

PLATINUM QUARTERLY PRESENTATION Q3 2019

London

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AGENDA: PLATINUM QUARTERLY - Q3 2019, UPDATED 2019 FORECAST AND NEW 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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Supply, demand and balance: Q3'19, 2019f
update and new 2020f

Trevor Raymond, Director of Research

3. Focus on fundamental drivers

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Q3 2019 SUPPLY: LOWER MINE SUPPLY, RECYCLING SUPPLY FIRM

SUPPLY	Q3 2018	Q2 2019	Q3 2019
Refined Production	1,665	1,630	1,500
South Africa	1,230	1,180	1,090
Zimbabwe	120	120	115
North America	90	100	80
Russia	180	185	170
Other	45	45	45
Inc(-)/Dec(+) in Producer Inventory	-20	+20	-40
Total Mining Supply	1,645	1,650	1,460
Recycling	490	495	500
Autocatalyst	365	365	385
Jewellery	125	130	115
Industrial	0	0	0
Total Supply	2,135	2,145	1,960

- South African mining supply down 11% (140 koz) YoY
- Working inventory increase and slower release of 2018 smelter lock-up
- Russian supply down 6% (10 koz) YoY due to new concentrator commissioning
- Recycling supply up 2% (10 koz) YoY:
 - autocatalyst +5%
 - jewellery -8%
- Total supply down 8% or 175 koz YoY

Q3 2019 MINING SUPPLY: DOWN YOY DUE TO PLANNED SMELTER MAINTENANCE

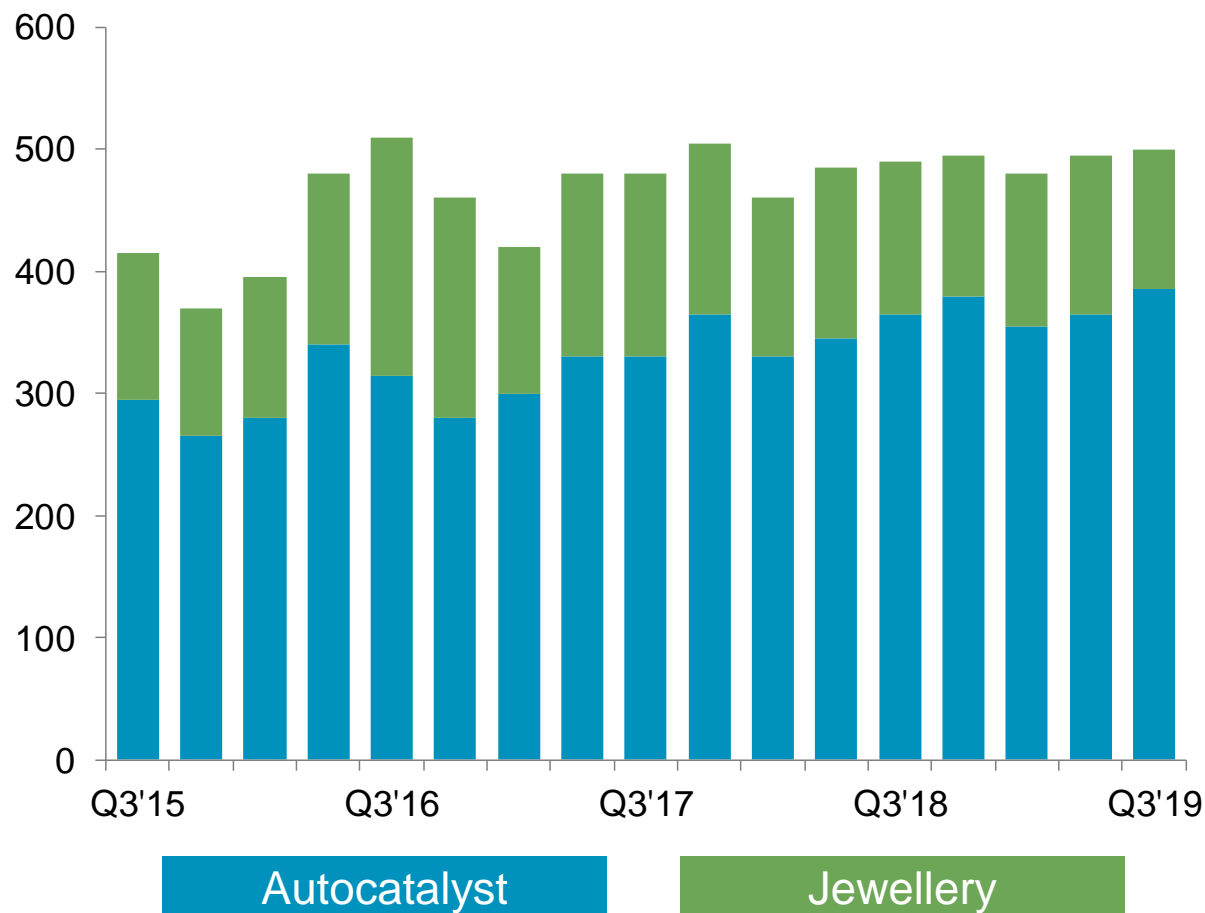
South African quarterly mining production (koz)



- South African mining supply much lower due to planned smelter maintenance
- Lowest Q3 mine supply since 2015
- Industrial action risk reduced as 3-year wage agreements signed by largest producers

Q3 2019 RECYCLING: AUTO UP ON HIGH PD AND RH PRICES, JEWELLERY DOWN ON LOW PT PRICE

Recycling (koz)



- Q3'19 recycling up 2% on Q3'18
- High palladium and rhodium prices incentivising autocatalyst recycling, up 5% YoY
- Jewellery recycling down 8% YoY on low platinum price and weak jewellery sales in China

