

PLATINUM QUARTERLY PRESENTATION Q3 2020

London

18th November 2020

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AGENDA: PLATINUM QUARTERLY – Q3 2020, UPDATED 2020 FORECAST AND NEW 2021 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



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Supply, demand and balance: Q3'20, 2020f update and new 2021f

Trevor Raymond, Director of Research

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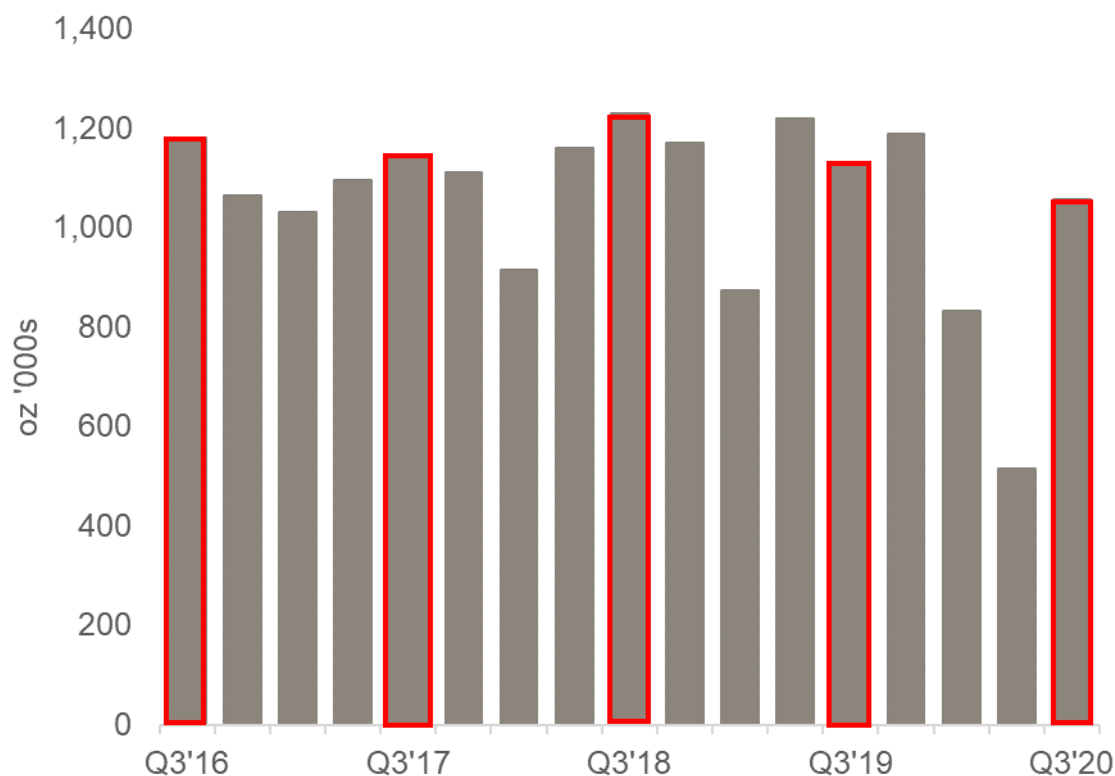
Q3 2020 SUPPLY: TOTAL SUPPLY DOWN 5% ON ACP OUTAGE & COVID-19 IMPACT ON MINING & RECYCLING

SUPPLY	Q3 2019 // Q2 2020		Q3 2020
Refined Production	1,530	938	1,493
South Africa	1,122	514	1,056
Zimbabwe	116	117	121
North America	79	87	70
Russia	174	176	200
Other	40	44	46
Inc(-)/Dec(+) in Producer Inventory	-30	+34	-58
Total Mining Supply	1,501	972	1,435
Recycling	540	419	505
Autocatalyst	410	309	378
Jewellery	116	97	113
Industrial	14	13	14
Total Supply	2,041	1,391	1,940

- South Africa mining supply down 6% (-66 koz) YoY on on-going impact of smelter outage and COVID restrictions
- North American mining supply down 10% (-8 koz) on COVID protocols
- Other regions modest increase:
 - Zimbabwe + 4% (5 koz)
 - Russia + 15% (26 koz)
- Recycling supply down 6% (-35 koz)
 - autocatalyst - 8% (-32 koz)
 - jewellery - 3% (-4 koz)
- Total Q3 supply down 5% (-101 koz) YoY, but up 39% (549 koz) v Q2

Q3 2020 SOUTH AFRICAN MINE SUPPLY DOWN 6% YOY BUT UP 105% QOQ AS COVID & ACP ISSUES EASED

South African refined mine production (koz)



Refined production

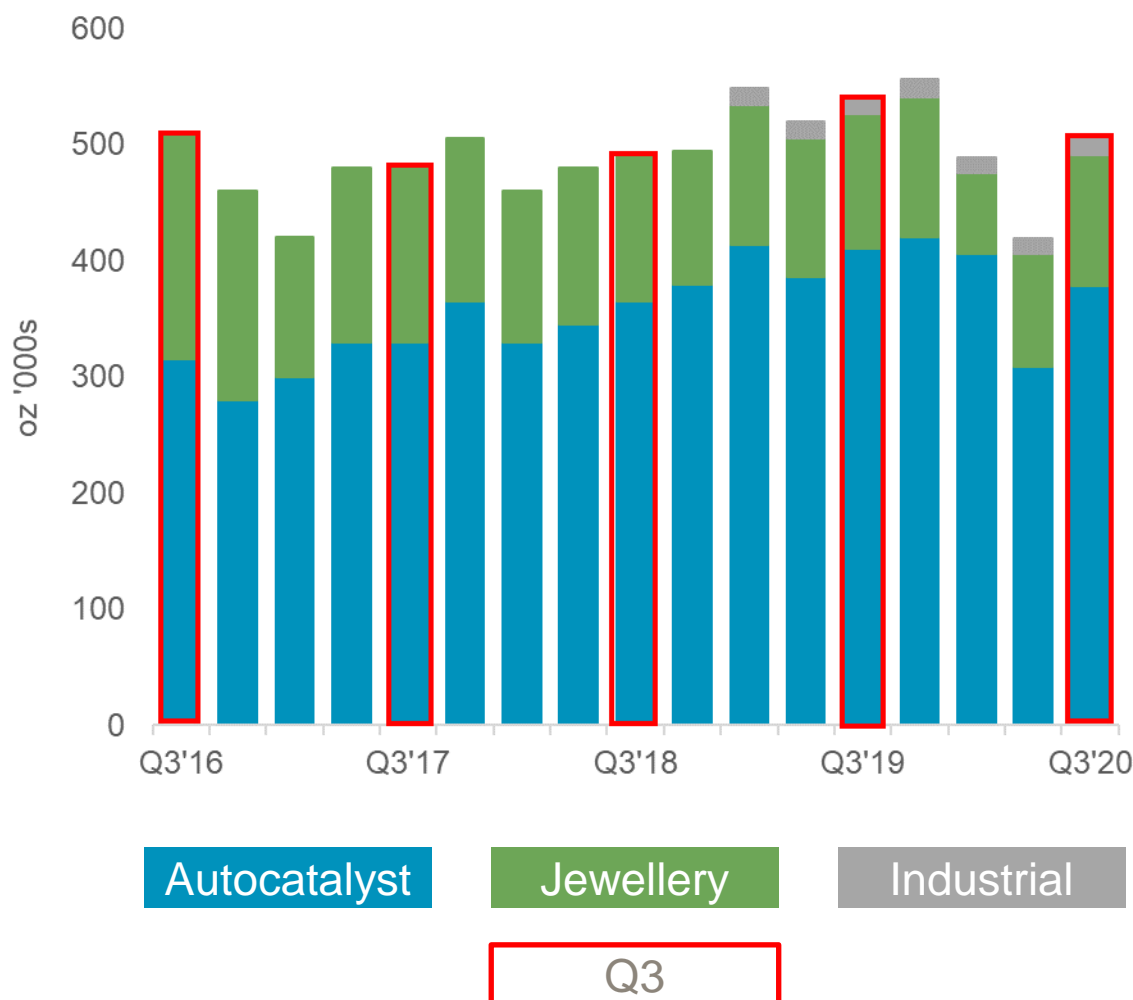
Q3 production

Q3

- South African Q3 production down 6% (-66 koz) YoY to 1,056 koz
- Volumes up 105% (+541 koz) QoQ
 - Lockdowns over from June
 - ACP converter Phase B recommissioned

Q3 2020 RECYCLING DOWN 6% YOY, BUT UP 21% QOQ ON STOCK DRAWS AND HIGHER JEWELLERY SALES

Recycling (koz)



- Q3 recycling down 6% (-35 koz) YoY to 505 koz, but up 21% (+86 koz) QoQ
- Autocatalyst recycling down 8% (-32 koz) YoY, but up 22% (+69 koz) QoQ on processing of stock built up in 2019 and 2020
- Jewellery recycling down 3% (-4 koz) YoY but up 16% (+16 koz) on rebounding sales, notably in China
- Industrial recycling (including electronic scrap) flat (+1 koz) YoY

Q3 2020 DEMAND: AUTO, JEWELLERY & INDUSTRIAL RECOVERING, INVESTMENT DEMAND SURGES

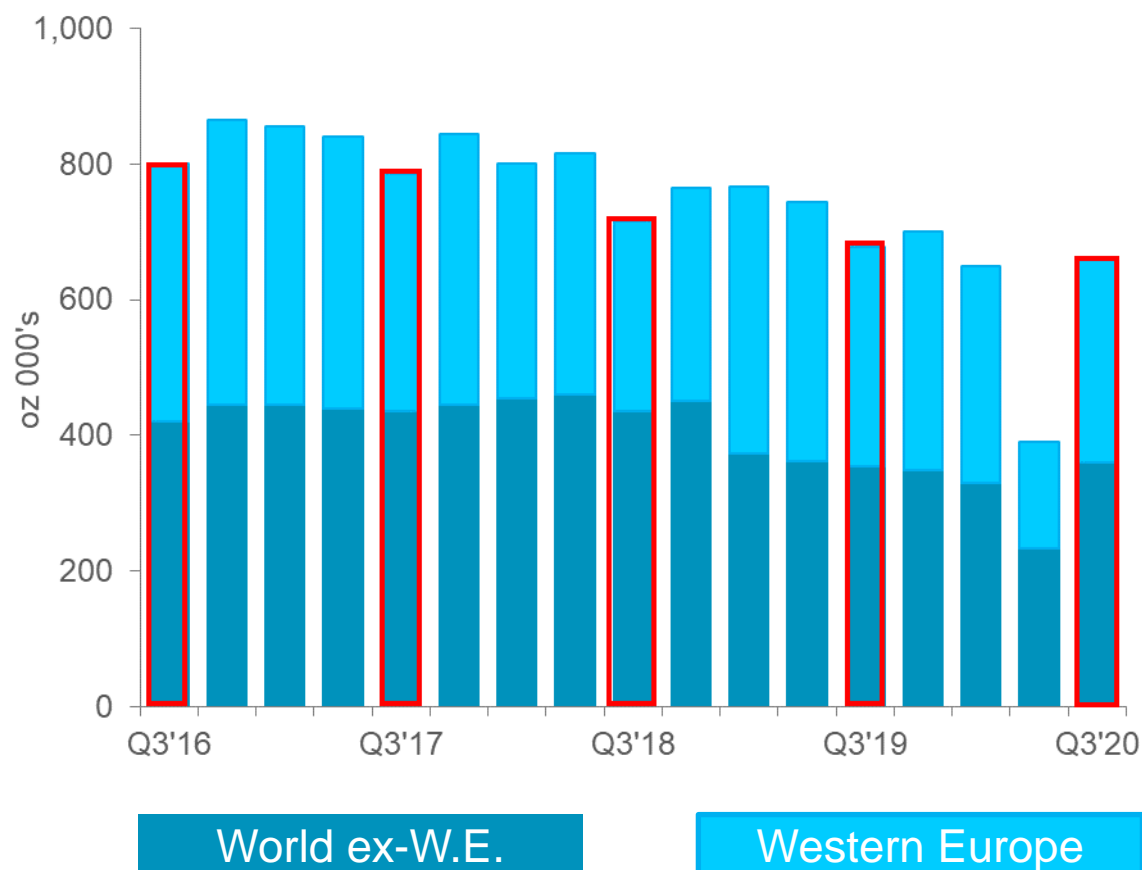
DEMAND	Q3 2019	Q2 2020	Q3 2020
Automotive	678	389	660
Autocatalyst	678	389	660
Non-road	†	†	†
Jewellery	515	393	498
Industrial	563	352	509
Chemical	163	114	124
Petroleum	55	20	23
Electrical	38	29	37
Glass	102	26	138
Medical & Biomedical	62	59	59
Other	143	104	129
Investment	251	381	981
Change in Bars, Coins	54	120	96
Change in ETF Holdings	207	122	543
Change in Stocks Held by Exchanges	-10	138	342
Total Demand	2,006	1,515	2,648
Balance	35	-124	-709

