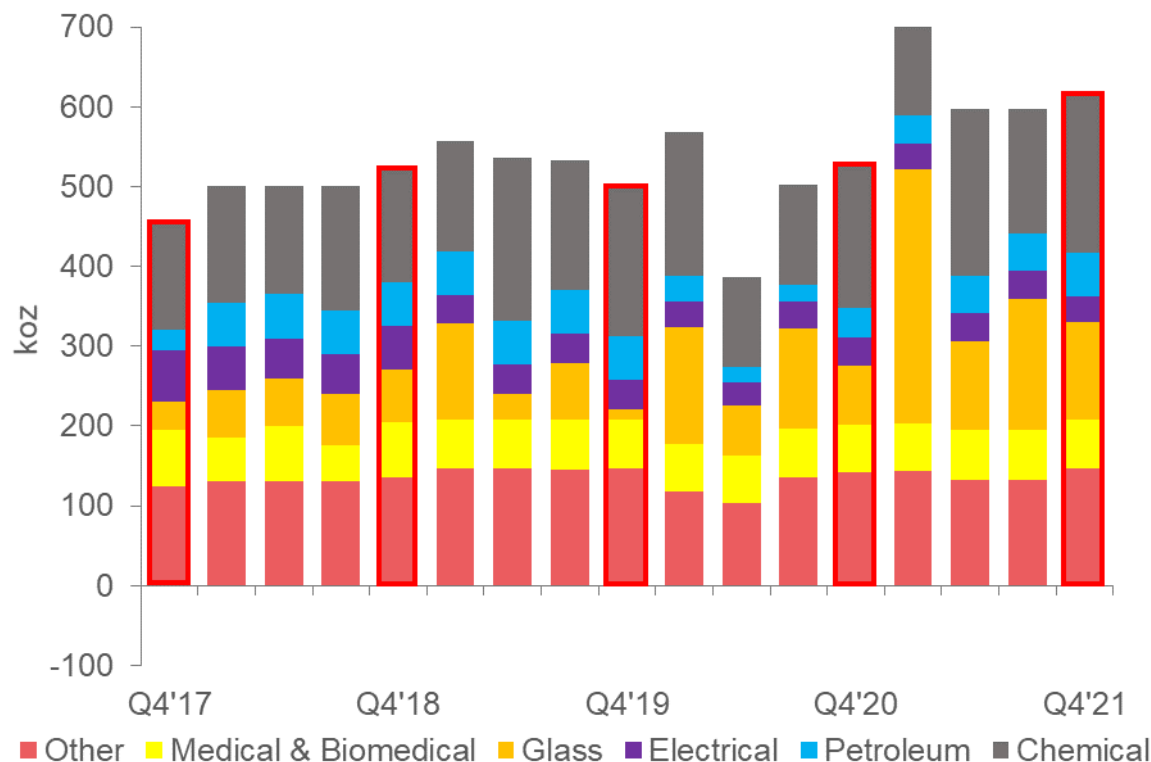


Q4

- Jewellery down 6% (-33 koz) YoY to 497 koz, but up 3% (+16 koz) QoQ
- Continued YoY strength in demand in Europe (+21%, +12 koz) and North America (+14%, +13 koz)
- China demand (-29%, -69 koz) from strong competition from new gold jewellery designs
- Japanese demand disappointed (-10%, -9koz) versus gold demand
- Indian up by 88% (+18 koz) off low base

Q4 2021 INDUSTRIAL DEMAND: UP 17% YOY BUT EASING FROM RECENT RECORD HIGHS

Industrial demand by category (koz)

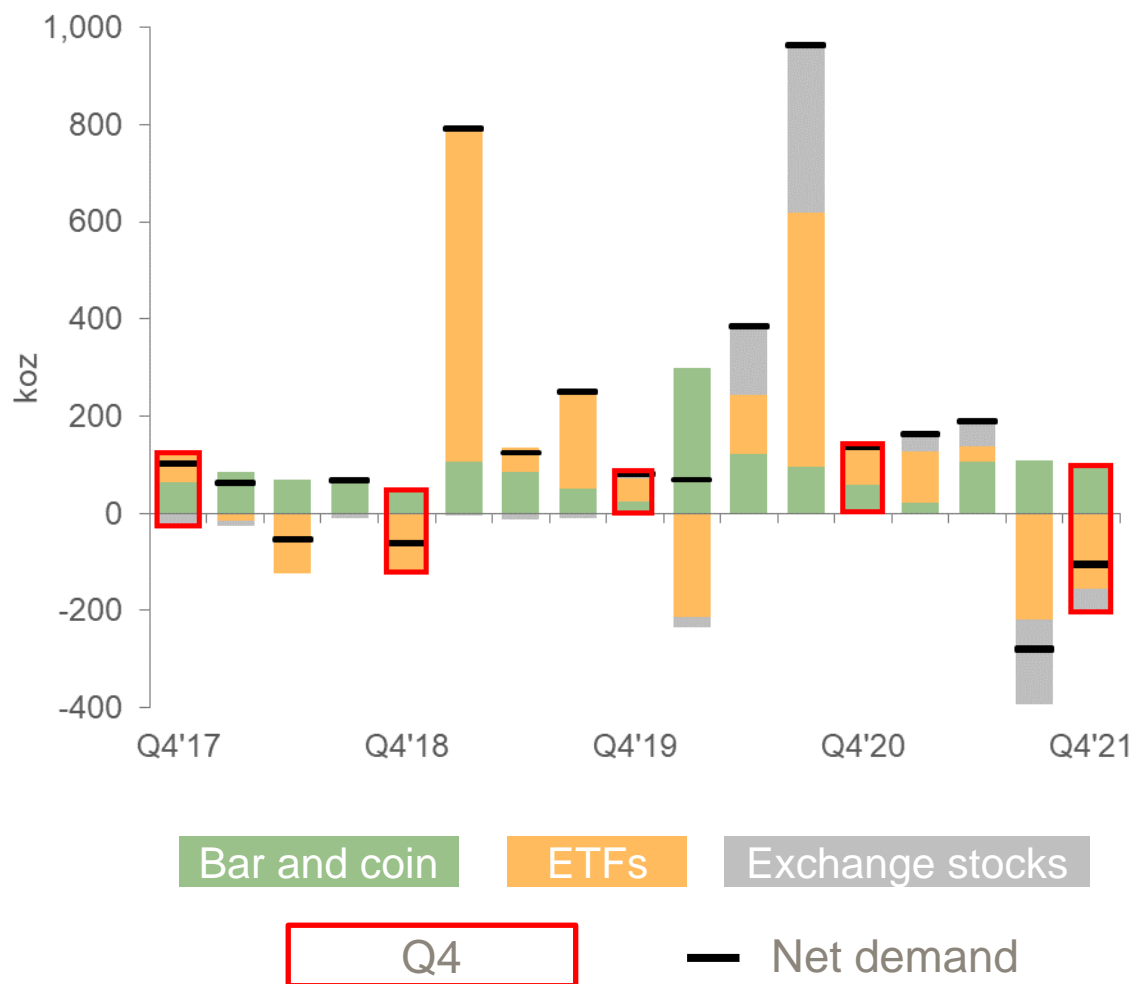


- Industrial grew +17% (+90 koz) YoY and +3% (+19 koz) QoQ
- Petroleum demand +51% (+19 koz) YoY to 54 koz
- Chemical demand +12% (+21 koz) YoY on capacity additions in China
- Glass +66% (+48 koz) YoY on normalised LCD and fibreglass capacity additions in China

