

PLATINUM QUARTERLY PRESENTATION Q3 2024

London

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AGENDA: PLATINUM QUARTERLY: Q3 2024, UPDATED 2024 FORECAST AND FIRST 2025 FORECAST

1. Introduction

Trevor Raymond, CEO

2. Platinum Quarterly, fundamentals review

Edward Sterck

3. Current thematics

Edward Sterck

4. Questions

Trevor Raymond

Edward Sterck



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- Supply, demand and balance: Q3 2024, updated 2024 forecast, and first 2025 forecast

Edward Sterck, Director of Research

3. Current thematics

Edward Sterck

4. Questions

Trevor Raymond

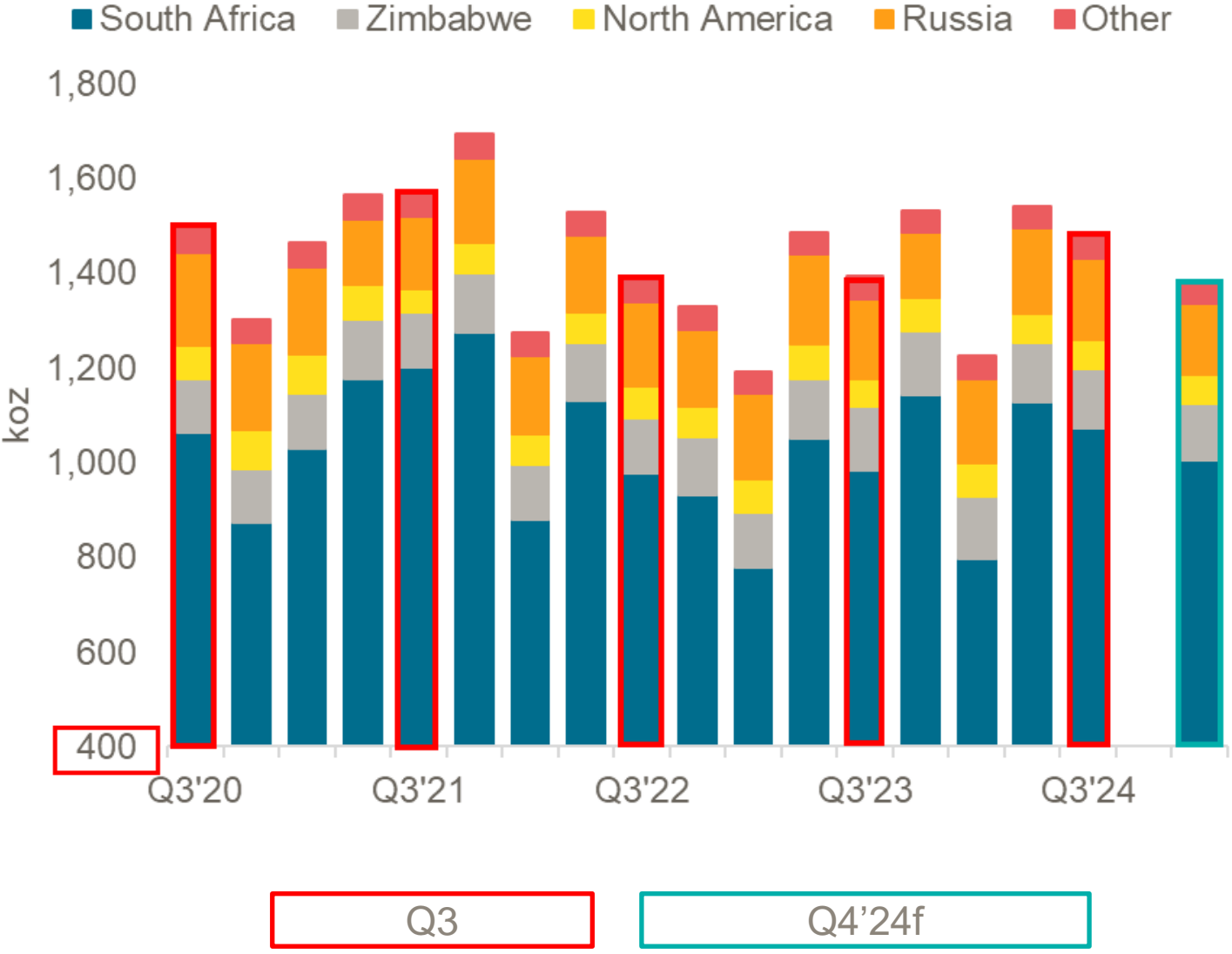
Edward Sterck



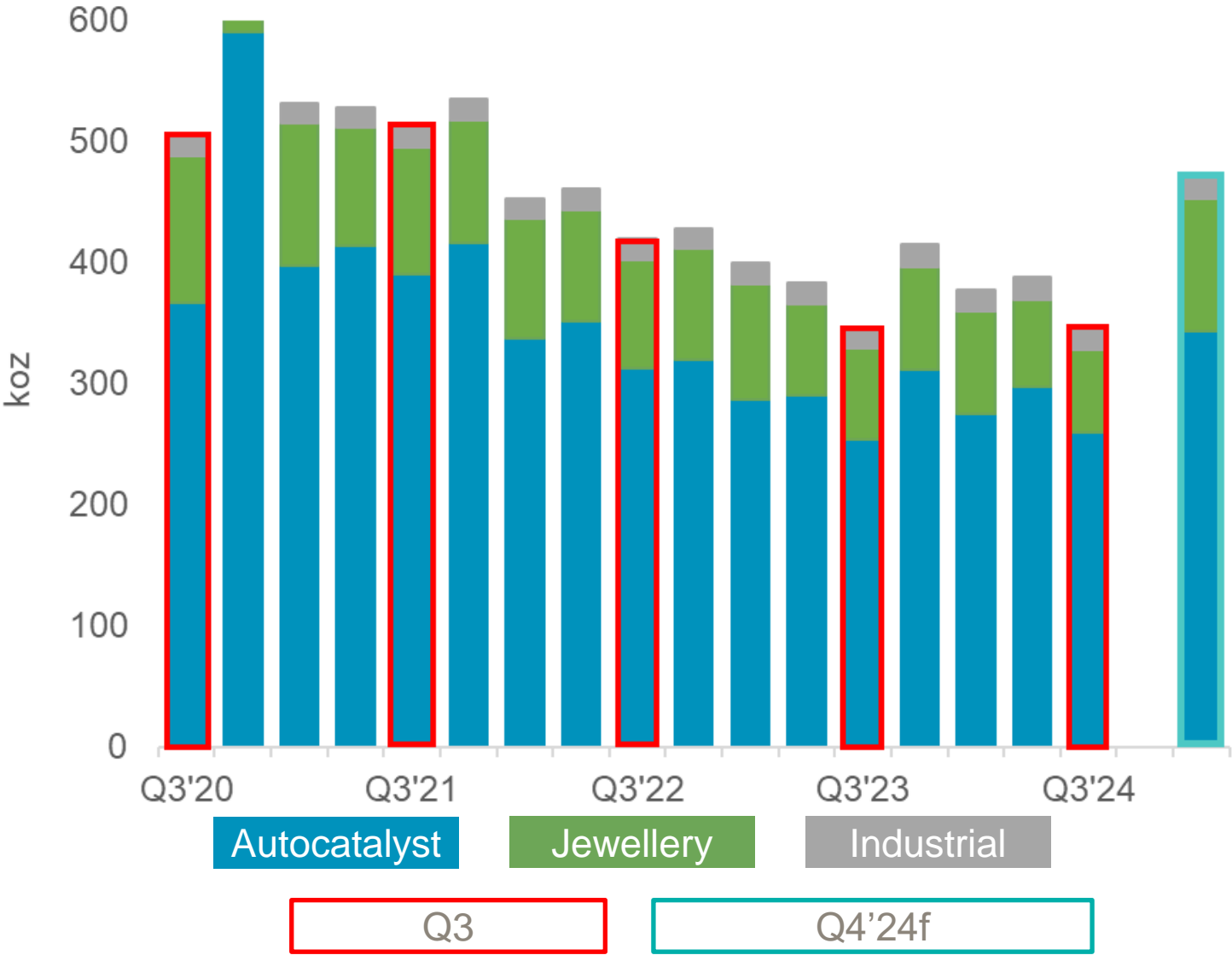
Q3 2024 SUPPLY: MINE SUPPLY UP 7% ON REDUCED LOAD CURTAILMENT & RELEASE OF WIP INVENTORY

SUPPLY (koz)	Q3 2023	Q2 2024	Q3 2024	YoY	QoQ
Refined Production	1,393	1,541	1,479	6%	-4%
South Africa	984	1,128	1,073	9%	-5%
Zimbabwe	132	126	126	-5%	1%
North America	60	59	60	0%	2%
Russia	168	181	172	2%	-5%
Other	48	48	48	-2%	0%
Inc(-)/Dec(+) in Producer Inventory	-6	+35	+0	-100%	-100%
Total Mining Supply	1,387	1,576	1,479	7%	-6%
Recycling	347	388	348	0%	-10%
Autocatalyst	254	297	260	2%	-13%
Jewellery	75	72	68	-10%	-5%
Industrial	17	19	20	14%	6%
Total Supply	1,733	1,964	1,827	5%	-7%

