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### AGENDA: PLATINUM QUARTERLY – Q2 2020 AND 2020 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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2. Platinum Quarterly, fundamentals review Supply, demand and balance: Q2'20, 2020f Trevor Raymond, Director of Research

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Paul Wilson Trevor Raymond



# Q2 2020 SUPPLY: TOTAL SUPPLY DOWN 35% ON ANGLO OUTAGE & COVID-IMPACTED MINING AND RECYCLING



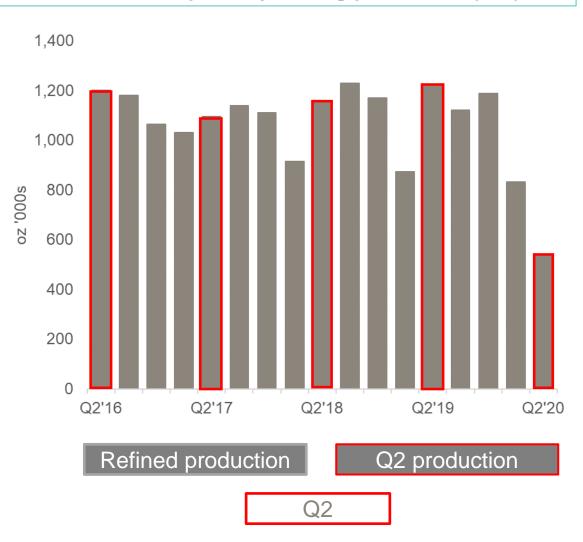
SUPPLY	Q2 2019 //	Q1 2020	Q2 2020
Refined Production	1,665	1,243	954
South Africa	1,218	832	532
Zimbabwe	120	118	114
North America	99	98	87
Russia	189	150	177
Other	40	45	44
Inc(-)/Dec(+) in Producer Inventory	-28	+41	+36
Total Mining Supply	1,637	1,284	989
Recycling  Autocatalyst  Jewellery  Industrial	119	<b>489</b> 406 70 14	419 309 97 13
Total Supply	2.157	1.773	

- South Africa supply down 56% (-685 koz) YoY on smelting outage and mine lockdowns
- Other regions less impacted. Zimbabwe down 5% (-7 koz) YoY as most mines stayed operating
- Recycling supply down 19% (-100 koz)
   YoY
  - autocatalyst -20% (-78 koz)
  - jewellery -18% (-22 koz)
- Total Q2 supply down 35% (-748 koz)
   YoY, and 21% (-364 koz) v Q1

### Q2 2020 SOUTH AFRICA MINE SUPPLY DOWN 56% YOY ON SMELTING OUTAGE AND MINE LOCKDOWNS



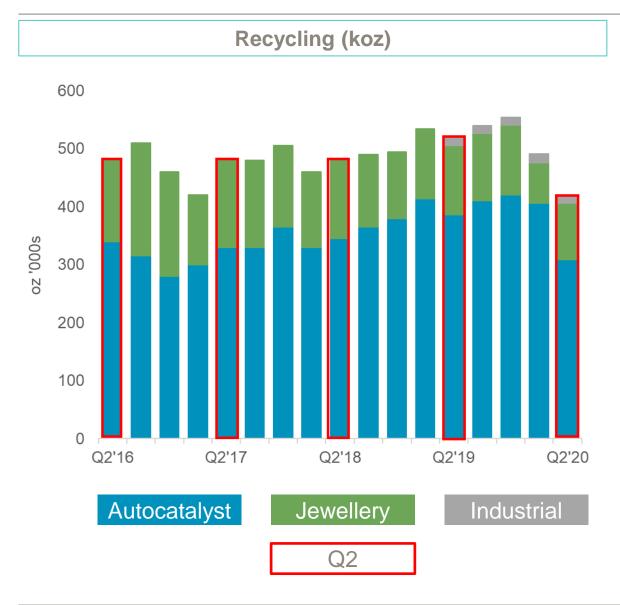
#### South Africa quarterly mining production (koz)



- South Africa Q2 production down
   56% (-685 koz) YoY to 532 koz
- Angloplat converter (ACP) outage from March 5, full impact in Q2 (-550 koz full year loss, 2/3 of loss in Q2)
- Total mine lockdowns from March 26, with mining activity only widely returning from June 1