Q4

Q4 2021 INVESTMENT DEMAND: OUTFLOWS FROM ETF AND EXCHANGE STOCKS BUT STRONG BAR AND COIN

Investment demand by category (koz)



- Q4'21 investment demand declined -243 koz YoY
 - Continued strength in bar and coin demand despite modest YoY easing in Q4'21, -4% (-2 koz)
 - Negative ETF demand of -155 koz as investors rotated into equities in anticipation of significant returns
 - NYMEX stock draw-downs slowed to -48 koz

2021 FULL YEAR: 21% INCREASE IN SUPPLY AND 9% FALL IN DEMAND LEADS TO 1,232 KOZ SURPLUS

SUPPLY	2020	2021	YoY, oz	YoY, %
Refined Production	4,989	6,317	1,328	27%
South Africa	3,298	4,711	1,413	43%
Zimbabwe	448	475	27	6%
North America	337	271	-66	-20%
Russia	704	652	-52	-7%
Other	202	208	6	3%
Inc (-)/Dec (+) in Producer Inventory	-84	-59	24	N/A
Total Mining Supply	4,906	6,258	1,352	28%

Recycling	1,926	1,984	59	3%
Autocatalyst	1,438	1,495	57	4%
Jewellery	422	422	0	0%
Industrial	66	67	1	1%
Total Supply	6,832	8,242	1,411	21%

DEMAND	2020	2021	YoY, oz	YoY, %
Automotive	2,370	2,621	250	11%
Jewellery	1,820	1,915	95	5%
Industrial	1,982	2,519	537	27%
Investment	1,546	-43	-1,589	N/A
Total Demand	7,718	7,010	-707	-9%

Balance	-886	1,232	-	N/A
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Above Ground Stocks	3,908	3,908	0	0%
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- Total mining supply up 28% (+1,352 koz)
- South African mine supply up 43% (+1,413 koz) on production stability and ACP unwind
- Recycling up 3% (+59 koz) despite reduced vehicle scrappage
- Automotive demand up 11% (+250 koz) on tighter emissions standards
- Industrial demand up 27% (+537 koz) on glass capacity additions, mainly in China
- 1,589 koz negative swing in investment demand
- Market surplus of +1,232 koz

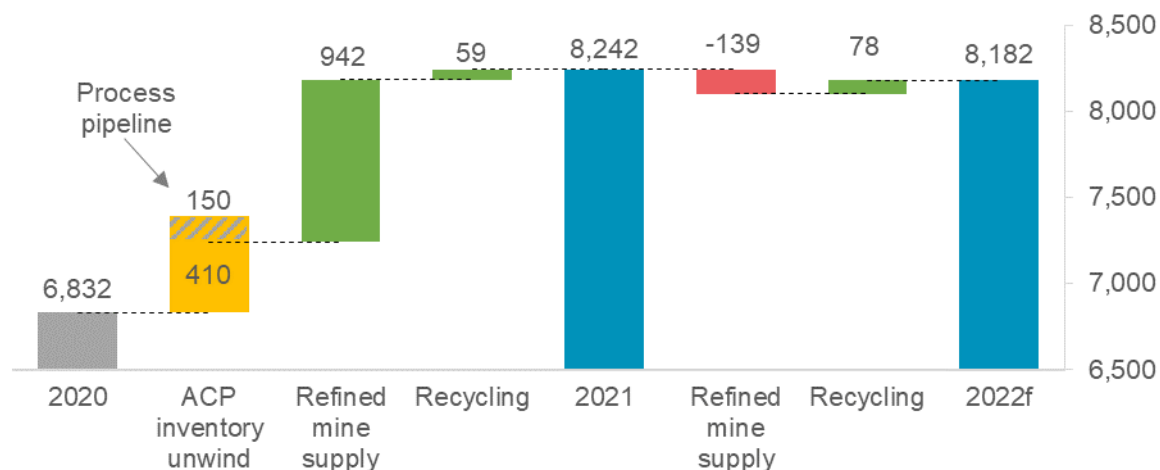
2022 FULL YEAR: SURPLUS ON MINE PRODUCTION STRENGTH AND WEAK INVESTMENT DEMAND

SUPPLY	2021f	2022f	YoY, oz	YoY, %
Refined Production	6,317	6,119	-198	-3%
South Africa	4,711	4,431	-280	-6%
Zimbabwe	475	465	-10	-2%
North America	271	358	86	32%
Russia	652	661	9	1%
Other	208	205	-3	-1%
Inc (-)/Dec (+) in Producer Inventory	-59	+0	59	N/A
Total Mining Supply	6,258	6,119	-139	-2%
Recycling	1,984	2,063	78	4%
Autocatalyst	1,495	1,559	64	4%
Jewellery	422	434	12	3%
Industrial	67	69	2	3%
Total Supply	8,242	8,182	-61	-1%
DEMAND				
Automotive	2,621	3,129	509	19%
Jewellery	1,915	1,940	25	1%
Industrial	2,519	2,132	-387	-15%
Investment	-43	329	372	N/A
Total Demand	7,010	7,530	520	7%
Balance	1,232	652	-580	-47%
Above Ground Stocks	3,908	4,560	652	17%

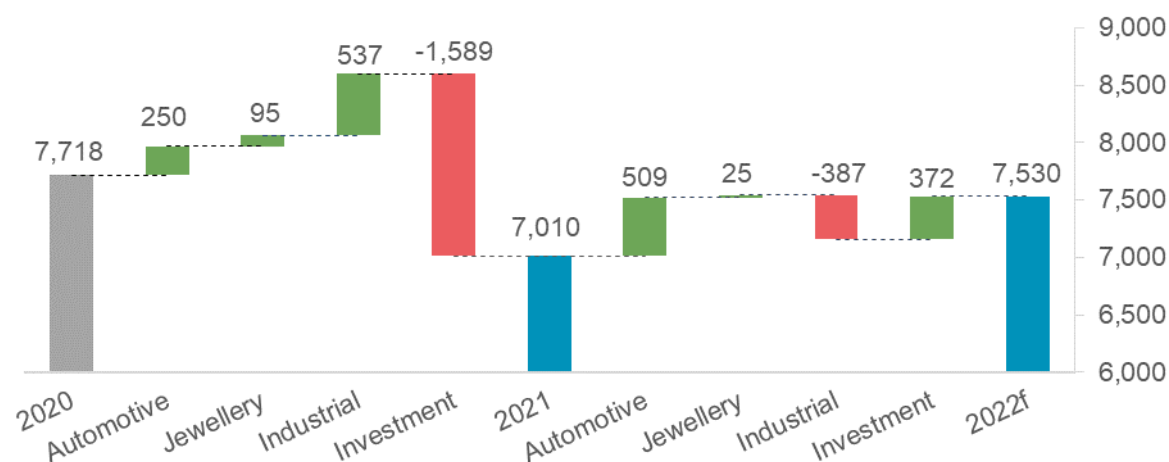
- Refined production down 3% (-198 koz)
- Recycling up 4% (+78 koz)
- Strong growth in automotive demand (+19%, +509 koz)
- Industrial demand -15% (-387 koz)
- Investment demand swing of +372 koz
- Market surplus of 652 koz (-47% YoY)