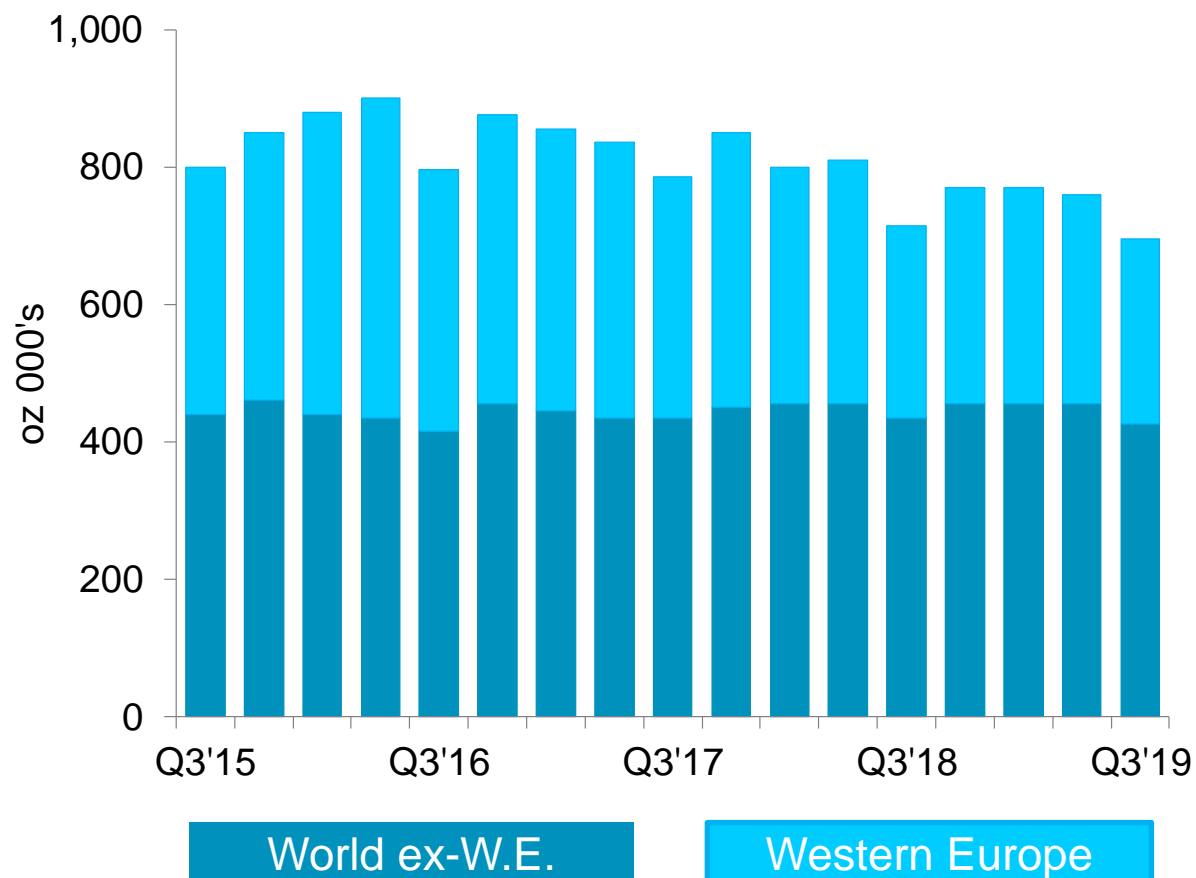
Q3 2019 DEMAND: STRONG INVESTMENT DEMAND OFFSETS LOWER AUTOMOTIVE AND JEWELLERY

DEMAND		Q3 2018 // Q2 2019	Q3 2019
Automotive		715	760
	Autocatalyst	680	720
	Non-road	35	40
Jewellery		565	545
Industrial		470	475
	Chemical	155	150
	Petroleum	55	55
	Electrical	50	50
	Glass	70	60
	Medical & Biomedical	45	70
	Other	95	90
Investment		65	90
	Change in Bars, Coins	70	60
	Change in ETF Holdings	5	30
	Change in Stocks Held by Exchanges	-10	0
Total Demand		1,815	1,870
Balance		320	275

- Automotive demand down 3% (20 koz) YoY on reduced rate of decline in Western European diesel sales
- Jewellery down 4% (20 koz) on weaker Chinese demand
- Industrial stable with higher Chemical and lower Glass categories
- Strong investment up 165 koz YoY
- Total demand up 7% (120 koz) YoY
- Small market surplus of 25 koz

Q3 2019 DEMAND: WESTERN EUROPE AUTOMOTIVE DECLINE CONTINUES BUT AT A SLOWER RATE

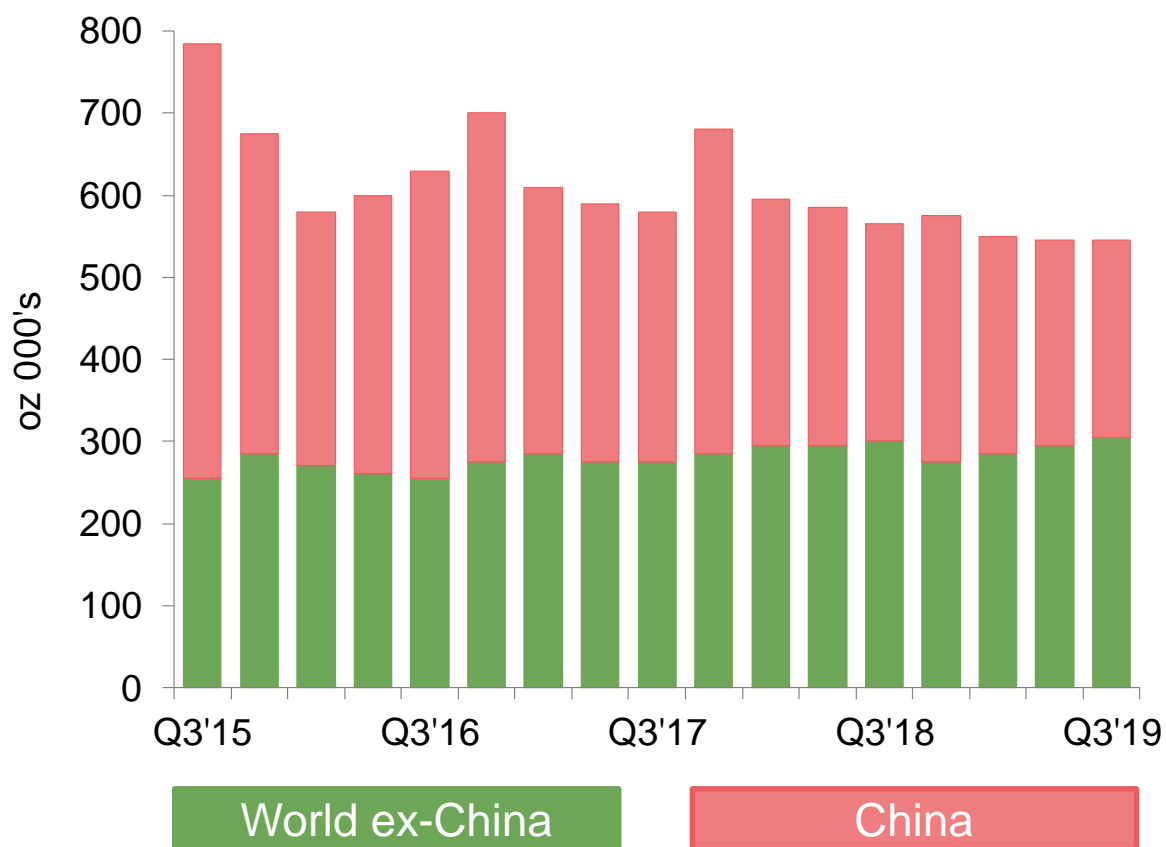
Autocatalyst demand (koz)



- Automotive demand down 3% (20 koz)
- W. Europe diesel share decline slowed on increased evidence of cleaner diesels
- Diesel vehicles still key for automakers to avoid or reduce heavy CO₂ fines
- German diesel car market share recovering (9m to Sep'19 up 2% to 34%) – German market c. 25% of W. Europe

Q3 2019 DEMAND: JEWELLERY REMAINS WEAK IN CHINA – SOME GROWTH IN OTHER REGIONS

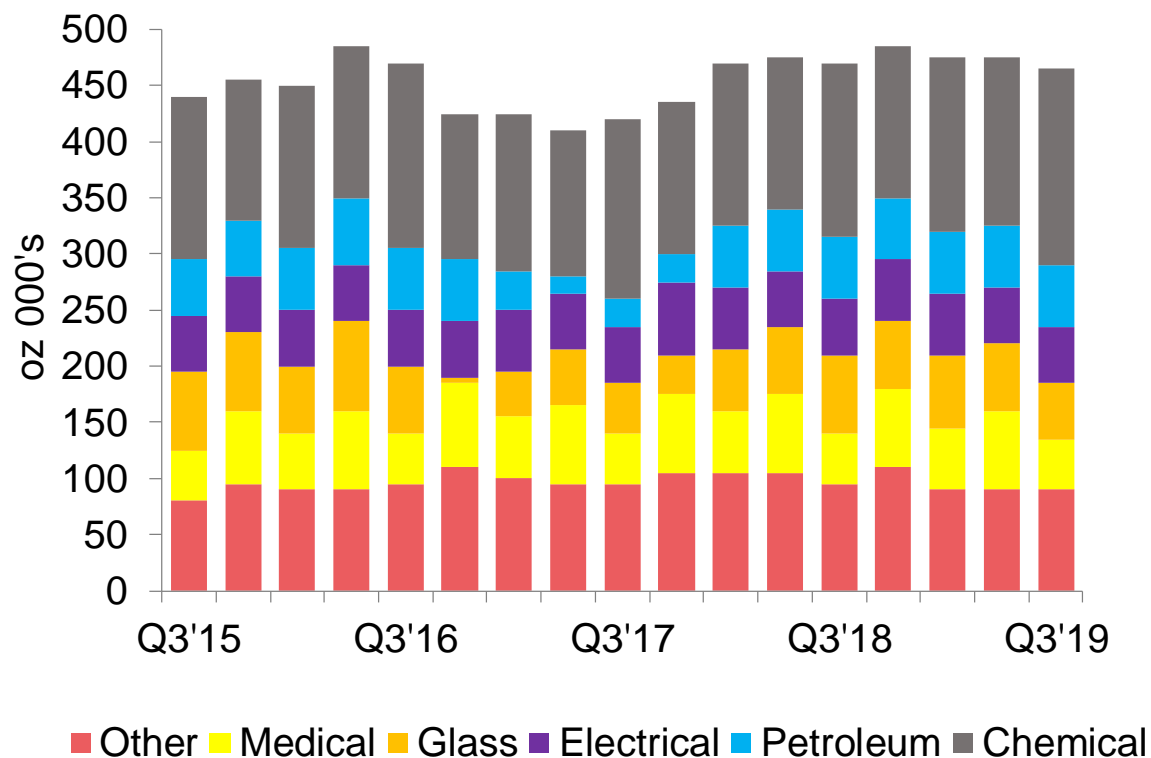
Jewellery demand (koz)



