

PLATINUM QUARTERLY PRESENTATION Q3 2023

London

21st November 2023

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AGENDA: PLATINUM QUARTERLY: Q3 2023, UPDATED 2023 FORECAST, AND FIRST 2024 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 2023, updated 2023 and first 2024 forecast

Edward Sterck, Director of Research

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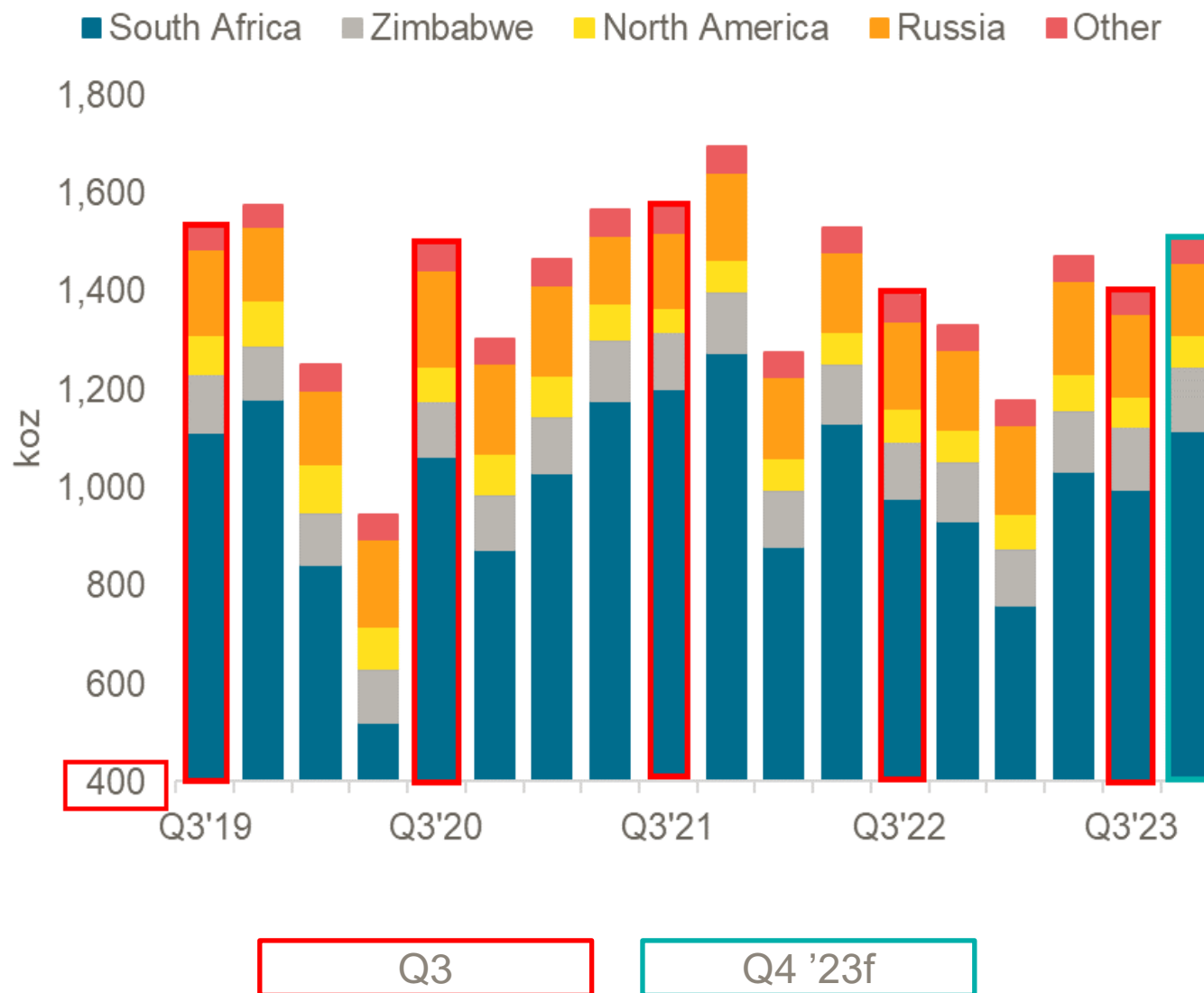
Edward Sterck



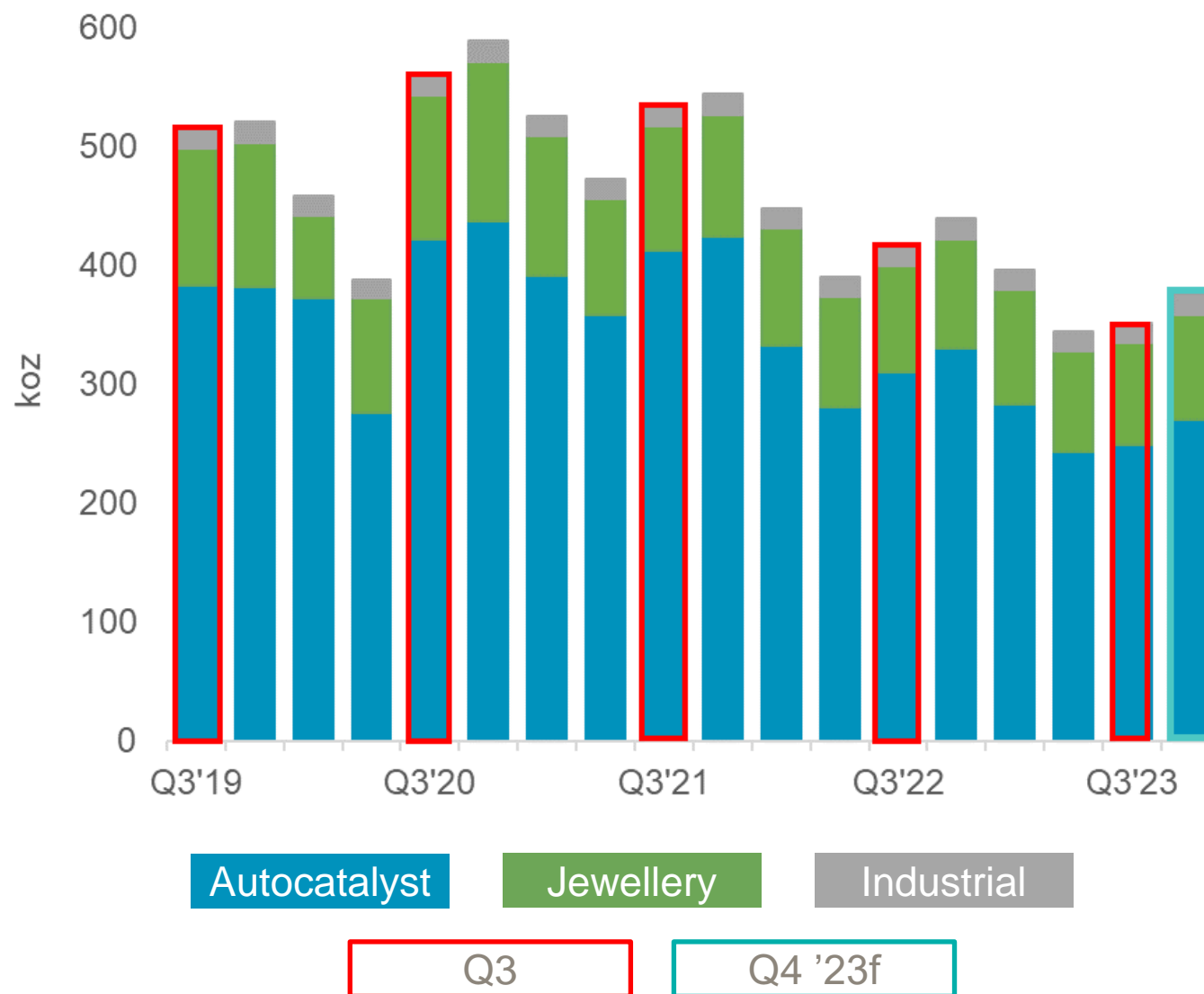
Q3 2023 SUPPLY: TOTAL SUPPLY DOWN 2% YOY ON MINE SUPPLY AND RECYCLING CHALLENGES