2022 OUTLOOK: KEY TRENDS SIMILAR TO 2021 BUT GREATER UNCERTAINTIES OVER SCALE OF SURPLUS

Annual total supply and changes 2020 to 2022F (koz)



Annual total demand and changes 2020 to 2022F (koz)



Forecast 2022 YoY on 2021:

- South African refined production down 3% (-280 koz)
- Recycling supply up 4% (+78 koz) on improving new vehicle supply
- Auto demand up 19% (+509 koz) with ongoing chip shortages compensated by higher loadings and Pt-Pd substitution
- Industrial demand cyclically down 15% from record 2021, but still second highest annual demand ever
- Investment +372 koz YoY despite continued negative NYMEX demand

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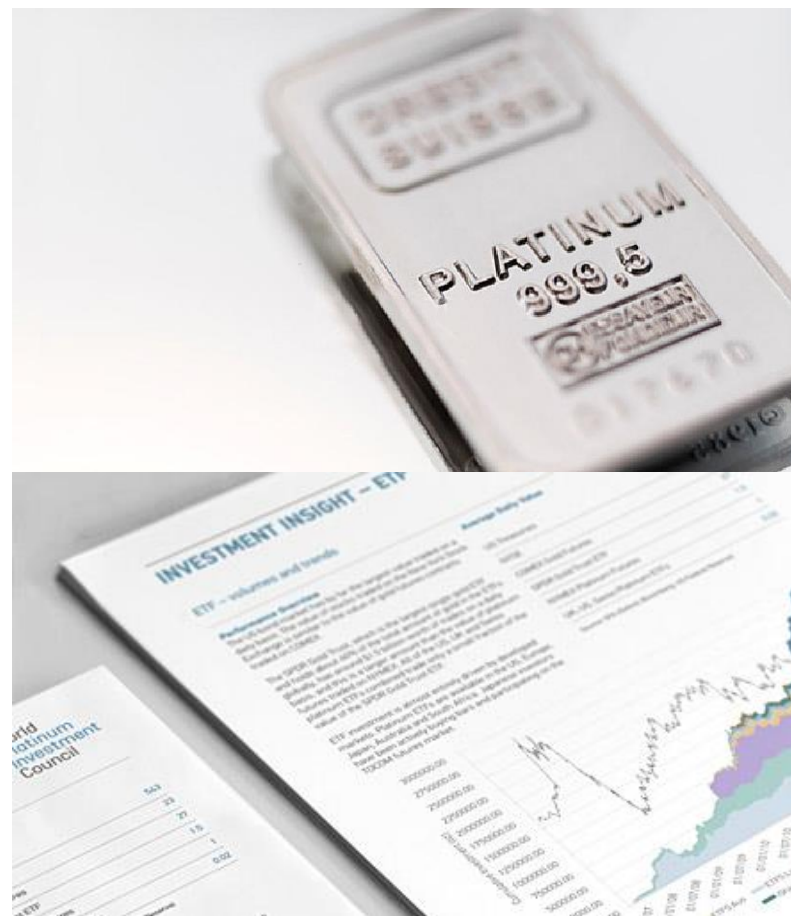
- China imports & market surplus dynamics
- Constrained supply
- Automotive demand growth

Trevor Raymond, Director of Research

4. Questions

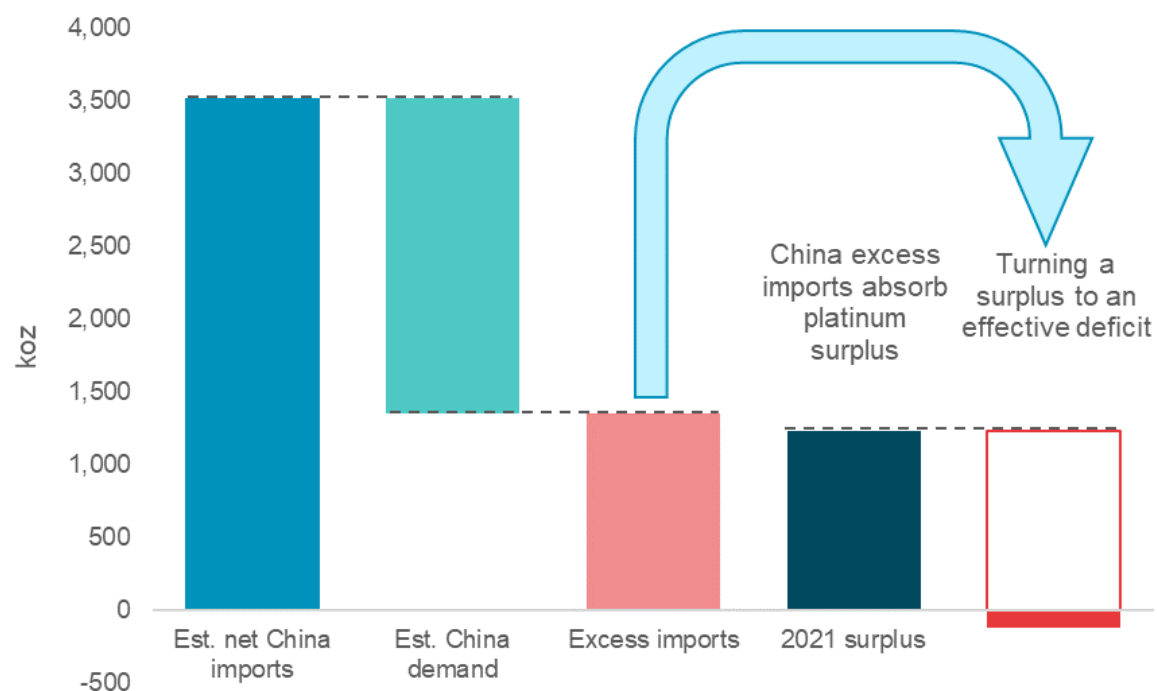
Paul Wilson

Trevor Raymond



SURPLUS OR DEFICIT? EXCESS CHINA IMPORTS ABSORB FULL 2021 SURPLUS

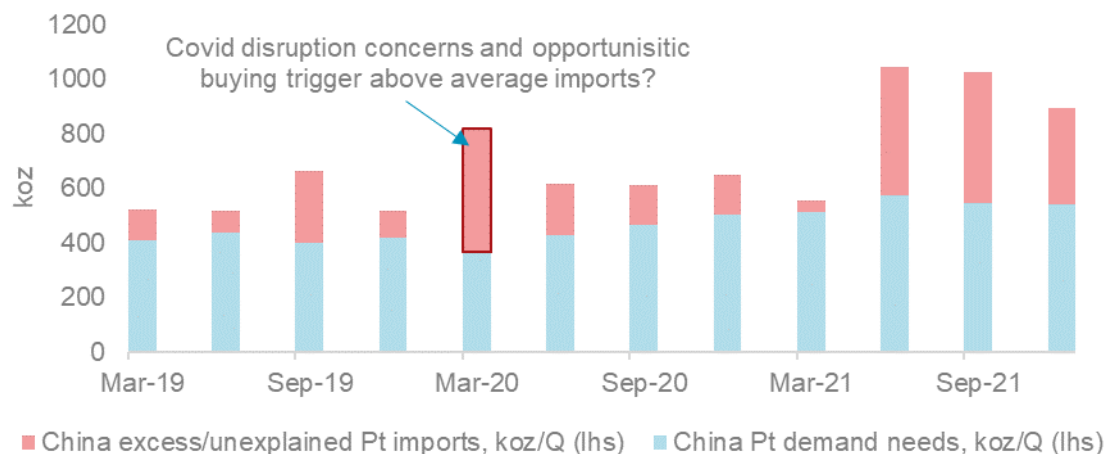
China platinum imports in 2021 absorb surplus