- Jewellery demand was down 4% (20 koz) as Chinese demand declined further (9% or 15 koz lower YoY)
- Gains in India and Japan were more than offset by weaker China
- Retail jewellery sales in Hong Kong fell further and some inventory reduction in China

Q3 2019 DEMAND: INDUSTRIAL DEMAND STABLE, CHEMICAL UP, CHEMICAL UP, GLASS AND OTHER DOWN

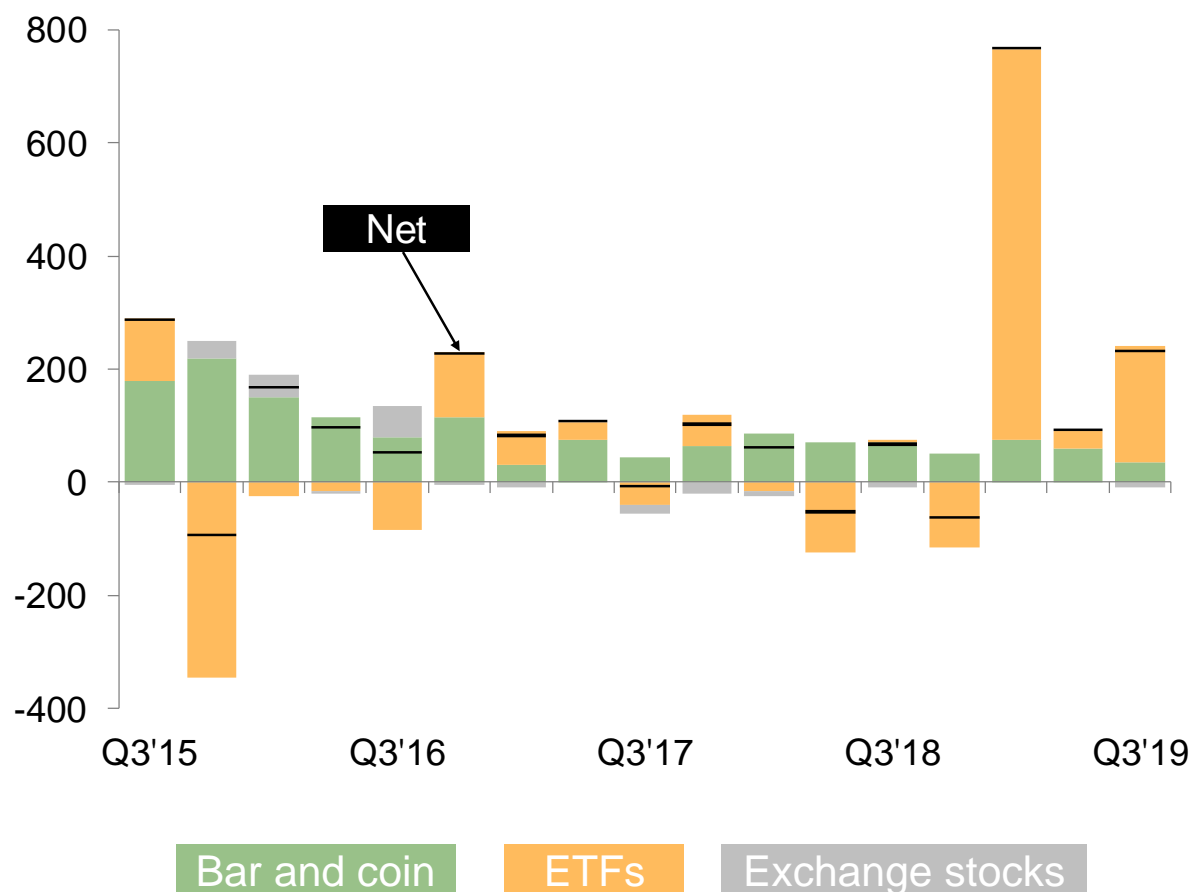
Industrial demand by category (koz)



- Platinum industrial demand was steady YoY, down 1% (5 koz)
- Capacity increases in the chemical sector in China
- Slower glass capacity build in China
- Other - lower consumption in automotive sensors

Q3 2019 DEMAND: STRONG INVESTMENT ON FURTHER ETF GROWTH AND FIRM BAR & COIN

Investment demand by category (koz)



- ETF demand in Q3'19 of 205 koz, YTD ETF purchases c.1 moz
- Lower but firm Q3'19 bar & coin demand of 35 koz
- Net investment demand of 230 koz in Q3'19

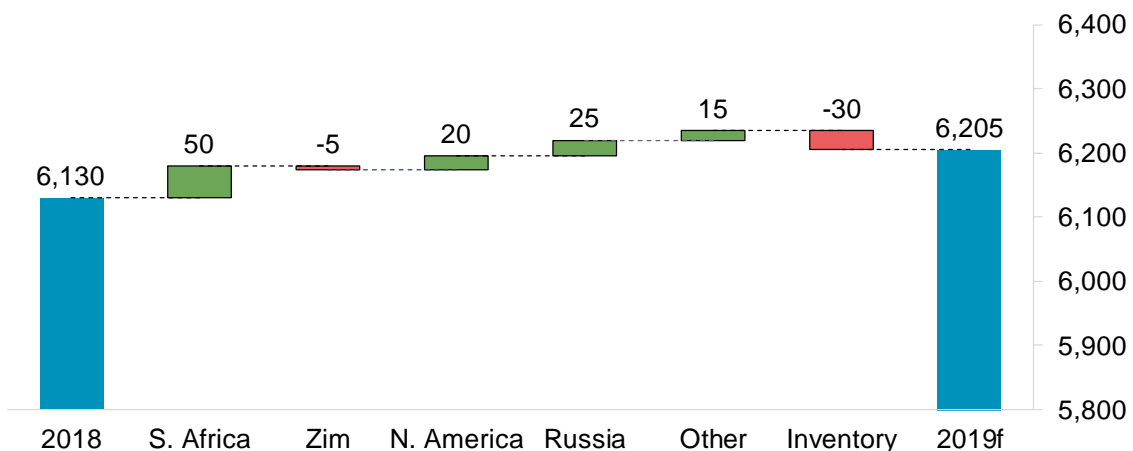
2019 FULL YEAR: BALANCED MARKET - FROM +730 KOZ IN 2018 TO -30 KOZ IN 2019 ON INVESTMENT DEMAND

SUPPLY	2018	2019f	YoY, oz	YoY, %
Refined Production	6,120	6,225	105	2%
South Africa	4,470	4,520	50	1%
Zimbabwe	465	460	-5	-1%
North America	350	370	20	6%
Russia	665	690	25	4%
Other	170	185	15	9%
Inc (-)/Dec (+) in Producer Inventory	+10	-20	-30	-300%
Total Mining Supply	6,130	6,205	75	1%
Recycling	1,935	1,990	55	3%
Autocatalyst	1,420	1,495	75	5%
Jewellery	510	485	-25	-5%
Industrial	5	10	5	100%
Total Supply	8,065	8,195	130	2%
DEMAND				
Automotive	3,100	2,960	-140	-5%
Jewellery	2,305	2,160	-145	-6%
Industrial	1,915	1,905	-10	-1%
Investment	15	1,200		
Total Demand	7,335	8,225	890	12%
Balance	730	-30		
Above Ground Stocks	3,055	3,025	-30	-1%

- South African supply up 1% (50 koz) on pipeline stock release; North America supply up 6% (20 koz) on a project ramp up; Russia up 4% (25 koz) on pipeline stock release
- Recycling up 3% (55 koz) on higher autocatalyst offset by lower jewellery
- Total supply up 2% (130 koz) in 2019
- Total demand up 12% (890 koz) on investment demand surge, partly offset by automotive and jewellery declines
- Balanced market in 2019 (-30 koz) on c. 1 moz ETF purchases