Q3 demand change YoY:

- Automotive down 3% (-17 koz)
- Jewellery down 3% (-16 koz)
- Industrial down 10% (-54 koz)
- Investment up 291% (+730 koz)
 - Bar and coin up 78% (+42 koz)
 - ETF up 163% (+336 koz)
 - Exchange stocks up (+351 koz)
- Market deficit of -709 koz

Q3 2020 AUTOMOTIVE DOWN 3% YOY BUT UP 70% QOQ AS PRODUCTION AND SALES RECOVER

Automotive demand (koz)

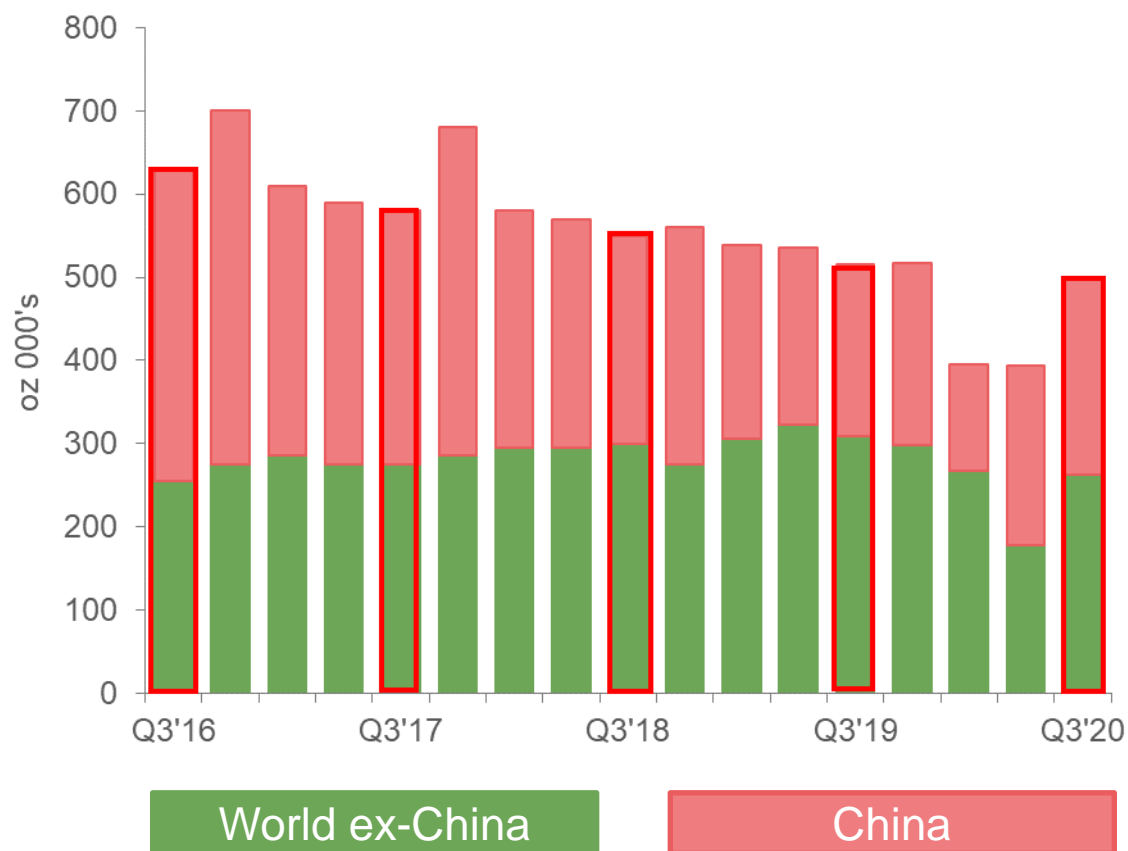


- Automotive demand down 3% (-17 koz) YoY but up 70% (+271 koz) QoQ
- Q3 European diesel car sales fell 15% YoY, but rose by 59% QoQ, helped by strong diesel mild-hybrid sales growth
- Diesel vehicles still key for automakers to avoid or reduce heavy CO₂ fines

Q3

Q3 2020 JEWELLERY DOWN ONLY 3% YOY, UP 27% QOQ ON WIDE PRICE DISCOUNT TO GOLD

Jewellery demand (koz)

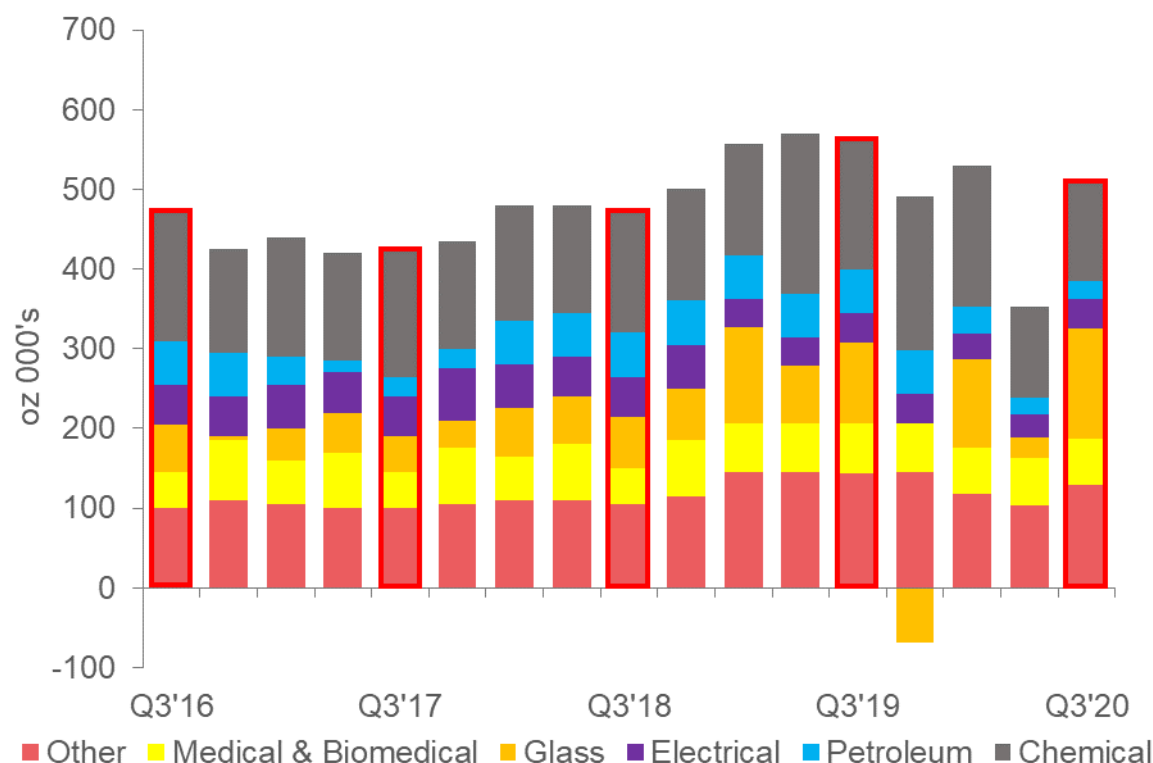


- Jewellery down only 3% (-17 koz) YoY but up 27% (+105 koz) QoQ at 498 koz
- Significant QoQ rebounds on improved margins:
 - Japan up 63% (+36 koz)
 - W. Europe up 84% (+25 koz)
 - N. America up 36% (+17 koz)
- China demand up 14% YoY, and 10% QoQ on platinum jewellery margin attractiveness and launch of new lightweight designs

Q3

Q3 2020 INDUSTRIAL DEMAND DOWN 10% YOY, BUT UP 45% QOQ ON STRONG GLASS DEMAND

Industrial demand by category (koz)