## Q2 2020 RECYCLING: DOWN 19% AS LOCKDOWNS LIMITED COLLECTION, TRANSPORT AND PROCESSING





- Q2 recycling down 19% (-100 koz) YoY to 309 koz
- Autocatalyst recycling down 20% (-78 koz) YoY as lockdowns impaired logistics in EU and US
- Jewellery recycling down 18% (-22 koz)
   YoY as lockdowns reduced Chinese retail recycling
- Industrial recycling (including electronic scrap) flat (-1 koz) YoY

### Q2 2020 DEMAND: AUTO, JEWELLERY & INDUSTRIAL DOWN ON COVID, BUT INVESTMENT DEMAND STRONG

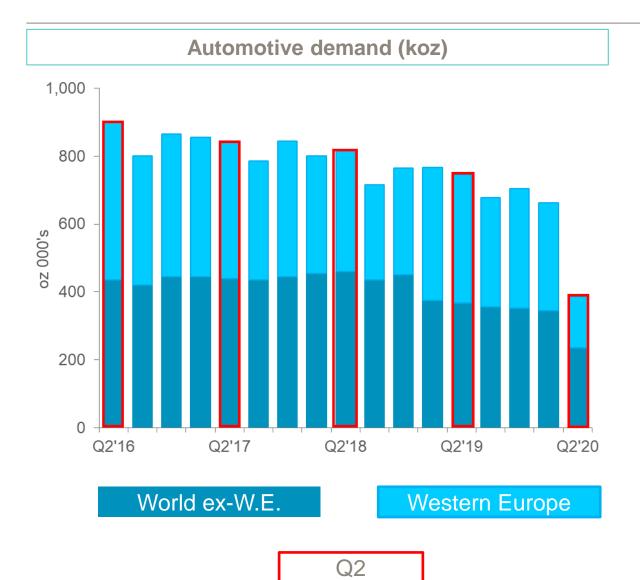


DEMAND	Q2 2019 //	Q1 2020	Q2 2020
Automotive	747	663	386
Autocatalyst	747	663	386
Non-road			
Jewellery	540	394	392
Industrial	574	499	428
Chemical	200	157	119
Petroleum		38	29
Electrical	36	32	34
Glass	71	98	82
Medical & Biomedical	67	59	64
Other	144	115	101
Investment	126	79	393
Change in Bars, Coins	89	312	133
Change in ETF Holdings	50	-213	122
Change in Stocks Held by Exchanges	-13	-20	138
Total Demand	1,986	1,635	1,599
Balance	171	138	-191

- Q2 demand change YoY:
  - Automotive down 48% (-360 koz)
  - Jewellery down 27% (-149 koz)
  - Industrial down 25% (-145 koz)
  - Investment up 212% (+267 koz)
    - Bar and coin up 49% (+44 koz)
    - ETF up 145% (+72 koz)
    - Exchange stocks up (+151 koz)
- Market deficit of -191 koz

### Q2 2020 DEMAND: AUTOMOTIVE DOWN 48% AS COVID-19 REDUCED AUTO SALES AND PRODUCTION



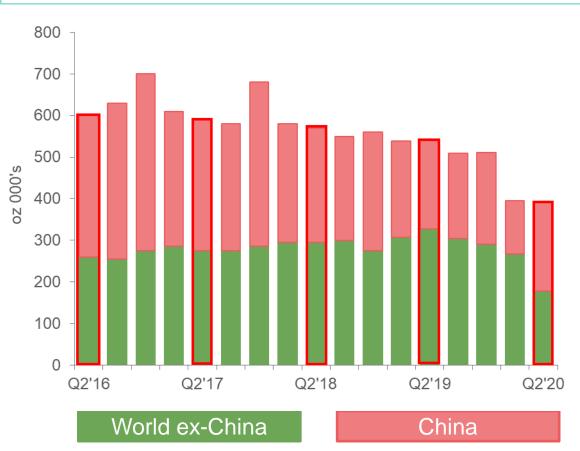


- Automotive demand down 48% YoY as lockdowns closed EU and US auto plants
- Plant closures averaged 16 days in China (in Q1), but 4-8 weeks in Europe, North America and other ASEAN markets
- Q2 European car sales fell 53% YoY
- European diesel share stabilised at 30% of sales through Q2, helped by strong diesel mild-hybrid sales growth
- Diesel vehicles still key for automakers to avoid or reduce heavy CO<sub>2</sub> fines