2019 FULL YEAR: TOTAL SUPPLY UP 2% AND TOTAL DEMAND UP 12%

Total mining supply 2018 to 2019f (koz)



- SA mine supply risks remain elevated due to Eskom power supply risk.
- Labour tension has eased with wage agreements in place

Total demand 2018 to 2019f (koz)



- Record investment demand has balanced the market in 2019

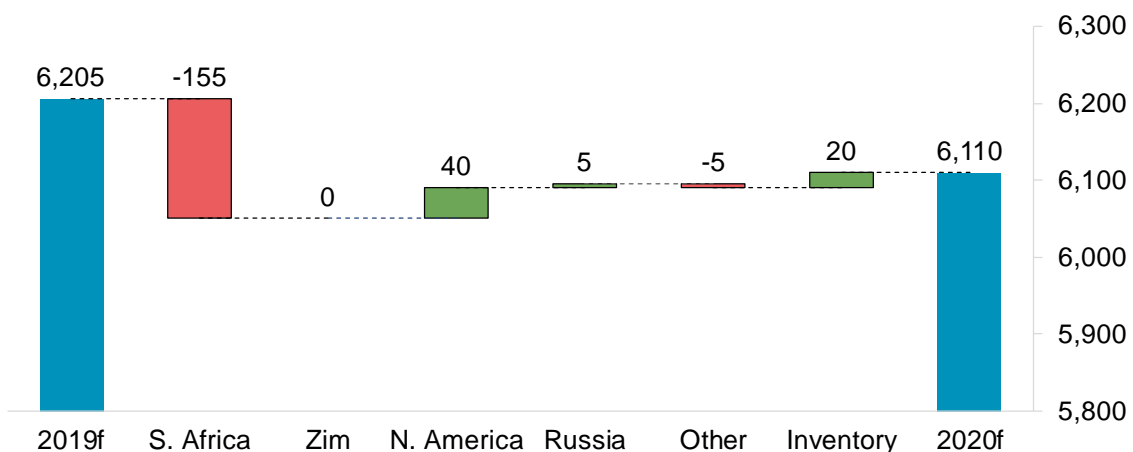
2020 FULL YEAR: DEFICIT OF 30 KOZ IN 2019 MOVES TO A SURPLUS OF 670 KOZ ON LOWER DEMAND

SUPPLY	2019f	2020f	YoY, oz	YoY, %
Refined Production	6,225	6,110	-115	-2%
South Africa	4,520	4,365	-155	-3%
Zimbabwe	460	460	0	0%
North America	370	410	40	11%
Russia	690	695	5	1%
Other	185	180	-5	-3%
Inc (-)/Dec (+) in Producer Inventory	-20	+0	20	-100%
Total Mining Supply	6,205	6,110	-95	-2%
Recycling	1,990	2,000	10	1%
Autocatalyst	1,495	1,530	35	2%
Jewellery	485	460	-25	-5%
Industrial	10	10	0	0%
Total Supply	8,195	8,110	-85	-1%
DEMAND				
Automotive	2,960	2,860	-100	-3%
Jewellery	2,160	2,110	-50	-2%
Industrial	1,905	1,945	40	2%
Investment	1,200	525	-675	N/M
Total Demand	8,225	7,440	-785	-10%
Balance	-30	670		
Above Ground Stocks	3,025	3,695	670	22%

- South African supply down 3% (155 koz) on shaft closures; North America supply up 11% (40 koz) on a project ramp up
- Recycling up 1% (10 koz) on higher autocatalyst offset by lower jewellery
- Total supply down 1% (85 koz) in 2020
- Total demand down 10% (785 koz) on lower investment, automotive and jewellery demand
- Deficit in 2019 (30 koz) moves to surplus (670 koz) in 2020

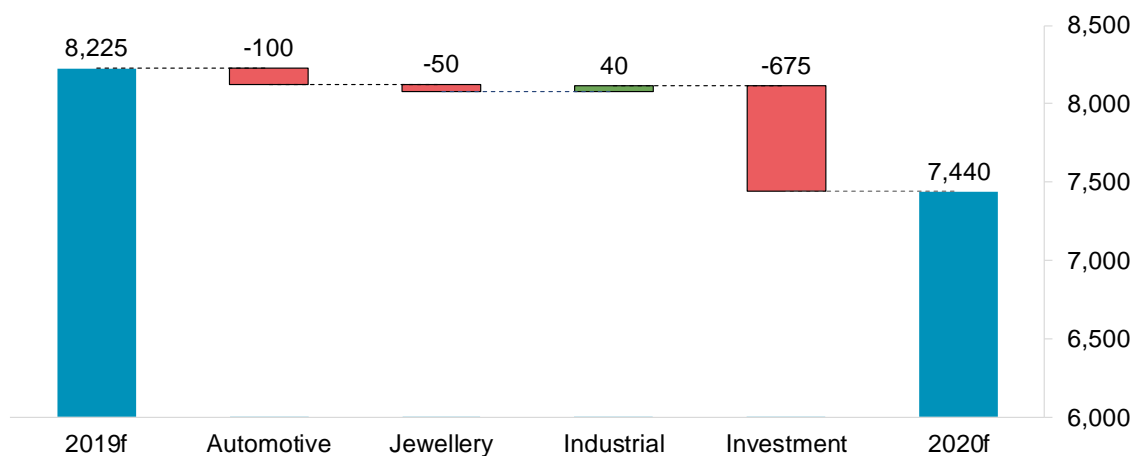
2020 FULL YEAR: TOTAL SUPPLY DOWN 1% AND TOTAL DEMAND DOWN 10%

Total mining supply 2019f to 2020f (koz)



- SA mine supply risks remain elevated due to end-of-life shaft closures on the Western Limb next year

Total demand 2019f to 2020f (koz)



- Lower investment demand after record 2019 ETF purchases. Balanced 2019 market returns to surplus next year
- Automotive demand excludes any growth from higher diesel sales or substitution for palladium