Q3 2024 REFINED MINE SUPPLY: SOUTH AFRICA RELEASING WORK-IN-PROCESS INVENTORY



Q3 2024 RECYCLING: SUPPLY REMAINS SUBDUED DESPITE REPORTS OF INCREASING SCRAP SUPPLY

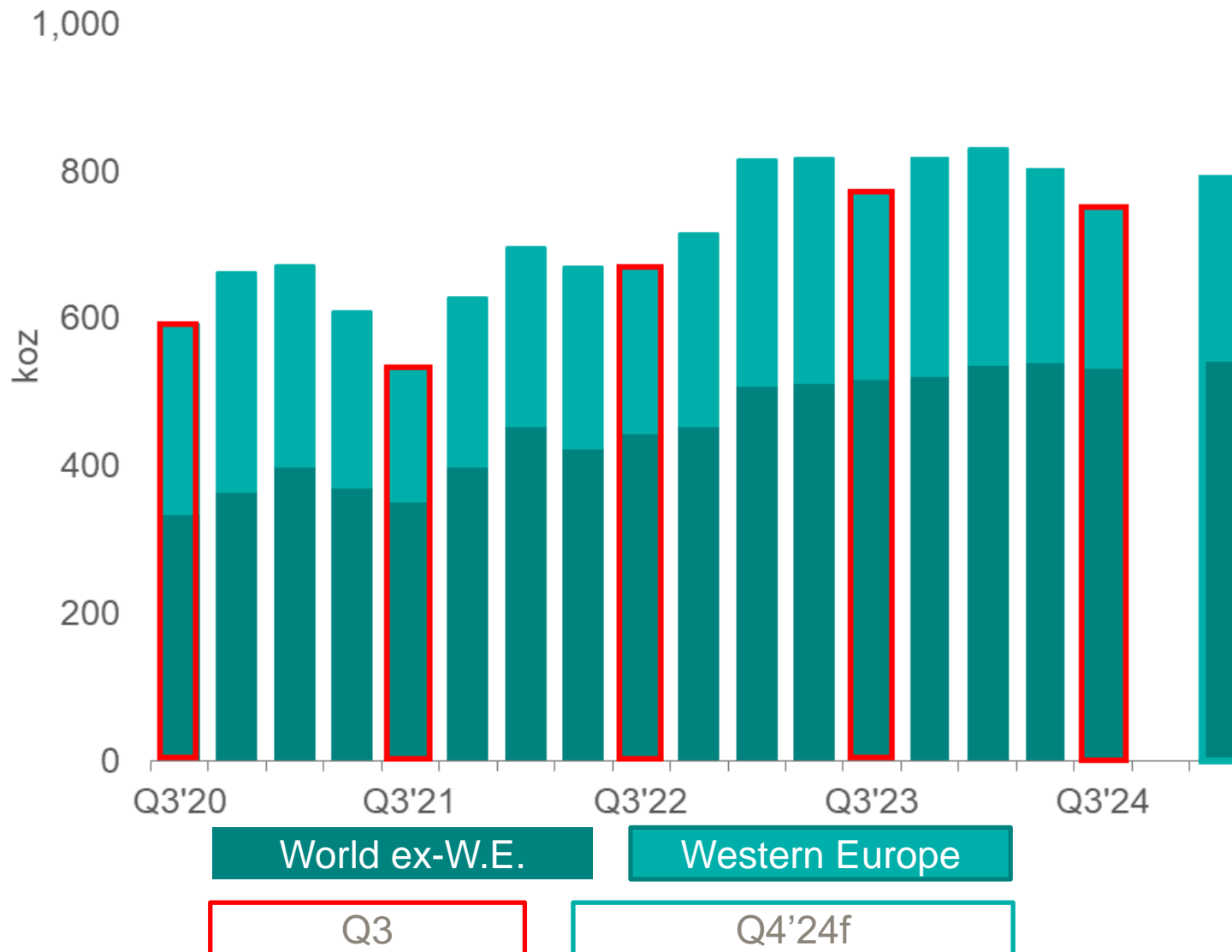


Source: WPIC Platinum Quarterly Q3 2024, Metals Focus

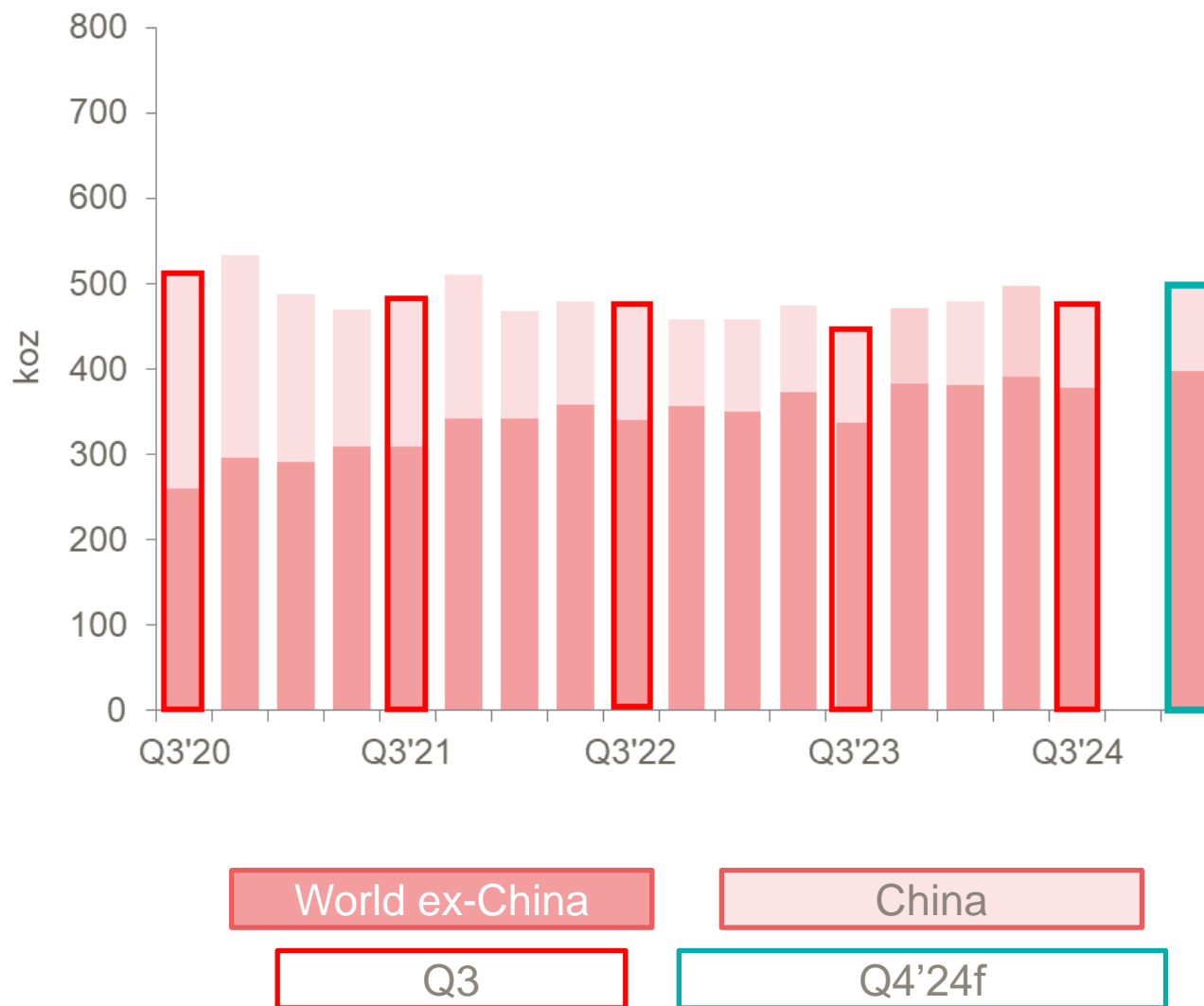
Q3 2024 DEMAND: DOWN 11% ON SUBSTANTIAL ETF OUTFLOWS

DEMAND (koz)	Q3 2023	Q2 2024	Q3 2024	YoY	QoQ
Automotive	771	805	750	-3%	-7%
Autocatalyst	771	805	750	-3%	-7%
Non-road	†	†	†	†	†
Jewellery	446	497	478	7%	-4%
Industrial	490	667	565	15%	-15%
Chemical	147	140	137	-7%	-2%
Petroleum	39	40	40	3%	0%
Electrical	22	23	24	10%	5%
Glass	64	225	125	96%	-44%
Medical & Biomedical	71	77	78	10%	1%
Hydrogen Stationary and Other	7	14	17	131%	25%
Other	139	148	144	3%	-3%
Investment	50	462	-226	n/a	n/a
Change in Bars, Coins	86	17	69	-20%	296%
China Bars ≥ 500g	35	41	30	-14%	-26%
Change in ETF Holdings	-99	444	-300	n/a	n/a
Change in Stocks Held by Exchanges	28	-40	-25	n/a	n/a
Total Demand	1,756	2,431	1,567	-11%	-36%
Balance	-23	-467	260	n/a	n/a