## Q2 2020 DEMAND: JEWELLERY DEMAND DOWN 27% YOY, BUT FLAT QOQ AS CHINA RECOVERS



#### Jewellery demand (koz)



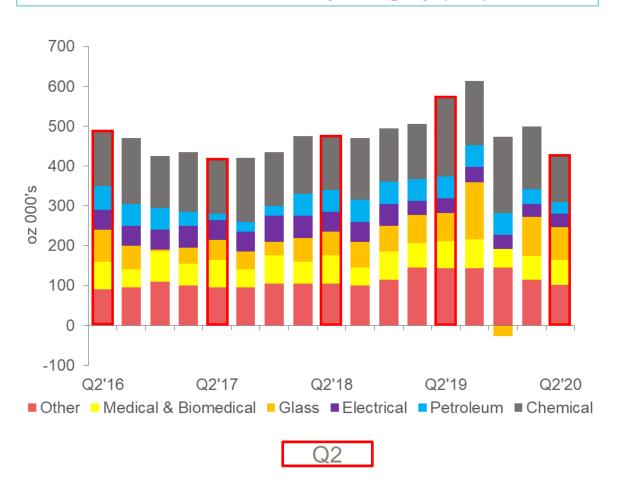
- Jewellery down 27% (-149 koz) YoY on weaker EU and North America demand
- Fabricator lockdowns and non-China wedding postponements lowered sales
- China demand up 1% YoY, and 68% v
   Q1 on store re-openings and platinum
   jewellery price attractiveness v gold

Q2

## Q2 2020 DEMAND: INDUSTRIAL DEMAND DOWN 35% ON CHEMICAL AND PETROLEUM COVID DISRUPTIONS



#### Industrial demand by category (koz)

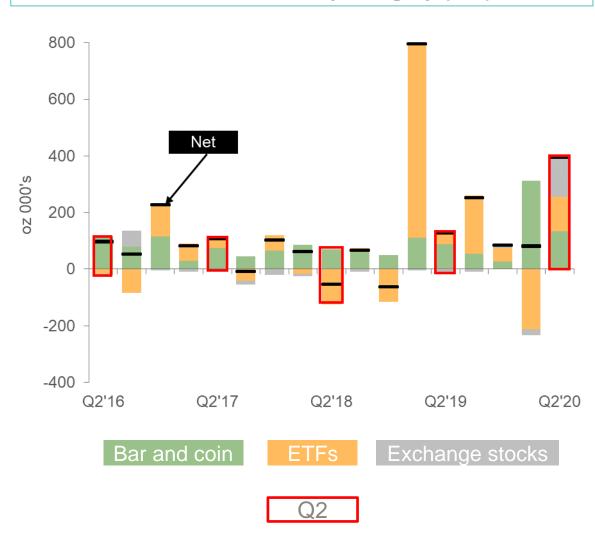


- Platinum industrial demand down 25% (-145 koz) YoY on weak petroleum and chemical demand
- Strong glass demand, up 15% (+11 koz) YoY on manufacturing capacity additions
- Chemical demand down 41% (-82 koz)
   YoY on lockdowns and slower China petrochemical capacity growth
- Petroleum demand down 47% (-26 koz) YoY on slowed capacity expansions

### Q2 2020 DEMAND: INVESTMENT UP — STRONG BAR & COIN AND ETF & MUCH HIGHER EXCHANGE STOCKS



#### Investment demand by category (koz)



- Investment demand up 212% (+267 koz) YoY to 393 koz
- Bar & coin demand up 49% (+ 44 koz)
   YoY to 133 koz strong Japan and US
- ETFs up 145% (+72 koz) YoY on strong investor appetite and support from gold
- Exchange inventory (mainly NYMEX)
   up to 138 koz (+151 koz) YoY, initially
   prompted by COVID-19 related
   platinum logistics constraints