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Trevor Raymond

3. Focus on fundamental drivers

- Platinum demand growth potential in:
 - Investment
 - Automotive

Trevor Raymond, Director of Research

4. Questions

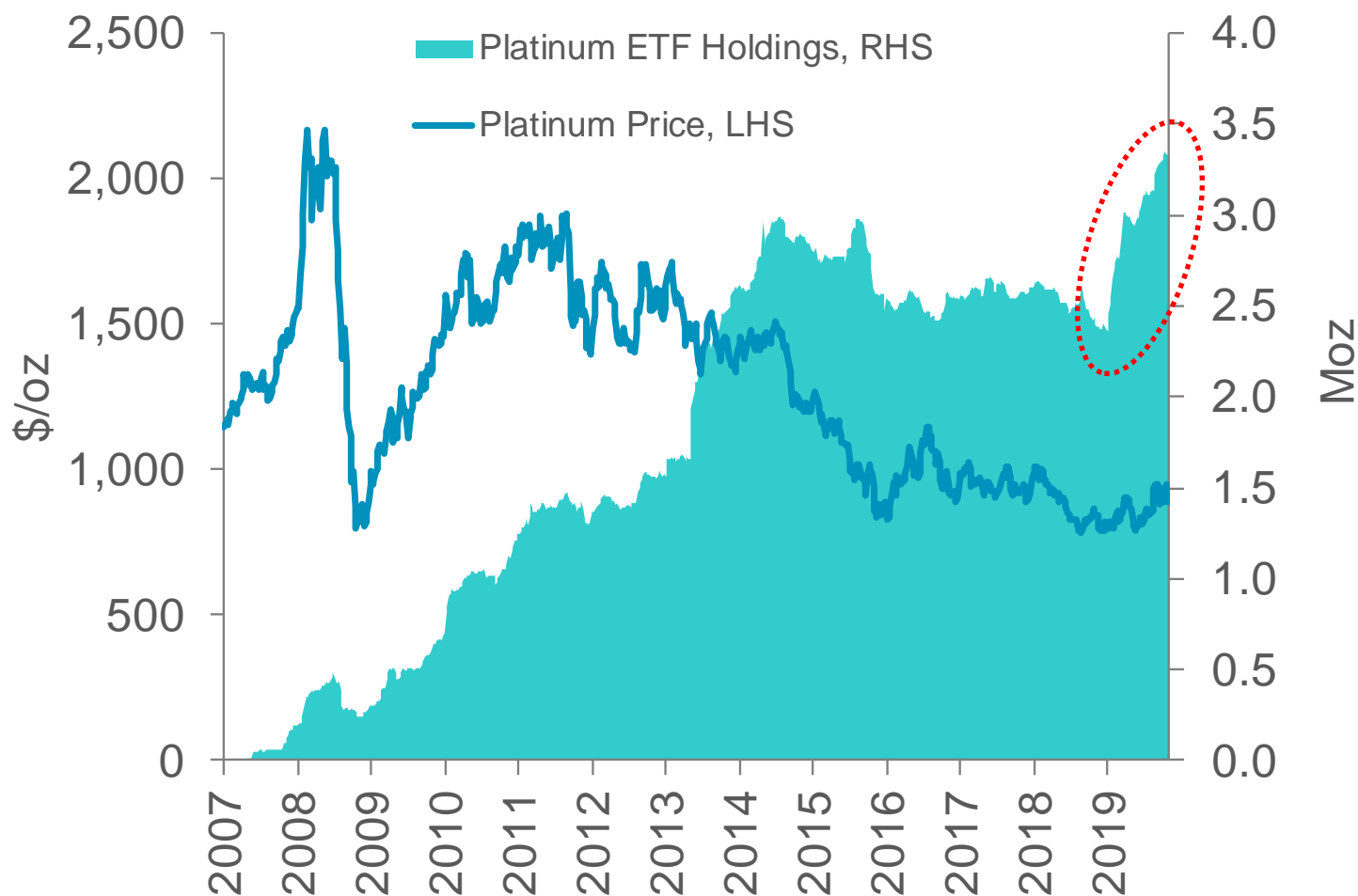
Paul Wilson

Trevor Raymond



PLATINUM ETF INVESTORS RECOGNISE DEMAND GROWTH POTENTIAL AND VALUE OPPORTUNITY

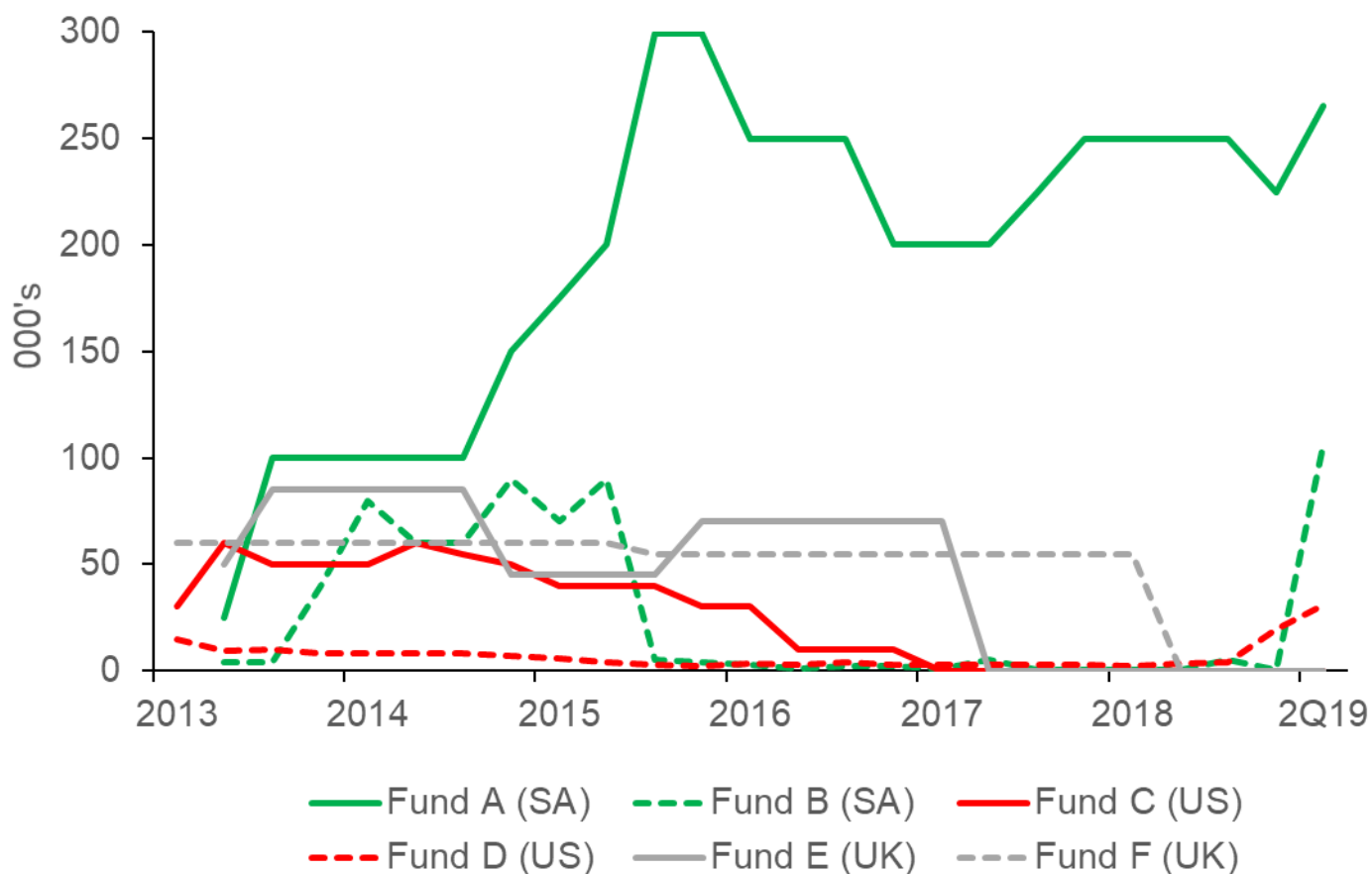
Platinum: ETF holdings (Moz) and price (\$/oz)



- Platinum ETFs up 41% (oz) and 58% (US\$) in 2019
- Institutional buying of this size not seen since 2014
- ETF buying of 1 moz in 2019 to date informs investment forecasts:
 - 2019 of 1.2 moz (total investment demand)
 - 2020 of 0.5 moz (total investment demand)