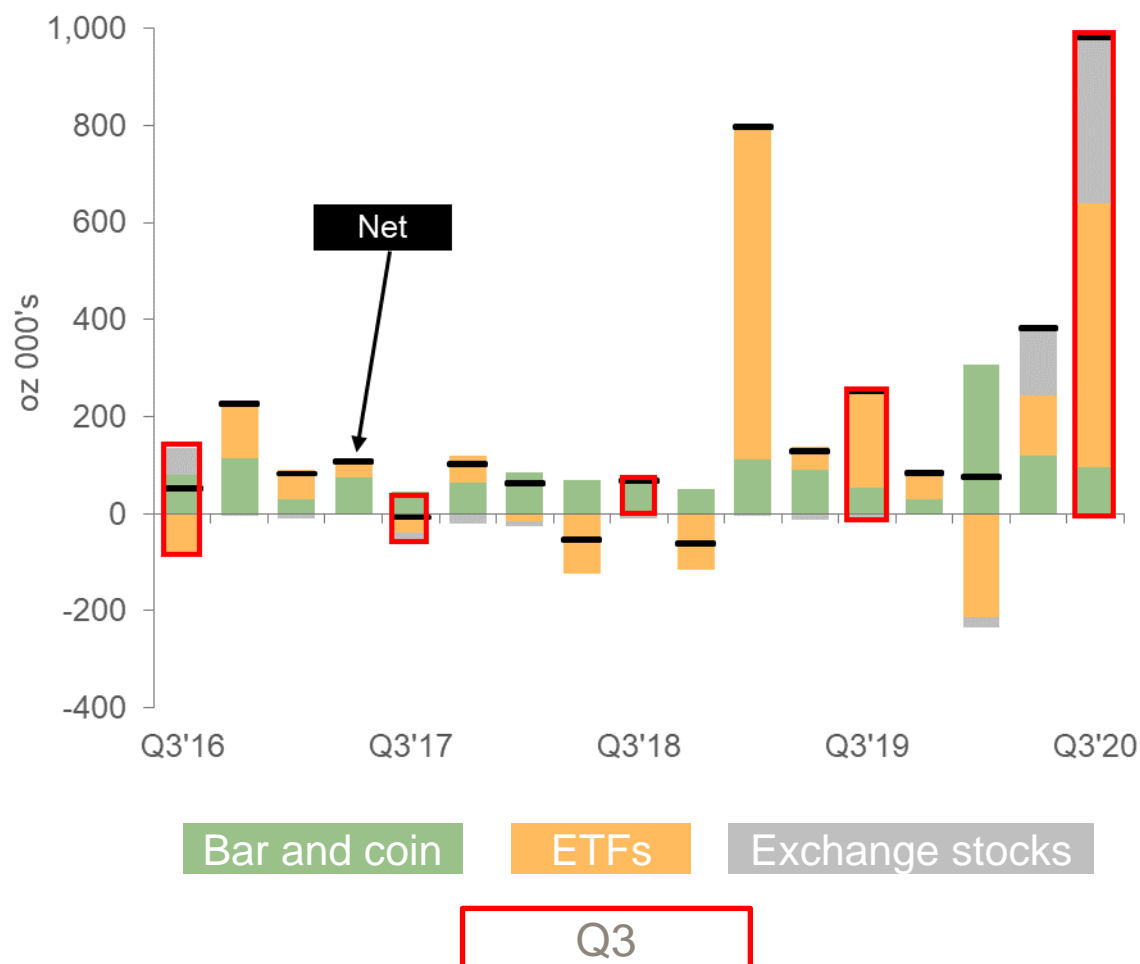


Q3

- Platinum industrial demand down 10% (-54 koz) YoY but up 45% +157 koz QoQ
- Strong glass demand, up 36% (+36 koz) YoY on manufacturing capacity additions
- Chemical demand down 24% (-40 koz) YoY on slower China petrochemical capacity growth
- Petroleum demand down 58% (-32 koz) YoY on low refinery run rates

Q3 2020 INVESTMENT RECORD – SURGE IN US ETF HOLDING & NYMEX EXCHANGE STOCKS

Investment demand by category (koz)



- Investment demand up 291% (+730 koz) YoY to 981 koz
- Bar & coin demand up 78% (+42 koz) YoY to 96 koz – strong US demand
- ETFs up 163% (+336 koz) YoY on strong US investor appetite and support from gold and hydrogen
- Exchange held stocks (mainly NYMEX) increase of 342 koz, driven by market making banks

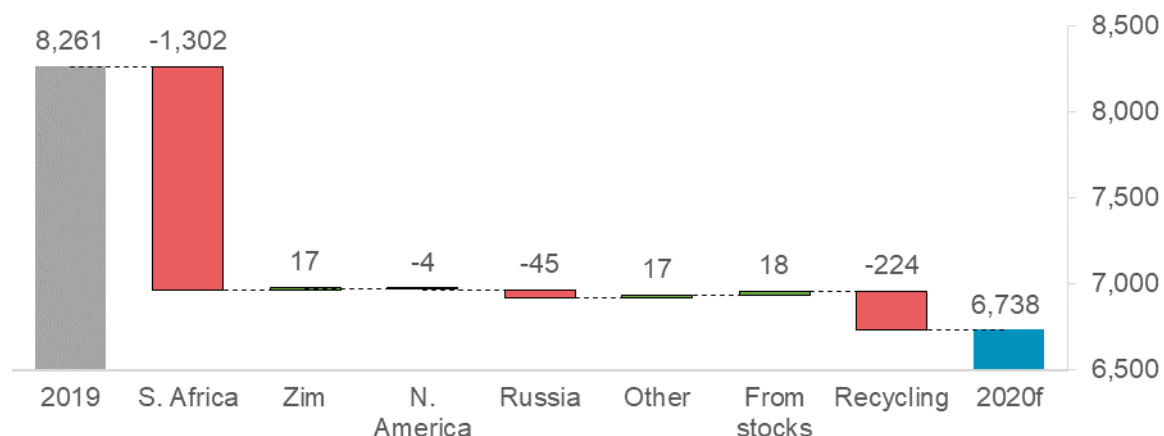
2020 FULL YEAR: DEEPER DEFICIT (-1,202 KOZ) ON SUPPLY LOSSES, RECORD INVESTMENT DEMAND

SUPPLY	2019	2020f	YoY, oz	YoY, %
Refined Production	6,094	4,777	-1,318	-22%
South Africa	4,402	3,100	-1,302	-30%
Zimbabwe	455	472	17	4%
North America	356	352	-4	-1%
Russia	716	672	-45	-6%
Other	164	181	17	10%
Inc (-)/Dec (+) in Producer Inventory	+2	+20	18	749%
Total Mining Supply	6,097	4,797	-1,300	-21%
Recycling	2,165	1,941	-224	-10%
Autocatalyst	1,630	1,486	-144	-9%
Jewellery	477	398	-78	-16%
Industrial	58	57	-1	-3%
Total Supply	8,261	6,738	-1,524	-18%
DEMAND				
Automotive	2,885	2,421	-464	-16%
Jewellery	2,100	1,826	-274	-13%
Industrial	2,112	2,033	-79	-4%
Investment	1,253	1,659	406	32%
Total Demand	8,350	7,940	-410	-5%
Balance	-89	-1,202	-	N/A
Above Ground Stocks	3,561	2,360	-1,202	-34%

- South African supply down 30% (-1,302 koz) YoY to 3,100 koz
- Total supply down 18% (-1,524 koz) YoY to 6,738 koz
- Auto demand down 16% (-464 koz) YoY, but Chinese auto demand up by 41% on rising HDV sales and loadings
- Investment demand up 32% (+406 koz) on strong ETF and bar & coin demand
- Total demand down 5% (-410 koz) YoY to 7,940 koz
- Material deficit in 2020 (-1,202 koz) despite impact of COVID-19

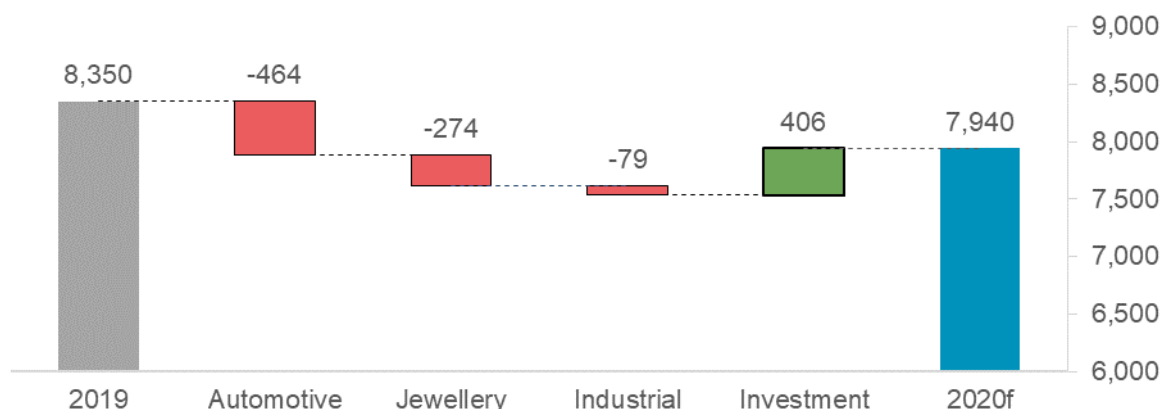
2020 FORECAST: TOTAL SUPPLY DOWN 18%, TOTAL DEMAND DOWN 5%

Annual total supply and changes 2019 to 2020f (koz)



- Total supply forecast down 18% (-1,524 koz)
- SA mine supply down 30% (-1,302 koz) on process outage and mine lockdowns
- Auto recycling down 10% (-224 koz) as pandemic-slowed logistics limited collection and processing in EU and US

Annual total demand and changes 2019 to 2020f (koz)



- Total demand forecast down 5% (-410 koz) — only investment up
- Investment up 32% (+406 koz) from high base in 2019 of 1,252 koz
- High forecast risk - second COVID wave concerns but with vaccination hopes

2021 FORECAST: THIRD CONSECUTIVE DEFICIT OF 224 KOZ DESPITE SUPPLY AND DEMAND RECOVERY

SUPPLY	2020f	2021f	YoY, oz	YoY, %
Refined Production	4,777	5,772	996	21%
South Africa	3,100	4,092	992	32%
Zimbabwe	472	463	-9	-2%
North America	352	369	16	5%
Russia	672	682	10	2%
Other	181	167	-14	-8%
Inc (-)/Dec (+) in Producer Inventory	+20	+0	-20	-100%
Total Mining Supply	4,797	5,772	976	20%

Recycling	1,941	2,093	151	8%
Autocatalyst	1,486	1,573	87	6%
Jewellery	398	462	64	16%
Industrial	57	57	1	1%
Total Supply	6,738	7,865	1,127	17%

DEMAND				
Automotive	2,421	2,996	575	24%
Jewellery	1,826	2,072	246	13%
Industrial	2,033	2,276	243	12%
Investment	1,659	745	-914	-55%
Total Demand	7,940	8,089	150	2%

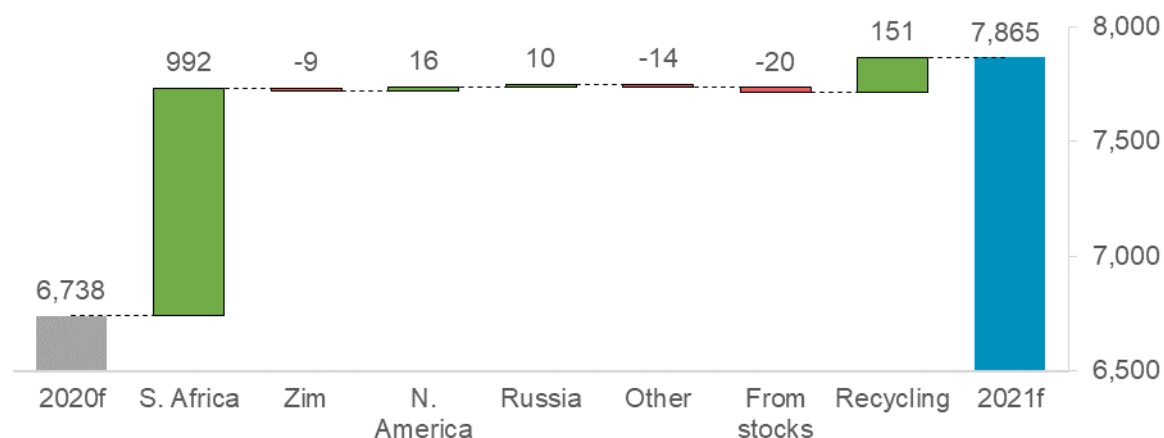
Balance	-1,202	-224	-	-81%
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Above Ground Stocks	2,360	2,135	-224	-10%
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- Refined production recovers by 21% (+992 koz), but remains below pre-COVID levels
- Recycling up 8% (+151 koz) to 2,093 koz, jewellery strong on higher sales
- Automotive demand up 24% (+575 koz) on higher EU diesel, China VI HD and Pt for Pd substitution
- Investment demand down 55% but remains strong with upside risk
- Market in 2021 (-224 koz) despite supply recovery