# 2020 FULL YEAR: DEFICIT OF 336 KOZ ON WEAKER MINE SUPPLY, FIRMER AUTO & STRONG INVESTMENT



SUPPLY Refined Production	South Africa Zimbabwe	<b>2019 6,094 4,402</b> 455	<b>2020f 5,167</b> 3,517 453	<b>YoY, oz</b> - <b>927</b> -886 -2	YoY, % -15% -20% -1%	•	South African supply down 20% (-886 koz) YoY to 3,517 koz
Inc (-)/Dec (+) in Prod	North America Russia Other lucer Inventory	356 716 164 +2	372 654 171 +20	16 -62 7 18	4% -9% 4% 749% - <b>15%</b>	•	Recycling down 12% (-250 koz) YoY to 1,915 koz
Total Mining Supply Recycling	Autocatalyst Jewellery	<b>2,165</b> 1,630 477	<b>1,915</b> 1,471 388	<b>-910</b> <b>-250</b> -159 -89	-13% -12% -10% -19%	•	Total supply down 14% (-1,159 koz) YoY to 7,102 koz
Total Supply DEMAND	Industrial	58 <b>8,261</b>	57 <b>7,102</b>	-1 -1,159	-3% -14%	•	Auto demand down 16% (-464 koz) YoY, but Chinese auto demand up by 14% on
Total Demand	Automotive Jewellery Industrial Investment	2,894 2,100 2,140 1,252 <b>8,386</b>	2,429 1,813 2,136 1,060 <b>7,438</b>	-464 -287 -5 -192 <b>-948</b>	-16% -14% 0% N/M -11%	•	rising HDV sales and loadings  Total demand down 11% (-948 koz) YoY to 7,438 koz
Balance Above Ground Stocks		-125 3,525	-336 3,189	-336	169% -10%	•	Material deficit in 2020 (-336 koz) despite impact of COVID-19

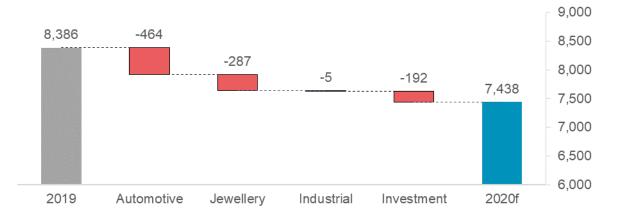
### 2020 FORECAST: TOTAL SUPPLY DOWN 14%, TOTAL DEMAND DOWN 11%





- Total supply forecast down 14% (-1,159 koz)
- SA mine supply down 20% (-886 koz) on smelting outage and mine lockdowns
- Auto recycling down 12% (-250 koz) as pandemic-slowed logistics limited collection and processing in EU and US
- Total demand forecast down 11% (-948 koz) all segments lower
- Investment down 15% (-192 koz) from exceptional base in 2019 of 1,252 koz
- Forecast risk remains high for demand and supply

#### Total demand 2020F (koz)



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- Impact of platinum market shortages
- Impact of quicker auto sales rebound
- Investment demand drivers