- Identified China demand for platinum estimated to total c.2.2 moz
- Bloomberg data suggests China net imports totalled c.3.5 moz koz
- Excess imports of c.1.3 moz potentially for speculative / stock purposes
- Sufficient to absorb full global platinum surplus of 1,232 koz
- **Too early to expect the same for 2022 but the market remains tight**

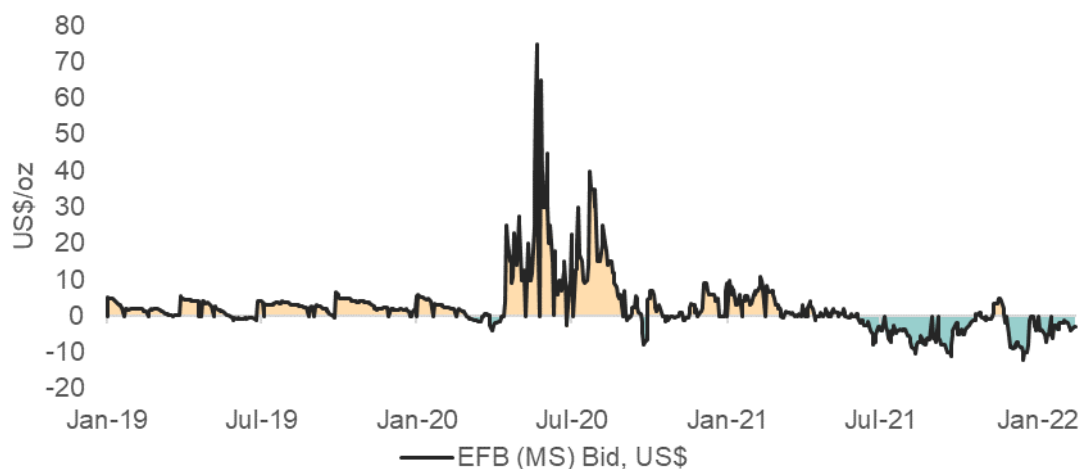
SPOT MARKET TIGHTNESS DRIVEN BY CHINA APPETITE TO IMPORT MORE THAN DEMAND

China platinum imports jumped in Q1'20



- China's COVID-related supply chain concerns and the price collapse appears to have supported strong platinum imports in Q1'20

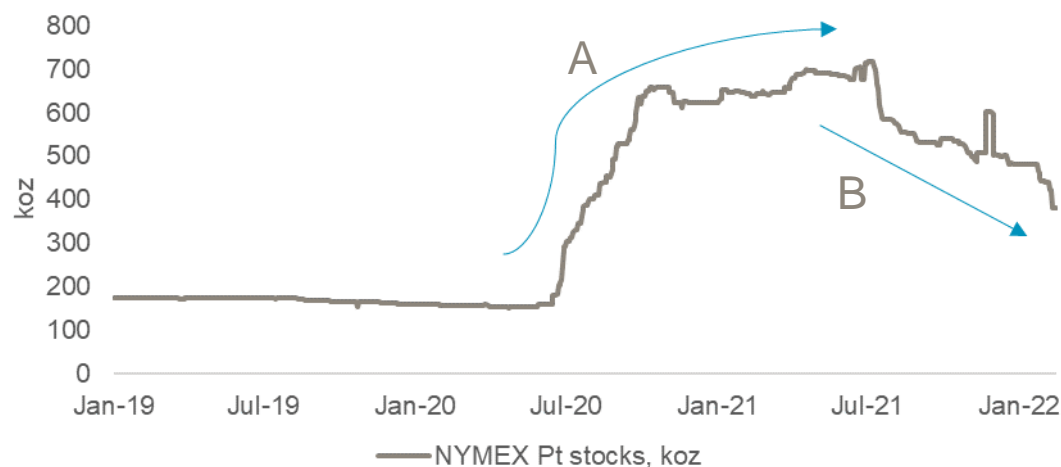
EFP can drive NYMEX inventory flows



- COVID related disruptions to the automotive market in Q2'20 resulted in a fall in the platinum price and the EFP being priced well above 'break even'

SPOT MARKET TIGHTNESS DRIVEN BY CHINA APPETITE TO IMPORT MORE THAN DEMAND

NYMEX stock movements influenced spot metal demand



- Positive EFP rates in combination with reduced risk tolerance compelled traders to move metal from Europe to New York, increasing NYMEX stocks (period A)

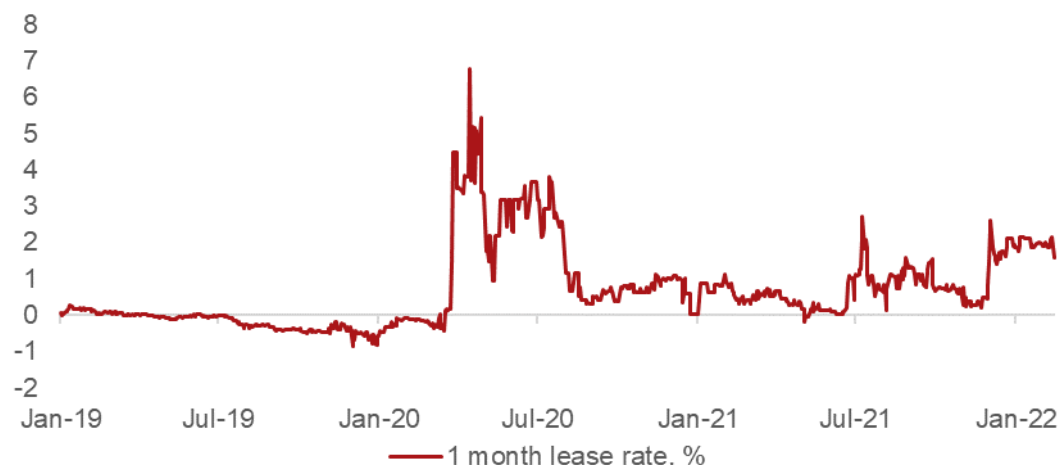
China excess imports remain elevated



- Massive increases in China above-requirement purchases has tightened the spot market, causing a negative EFP and incentivising the stock drawdown from NYMEX inventories (period B)