SUPPLY	Q3 2022	Q2 2023	Q3 2023	YoY	QoQ
Refined Production	1,390	1,469	1,402	1%	-5%
South Africa	977	1,033	996	2%	-4%
Zimbabwe	116	126	129	11%	2%
North America	67	73	61	-9%	-18%
Russia	179	190	168	-6%	-12%
Other	52	47	49	-5%	4%
Inc(-)/Dec(+) in Producer Inventory	-2	+8	+16	n/a	109%
Total Mining Supply	1,388	1,477	1,418	2%	-4%
Recycling	417	345	352	-15%	2%
Autocatalyst	310	244	249	-20%	2%
Jewellery	90	84	85	-5%	2%
Industrial	17	17	17	1%	0%
Total Supply	1,804	1,822	1,770	-2%	-3%

Q3 2023 REFINED MINE SUPPLY: RECOVERY IN SUPPLY UP 1% YOY, BUT DOWN -5% QOQ



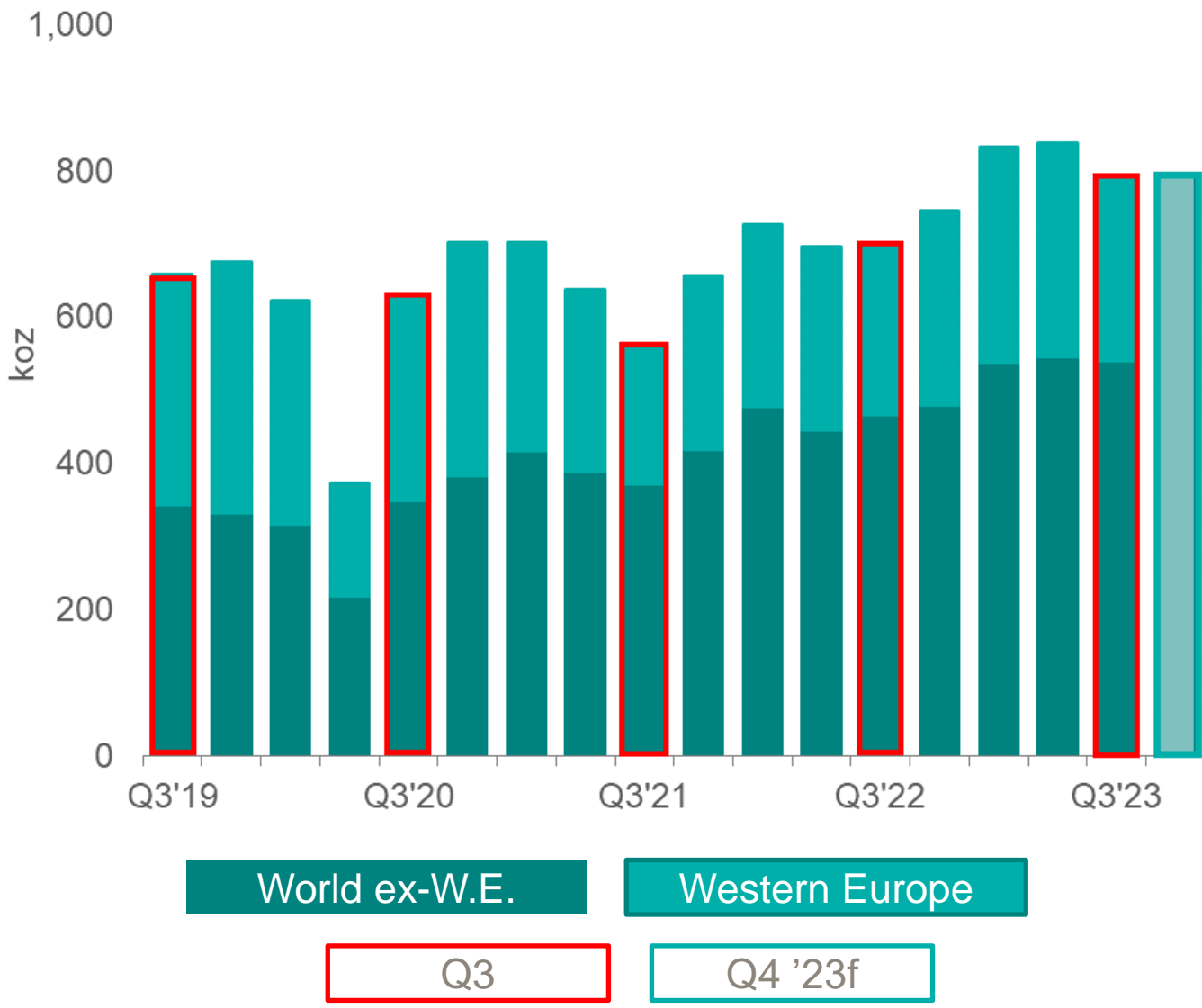
Q3 2023 RECYCLING: DOWN 15% YOY AND UP 2% QOQ ON PERSISTING SUPPLY CHAIN CHALLENGES



Q3 2023 DEMAND: UP 24% YOY ON STRENGTH IN AUTO AND INDUSTRIAL SECTORS

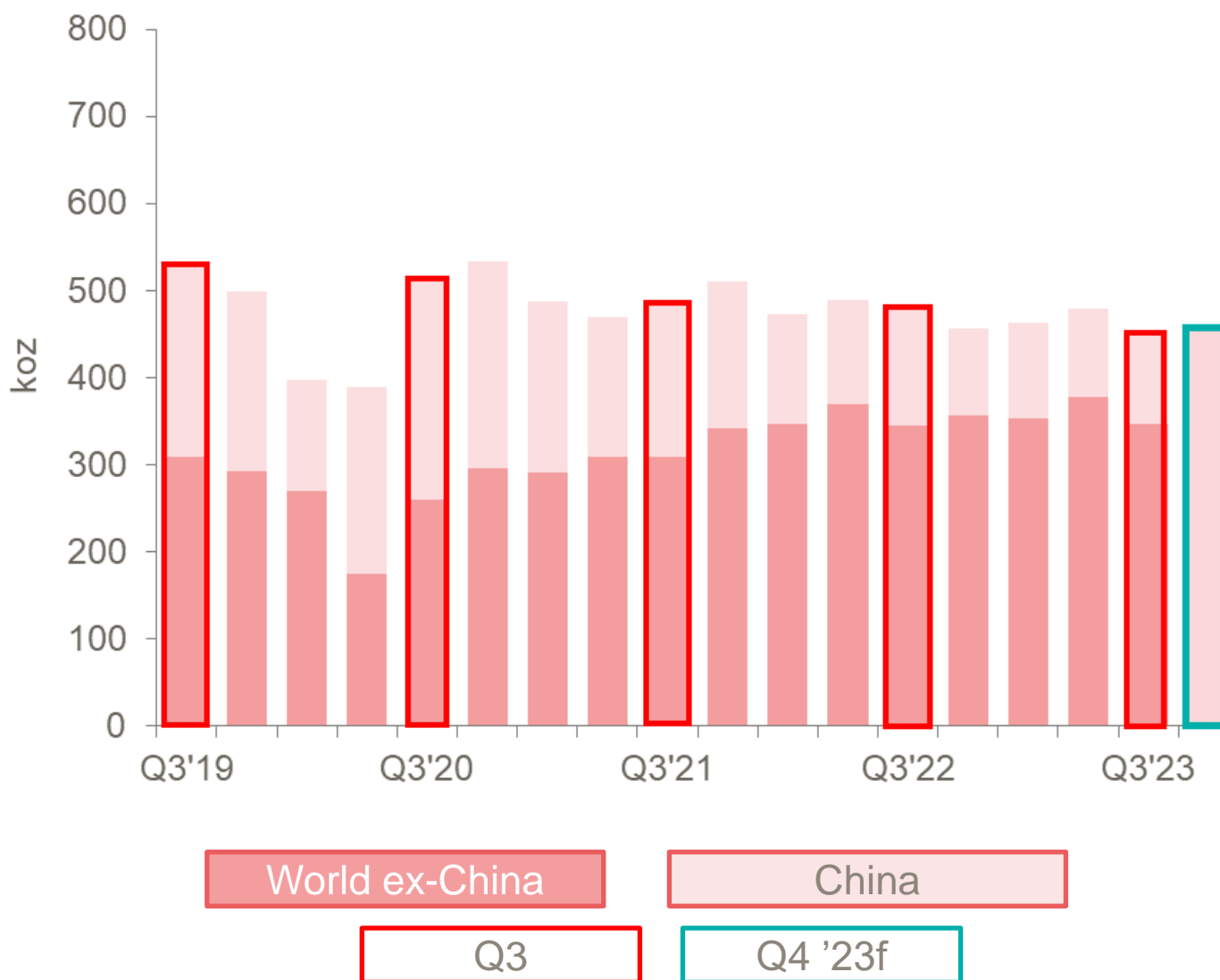
DEMAND	Q3 2022 // Q2 2023	Q3 2023	YoY	QoQ	
Automotive	697	838	793	14%	-5%
Autocatalyst	697	838	793	14%	-5%
Non-road	†	†	†	n/a	n/a
Jewellery	480	480	455	-5%	-5%
Industrial	544	690	574	6%	-17%
Chemical	110	229	135	23%	-41%
Petroleum	49	43	41	-16%	-5%
Electrical	26	24	22	-13%	-7%
Glass	151	170	158	5%	-7%
Medical & Biomedical	68	70	70	3%	1%
Other	141	154	148	5%	-4%
Investment	-260	154	-11	n/a	n/a
Change in Bars, Coins	92	26	59	-35%	132%
Change in ETF Holdings	-217	155	-99	n/a	n/a
Change in Stocks Held by Exchanges	-134	-27	28	n/a	n/a
Total Demand	1,461	2,162	1,810	24%	-16%
Balance	343	-340	-40	n/a	-88%