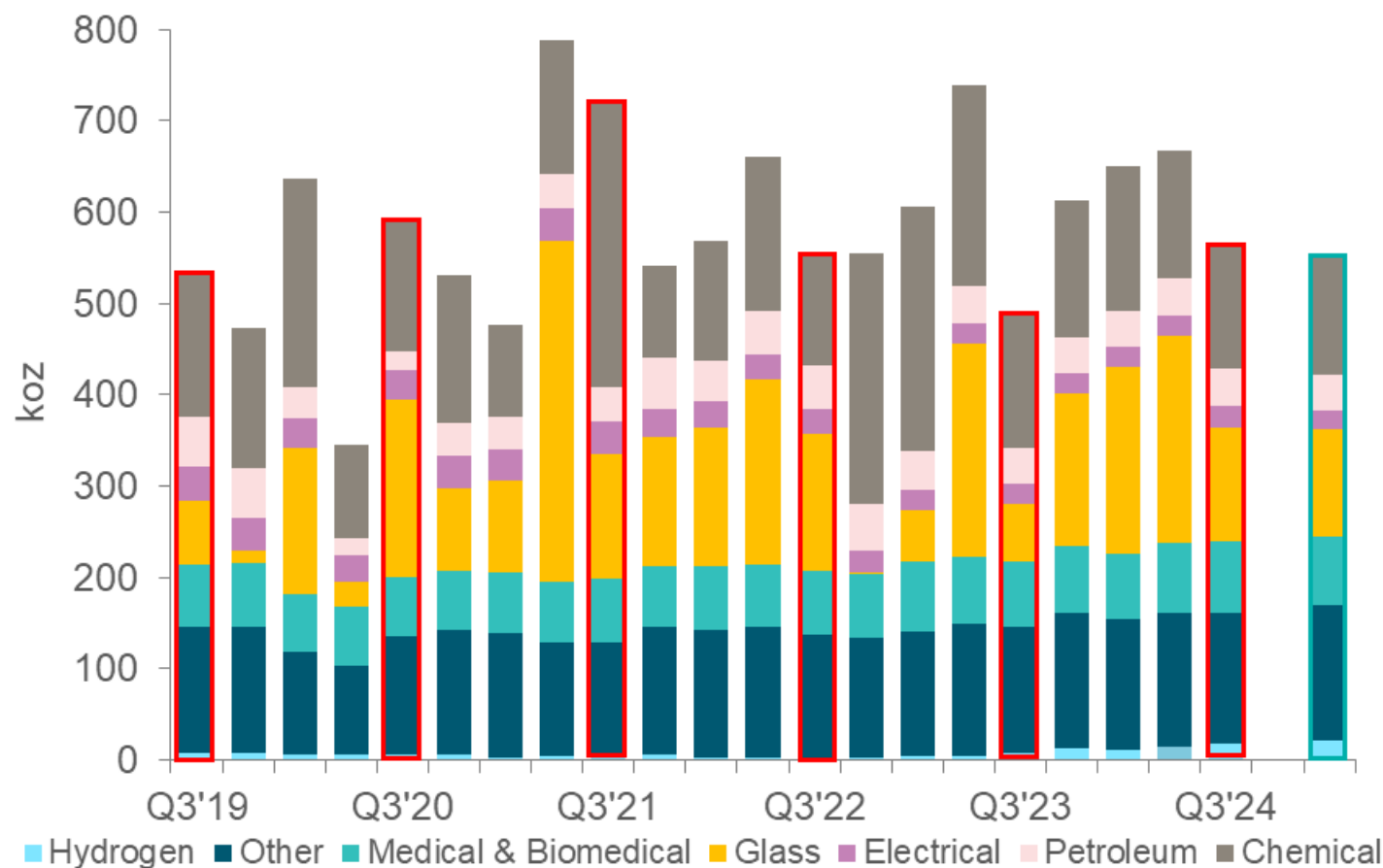
Q3 2024 AUTOMOTIVE: CONSUMER WEAKNESS HAS LED TO REVISED PRODUCTION PLANS, IMPACTING DEMAND



Q3 2024 JEWELLERY: INDIA CONTINUES TO STANDOUT, WHILE CHINA MAY BE PAST ITS TROUGH



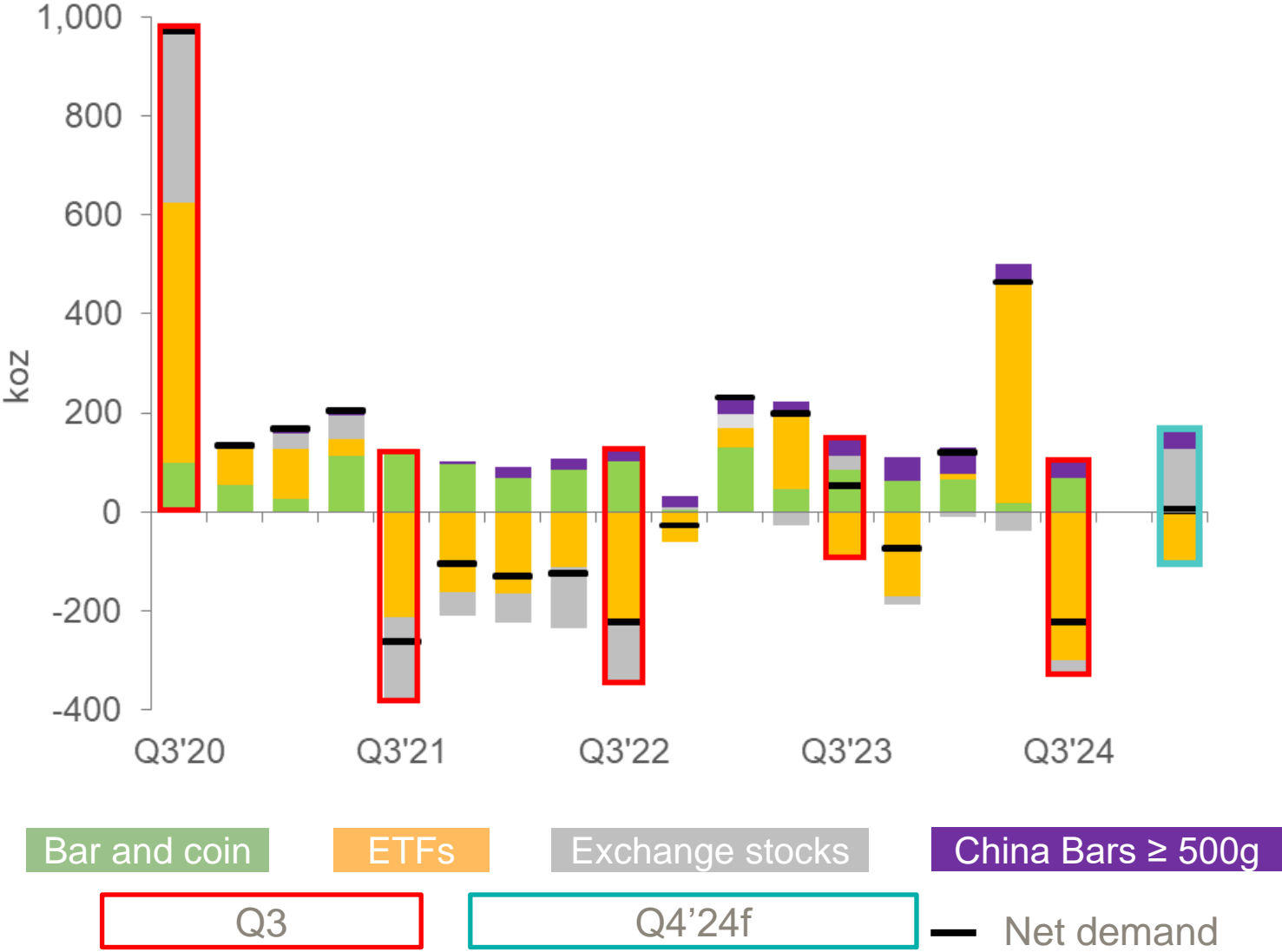
Q3 2024 INDUSTRIAL DEMAND: GROWTH OFF A WEAK COMPARATIVE PERIOD, OTHERWISE UNEVENTFUL