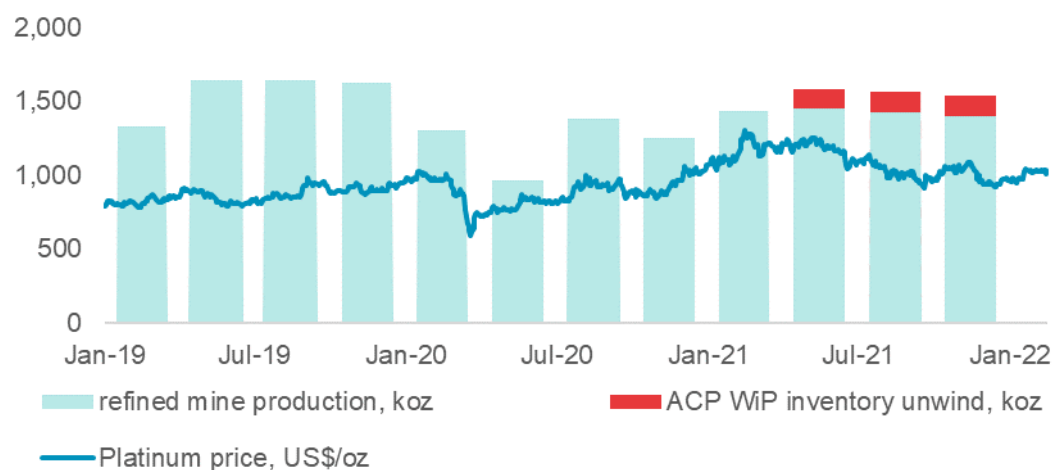
SPOT MARKET TIGHTNESS DRIVEN BY CHINA APPETITE TO IMPORT MORE THAN DEMAND

Elevated platinum lease rates



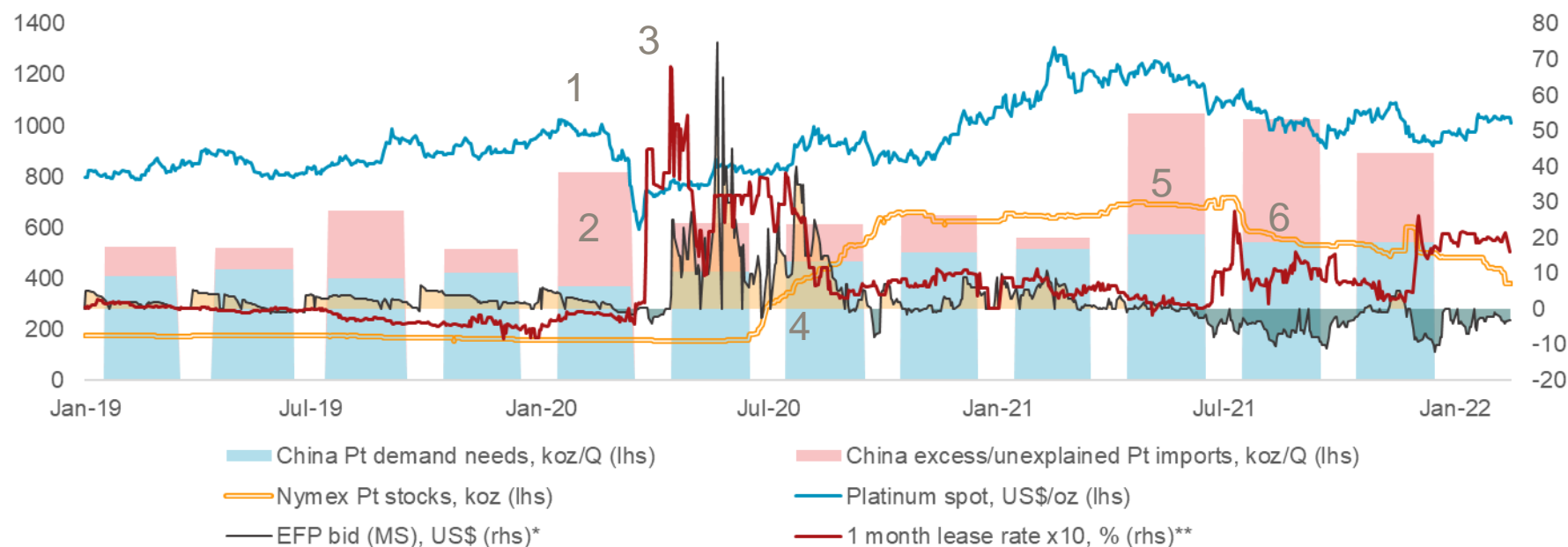
- Spot market tightness is evident in lease rates remaining above historical norms supplemented by rising interest rate expectations

Relative platinum price strength



- Tightness also reflected in relative platinum price strength over H2'21 despite the faster than expected ACP unwind

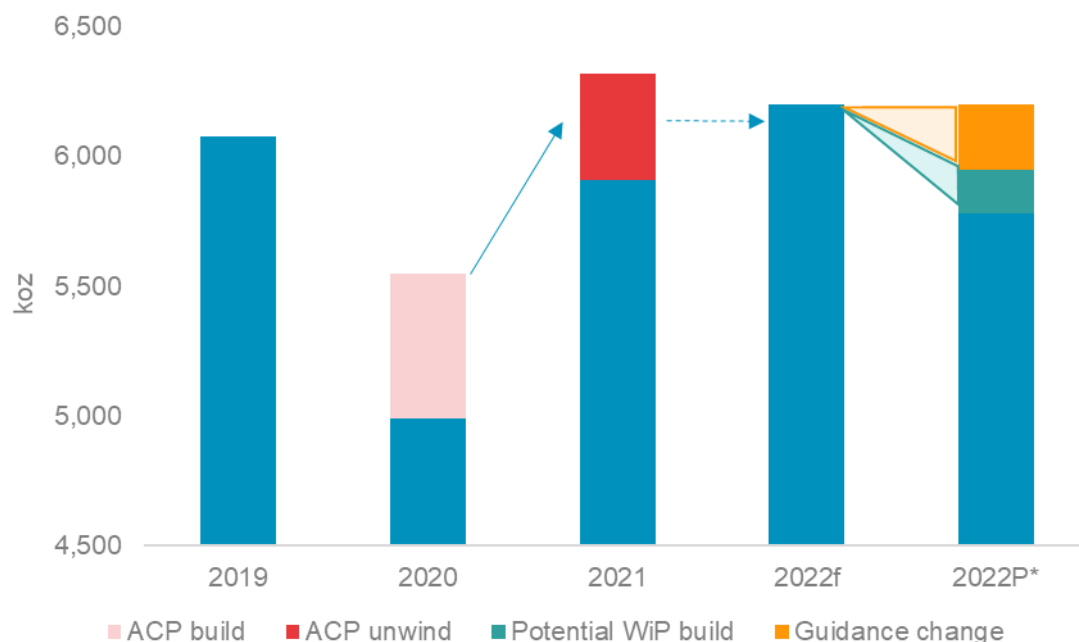
SPOT MARKET TIGHTNESS DRIVEN BY CHINA APPETITE: COMBINATION CHART HIGHLIGHTS TIMING OF EVENTS



1. Investors fears on advent of COVID cause commodity sell-off
2. China supply chain concerns combined with opportunistic buying
3. Lease rate jumps on transportation constraints
4. Positive EFP and weak non-investment demand pulls platinum stocks onto NYMEX
5. Increased China demand pushes EFPs negative
6. Drawing platinum stocks from NYMEX

REFINED MINE SUPPLY TO PLATEAU IN 2022: COULD BE REDUCED BY STOCK BUILDS AHEAD OF MAINTENANCE

ACP unwind completed in 2021 Guidance changes and potential inventory build



- ACP unwind completed in 2021, but it looks like 150 koz remains unrefined
- Several major processing infrastructure programmes are scheduled in 2022
 - Anglo American Platinum – Polokwane smelter major rebuild starting Q4
 - Impala Platinum – Rustenburg smelter rebuild and reduced guidance for mining operations
- Refined mine supply to plateau in 2022
- Potential refined and WiP inventory build ahead of planned maintenance