Q3 2023 AUTOMOTIVE: UP 14% YOY ON THE CONTINUED RECOVERY IN PRODUCTION & SUBSTITUTION GROWTH

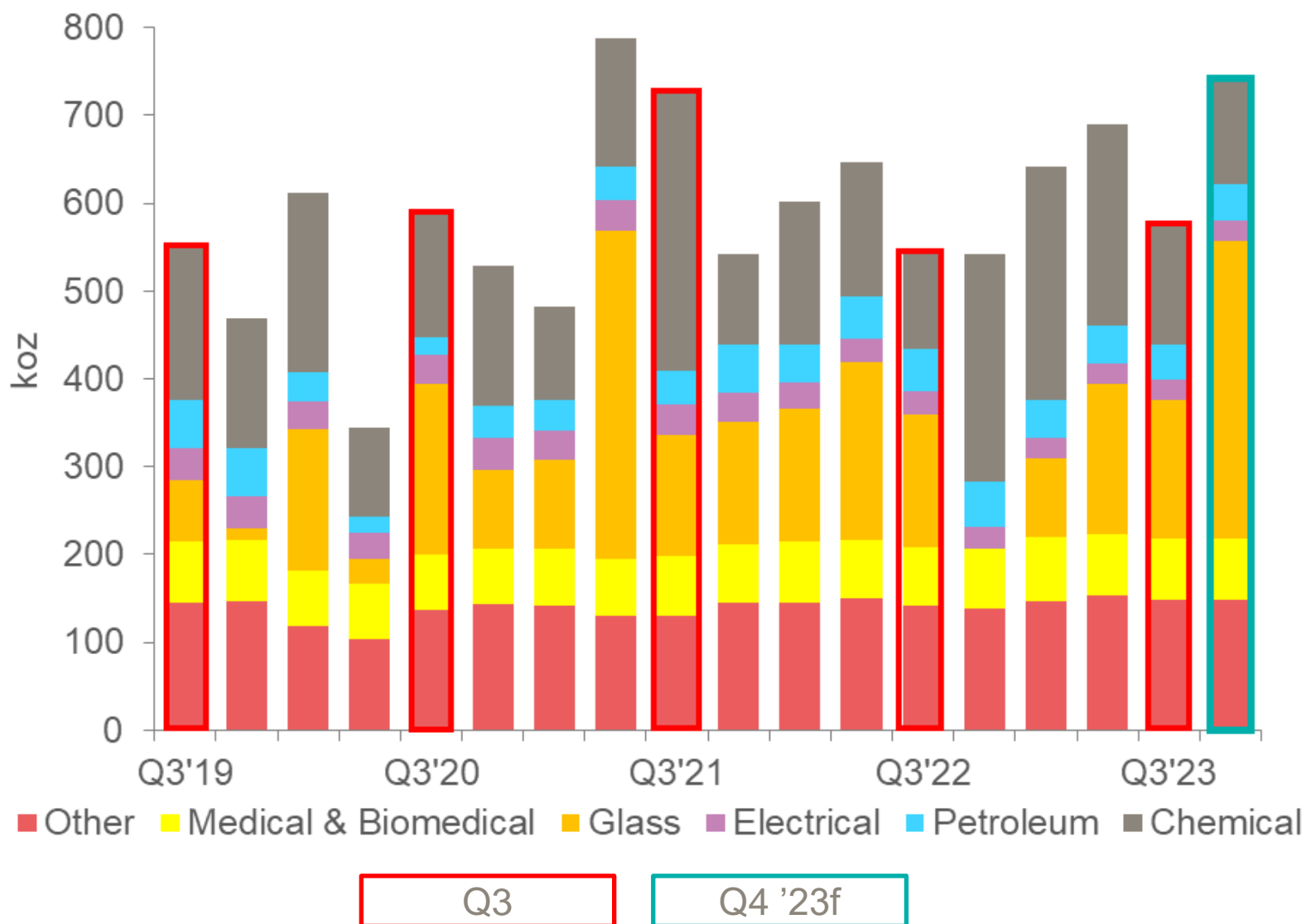


Source: WPIC Platinum Quarterly Q3 2023, Metals Focus from Q3'19

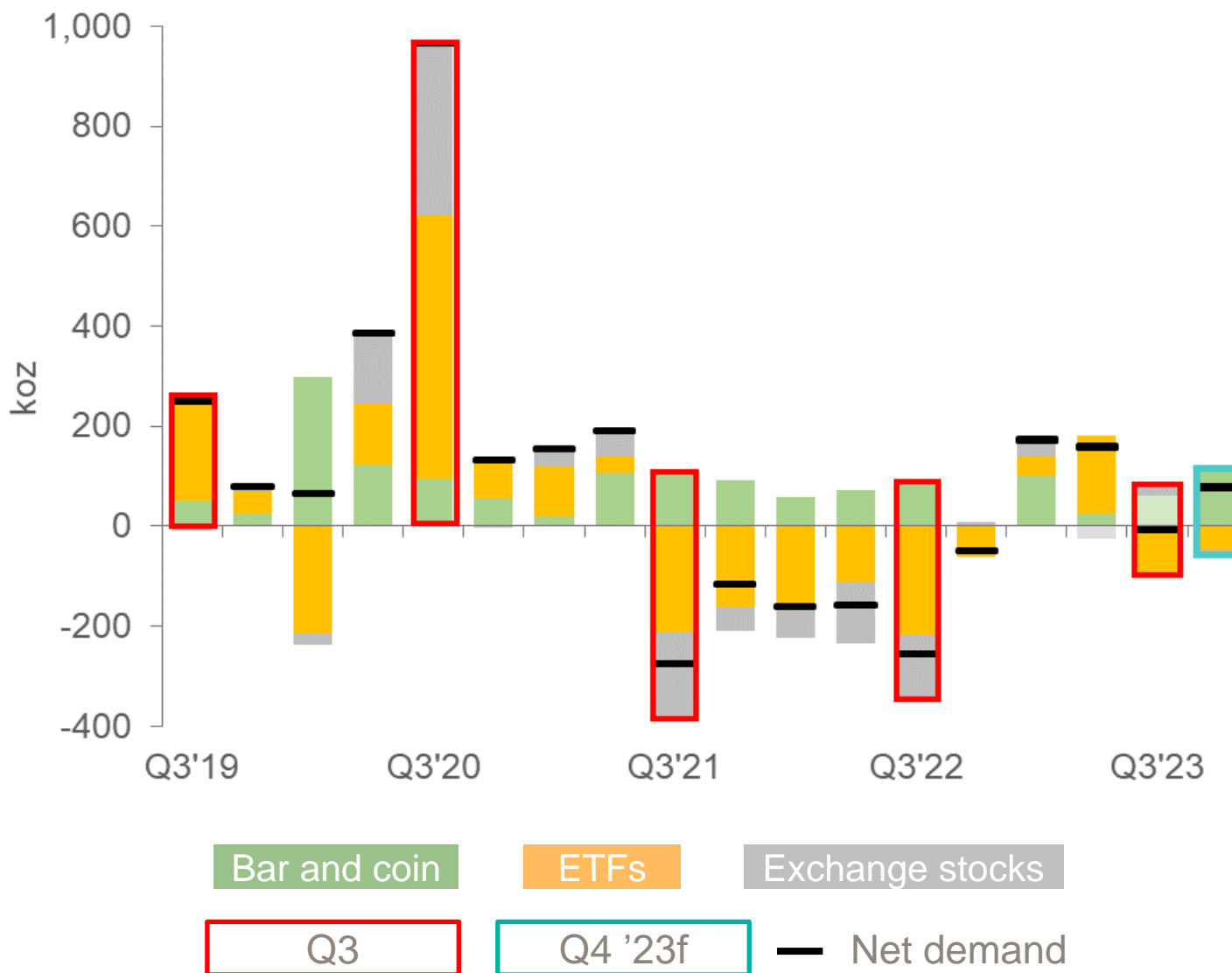
Q3 2023 JEWELLERY: DOWN 5% YOY AS CHINA APPETITE REMAINS SUBDUED



Q3 2023 INDUSTRIAL DEMAND: UP 6% YOY ON CHEMICAL CAPACITY ADDITIONS



Q3 2023 INVESTMENT DEMAND: IMPROVED BY ~250 KOZ YOY BUT DOWN QOQ

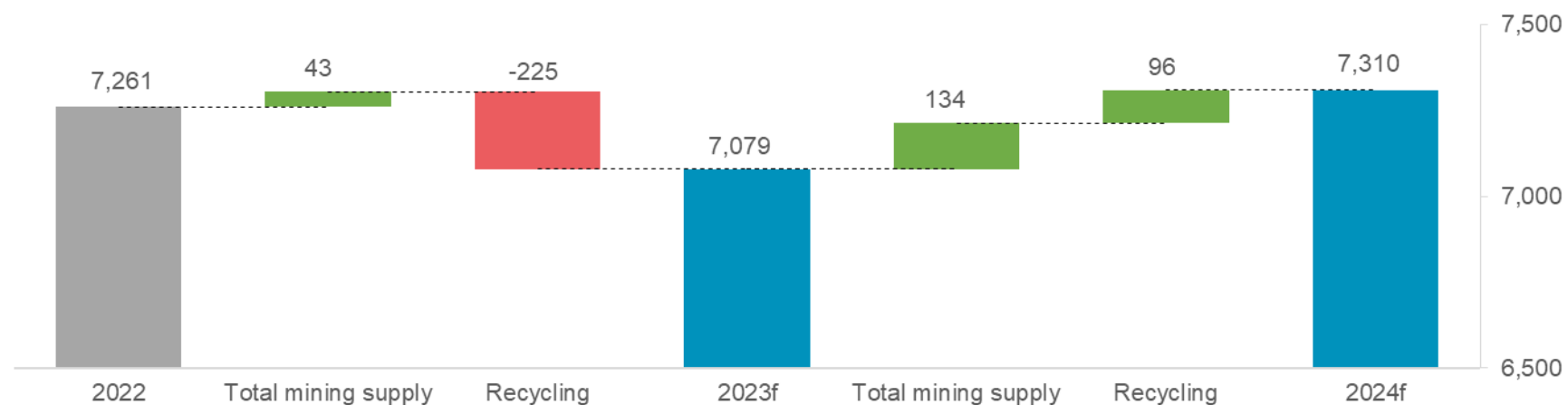


2022 - 2024F FULL YEAR: INCREASED 2023 DEFICIT, 2024 SUSTAINED DEFICIT DESPITE SUPPLY RECOVERY

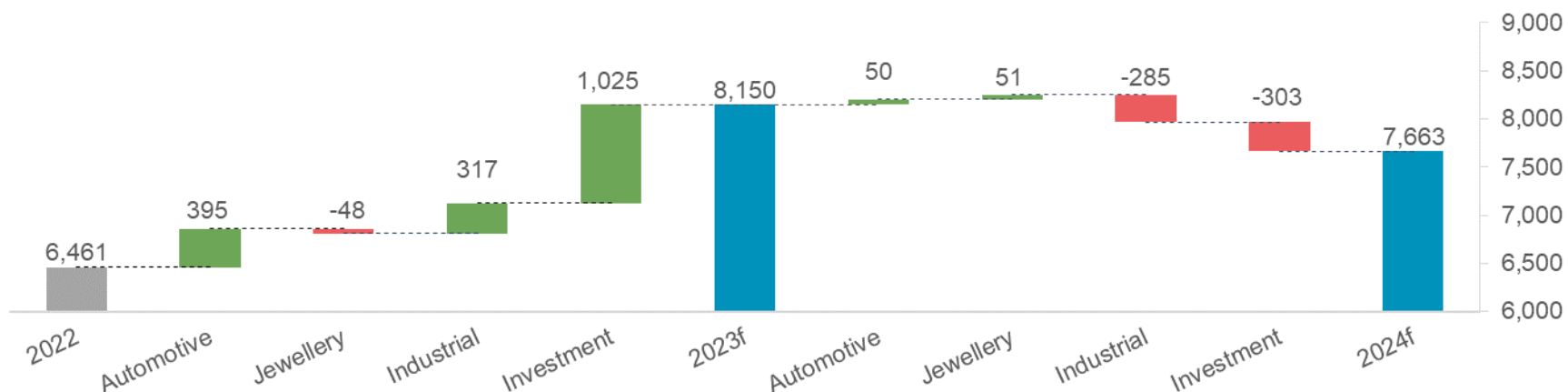
SUPPLY	2022	2023E	YoY, %	2024F	YoY, %
Refined Production	5,522	5,551	1%	5,743	3%
South Africa	3,915	3,905	0%	4,099	5%
Zimbabwe	480	502	5%	506	1%
North America	263	268	2%	302	13%
Russia	663	684	3%	634	-7%
Other	201	193	-4%	201	4%
Inc (-)/Dec (+) in Producer Inventory	+43	+57	33%	0	-100%
Total Mining Supply	5,565	5,608	1%	5,743	2%
Recycling	1,696	1,471	-13%	1,567	7%
Autocatalyst	1,255	1,048	-16%	1,132	8%
Jewellery	372	353	-5%	362	3%
Industrial	68	70	2%	73	4%
Total Supply	7,261	7,079	-3%	7,310	3%
DEMAND					
Automotive	2,867	3,262	14%	3,312	2%
Jewellery	1,899	1,852	-3%	1,903	3%
Industrial	2,335	2,652	14%	2,367	-11%
Investment	-640	385	N/A	82	-79%
Total Demand	6,461	8,150	26%	7,663	-6%
Balance	800	-1,071	N/A	-353	N/A
Above Ground Stocks	4,687	3,615	-23%	3,262	-10%