LARGE INSTITUTIONAL INVESTORS – LONG TERM POSITIONS WITH CAPACITY TO GROW

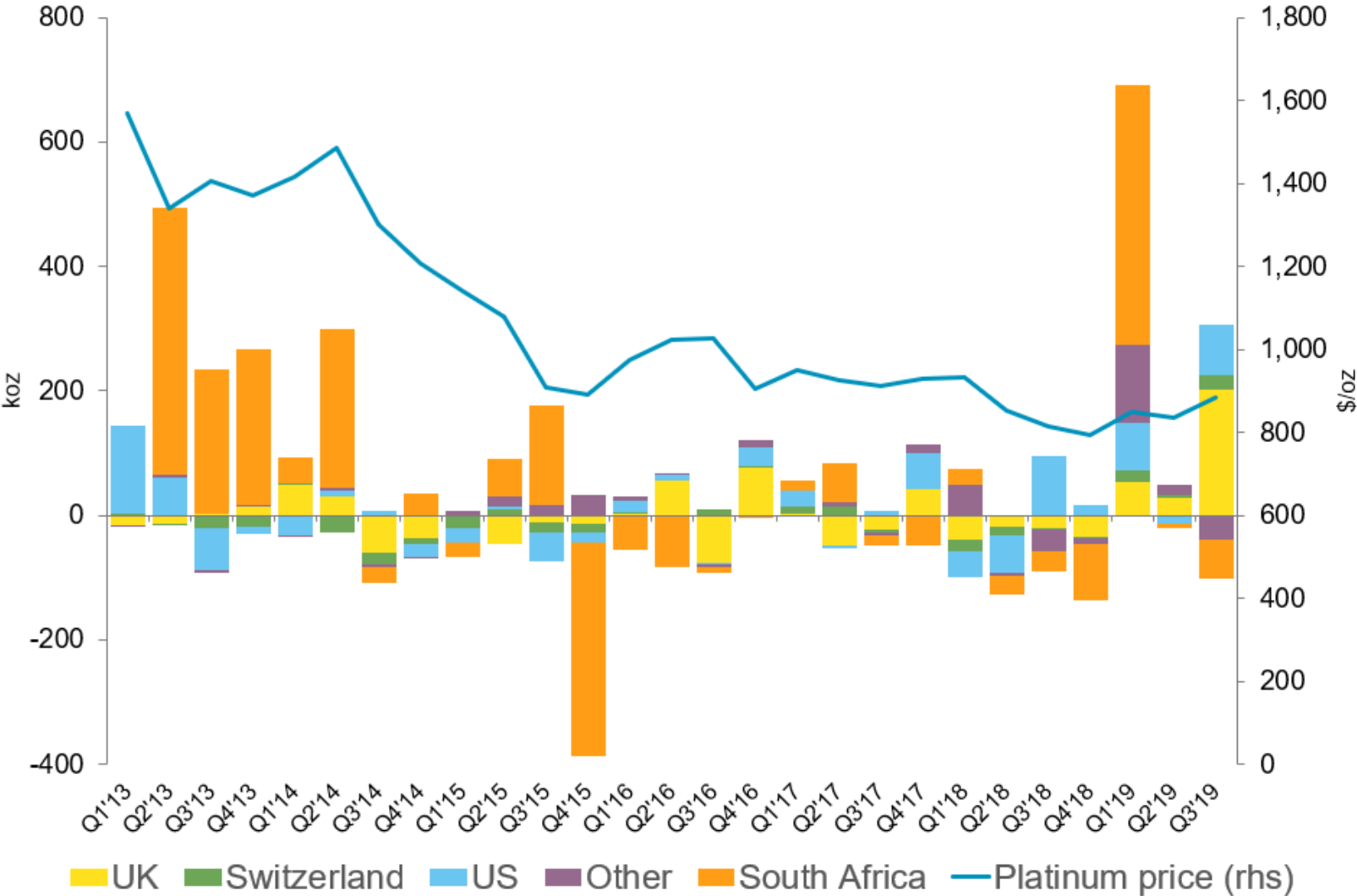
Platinum ETF holdings (koz)



- Large global institutional funds with significant capacity
- Short-term position changes of 50 koz to 200 koz
- Holding periods of 2 to 6 years
- Increasing number of participants

PLATINUM ETF INVESTORS RECOGNISE DEMAND GROWTH POTENTIAL

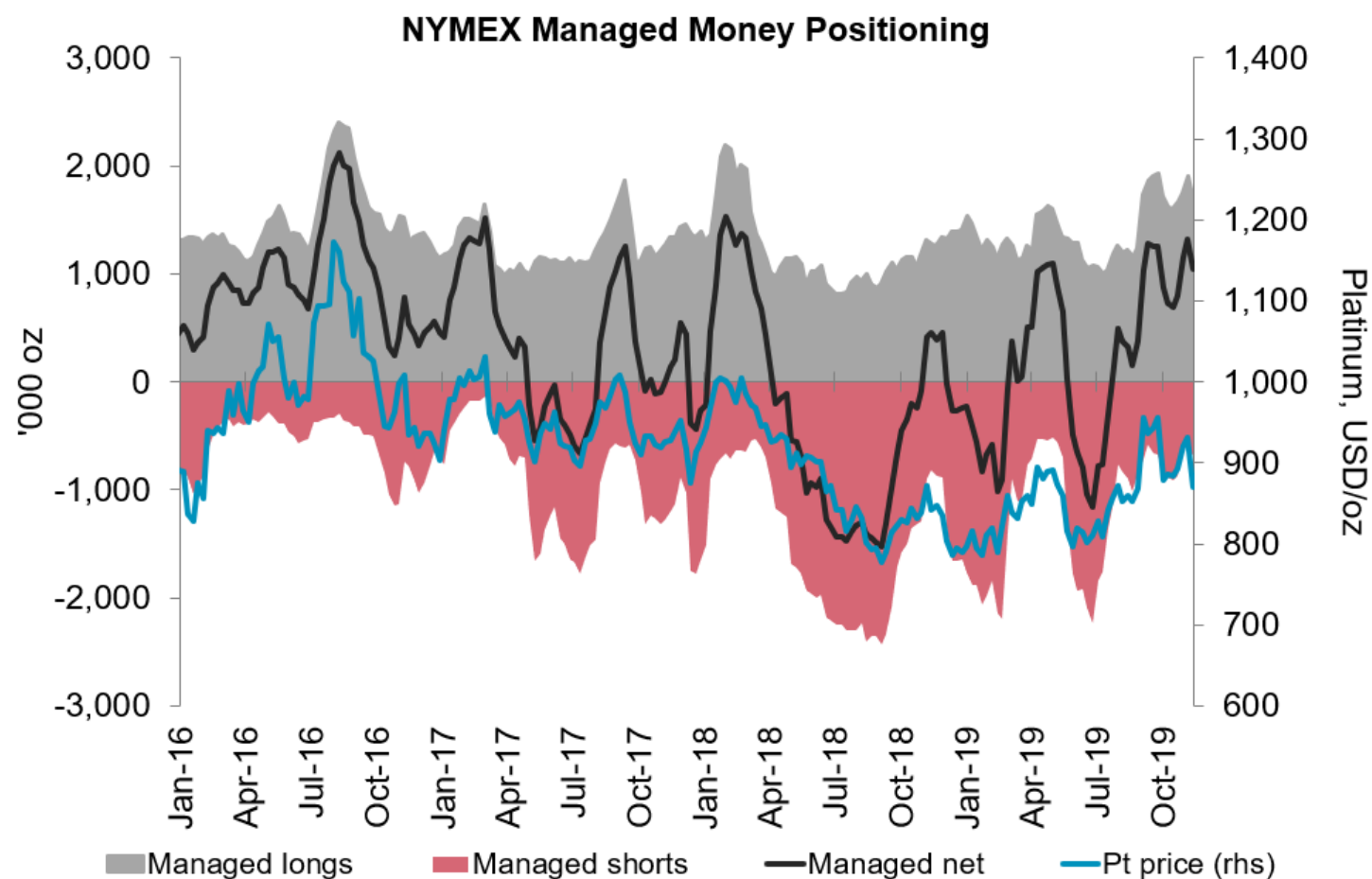
Platinum ETFs - Quarterly holdings changes (koz)



Source: Bloomberg, WPIC research

NYMEX FUTURES IN 2019 – SIGNIFICANT RISE IN LONG & SIGNIFICANT REDUCTION IN SHORT POSITIONING

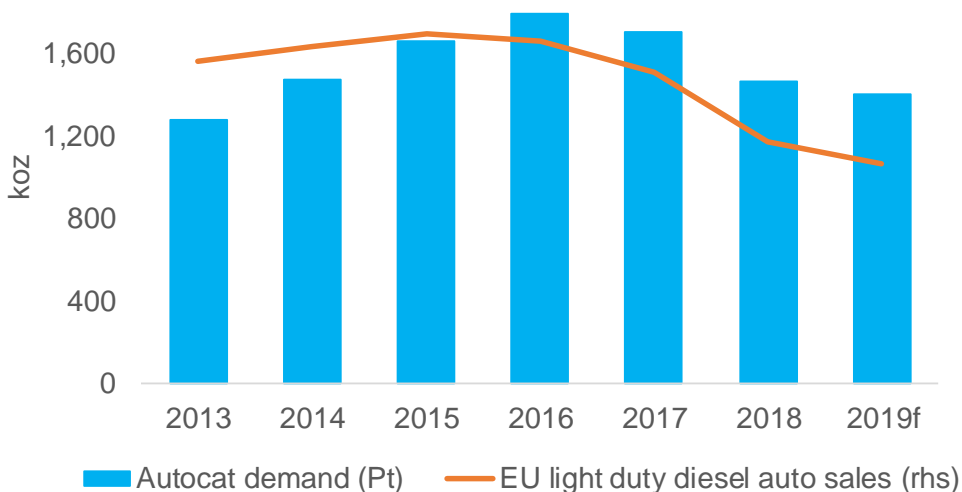
NYMEX speculative Pt futures (koz) & Pt price (US\$/oz)