Q3

Q4'24f

Q3 2024 INVESTMENT DEMAND: ETF OUTFLOWS ON INTEREST RATE PATH UNCERTAINTY

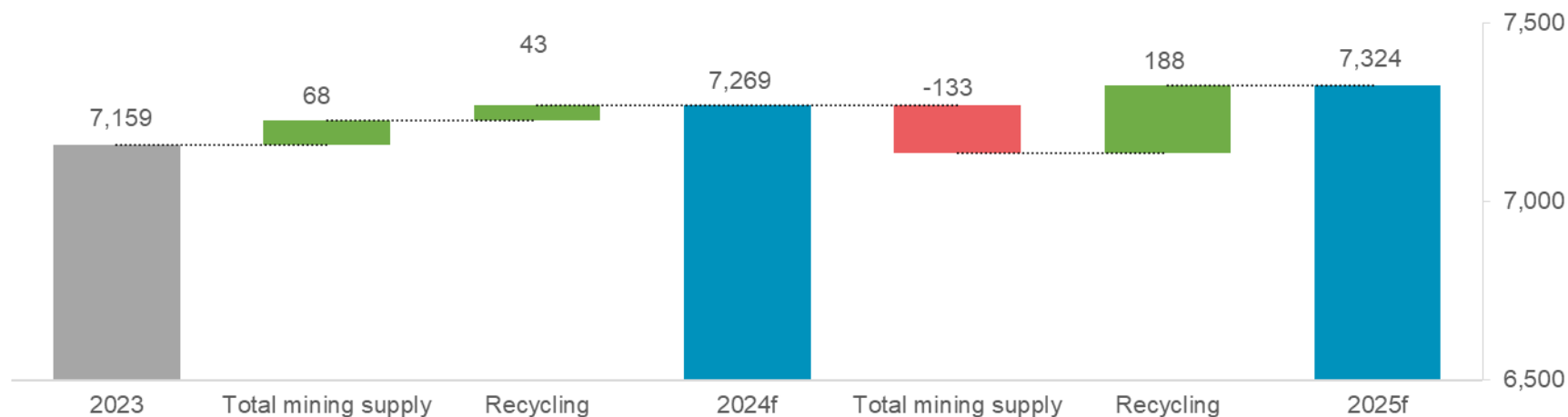


2023 - 2025F FULL YEAR: THIRD CONSECUTIVE MATERIAL DEFICIT

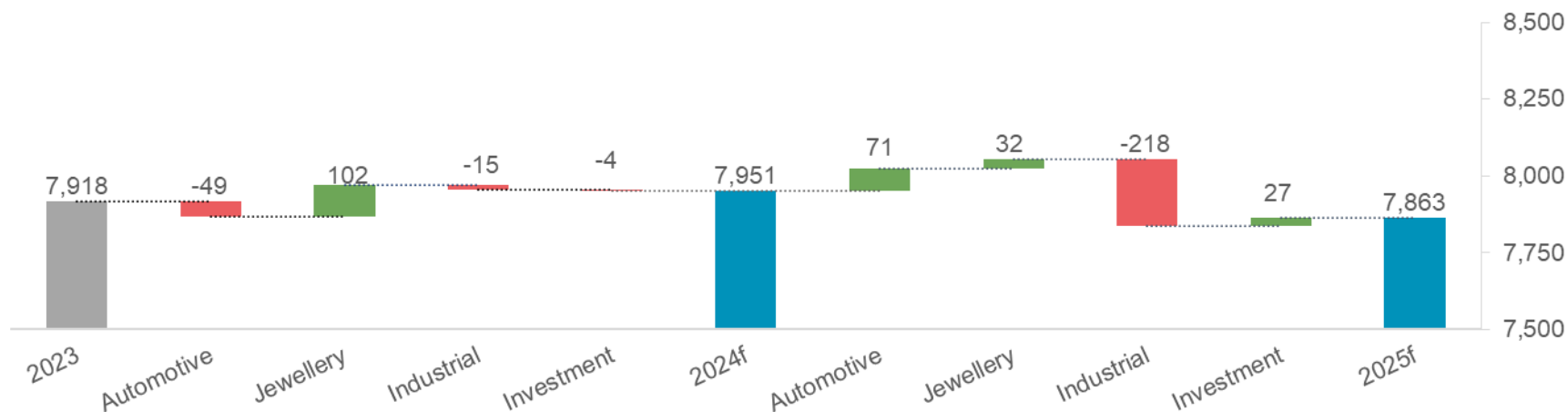
SUPPLY (koz)	2023	2024f	YoY, %	2025f	YoY, %
Refined Production	5,604	5,626	0%	5,550	-1%
South Africa	3,957	4,000	1%	3,929	-2%
Zimbabwe	507	504	-1%	522	3%
North America	275	252	-8%	232	-8%
Russia	674	678	1%	676	0%
Other	190	191	0%	191	0%
Inc (-)/Dec (+) in Producer Inventory	+11	+57	>±300%	0	-100%
Total Mining Supply	5,615	5,683	1%	5,550	-2%
Recycling	1,544	1,587	3%	1,774	12%
Autocatalyst	1,143	1,176	3%	1,346	14%
Jewellery	331	335	1%	347	4%
Industrial	71	76	8%	81	6%
Total Supply	7,159	7,269	2%	7,324	1%
DEMAND (koz)					
Automotive	3,223	3,173	-2%	3,245	2%
Jewellery	1,849	1,951	5%	1,983	2%
Industrial	2,449	2,434	-1%	2,216	-9%
Investment	397	393	-1%	420	7%
Total Demand	7,918	7,951	0%	7,863	-1%
Balance	-759	-682	N/A	-539	N/A
Above Ground Stocks	4,235	3,553	-16%	3,014	-15%

2025F OUTLOOK: FUNDAMENTALS ARE ENTRENCHED AS BOTH SUPPLY AND DEMAND SEE MINOR CHANGES

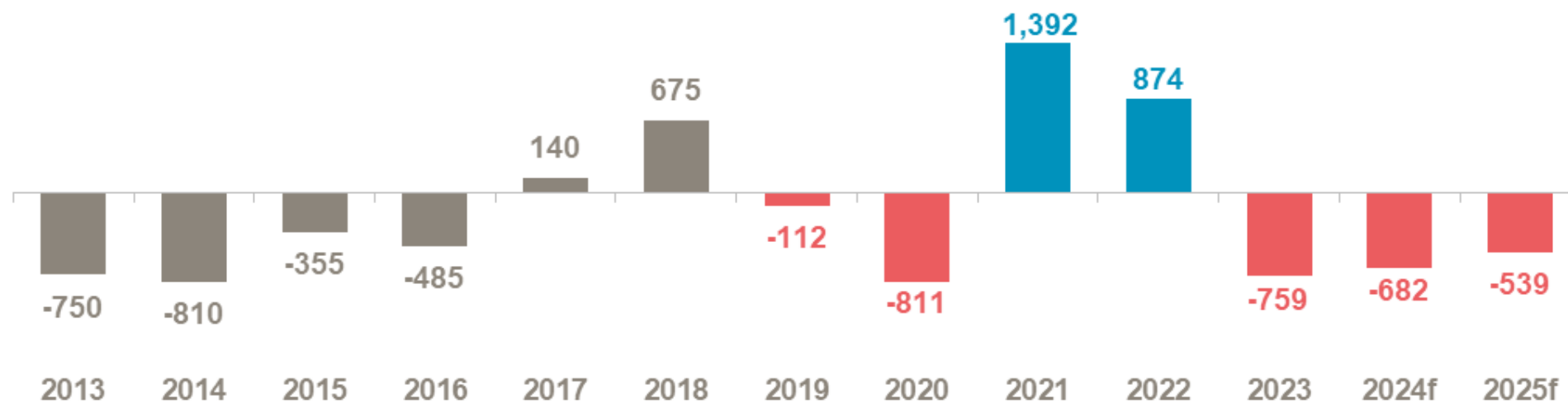
Annual total supply and changes 2023 to 2025F (koz)



Annual total demand and changes 2023 to 2025F (koz)



MARKET BALANCE: THIRD CONSECUTIVE DEFICIT TO DRAWDOWN ABOVE GROUND STOCKS



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1. Introduction

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2. Platinum Quarterly, fundamentals review

Edward Sterck

3. Current thematics

- Platinum price model
 - Fundamentals
 - Market-economic
 - Sentiment
- Hydrogen latest