Trevor Raymond, Director of Research

#### 4. Questions

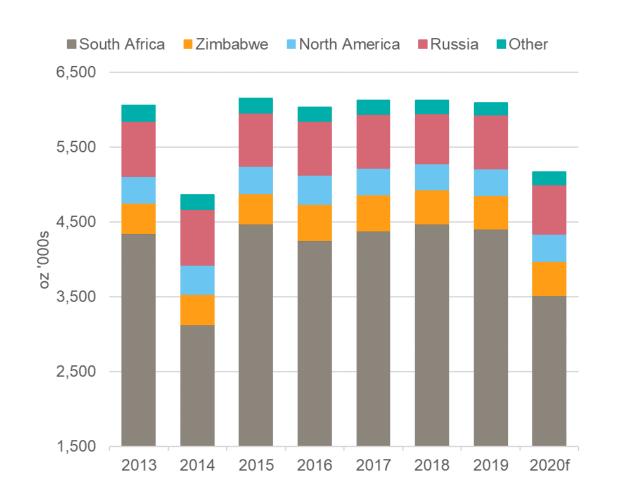
Paul Wilson Trevor Raymond



### 2020 SUPPLY LOSSES WERE SIGNIFICANT IN PHYSICAL MARKET SHORTAGES



#### Refined platinum mine supply (koz)

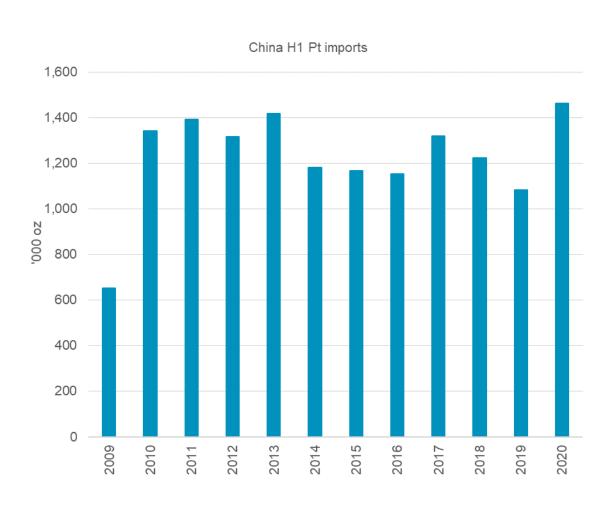


- Total 2020f supply down -1,159 koz YoY
- Lower supply due to:
  - ACP converter outage (c.-550 koz)
  - Mine lockdowns (c.-340 koz)
  - Recycling (-250 koz)
- Supply logistics shocks significant in market shortages:
  - Sudden ACP failure stopped refining
  - Swiss refiners shut on lockdown
  - SA exports stopped on lockdown
  - Metal logistics: stopped or slowed
  - Surge in bar and coin and ETF demand

### CHINA IMPORT BUYING SURGED 35% IN H1'20 ON PRICE DIP AND SUPPLY CONCERNS – ADDED TO SHORTAGES



#### China platinum imports



- China imported 1.5 moz of platinum in H1
- China manufacturers industrial and jewellery – have historically reacted to shortages and low price of platinum
- Q1'09 GFC price fall \$2,100 to \$700 \$/oz
   with Pt jewellery market buoyant
- Q3'13 SA ETF growth of 900 koz (ABSA) and strike expected (AMCU + wage negs)
- H1'20 surge in buying :
  - Shortage concerns on SA supply falls and impaired logistics
  - Chinese manufacturers back from lockdown
  - Fortuitous price fall

Source: China Customs, WPIC Research

### DEMAND FOR PLATINUM BAR & COIN AND PHYSICALLY BACKED ETFS INCREASED SHORTAGES





Total ETF Pt holdings Platinum price 1,100 3.8 1,000 3.6 900 800 3.2 700 3.0 600 2.8 500 Jan-20 Mar-20 May-20 Jul-20 Sep-20

- Bar and coin of 445 koz in H1 2020 on:
  - Constrained South African supply
- Strong Chinese platinum import demand
- Attractive price levels
- ETFs up c.650 koz since May 2020 lows
- Backwardation and lease rate spike

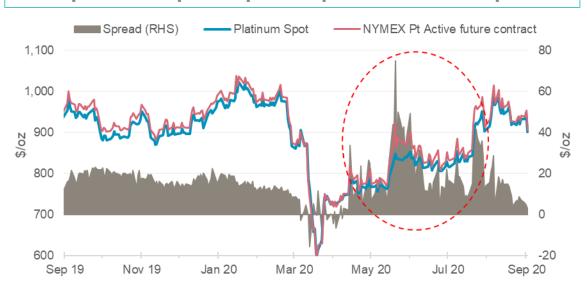


Source: Bloomberg, WPIC Research

### PLATINUM: COVID-19 SEVERELY HAMPERED LOGISTICS - CAUSED EFP BLOW OUT AND LOW FUTURES TRADING

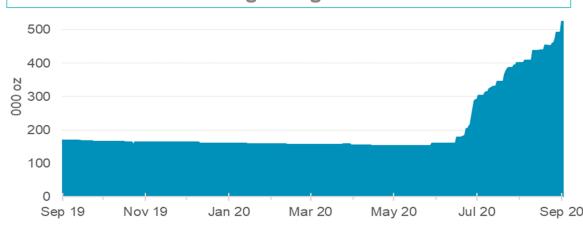


#### Spot future price spread spiked from mid April

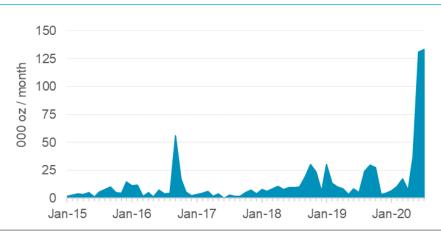


- Pandemic-related logistic bottlenecks constrained producer & refiner exports
- Fewer EFP and futures market-makers and bank risk up as no 50 oz bars in NY
- Platinum spot/futures spread started to spike from mid-April (May peak c.\$75/oz)
- Bars from Switzerland move to NYMEX and spreads return to normal levels