2023 OUTLOOK: RECOVERING SUPPLY UP 3% BUT SOFTER DEMAND (-6%) STILL 19% ABOVE 2022

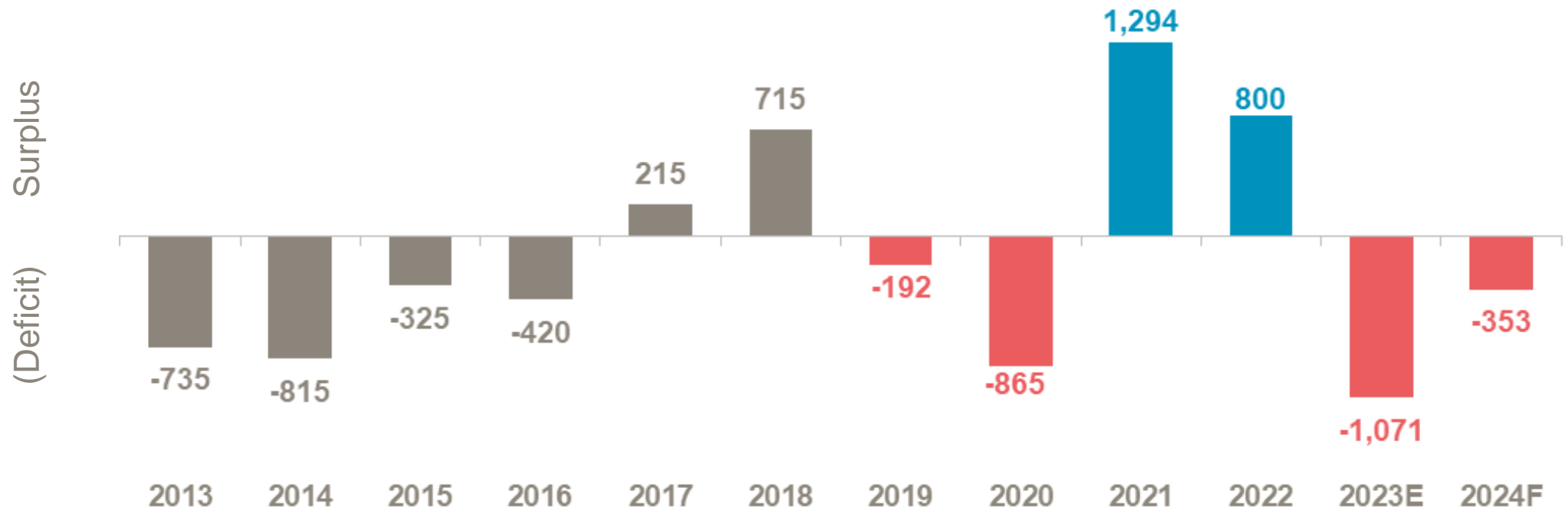
Annual total supply and changes 2022 to 2024F (koz)



Annual total demand and changes 2022 to 2024F (koz)



MARKET BALANCE: SUSTAINED DEFICIT OF 350 KOZ IN 2024 AFTER RECORD DEFICIT IN 2023



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3. Current thematics

- Mining supply challenges
- Constrained recycling supply
- Unpacking automotive trends

Edward Sterck, Director of Research

4. Questions

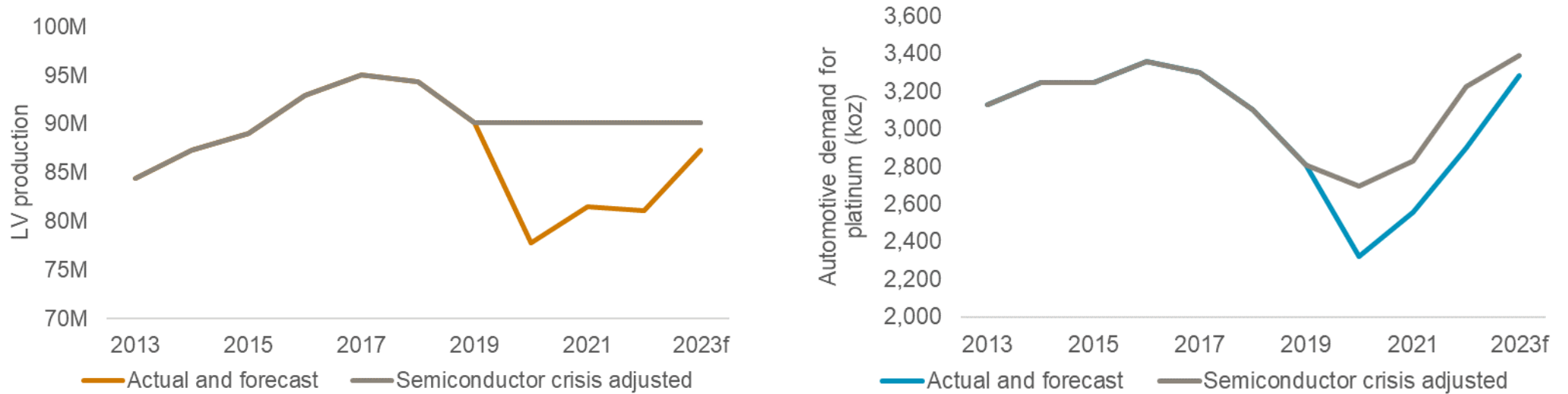
Trevor Raymond

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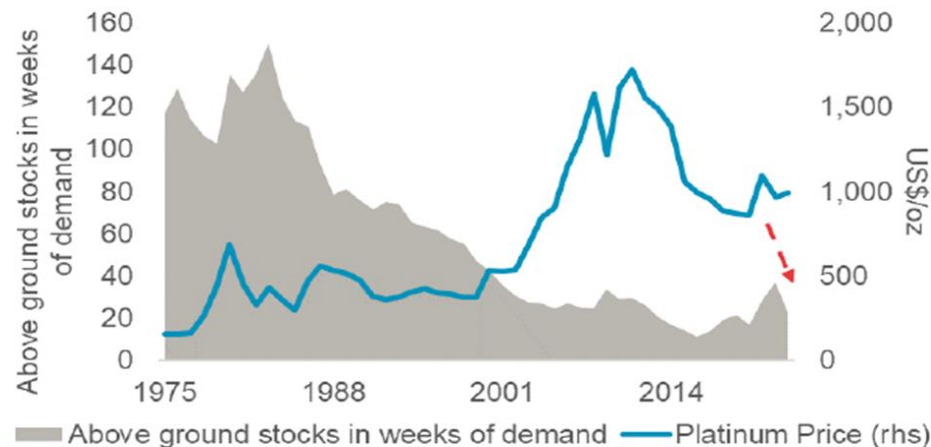