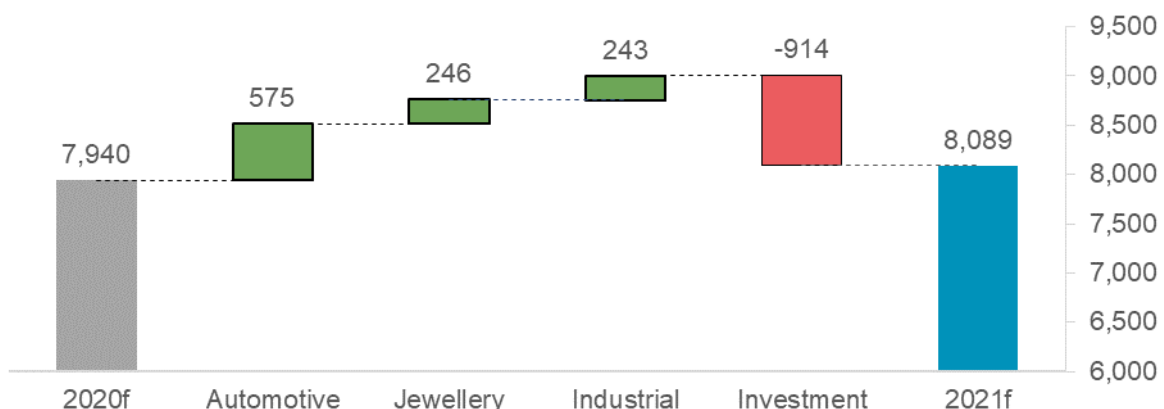
2021 FORECAST: TOTAL SUPPLY UP 14%, TOTAL DEMAND UP 2%

Annual total supply and changes 2020f to 2021f (koz)



- South African mine supply up 32% (+992 koz), no Covid disruptions and ACP on steam during January
- Recycling supply up 8% (+151 koz), with jewellery recycling up 16% (+64 koz)

Annual total demand and changes 2020 to 2021f (koz)



- Auto demand up 24% (+575 koz) to 2,996 koz, above levels in 2019 on improving diesel market and substitution
- Investment demand down 55% (-914 koz) from 2020 record high, but remains robust at 745 koz

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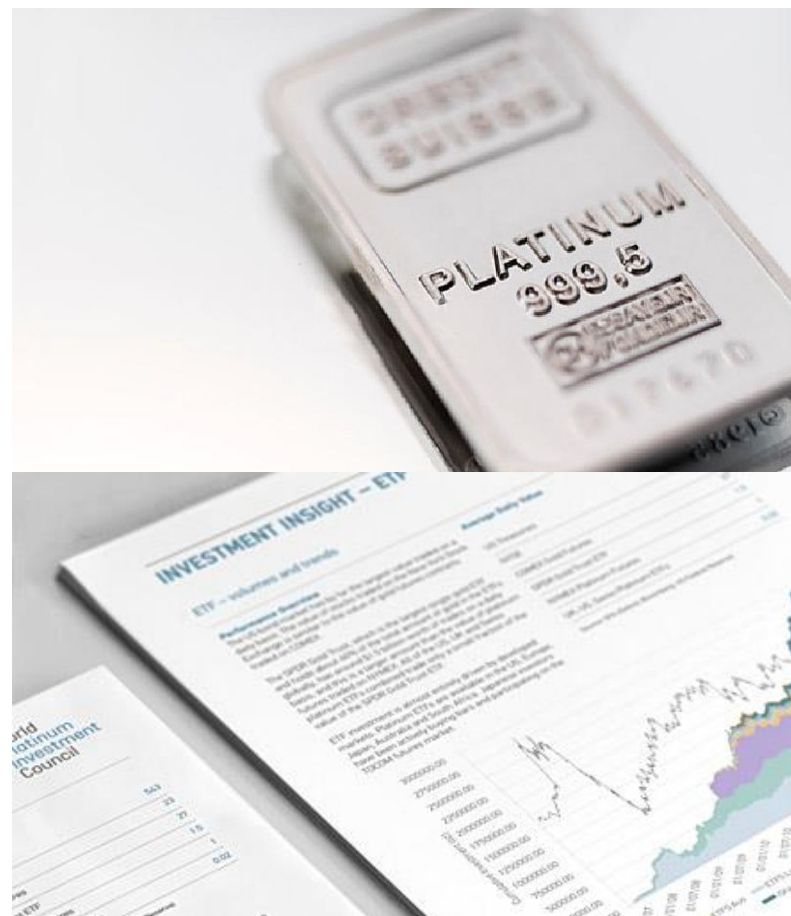
- Green shoots for jewellery
- Strong automotive demand outlook
- Record investment demand to stay high

Trevor Raymond, Director of Research

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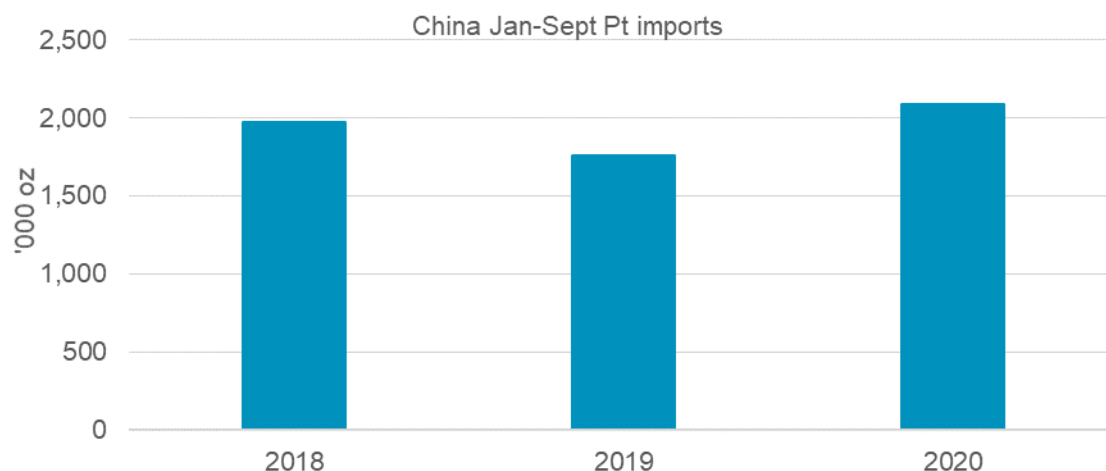
Paul Wilson

Trevor Raymond



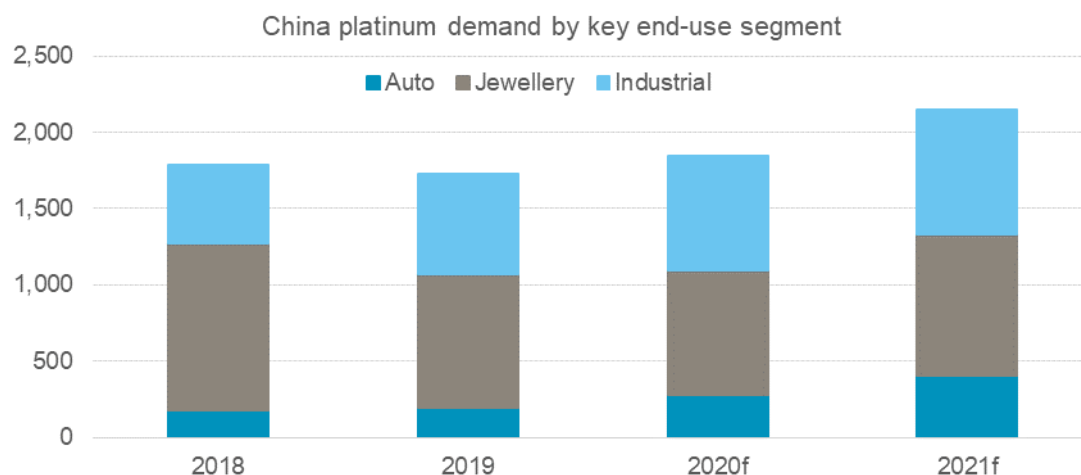
CHINA IMPORTS SURGED 19% YTD 2020 ON PRICE DIP AND SHORTAGES – JEWELLERY TO BENEFIT IN 2021

China platinum imports surged 19% yoy YTD (koz)



- China imported 2.1 moz of platinum YTD
- 2020 surge in Chinese buying:
 - Fortuitous Q2'20 price fall
 - Shortage concerns on SA supply falls and impaired logistics
 - Post lockdown manufacturing recovery

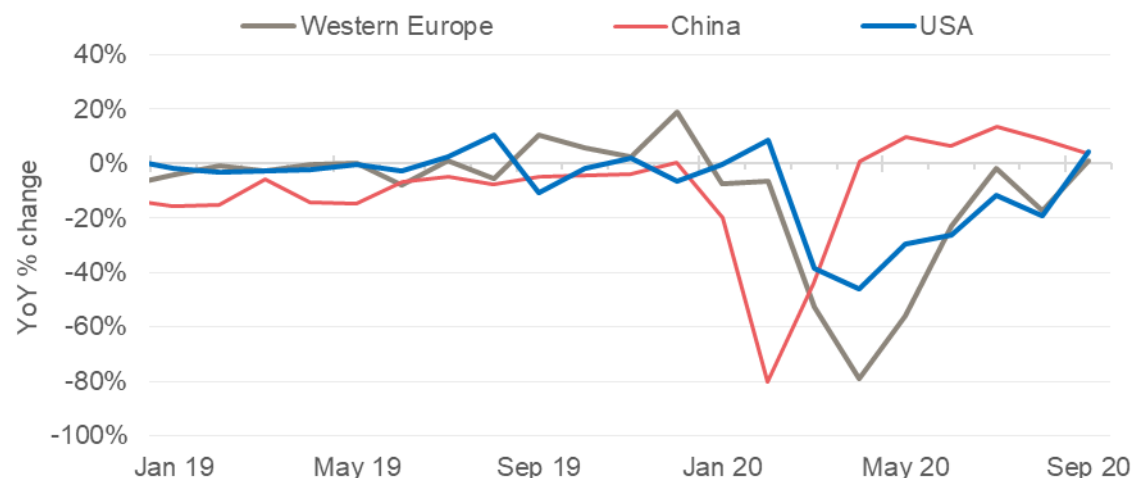
Annual China imports support demand growth (koz)