AUTOMAKER ICE POSITIONING BECOMING EVIDENT IN NEW ICE DEVELOPMENT ANNOUNCEMENTS

Stellantis diesel engine under development



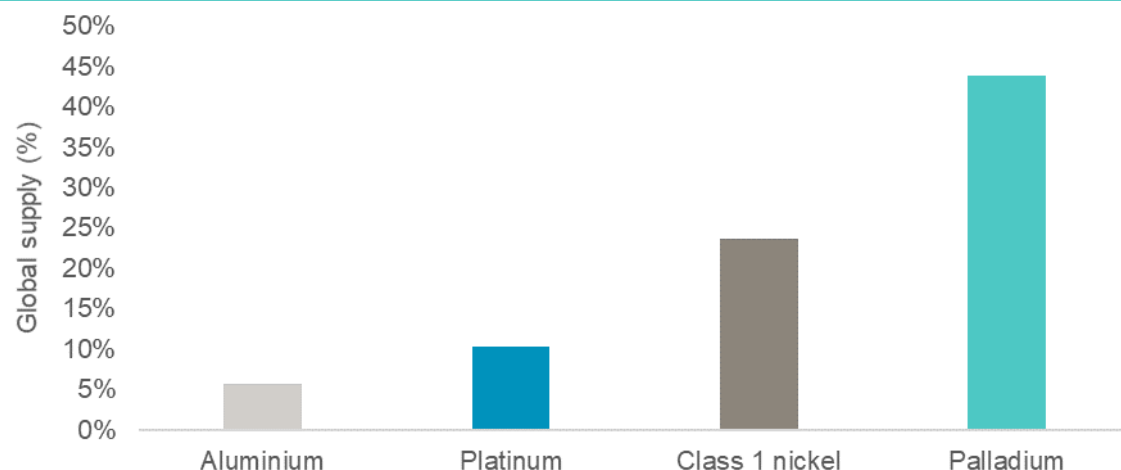
BMW engines under development



- Not all regions of the world are ready for electrification
- A number of automakers are developing new ICEs including lower CO2 emitting diesel
- Automakers with new engines in development include:
 - **Stellantis:** Four cylinder, turbo-diesel, for release 2023
 - **BMW:** New six- and eight-cylinder petrol and diesel engines, release from 2023
 - **Mercedes/Cummins:** Medium duty diesel engines for second half of 2020's
- New terminologies: endothermic and alternative fuel

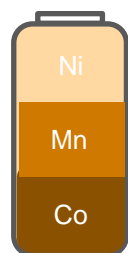
POTENTIAL IMPACT OF SANCTIONS AGAINST RUSSIA – IMPLICATIONS FOR ICE AND BEVS

Russia is a major supplier of automotive raw materials



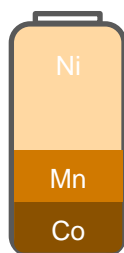
Class 1 nickel is a key ingredientt of lithium ion batteries

Increasing Power Density →



NMC 111

Nickel: 33.3%
Manganese: 33.3%
Cobalt: 33.3%



NMC 622

Nickel: 60%
Manganese: 20%
Cobalt: 20%



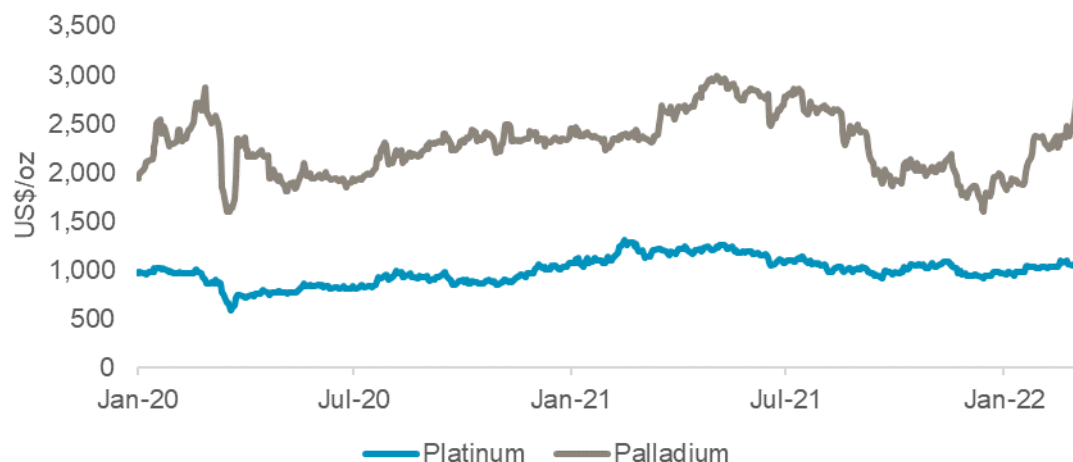
NMC 811

Nickel: 80%
Manganese: 10%
Cobalt: 10%

- Russia is a major source of palladium, platinum, class 1 nickel and aluminium
- At 40% of global palladium supply disruptions and security of supply considerations could further promote platinum substitution for palladium in petrol engines
- Class 1 nickel is a key input in lithium iron batteries for BEVs whilst aluminium is needed for light-weighting to compensate for battery weight
- Supply chain challenges could inhibit BEV growth in favour of ICE and FCEVs