#### NYMEX holdings surged from late Q2



#### Swiss Pt exports to US

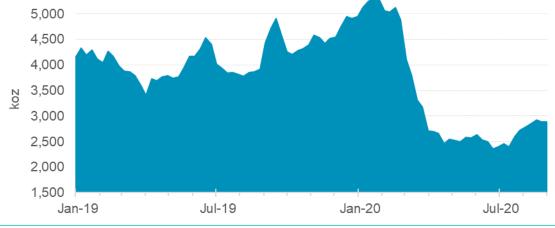


Source: Bloomberg, NYMEX, Swiss Customs, WPIC Research

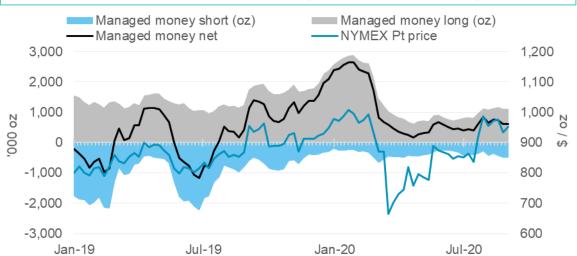
### PLATINUM: LACK OF NYMEX PLATINUM FUTURES GROWTH CURRENTLY LIMITING PRICE GROWTH







#### NYMEX Money manager Pt positioning



- NYMEX platinum open interest 30-40% lower since March than average levels in 2019
- NYMEX money manager positioning traditionally a key driver of platinum prices
- Money manager positioning low compared to H2-19 and Jan/Feb-20
- High NYMEX stocks of 50 oz bars to increase market making and reduce spreads – could drive price

Source: CFTC, Bloomberg, WPIC Research 20

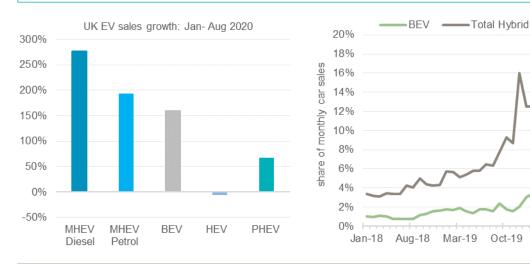
### DECLINE IN HEADLINE VEHICLE SALES DATA MASKED POSITIVE PLATINUM AUTOMOTIVE DEMAND TRENDS

May-20









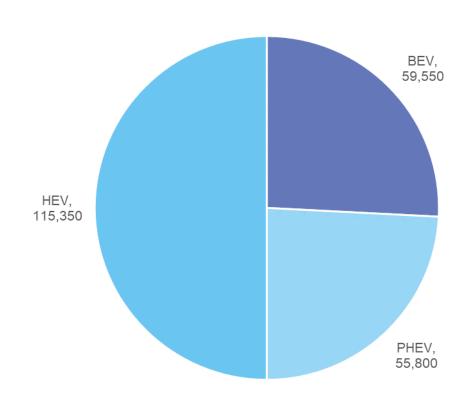
- Cumulative Chinese HDV production YTD 2020 c.25% higher than in 2019
- Early roll out of China VI HD emissions expected to boost Pt demand in 2020
- Sales of mild-hybrid diesel cars in EU have bucked the down trend in overall light vehicle sales
- German Jan-Aug Hybrid sales up 79%
  - Audi, BMW and Mercedes offering diesel-hybrids across more of their model ranges

### STRONG EU 'EV' SALES DATA MISLEADING – HYBRID VEHICLES WITH COMBUSTION ENGINES ARE DOMINANT



#### Hybrid cars dominate EU 'EV' sales





- JATO 18% of EU LV sales in July 2020 are 'EVs', up from 8% in July 2019
- Pure BEVs accounted for only 5% of EU
   LV sales in July 2020, up from 2% in July 2019
- PHEV and HEV accounted for 13% of EU
   LV sales, up from 5% in July 2019

Source: JATO, WPIC Research

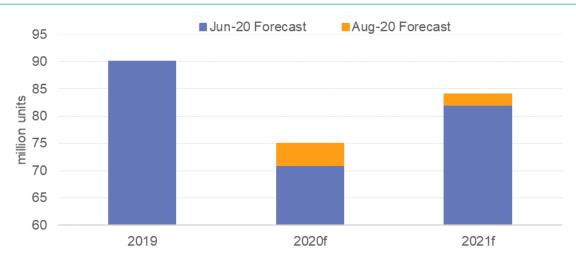
### SURPRISE V SHAPED RECOVERY IN WEST — STRONGER AUTOMOTIVE PLATINUM DEMAND IN 2020