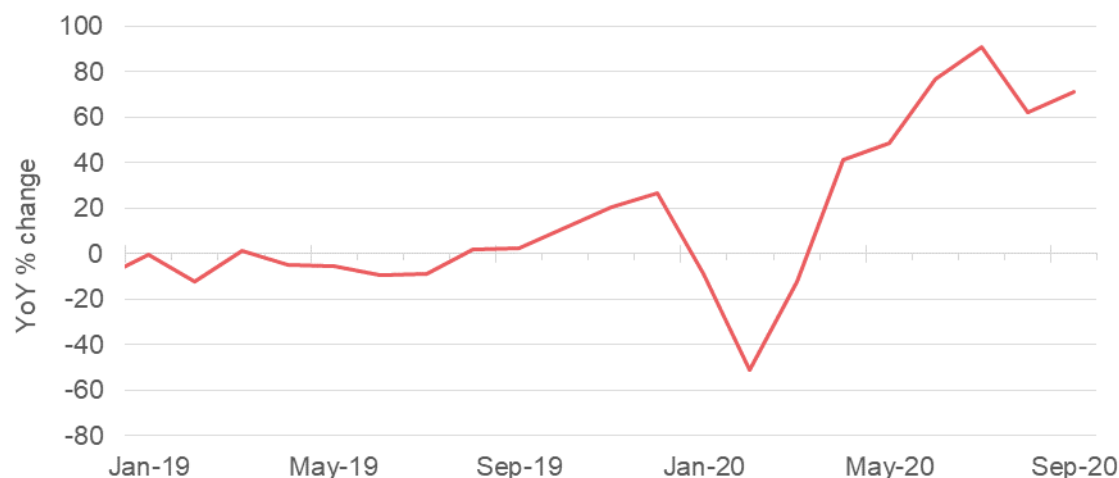
- 2021 China forecast demand likely to support further import growth

KEY VEHICLE MARKETS RETURN TO PRE-PANDEMIC LEVELS OF PRODUCTION AND SALES BY END Q3

Light vehicle sales recovered to pre-COVID levels



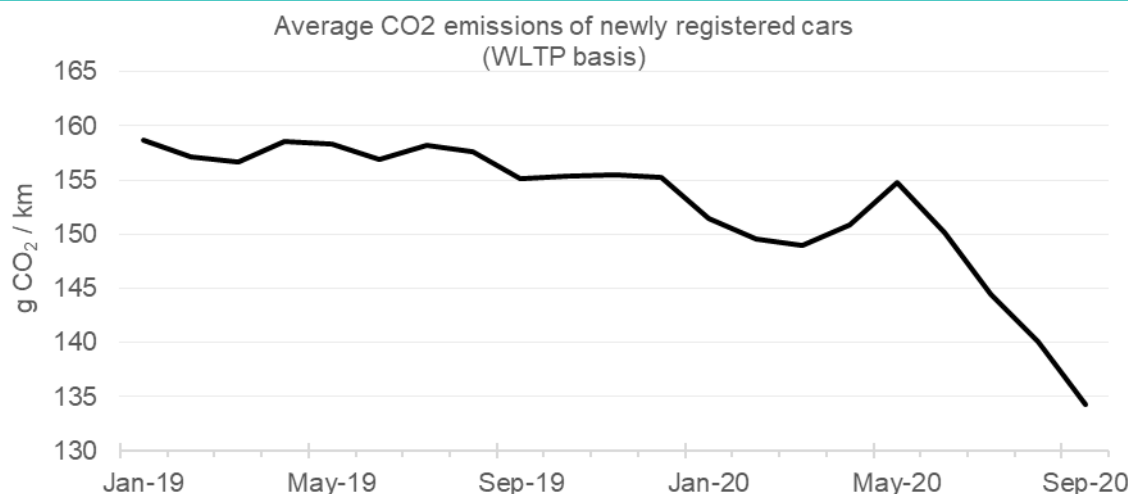
HD production in China, surging in 2020



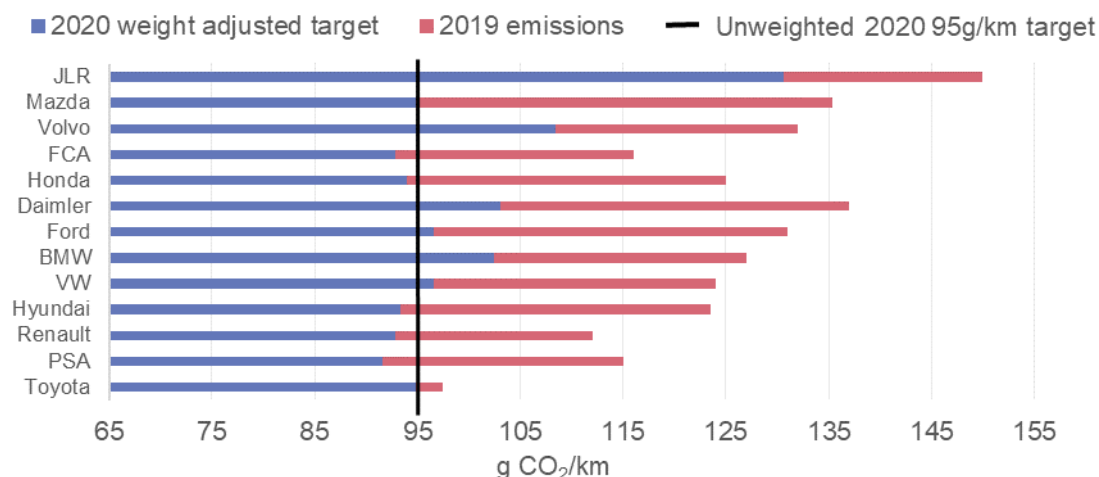
- Global auto markets have recovered from COVID-19 Q1/Q2 downturn
- Global light vehicle sales down 19.6% in year-to-September, a less severe impact than previously expected
- Platinum automotive demand down only 3% YoY in Q3'20
- China, the world's largest HD market, has seen HD production volumes surge, up 33% YTD
- Higher loadings to meet China VI increase platinum demand in 2020 and 2021

EU AUTOMAKER PUSH TO SELL MORE DIESEL CARS IS A BOOST FOR PLATINUM DEMAND GROWTH

Average German CO₂ emissions down in 2020



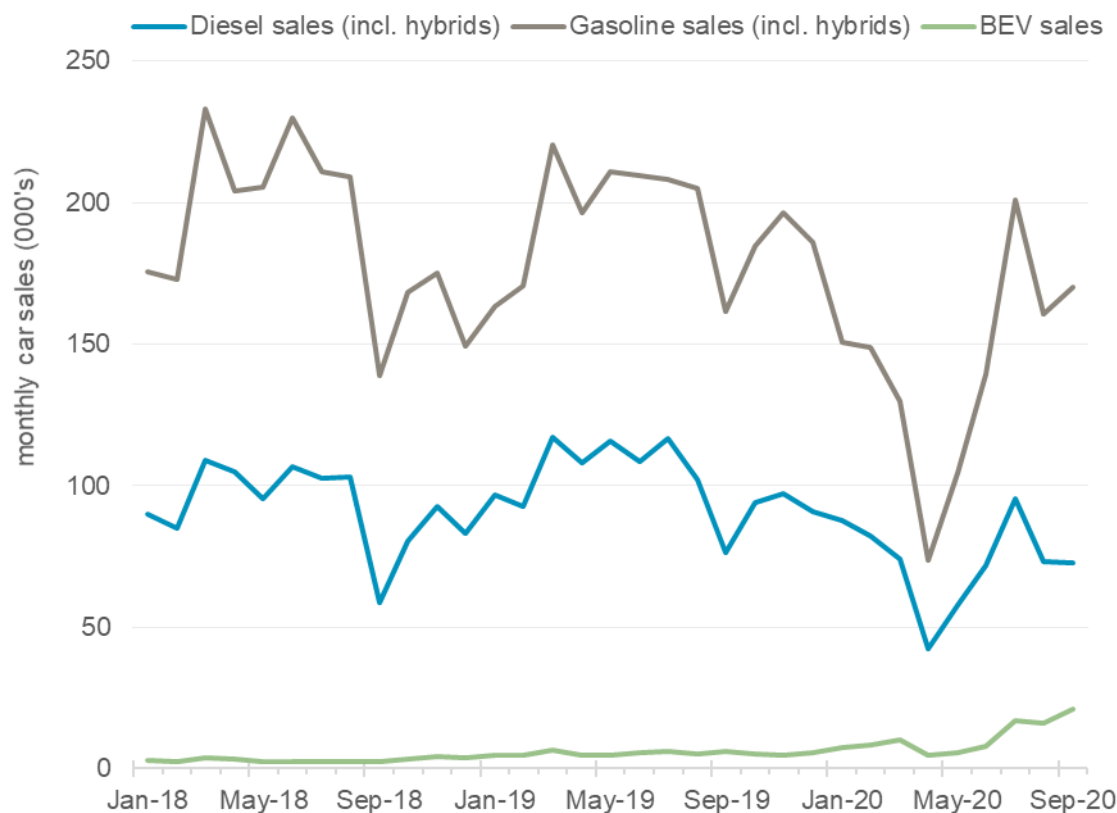
13 major OEMs av. 2019 CO₂ - 26 g/km above target



- German average CO₂ fleet emissions fell sharply in 2020 from rapid MHEV and PHEV sales growth
- Avoiding or reducing heavy annual CO₂ fines, is a very strong incentive for automakers to sell more diesel cars
- Incentive increases further for the period 2025 to 2030 as CO₂/km targets fall 15% and 37.5% respectively
- If 2019 'excess emissions' of Europe's top 13 automakers - 26 g/km - remains unchanged in 2020, automaker fines of c.€27bn will be payable in 2021

DIESEL FACED SLOWER RATE OF COVID IMPACTED DECLINE IN KEY EUROPEAN MARKETS THAN GASOLINE

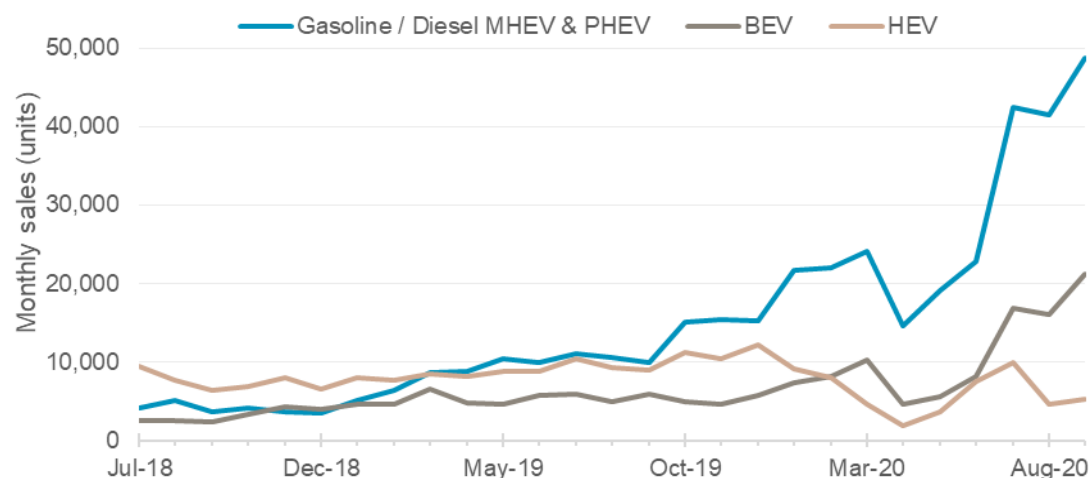
German diesel sales, less impacted than gasoline