Edward Sterck, Director of Research

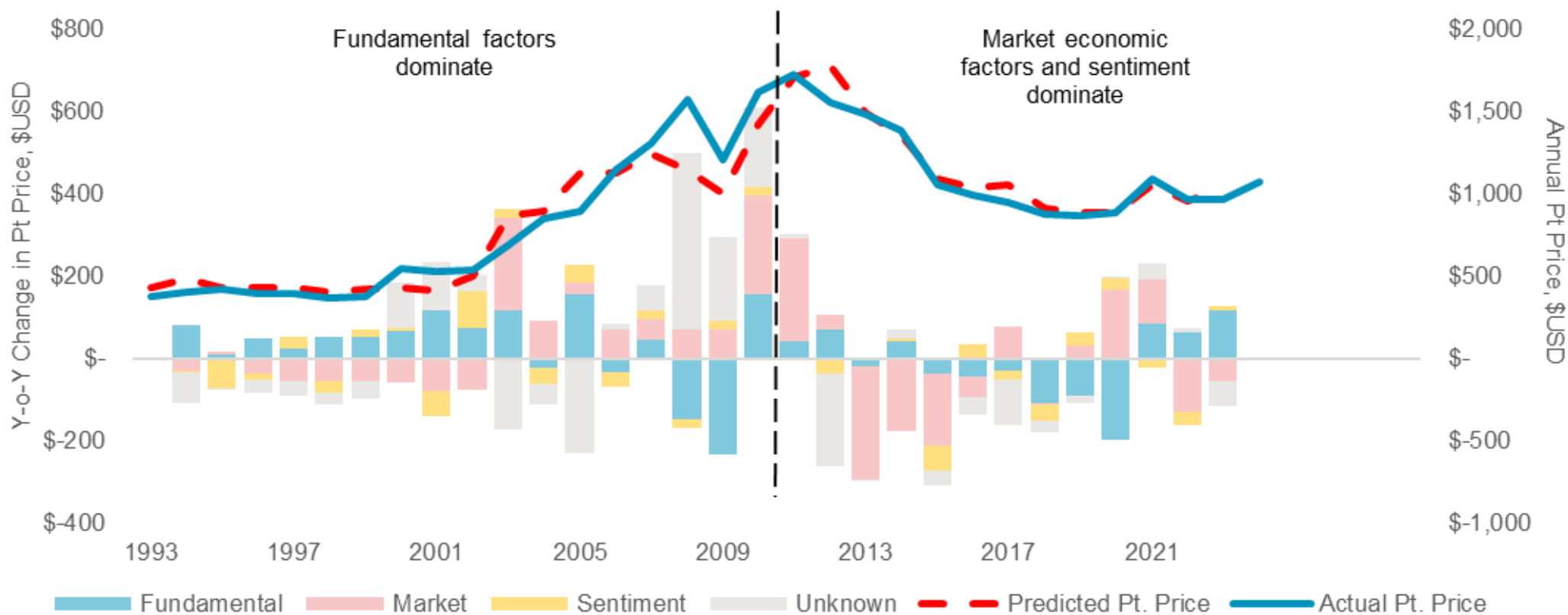
4. Questions

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PRICE DRIVERS: PLATINUM PRICE DRIVERS HAVE CHANGED OVER TIME AND WILL CONTINUE TO EVOLVE

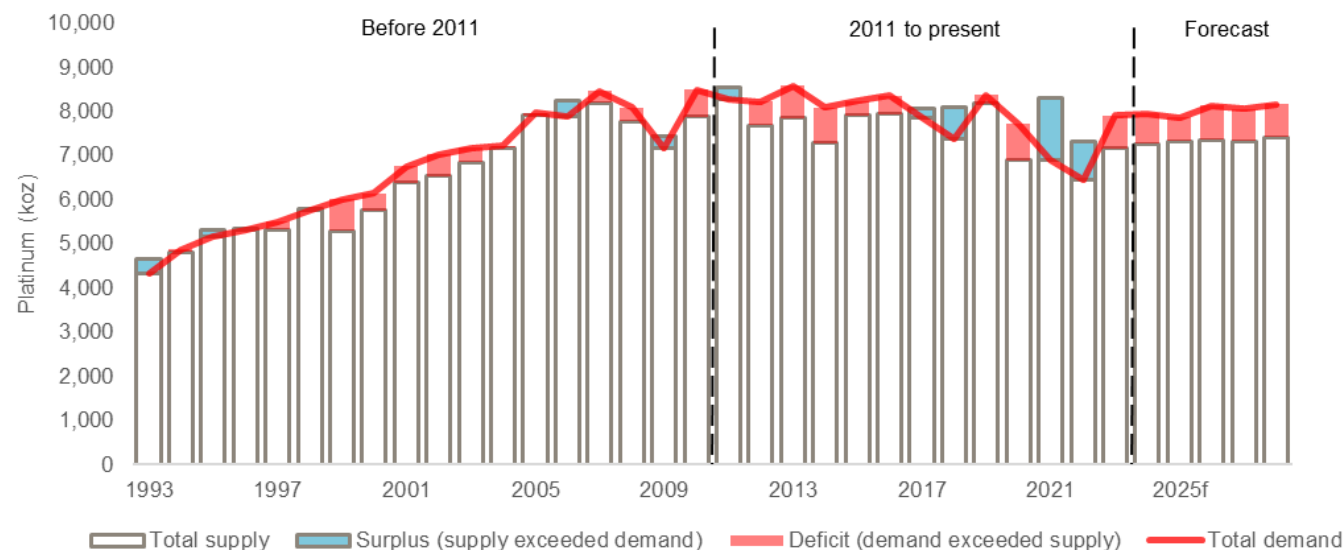


$$P_T = -654 + \beta_1 Auto + \beta_2 Jewellery + \beta_3 Au - \beta_4 Interest\ rates - \beta_5 Rand\ FX + \beta_6 NYMEX + \varepsilon$$

PRICE DRIVERS: ONGOING MARKET DEFICITS AND DEPLETION OF ABOVE GROUND STOCKS

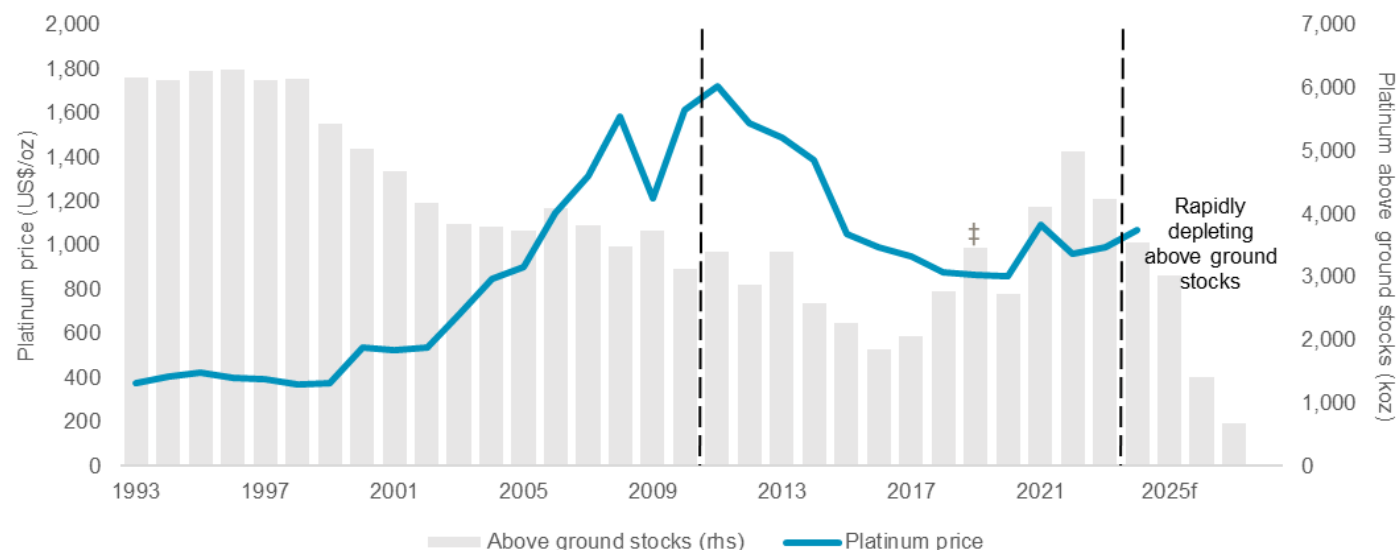
Market deficits

- We forecast platinum market deficits continuing through 2028



Above ground stocks

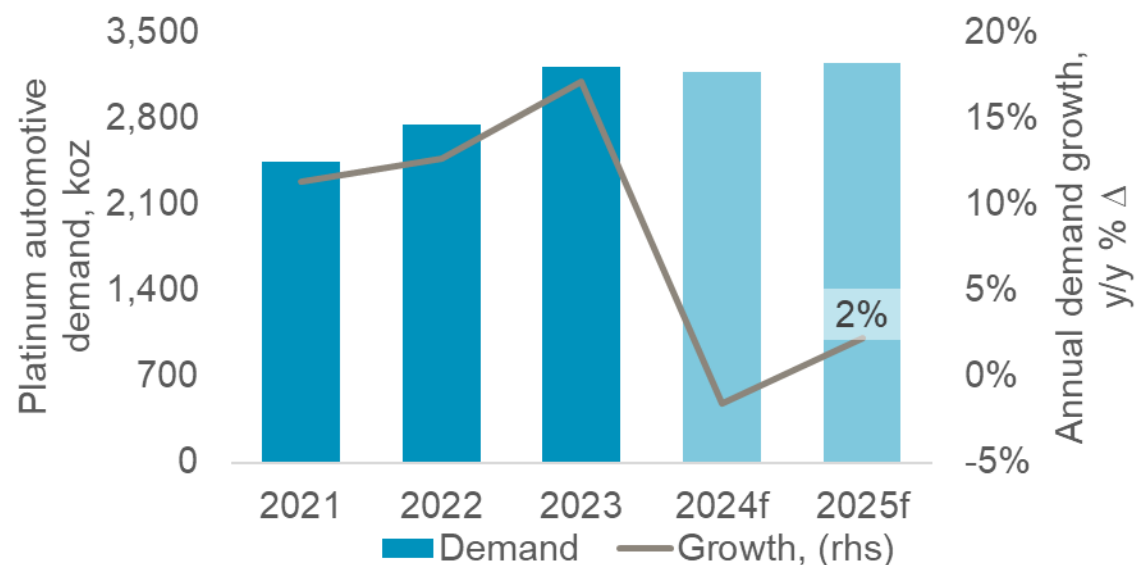
- Above ground stocks are fully depleted by 2028