#### LV sales rebound faster than expected



#### LMC upgraded 2020/21 forecasts



- Global Light Vehicle sales were 90.3 mn units in 2019
- Annualized selling rate in July was 97% of 2019 total
- Speed of sales recovery faster than previously expected
- US/EU markets unexpectedly followed
   Chinese market 'V' shaped recovery
- LMC raised sales and production forecasts for 2020 / 2021 as a result
  - 2020 LV sales forecast increased by
     4 mn units from 71 mn to 75 mn units

Source: LMC, WPIC Research

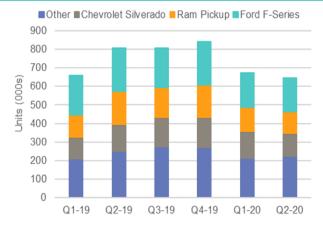
### V SHAPED RECOVERY ALSO BENEFITS PALLADIUM — DEMAND INCREASING RATE OF PT SUBSTITUTION FOR PD



#### Pt discount to Pd significant substitution incentive



#### Resilient US Pick-up sales key focus for substitution



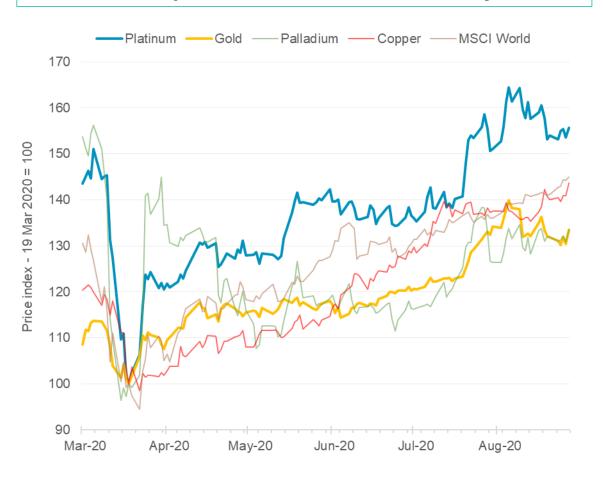


- Pd premium to Pt averaged \$1,270/oz in 2020 YTD (\$755/oz in H2'19)
- COVID-19 driven disruption costs and sales losses eroded auto profit margins in 2020 further incentive for substitution
- Highest substitution potential in large low temperature gasoline V6 and V8 engines
- Larger engines typically found in the Ford F150, Dodge Ram and similar vehicles
- If 40% of palladium was substituted by platinum in new pick-up models launched in 2019 / 2020 (c.30% of 2020 sales) could:
  - increase 2020 auto platinum demand by
     93 koz
  - save \$142 per vehicle

### SINCE PRICE LOWS ON 19 MARCH 2020, PLATINUM HAS OUTPERFORMED MOST ASSETS INCLUDING GOLD



#### COVID-19 impacted all asset classes in early March

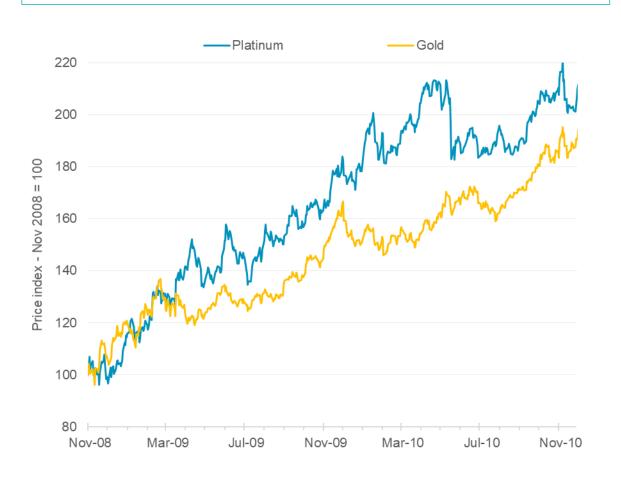


- COVID-19 pandemic has driven strong investor demand for gold as a risk hedge
- Since price lows on 19 March 2020, platinum has significantly outperformed gold, rising 55% versus gold's rise of 33% by the end of August

### PLATINUM'S PRICE OUTPERFORMANCE OF GOLD IS NO ANOMALY – 2020 LOOKING VERY SIMILAR TO 2009



#### Platinum outperformed gold between Nov-08 and Nov-10



- Over the two years from the price lows of the Global Financial Crisis (GFC) in late 2008, platinum's weekly returns outperformed gold's by 30% to 65%
- Platinum outperformance post 2008 was driven by:
  - Strong investor demand
  - Strong platinum jewellery demand
  - Limited supply growth