PLATINUM QUARTERLY Q2 2023 THEMATIC SUMMARY

Automakers have been working through excess PGM stocks through 2023

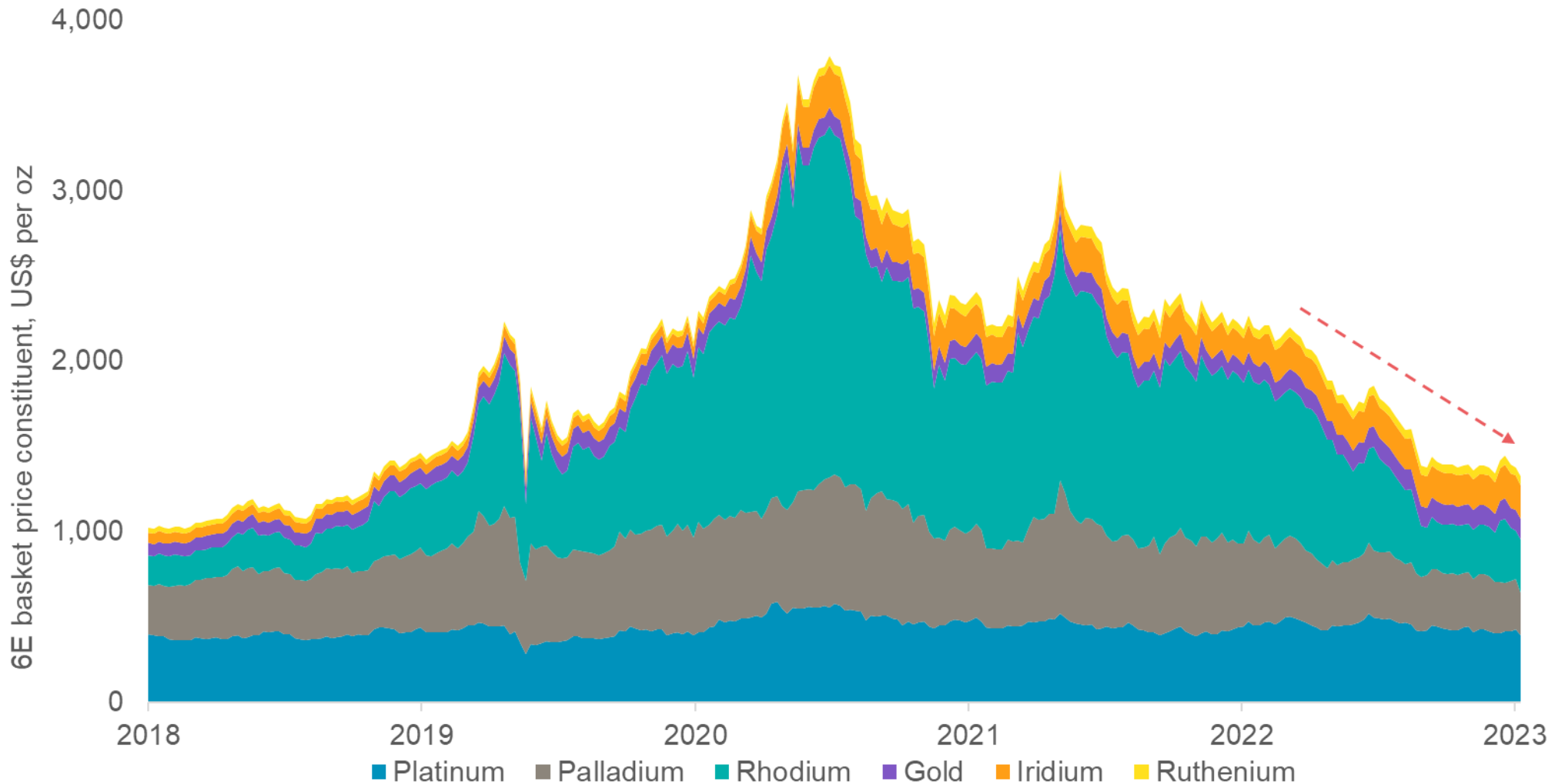


Above ground stocks are drawing down on substantial deficits

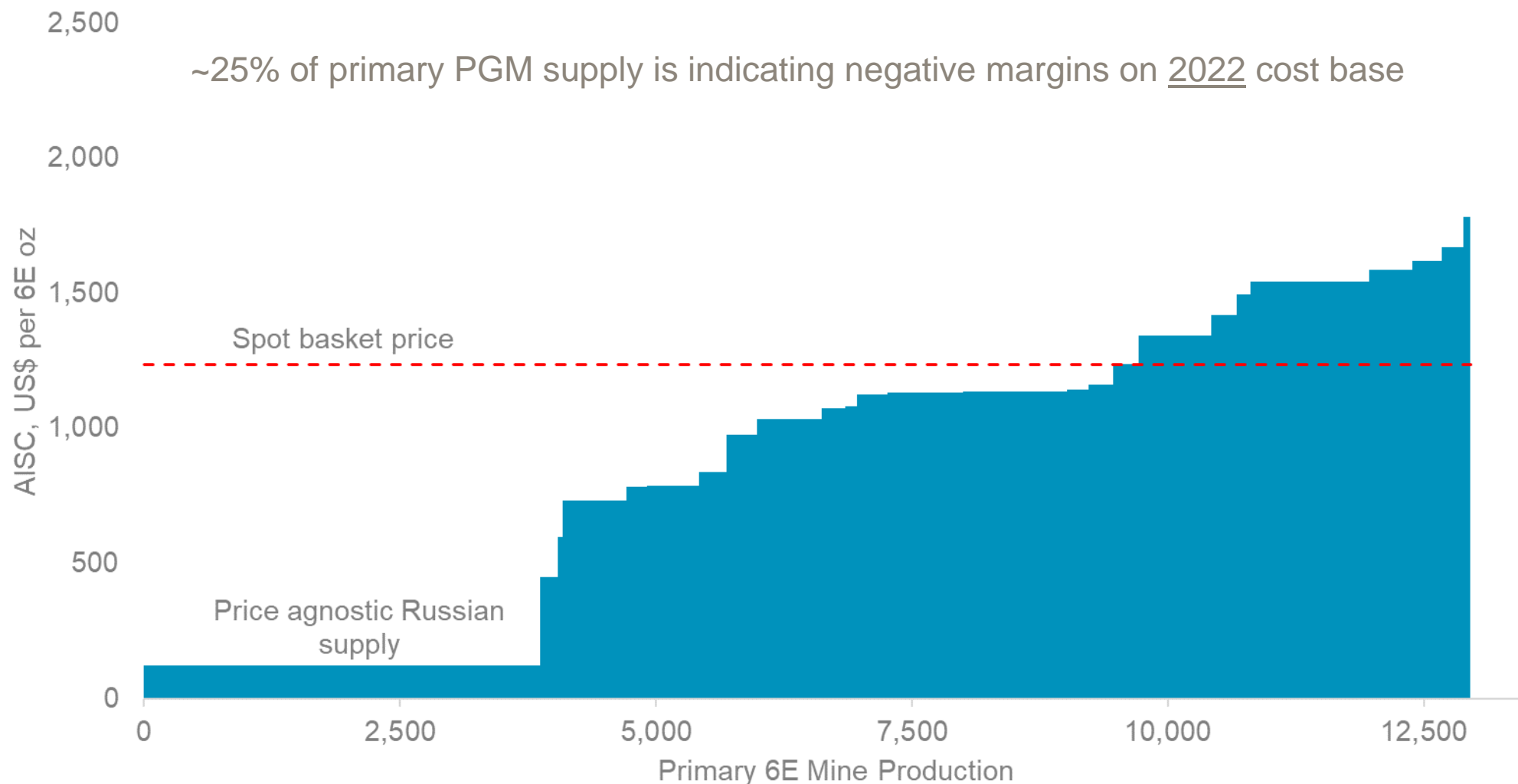


THE PGM BASKET PRICE: ALMOST BACK TO 2018 LEVEL, BUT INFLATION HAS INCREASED UNIT COSTS BY >25%

The PGM basket price is ~40% lower YTD in USD and ~33% in rand terms



A SIGNIFICANT PORTION OF THE PGM MINE PRODUCTION IS LOSS MAKING AT THE CURRENT BASKET PRICE