FUNDAMENTALS: THE AUTOMOTIVE AND JEWELLERY SEGMENTS TO GROW IN 2025F

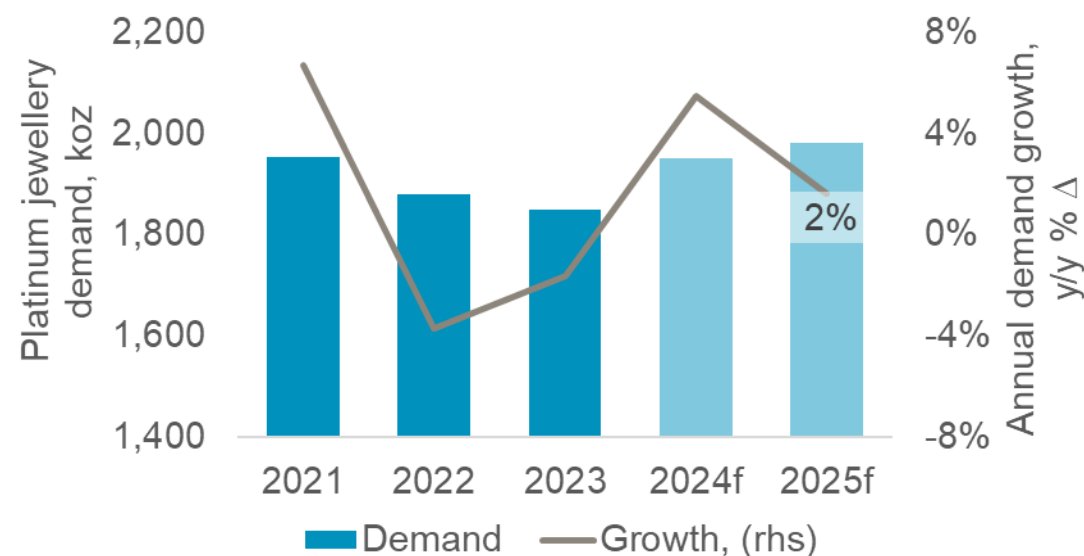
Automotive demand for platinum

- 2025f: +2% y/y
- **8 year high**
- Included in outlook
 - +ve Hybridisation
 - +ve Commercial vehicle growth
 - +ve Pt:Pd substitution



Jewellery demand for platinum

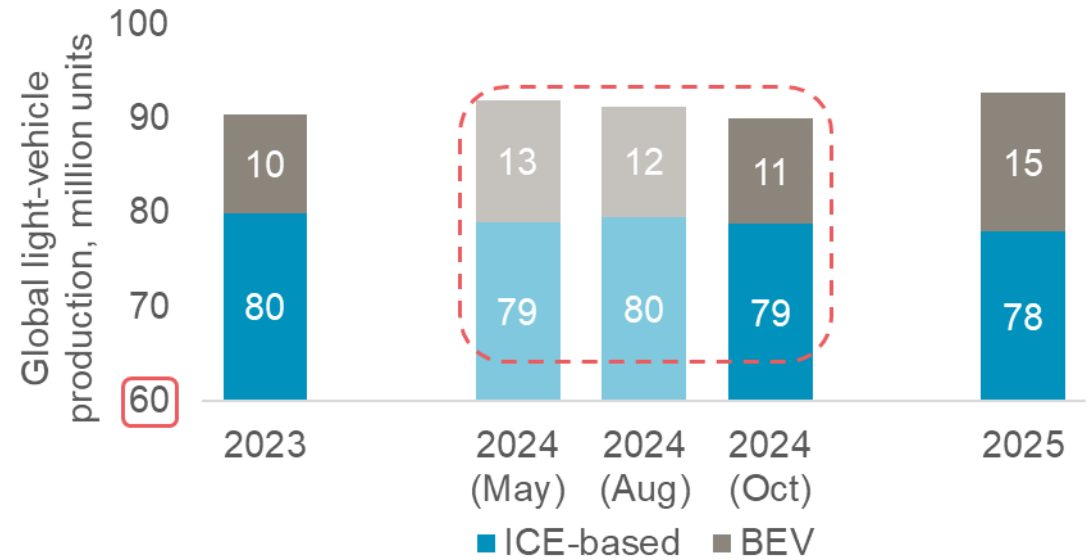
- 2025f: +2% y/y
- Included in outlook
 - +ve China growth
 - +ve India & US growing
 - +ve Pt:Au switching



FUNDAMENTALS: HIGHER-FOR-LONGER ICE DEMAND ENTRENCHED IN THE DRIVETRAIN TRANSITION

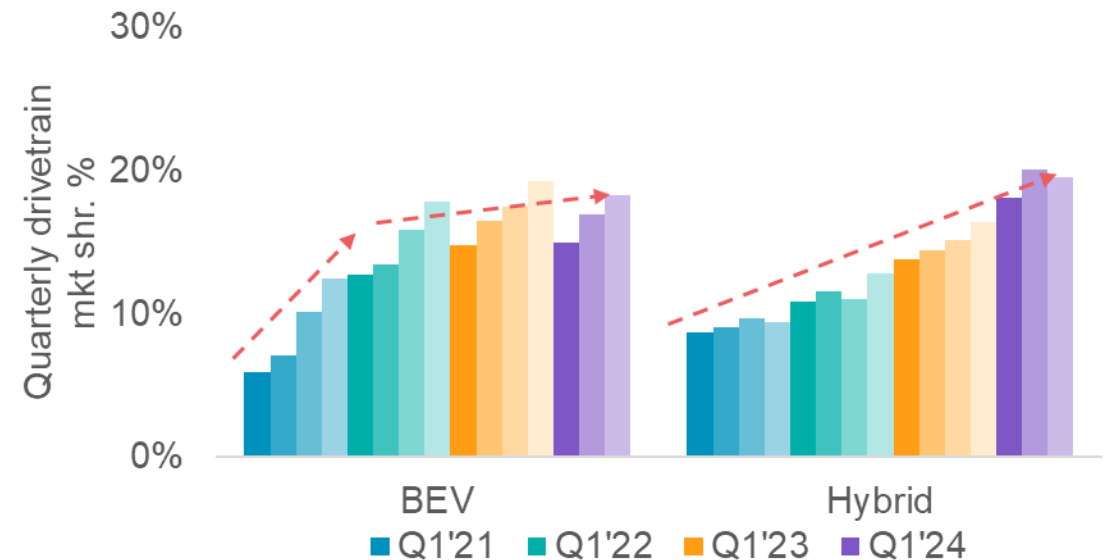
Demand

- Weaker Q3'24,
- Pure-BEV and pure-ICE revised lower,
- 2025f growth of 3% y/y vs. 2024:
 - Normalised inflation, and
 - Lower interest rates.



Drivetrain transition

- Higher-for-longer ICE and hybrid well established,
- Decelerating BEV growth 2024:
 - Cost, and
 - Infrastructure.
- 2025 growth:
 - Hybridisation complements BEV to meet CO₂ reductions.