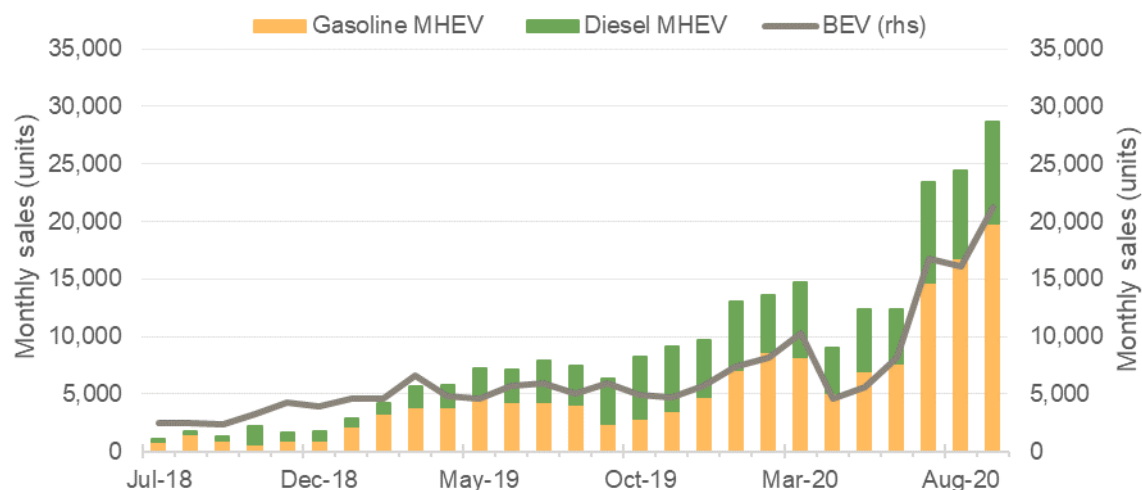
- Diesel and Diesel hybrid car sales in Germany dipped by 52% between Dec-19 and Mar-20 low
- Gasoline sales more impacted, falling by 60% between December and March
- Launch of new Diesel MHEV and PHEV models helped support diesel sales
- Audi, BMW and Mercedes offering diesel-hybrids across more of their model ranges

EUROPEAN AUTO SUPPORT POLICIES BEV AND PHEV FOCUSSED, BUT HYBRIDS CONTINUE TO OUTSELL BEVS

Hybrids outsell BEVs despite subsidy policy



PHEVs similar selling rates to BEV, MHEV outselling

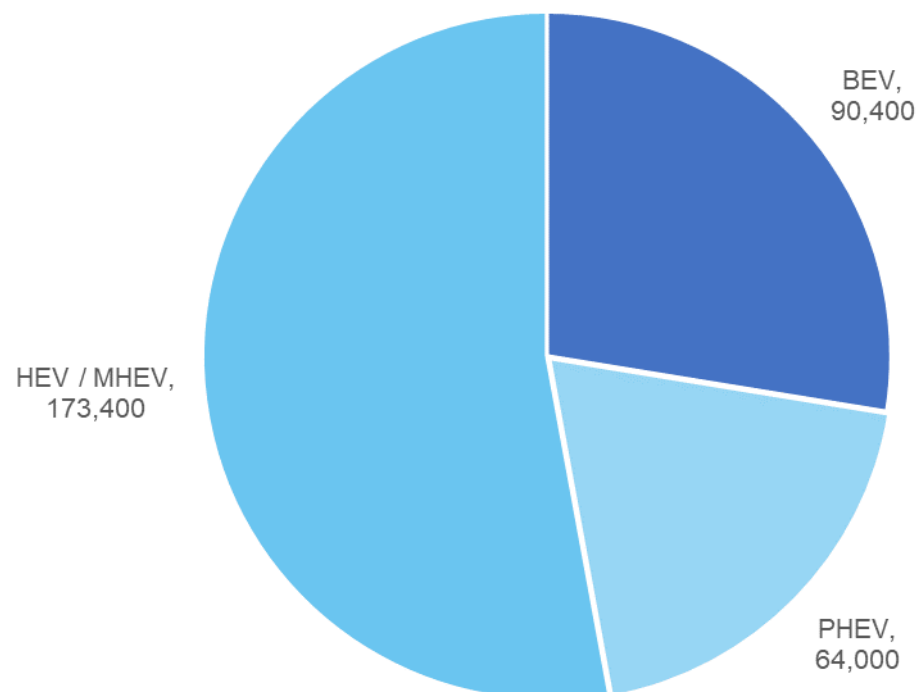


- German EV subsidies doubled in June, running to end-2021
- BEVs up to €40,000 get €9,000 grant
- PHEVs up to €40,000 get €6,750 grant
- PHEVs selling at similar rates to BEVs
- MHEVs receive no such support, yet outsell BEV at a c.3:2 ratio
- Hybrids remain key to reducing OEM fleet CO₂ emissions

STRONG EU 'EV' SALES DATA MISLEADING – HYBRIDS WITH COMBUSTION ENGINES REMAIN DOMINANT

Hybrid cars dominate EU 'EV' sales

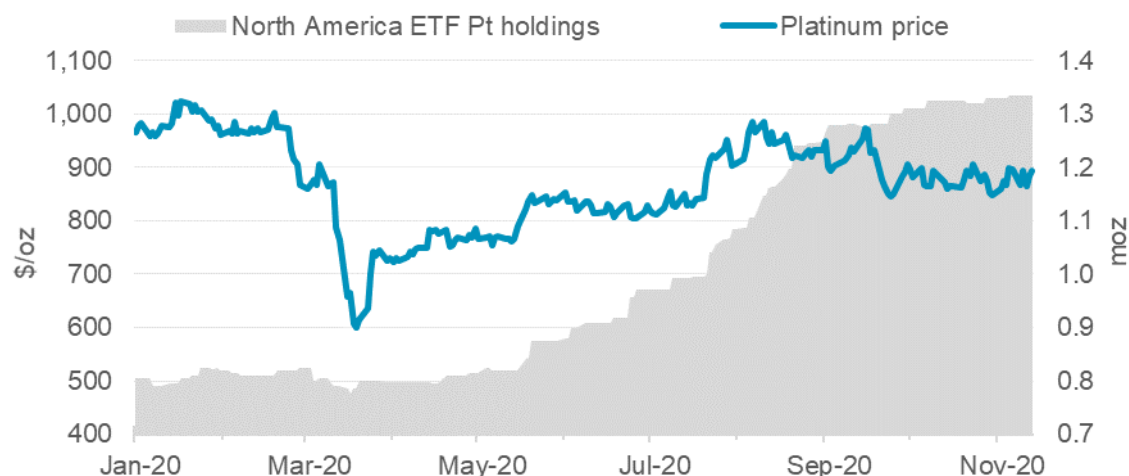
Sept 2020 'EV' sales - 327,800



- Hybrids dominate 'EV' sales, accounting for 73% of 'electrified vehicle' sales in September 2020
- JATO data correctly includes BEV increase from 3% to 7% YoY but headline focused on 'EV' increase to 25%
- PHEV and HEV/MHEV accounted for 18% of EU LV sales in September 2020, up from 7% YoY

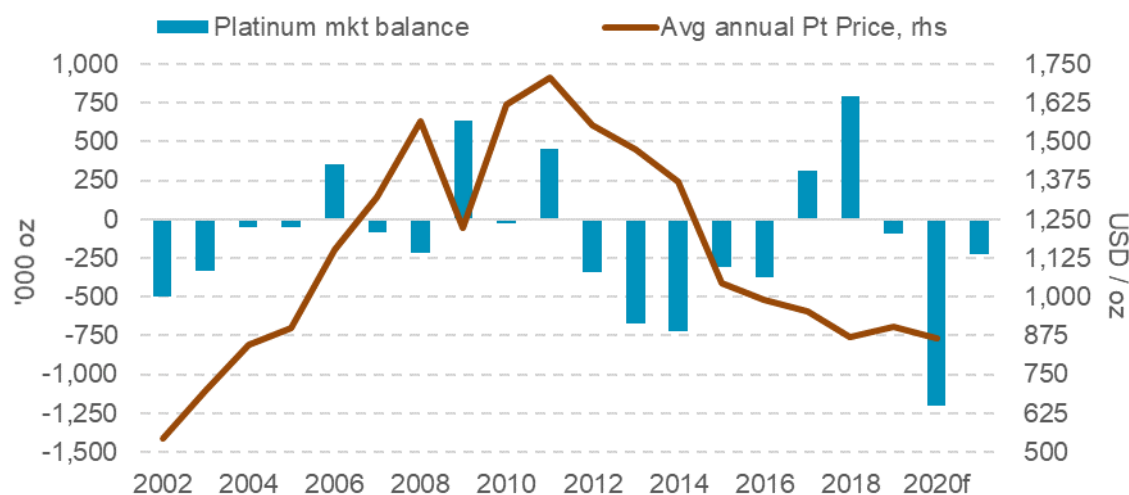
PLATINUM INVESTMENT DEMAND RISK TO UPSIDE ON GOLD, SUPPLY, PALLADIUM AND HYDROGEN

US ETFs up 558 koz since March Pt price lows



- Global platinum ETF holdings up 658 koz* from year lows in May, to 3.7 moz on impetus from low price, gold and some hydrogen