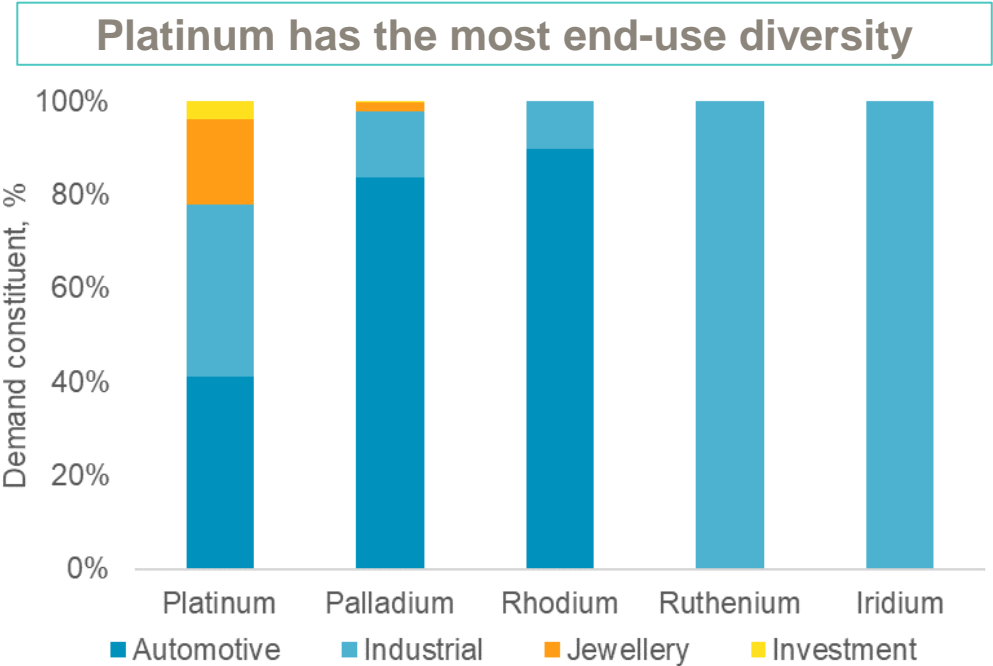
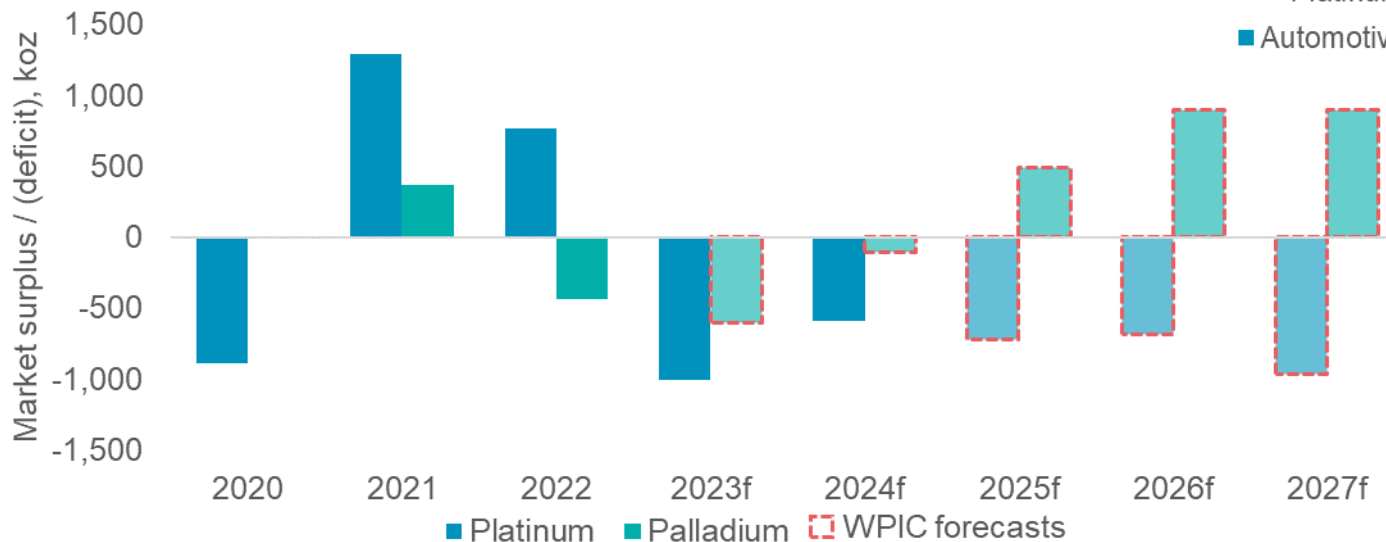


THE PLATINUM OUTLOOK IS BETTER PROTECTED THAN THE OTHER PGMS

Any supply reduction would:

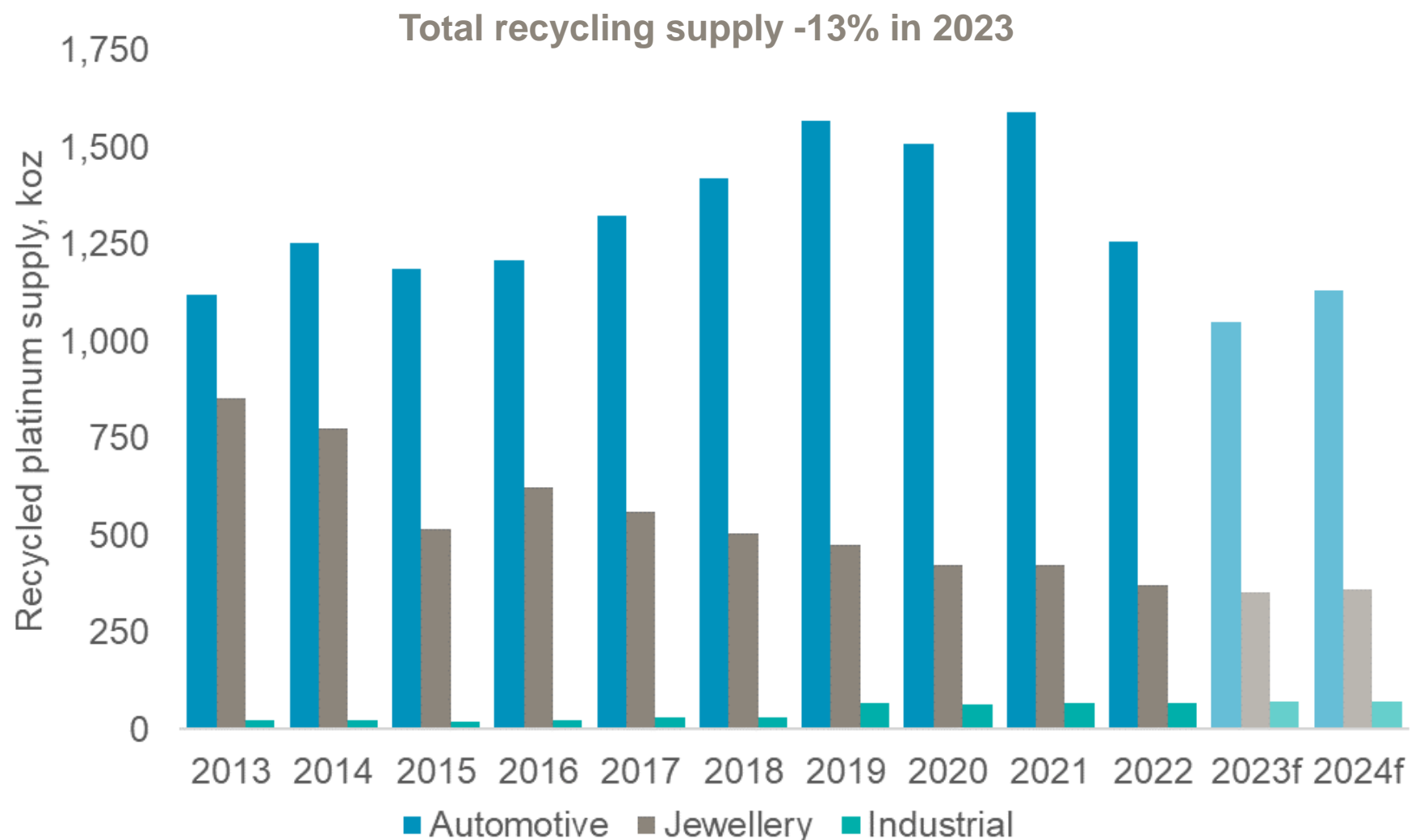
- Compound platinum deficits
- Reduce palladium surplus

Inelastic demand raises likelihood of future consecutive deficits



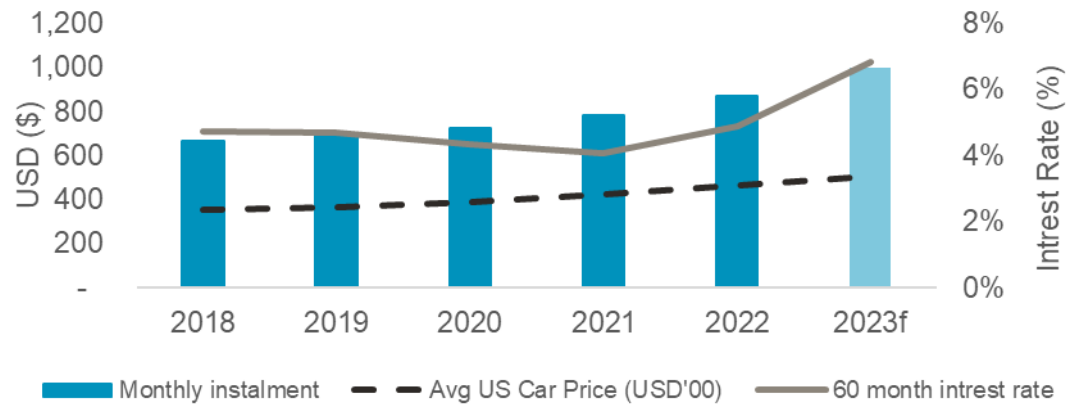
Sustained deficits for platinum contrast with palladium surplus