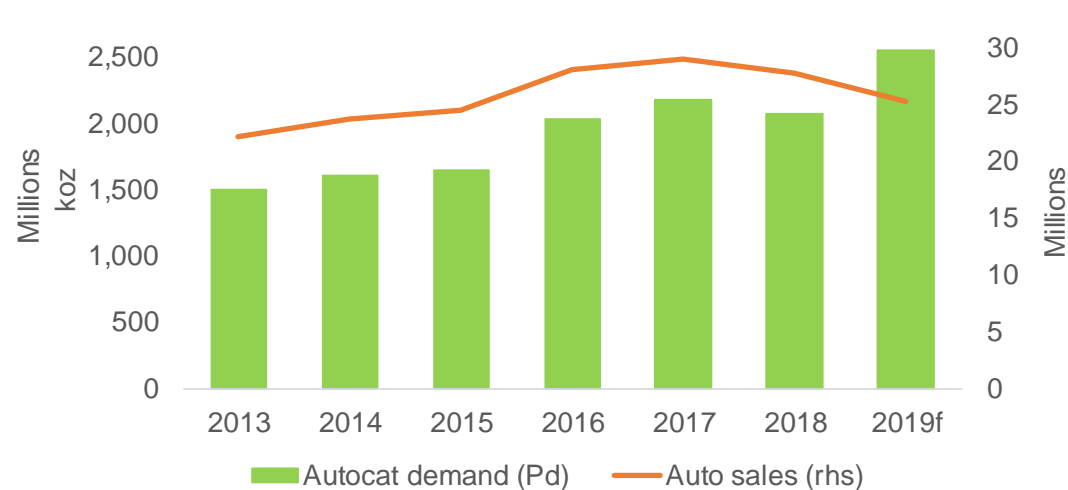
- High correlation between net futures position and short-term platinum price
- Largest rise in net speculative position in 5 years
- Large global macro funds, owning gold to avoid (US\$ 13 tn) negative yield debt, now also own platinum futures

AUTOMOTIVE: TIGHTER EMISSIONS STANDARDS DRIVE PLATINUM AND PALLADIUM DEMAND GROWTH

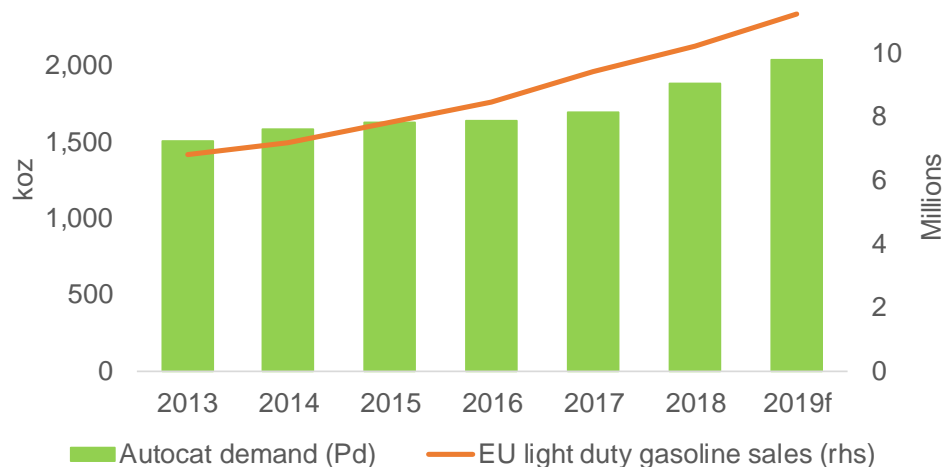
EU: Total auto Pt and diesel car sales



China: Total auto Pd and gasoline car sales



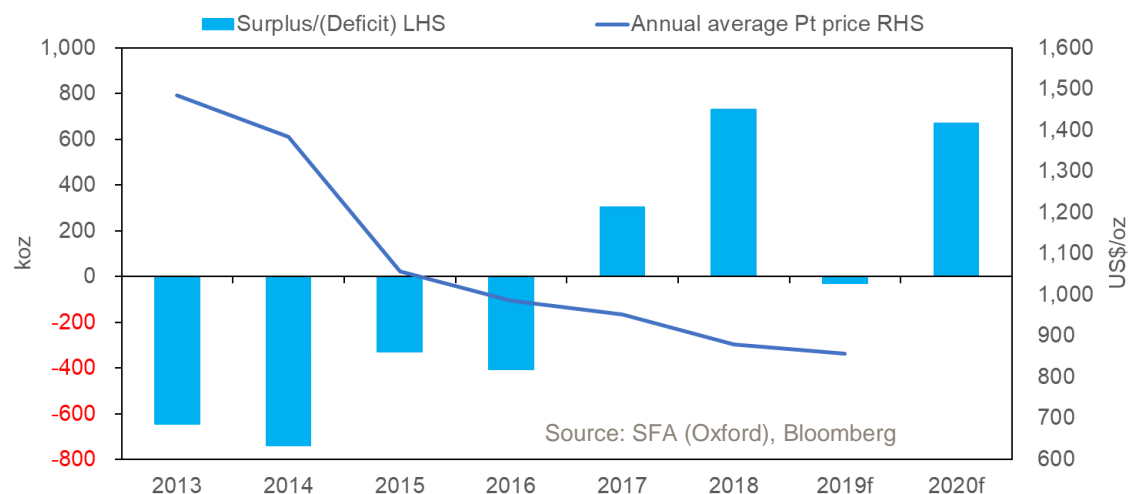
EU: Total auto Pd and gasoline car sales



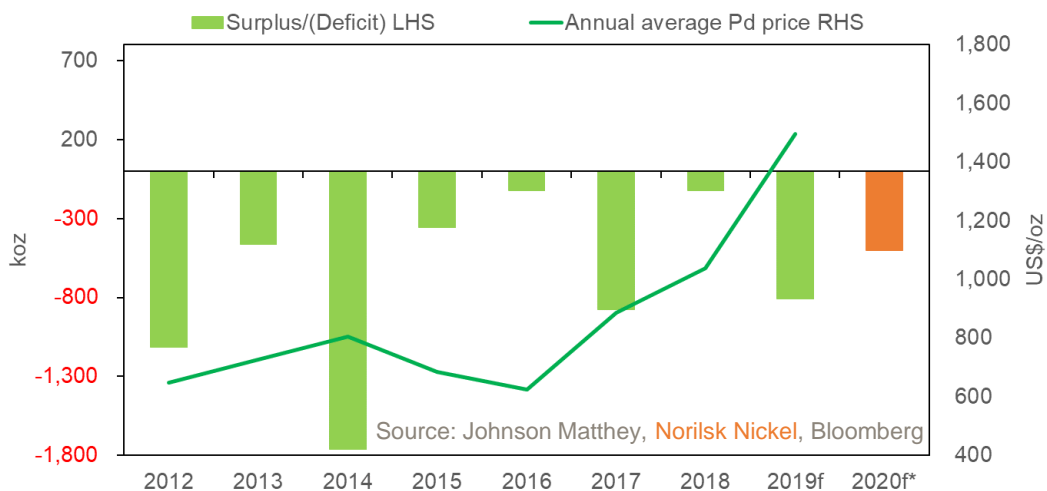
- Higher car & truck loadings to meet much tighter standards & reduce compliance risk
- EU diesel sales -36% but EU Pt auto -22%
- China 6 on only 1/3 of cars in 2019 but increase in Pd demand of 500 koz / pa
- Palladium autocatalyst demand in EU up 150 koz in 2019f (RDE)

SUSTAINED IMBALANCE BETWEEN PLATINUM AND PALLADIUM: COMPELLING CASE FOR SUBSTITUTION

Platinum market: weak price, 2019 balance, 2020 surplus



Palladium market: strong price, sustained deficits



- Increasingly favourable case for re-balancing between platinum and palladium markets
- High palladium price, sustained deficits, limited short term supply response and growing demand
- Low platinum price, residual stock build from 2017 and 2018 and surplus in 2020 (without any substitution or higher diesel share)