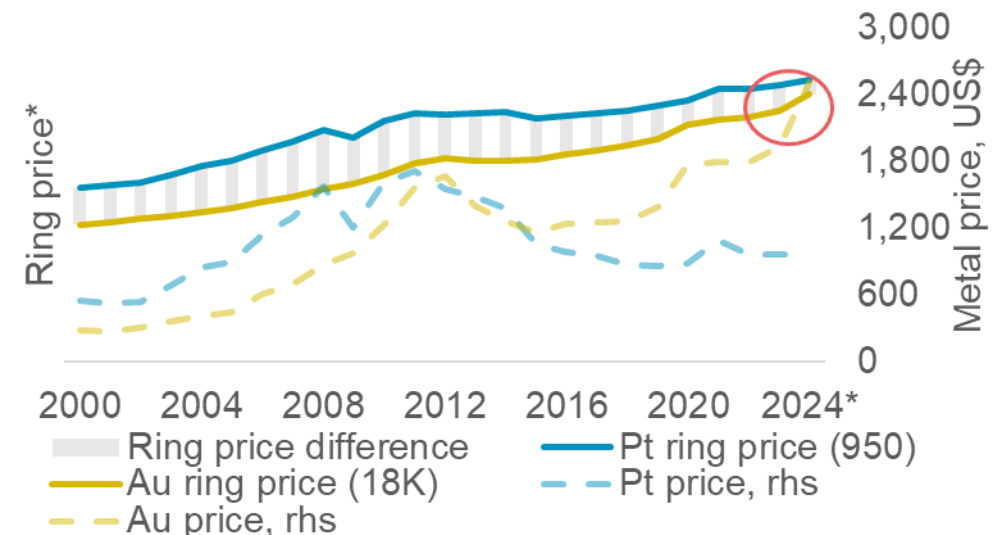
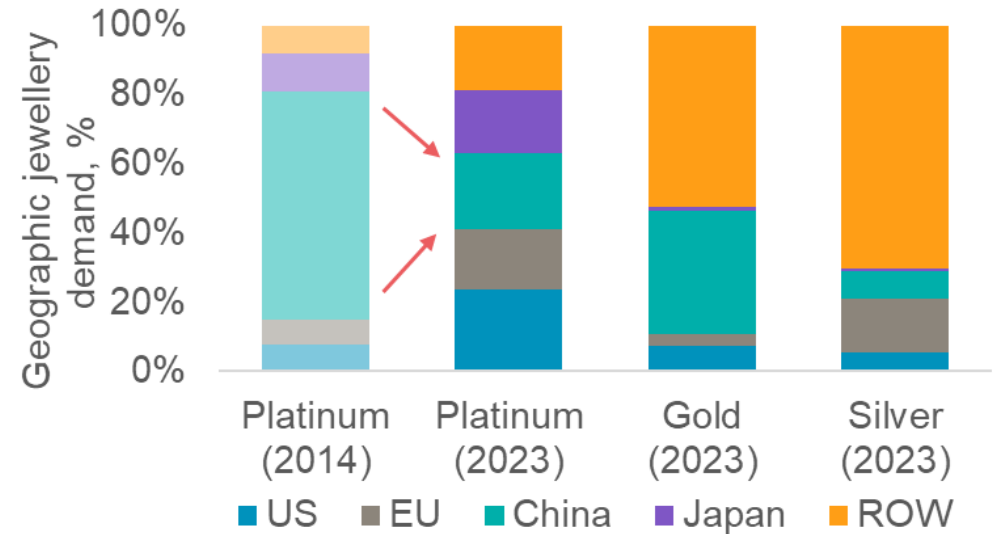
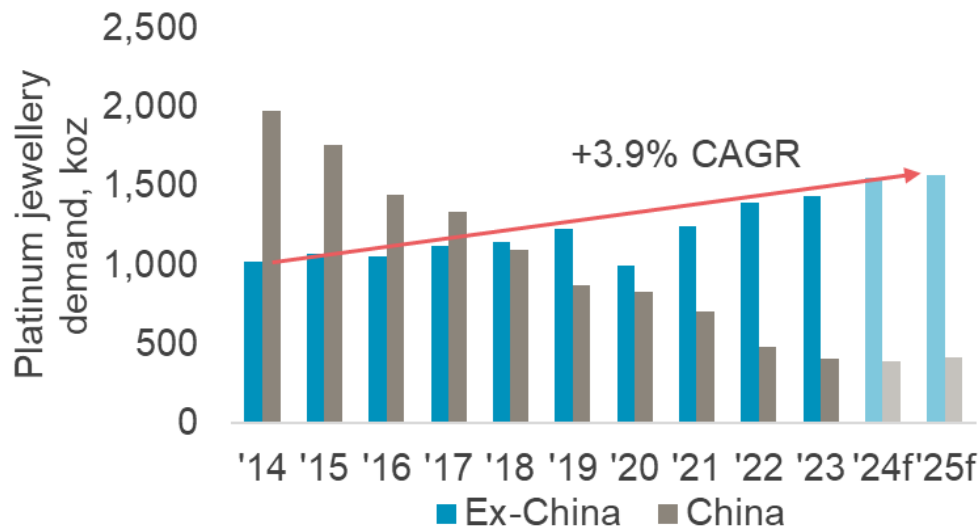
FUNDAMENTALS: JEWELLERY MAINTAINING SLOW GROWTH WITH UPSIDE POTENTIAL

Diversification

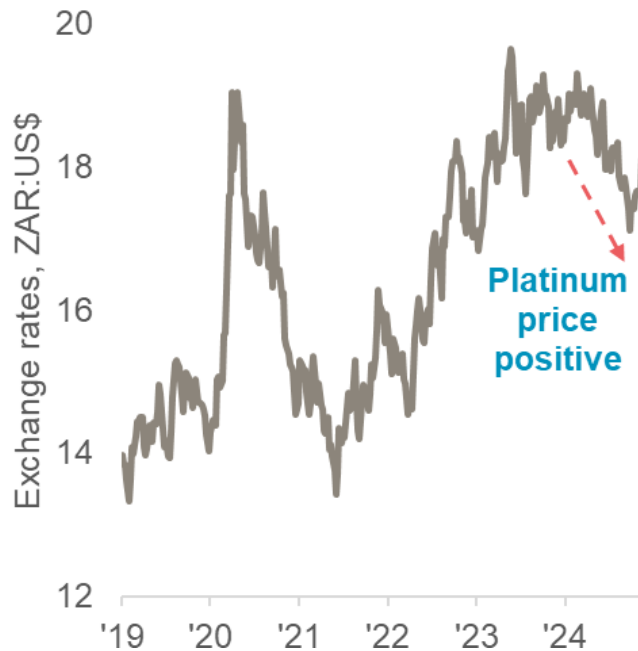
Ex-China growth, particularly in India

Improving relative competitiveness

- Retail price premium vs. white gold negligible
- Technology lowering costs, improving designs



MARKET-ECONOMIC FACTORS ARE DIRECTIONALLY TRENDING FAVOURABLY FOR PLATINUM PRICES

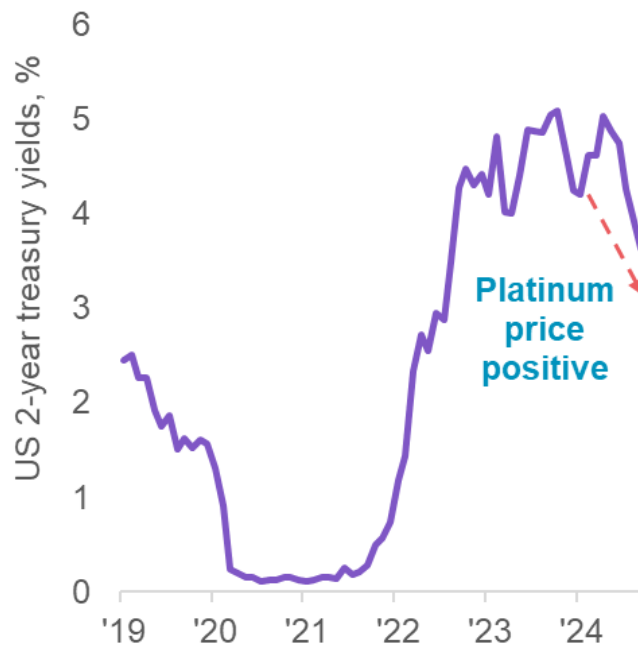


ZAR:US\$ appreciating

Electricity stability

Government of National Unity

Improving confidence

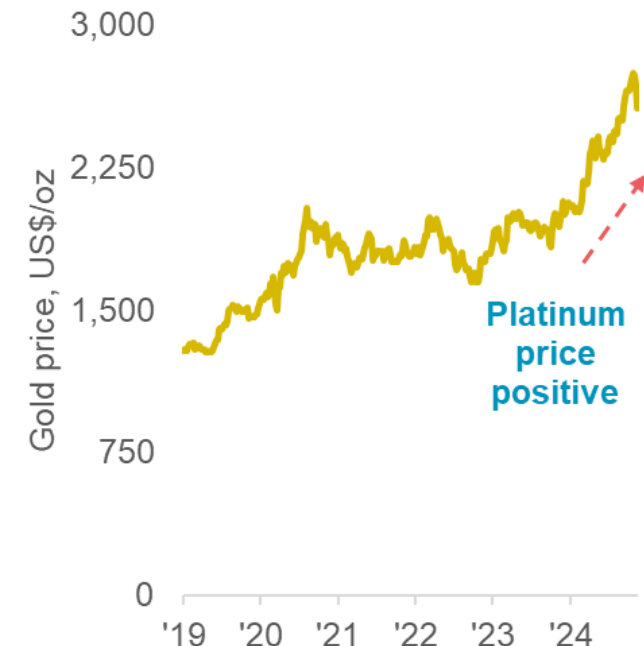


Interest rates

Disinflation to FED target

2024e: 100 bps cuts

2025f: 75 bps cuts



Gold

+29% YTD

Ave higher in 2025f on base effects

SENTIMENT IS IMPROVING AS DEMAND RISKS EASE AND SUPPLY SIDE RESTRUCTURING TAKES HOLD

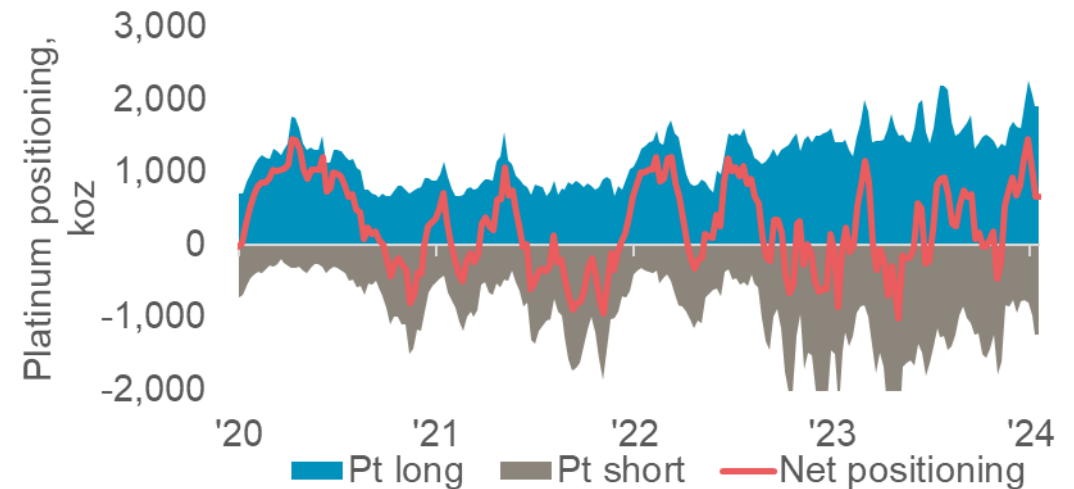
Platinum

- Volatile net managed money, however,
- Long positioning trending higher over three years
- Demand holding up
- Structural mine supply reset