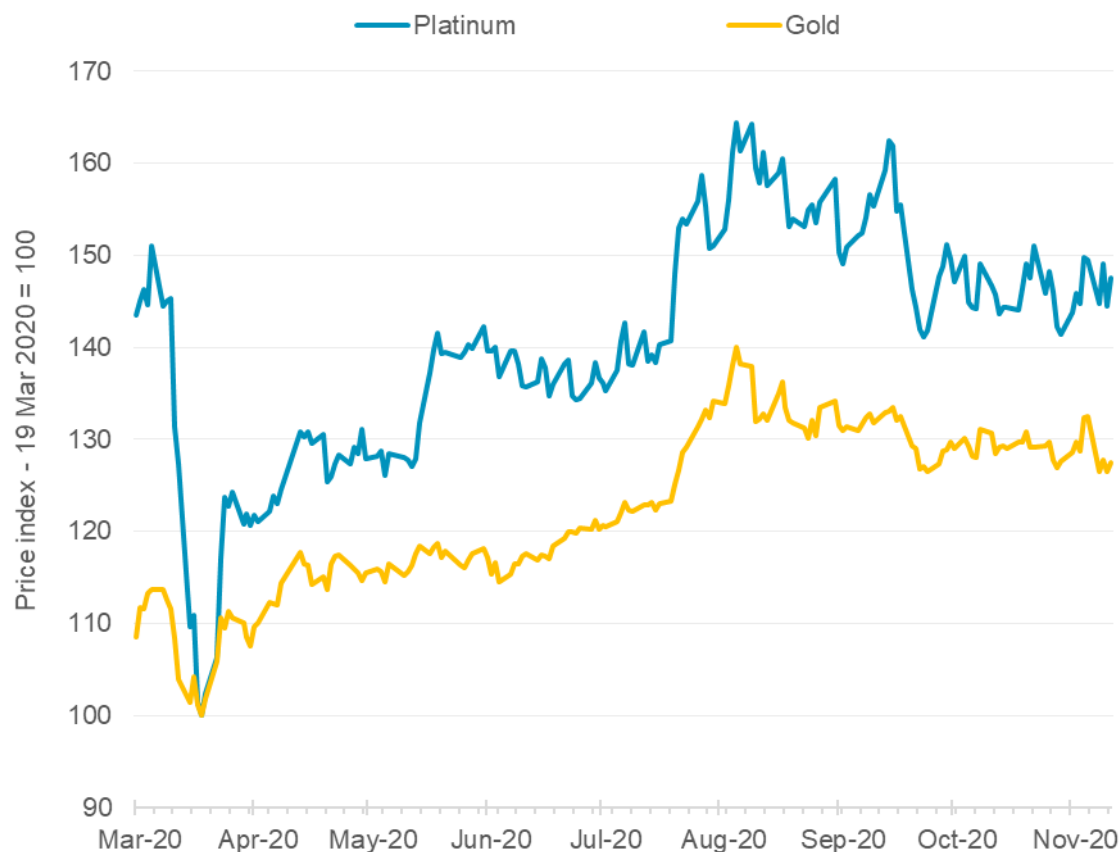
Investment demand could sustain Pt market deficits



- Constrained supply and strong demand growth potential — compelling to the growing and wider range of investors

SINCE PRICE LOWS ON 19 MARCH 2020, PLATINUM HAS OUTPERFORMED GOLD

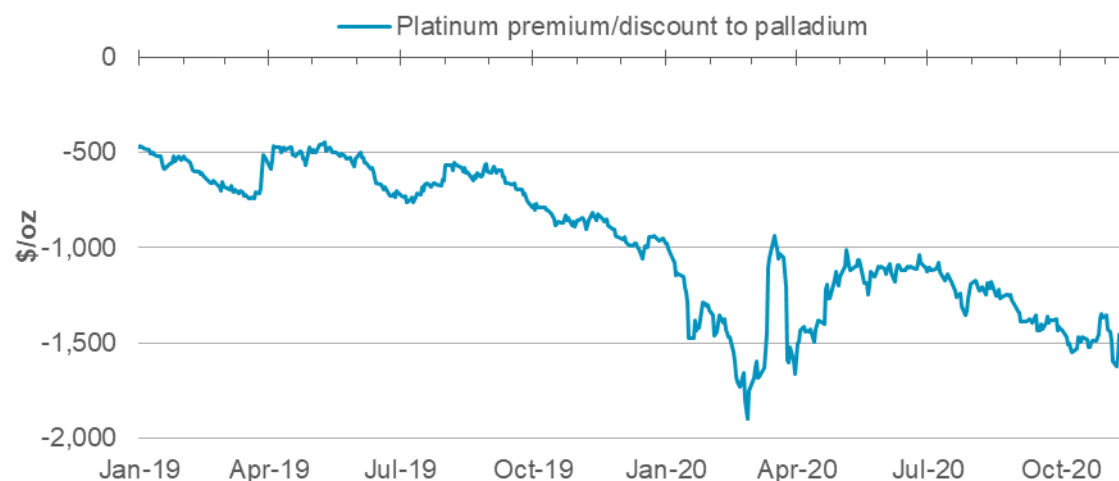
Index of platinum and gold price (19.03.20 = 100)



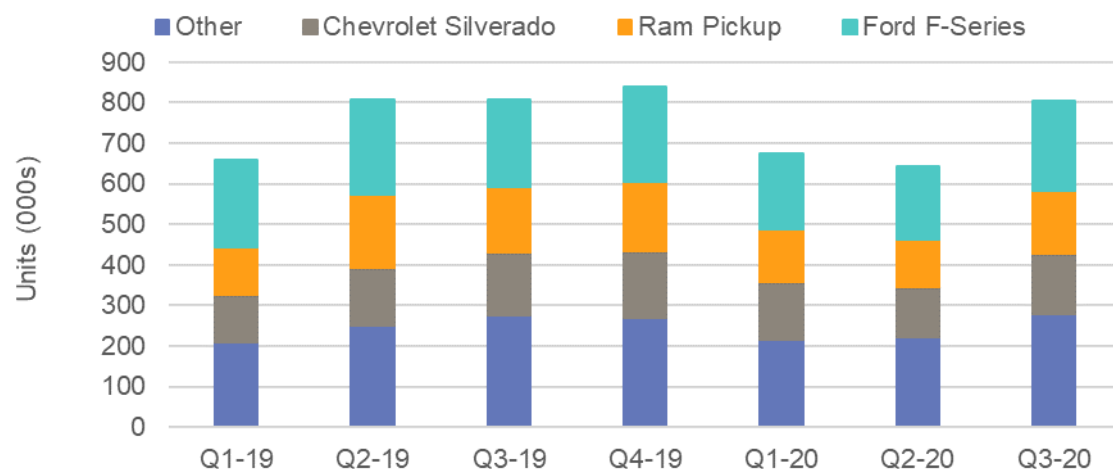
- Since price lows on 19 March 2020:
 - By end August, platinum up 55%, gold up 33%
 - By mid-November, platinum up 47%, gold up 28%
- High global risk continues to drive precious metal demand
- After GEC from 2008 to 2010 platinum weekly returns outperformed gold's by 30% to 65% - vaccination success could support similar performance in 2021

STRONG VEHICLE RECOVERY & CHINA 6 LIFT PD DEMAND HIGH PD PRICE DRIVES MORE PT FOR PD SUBSTITUTION

Pt discount to Pd significant substitution incentive



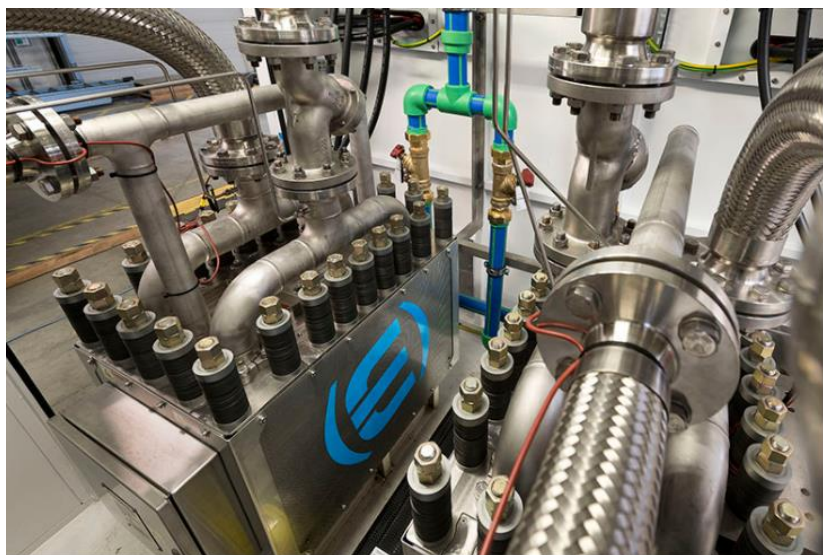
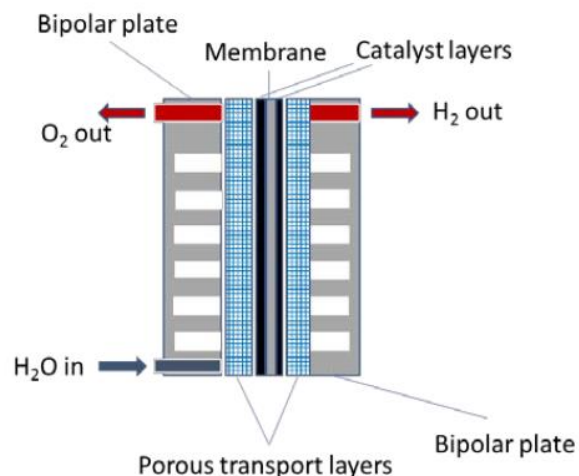
Strong US pickup rebound points c3 m sales in 2020



- Pd premium to Pt averaged \$1,300/oz in 2020 YTD (\$675/oz in 2019)
- Automaker profits down heavily in 2020 on COVID-19 disruption costs and sales losses - further incentive for substitution
- High financial benefit from US pickup market with saving of \$172 per vehicle with only 40% substitution
- Pickup market alone offers \$500m saving for only 40% Pt for Pd substitution

PLATINUM PLAYS CRUCIAL ROLE IN GREEN HYDROGEN & FCEVS – MORE INVESTORS CONSIDERING PLATINUM

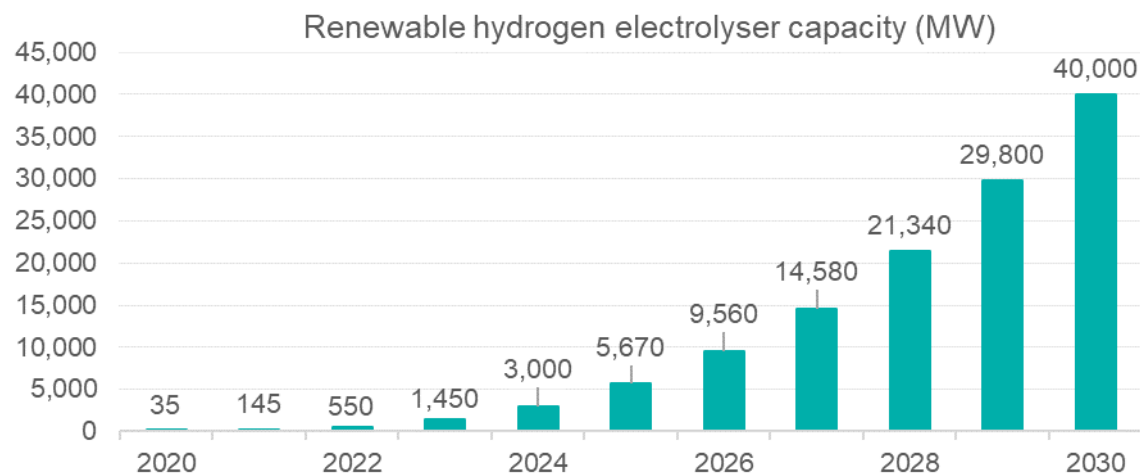
Platinum used in PEM electrolyser anodes



- Proton Exchange Membrane (PEM) electrolyzers are the favoured technology for Green Hydrogen from renewable power sources
- Platinum is cathode in PEM electrolyzers, with iridium oxide/ruthenium oxide as the anode
- Heraeus breakthrough reduces iridium by 90% - ensuring that scarce iridium does not limit PEM adoption
 - Johnson Matthey expected only 30% - 60% of electrolyzers to be PEM
 - breakthrough to increase that share
- Current EU (40 GW) and China (30 GW) green hydrogen alone at 60% share is 600 koz of platinum by 2030