Despite significant weakness in automotive demand

Source: Bloomberg, WPIC Research

# PHYSICAL ASSETS APPEAL – HIGH PT CORRELATION TO GOLD – LOWER ENTRY POINT, KEY INVESTOR INCENTIVE





- Gold in demand due to negative fiscal impact of pandemic on global economy
- Platinum's longstanding strong correlation with gold has rebounded to 0.7 since the COVID-19 pandemic unfolded
- Platinum's deep discount to gold highlighted by platinum market shortages

#### Platinum has a significantly lower entry cost than gold

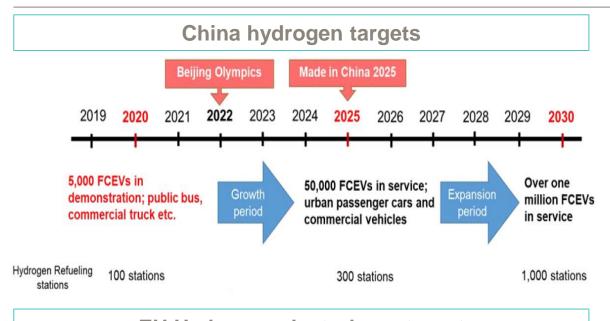


- Gold investors may consider platinum as a proxy for gold on correlation alone
- Potential outperformance of platinum driven by its demand growth potential and long-term outlook a further enticement

Source: Bloomberg, WPIC Research

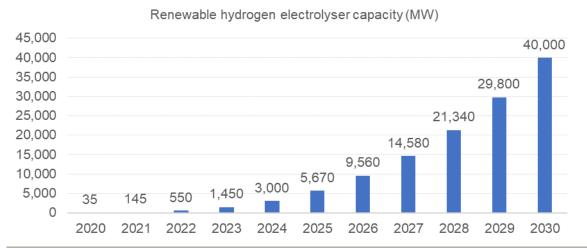
### PLATINUM: HYDROGEN ECONOMY PROVIDES LONG-TERM-VALUE OUTLOOK – GOOD FOR GOLD INVESTORS





- Some gold investors argue that platinum is not a long-term store of value – the resurgence of the hydrogen economy changes this
- China has designated hydrogen as a key energy source for future energy security
- China targeting 1 m FCEVs on road, 1,000
   H2 fuelling stations by 2030
- Platinum loadings at c.10g / vehicle point to over 350 koz in Chinese FCEVs alone
- EU investing €180 billion in the hydrogen economy by 2050 target 40GW of renewable hydrogen electrolysers and production of 10 mt hydrogen by 2030
- Platinum/iridium are preferred catalysts

#### **EU Hydrogen electrolyser target**



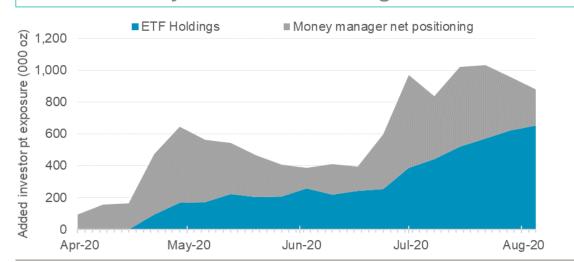
### PLATINUM INVESTMENT DEMAND RISK TO UPSIDE AS PLATINUM OUTPERFORMS GOLD



#### 2009/2010 - strong inflows in futures and ETFs



#### 2020 - Physical ETFs attracting investor flow



- From 2008 to 2010 platinum returns were 30% to 65% higher than gold
- In 2009 and 2010, futures and ETF growth very strong despite weak automotive demand
- 2020 looks similar to 2009
- From lows in early May, investor inflows into ETFs have surged by well over c.650 koz
- Money manager additions in net length since late April gaining momentum
- Resolution of futures spreads should see futures volume increase – positive for price

Source: CFTC, Bloomberg, WPIC Research

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





- Platinum's potential looks better than prior to pandemic
- -336 koz deficit in 2020 with market shortage under-recognised
- Demand growth potential remains high:
  - Diesel vehicle growth stronger due to EU
     CO<sub>2</sub> fines and pandemic limiting BEVs
  - Platinum substitution for palladium to continue growing
- Gold a strong driver of Pt investment
- Automotive demand growth, substitution and gold may attract significant additional investment demand

Source: Bloomberg, WPIC Research

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