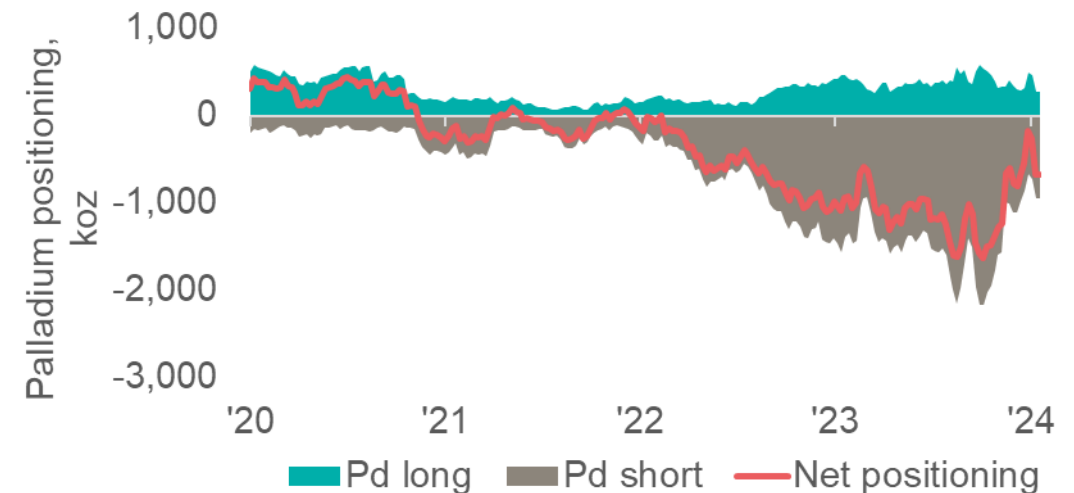
Palladium

- Closing shorts
- Significant market deficits
- NA mine restructuring
- Mooted Russian sanctions

Platinum net managed money



Palladium net managed money (anecdotal)

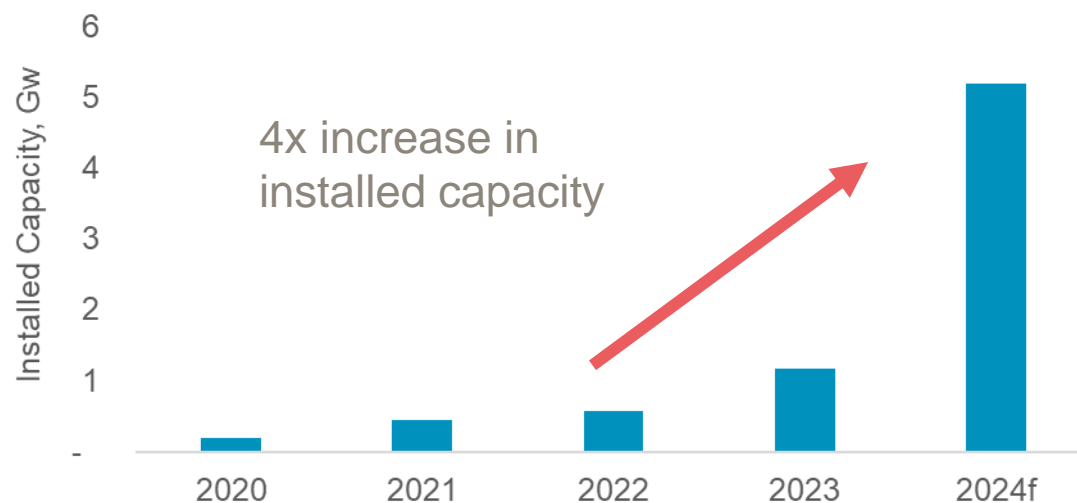


MATHEMATICAL EFFECTS OF VALUE ESTABLISHING FACTORS ON THE ANNUAL AVERAGE PLATINUM PRICE

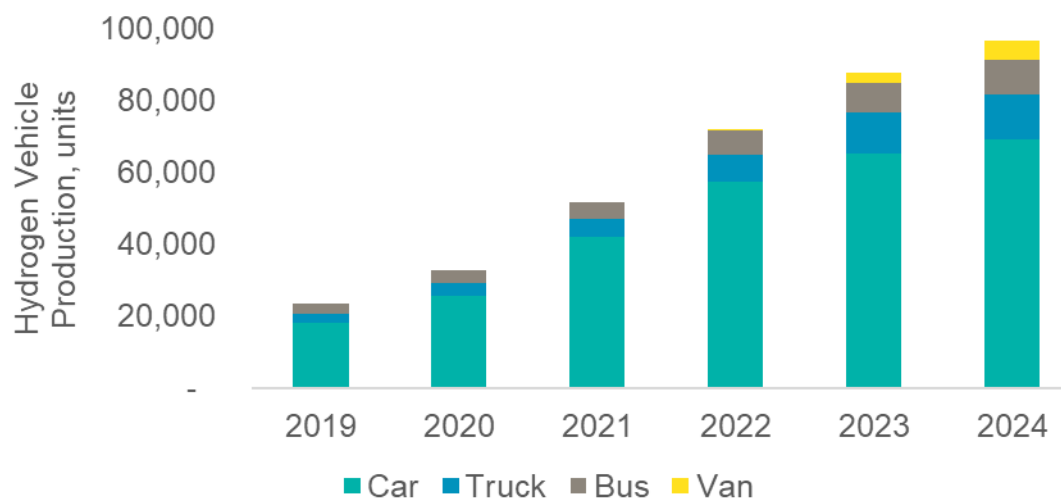
Variable	Var	Underlying change	Impact on Price
Automotive demand	X_1	+/-100koz	+/- \$28
Jewellery demand	X_2	+/-100koz	+/- \$23
Gold Price	X_3	+/-100\$/oz	+/- \$68
Interest rates	X_4	+/-100bps	-/+ \$24
USD:ZAR	X_5	+/-1 Rand:USD	-/+ \$60
NYMEX % Net Long/OI	X_6	+/-10% Long/OI	+/- \$37

HYDROGEN: GROWTH SHOULD NOT BE OVERSHADOWED BY HEADLINES

- Electrolyser Capacity continues to exponentially grow
- ~25% PEM electrolysis to be installed by 2024
- Announced Capacity of ~500GW by 2030 (+25% y-o-y)



- Fuel Cell production continues to grow
- Pt demand underpinned by truck growth (35% CAGR 2020-2024f)
- Trucks ~2x Pt loadings vs light-duty
- H2 Vans emerging segment, 5.5k vehicles planned for 2024



WHY INVEST IN PLATINUM?



- Underlying fundamentals are expected to once again become the most important price setting factor as a result of:
 - **Third consecutive material annual platinum market deficit leading to a rapid depletion of above ground stocks.**
 - **Higher for longer ICE demand, drawing investor interest and supporting automaker inventory restocking.**
 - **The potential for GFEX platinum futures to support demand growth and investor interest in China (expected Q1'25).**

WPIC INITIATIVES AND UPCOMING RESEARCH

China Gold
Coin's newly
released 1kg
Fish to Dragon
platinum bar



The Royal
Mint's Queen's
Panther and
2025 Platinum
Britannia



WPIC initiatives:

- Continued strong demand for platinum investment products in China
 - another 1 kg platinum bar
 - wider range – collectibles
 - Panda and lunar coins
- Support for Guanzhou Futures Exchange, Pt and Pd imminent

Upcoming WPIC Research:

- A deep dive into the jewellery market
- Platinum price seasonality

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Platinum Quarterly ([link](#))

Platinum Essentials ([link](#)):

- WPIC's platinum price attribution model examines the factors that establish platinum value in the market.
- Sep'24, 2-5 year platinum supply/demand outlook: Robust demand and limited supply drive larger market deficits.

Platinum Perspectives ([link](#)):

- Can platinum market deficits be met by ETFs? Yes, but only at much higher prices.