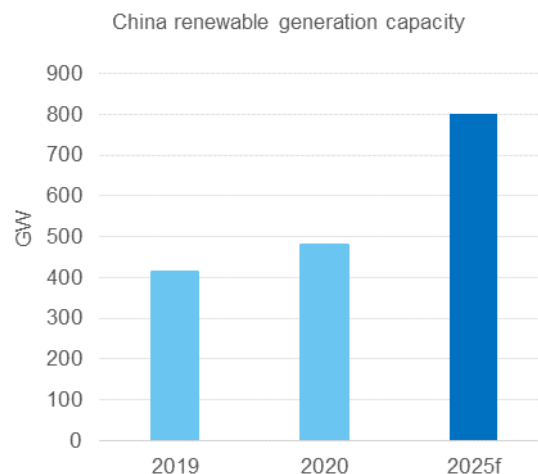
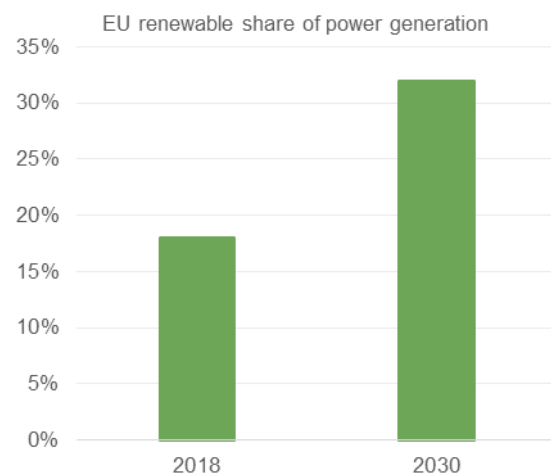
HYDROGEN ECONOMY – PANDEMIC DRIVEN CERTAINTY UP - MORE COUNTRIES TARGET CARBON NEUTRALITY

EU 40 GW electrolyser target needs c. 350 koz Pt



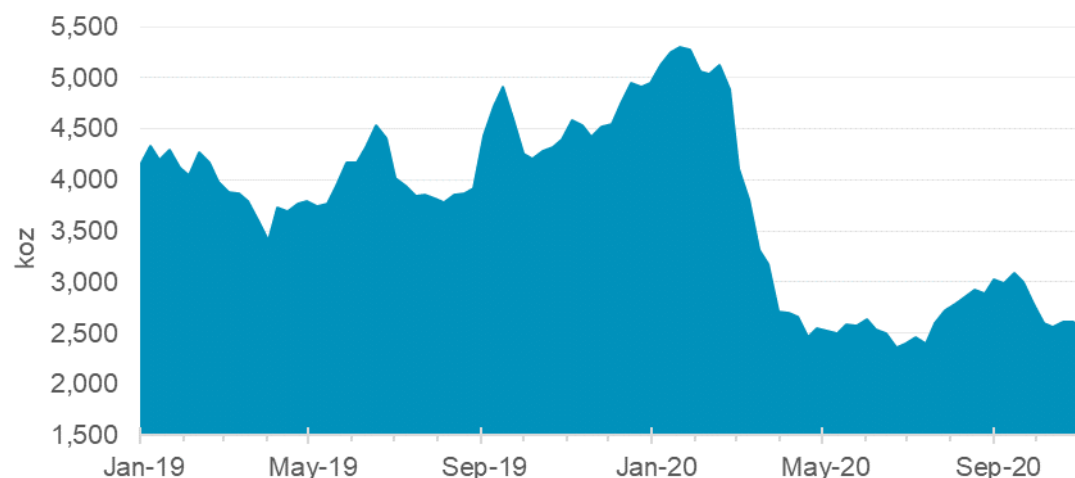
- Green hydrogen now the focus in 2020, 70 countries, plus the EU, pledge carbon neutrality by 2050, China by 2060
- China renewable growth of 300 GW by 2030 – green hydrogen could be higher
- Platinum's key strategic role in the Hydrogen economy is driving more investors to consider platinum as an asset class
- Short-term platinum investment demand a noteworthy outcome

Electrolyser plans supported by renewable targets



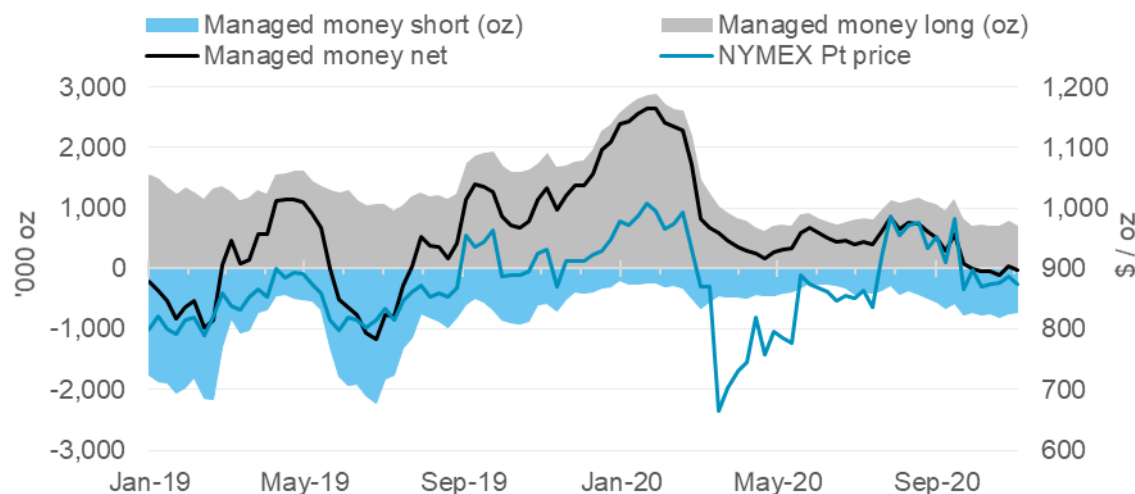
MAJOR NYMEX PLATINUM FUTURES HIATUS LIMITED PRICE RESPONSE IN 2020

NYMEX open interest at low levels since mid-March



- NYMEX platinum open interest 30-40% lower since March than average levels in 2019

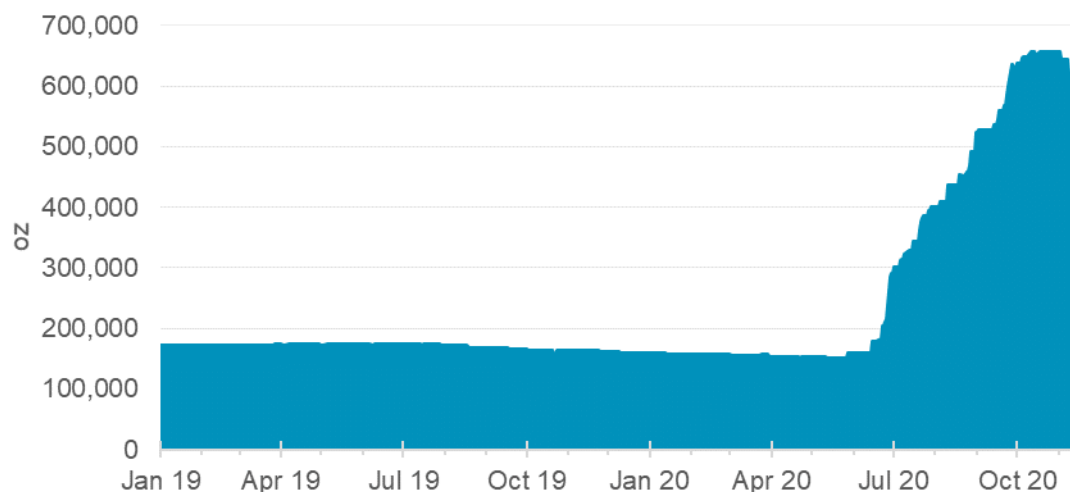
NYMEX Money manager Pt positioning



- NYMEX money manager positioning traditionally a key driver of short-term platinum prices
- Money manager positioning low compared to H2-19 and Jan/Feb-20

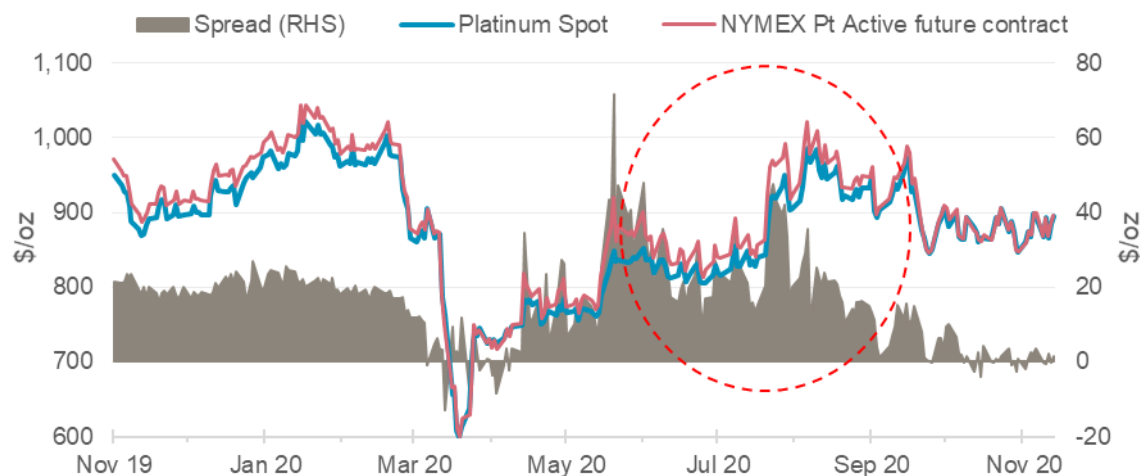
NYMEX STOCKS AT UNPRECEDENTED LEVELS – CONFIDENCE REBUILT – GOOD FOR PLATINUM PRICE

NYMEX stocks up c.500 koz since May 2020



- Nymex Platinum inventory currently over 600 koz
- Historically volumes were typically 100 koz

NYMEX platinum spreads eased August



- High NYMEX stocks can drive:
 - increased market making
 - reduce spread tightness
 - increased investor confidence
 - positive price momentum

WHY PLATINUM? - PANDEMIC REDUCES SUPPLY AND DEMAND BUT MORE COMPELLING INVESTMENT CASE



- Platinum faces a 3rd consecutive deficit in 2021, market shortages under-recognised
- Demand growth potential remains high:
 - Diesel vehicle growth stronger due to EU CO₂ fines
 - HD demand growth in China on tighter emission regulations
 - Platinum substitution for palladium to continue growing
 - Gold a strong driver of Pt investment
- Automotive demand growth, substitution, gold and hydrogen attracting significant additional investment demand

AGENDA: PLATINUM QUARTERLY – Q3 2020, UPDATED 2020 FORECAST AND NEW 2021 FORECAST

1. Introduction

Paul Wilson

2. Platinum Quarterly, fundamentals review

Trevor Raymond

3. Focus on fundamental drivers

Trevor Raymond

4. Questions

Paul Wilson, CEO

Trevor Raymond, Director of Research