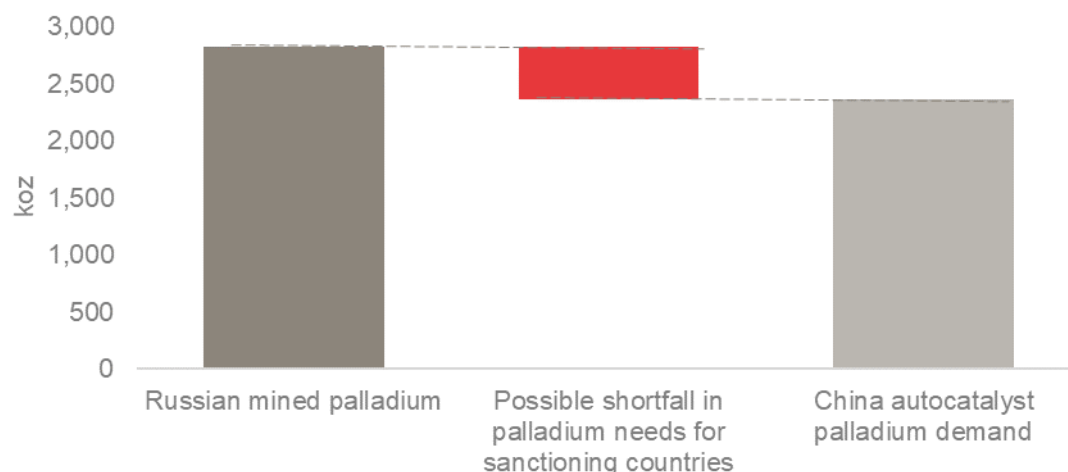
COMMODITY MARKETS ARE RESPONDING TO POTENTIAL SUPPLY DISRUPTIONS FROM RUSSIA

Palladium is pricing in supply disruption



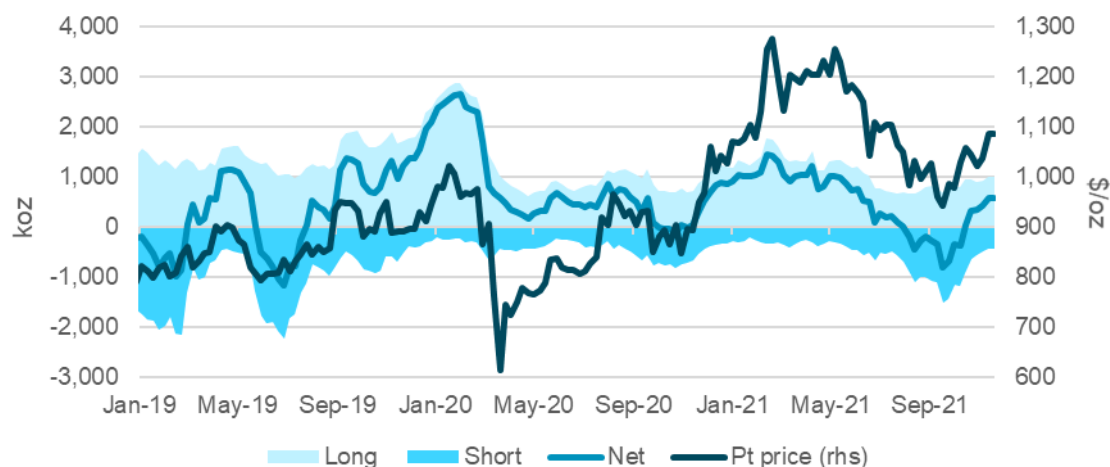
- The palladium price has surged in response to potential supply disruptions from Russia
- We think most Russian origin palladium could be absorbed by China after a period of market disruption
- Sanctioning countries could be left short of ~450 koz palladium which may need to be compensated for with increased platinum for palladium substitution

Disrupted palladium supplies could promote substitution



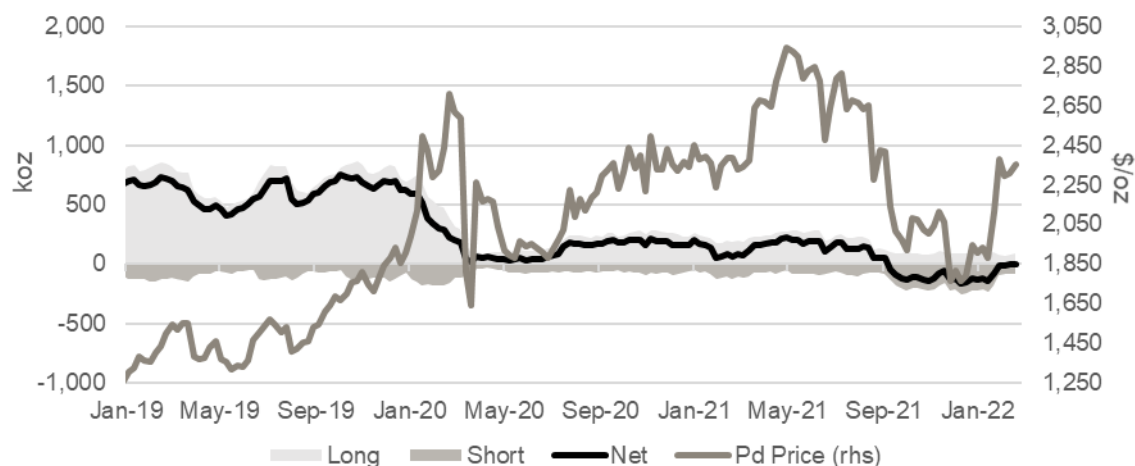
INVESTOR POSITIONING HIGHLIGHTS TIGHT MARKET CONDITIONS IN BOTH PLATINUM AND PALLADIUM

NYMEX managed money platinum positioning



- NYMEX managed money (speculative) platinum positioning net long 780 koz, up from net short 490 koz in mid December

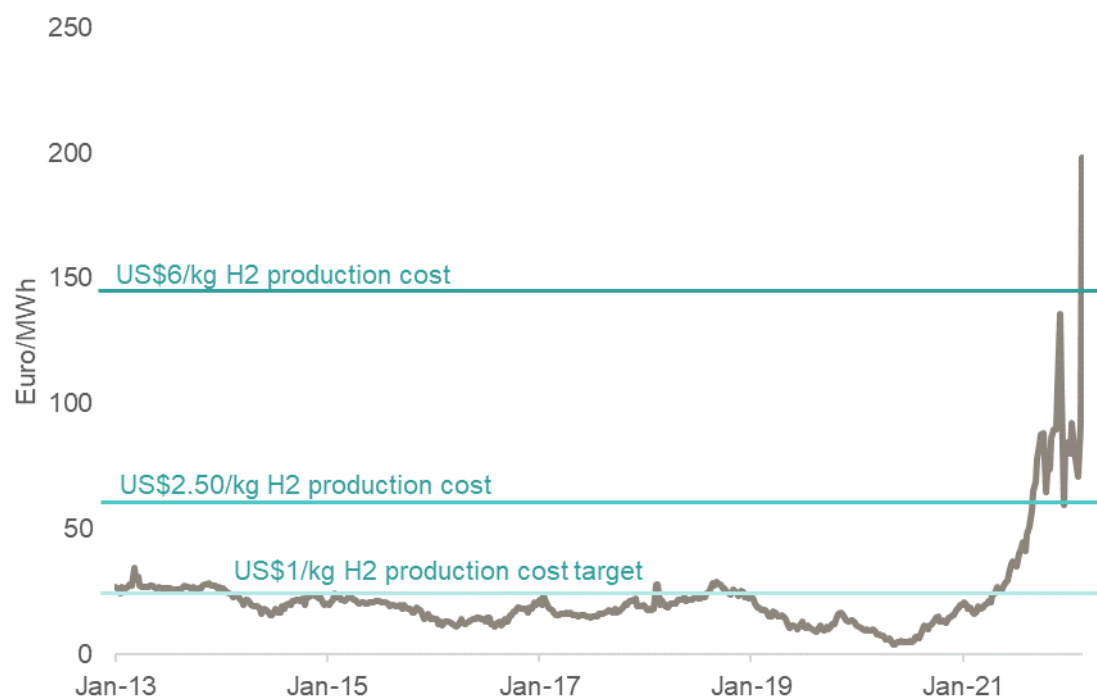
NYMEX managed money palladium positioning



- Palladium positioning swinging back from deepest net short position since at least 2009 and now close to parity; likely on Russia tensions