PLATINUM SUBSTITUTION FOR PALLADIUM – NEAR TERM VOLUME IN LOW TEMP GASOLINE AND DIESEL

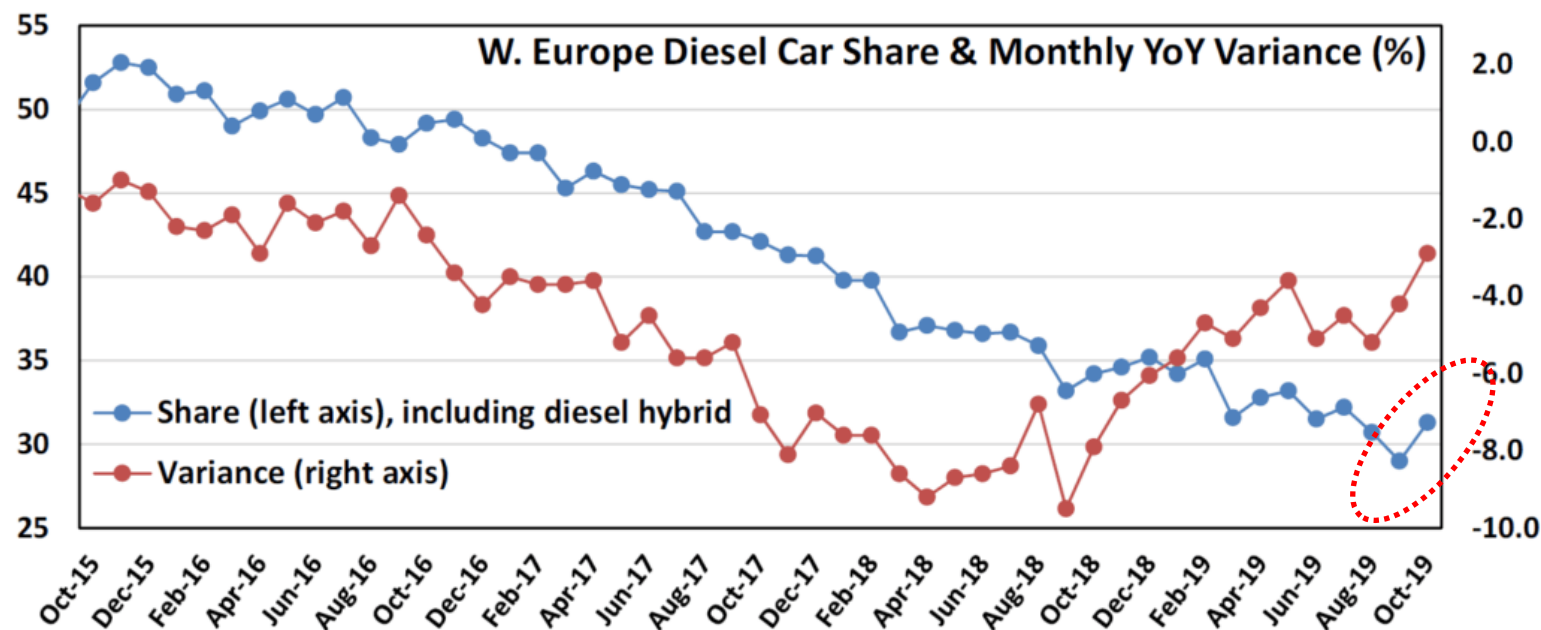
Highest potential: Large gasoline engines, underfloor catalyst bricks and diesel



- Very low sintering risk in large US gasoline engines and underfloor catalyst bricks
- Low wash coat thermal stability risk if less than 60% of palladium replaced
- Over 700 koz of palladium is used annually in diesel catalysis
- Diesel is the natural (and recent) home of platinum; reducing substitution risk and lead time for implementation

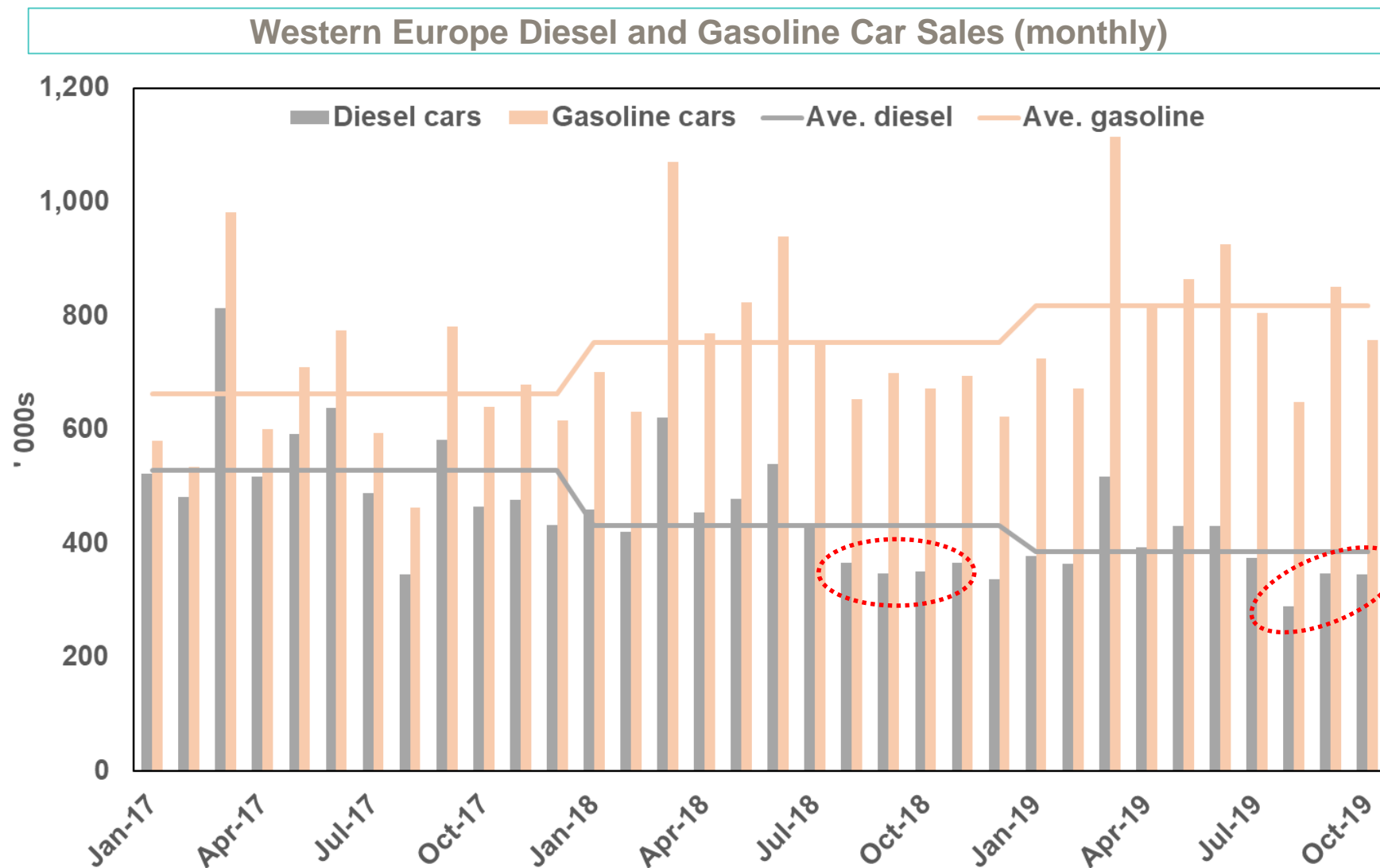
WESTERN EUROPE LIGHT VEHICLE DIESEL MARKET: SHARE DECLINE HIDES SALES INCREASE

Western Europe Diesel Car share (monthly)



- Rate of decline of diesel share slowed from -10% y-o-y in Sept 2018 to -2.9% y-o-y in Oct 2019
- Diesel went below 30% in Sept but up to 31.3% in Oct 2019. Rising gasoline sales have hidden the rise in absolute numbers of diesel sales
- In Sept & Oct 2019 year-on-year: EU diesel sales down -14%, Germany up +8%

WESTERN EUROPE LIGHT VEHICLE DIESEL MARKET: SHARE DOWN BUT SALES UP



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