REDUCING EUROPEAN RELIANCE ON RUSSIAN GAS COULD BE POSITIVE FOR GREEN HYDROGEN

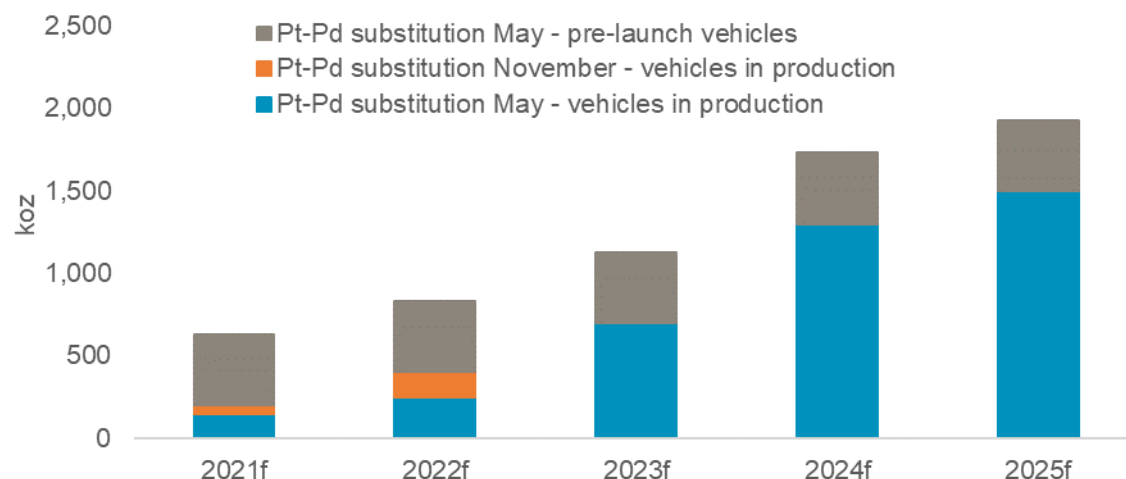
Green hydrogen is cost competitive at current gas prices



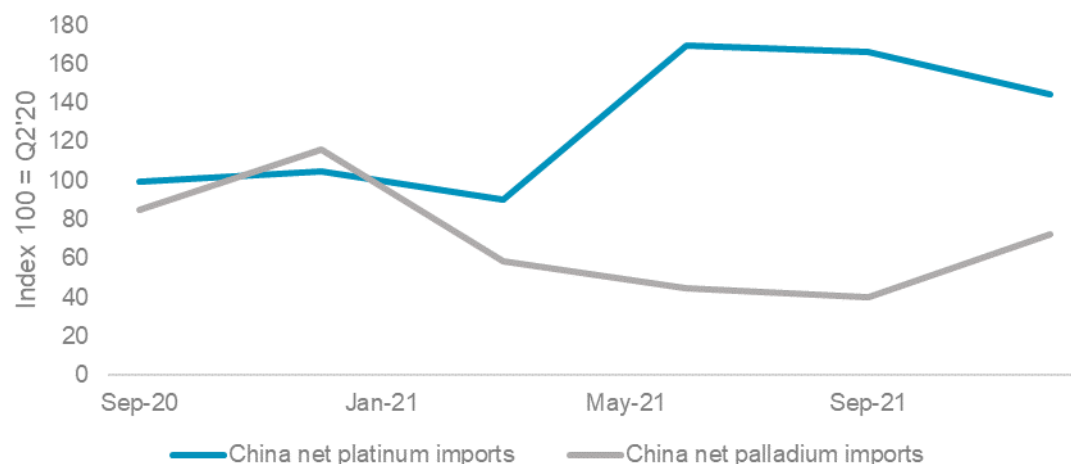
- Europe currently imports ~40% of its gas supplies from Russia
- Blending 20% green hydrogen into gas supplies is possible with current infrastructure
- Could halve European reliance on Russian gas imports
- Green hydrogen currently costs US\$2.50/kg to US\$6.00/kg to make
- Competitive at current, albeit inflated, gas prices

WPIC SCENARIO: PT FOR PD SUBSTITUTION – COULD BE > 1.9 MOZ ADDITIONAL ANNUAL DEMAND BY 2025

c.1.9 moz/year more auto pt demand by 2025

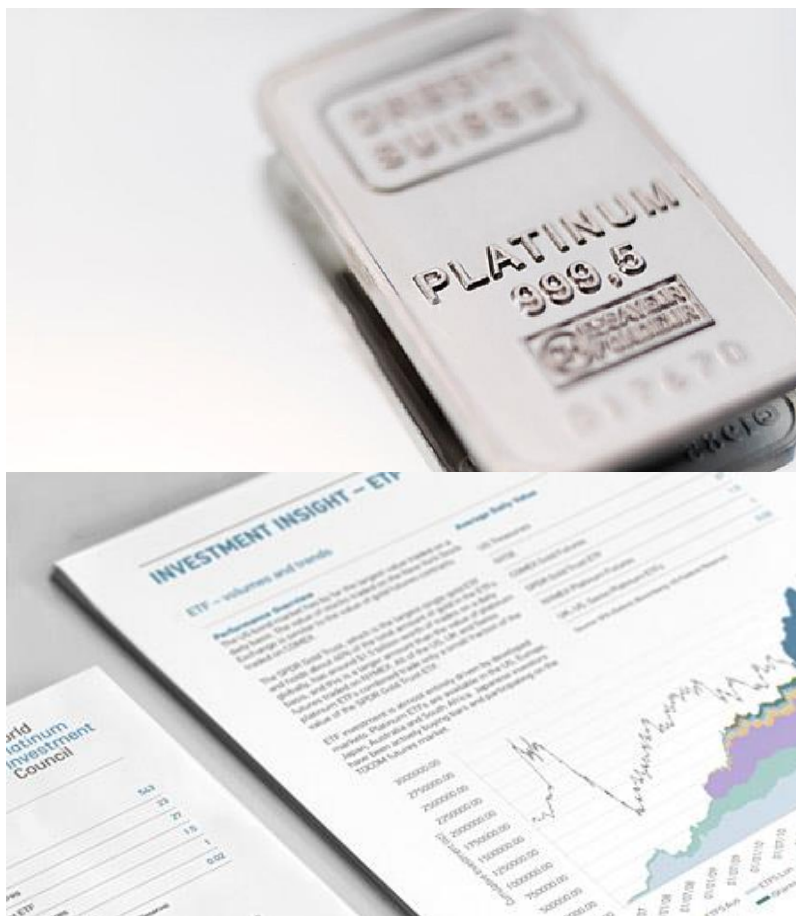


China platinum imports running ahead of palladium



- Some market estimates point to:
 - c.200 kOZ of Pt for Pd substitution in vehicles already on sale in 2021 and growing strongly in 2022
 - Growing to 1.5 moz in 2025
- Current substitution projections do not include changes in metal mix in vehicles pre-launch
- Substitution in new China 6a/Euro 6d compliant LVs could be already boosting annual Pt substitution impact by 400 kOZ now and lift 2025 total over 1.9 moz
- Inverse response for Pt and Pd imports in China could indicate higher substitution

WHY INVEST IN PLATINUM? TRANSIENT SUPPLY BOOST, LOADINGS, SUBSTITUTION & INVESTMENT UPSIDE RISK



- Refined supply boost from 560 koz of backlog material ends in 2022 – constrained mine supply similar to 2019 levels but risks are to the downside
- Strong China imports suggest higher HD loadings and more substitution as well as quasi-speculative demand
- High uncertainty in ETF investor behaviour and exchange stock levels with a potential for a reversal of the trend in owning the equities after record dividend pay-outs
- Reducing reliance on Russian palladium would increase substitution for platinum
- Growing certainty regarding hydrogen in decarbonisation and platinum's strategic role is attracting more investors to platinum

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