PLATINUM RECYCLING RATES REMAIN SUPPRESSED



ECONOMICS FORCING CONSUMERS TO RUN EXISTING VEHICLES FOR LONGER

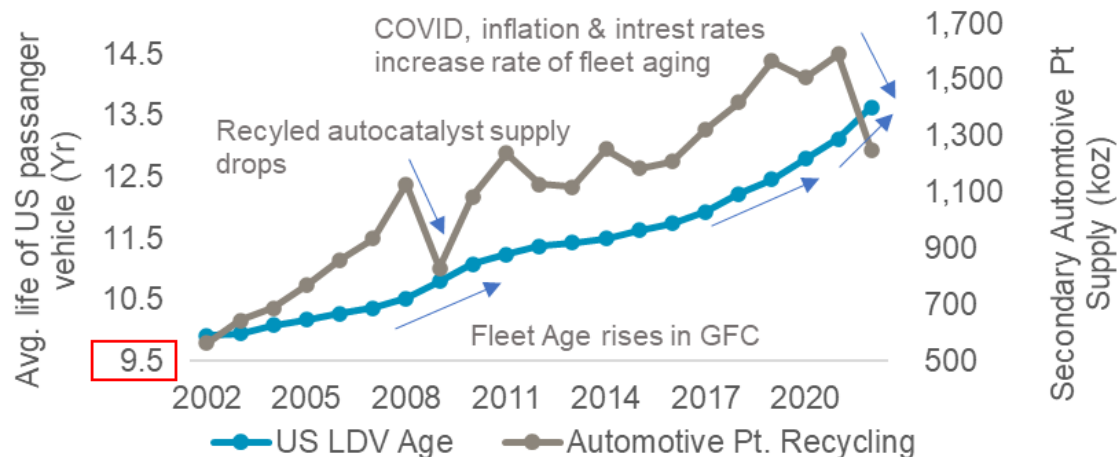
Higher interest rates have significantly increased the cost of car ownership



Cost of ownership:

- Price: +10% in 2023
- Rates: +190bps in 2023
- Monthly costs: +38% since 2020

Economic challenges have accelerated fleet aging trends

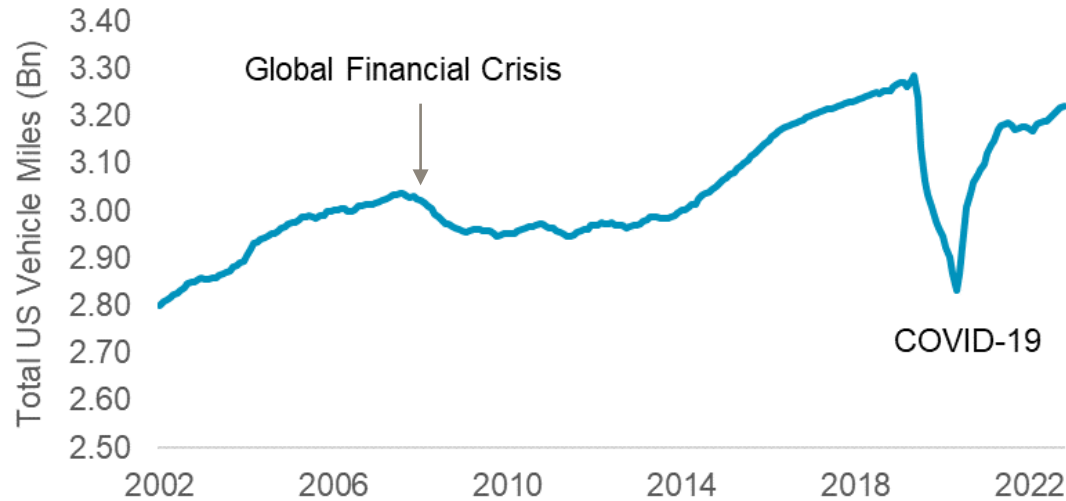


Global Financial Crisis:

- Mirroring GFC (recycling -25%)
- Financial stress accelerates rise in fleet age

EXAMINING RECYCLING SUPPLY CONSTRAINTS

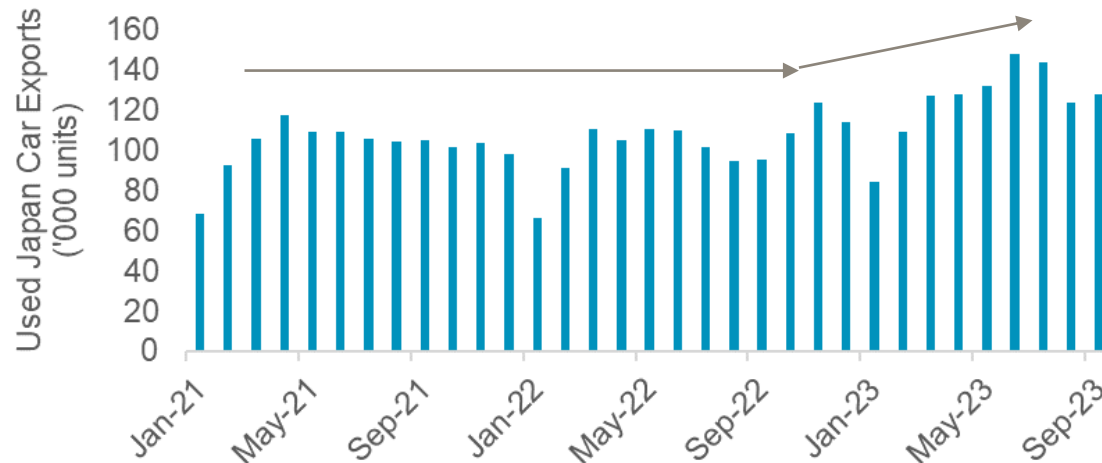
Miles driven remain below pre-COVID levels



Post-COVID lifestyle changes:

- Work-from-home etc.
- Milage: -7% ave.

Early indications that exports of used cars are increasing

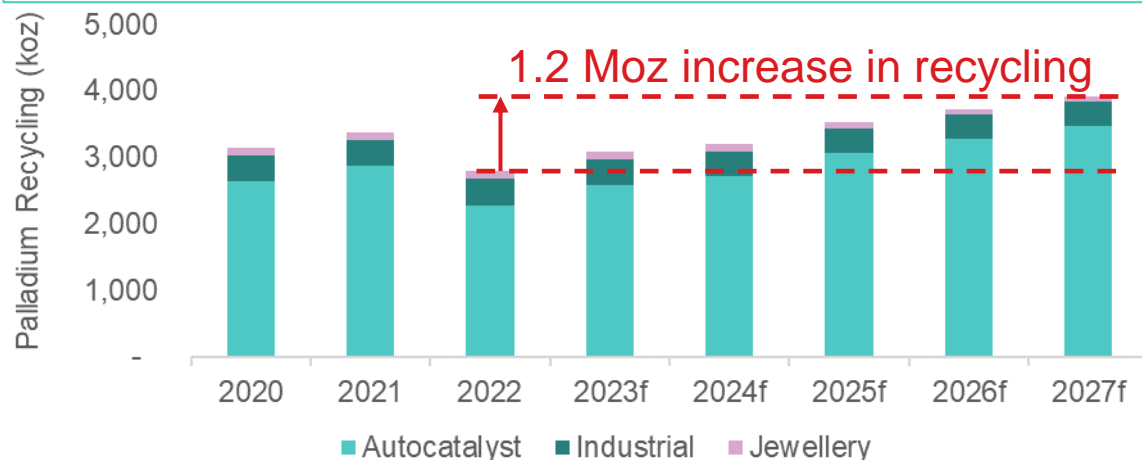


Used vehicle exports:

- Japan: +27% YTD
- Less catalyst stripping

PALLADIUM SURPLUSES HIGHLY DEPENDENT UPON THE EXPECTED GROWTH IN RECYCLING

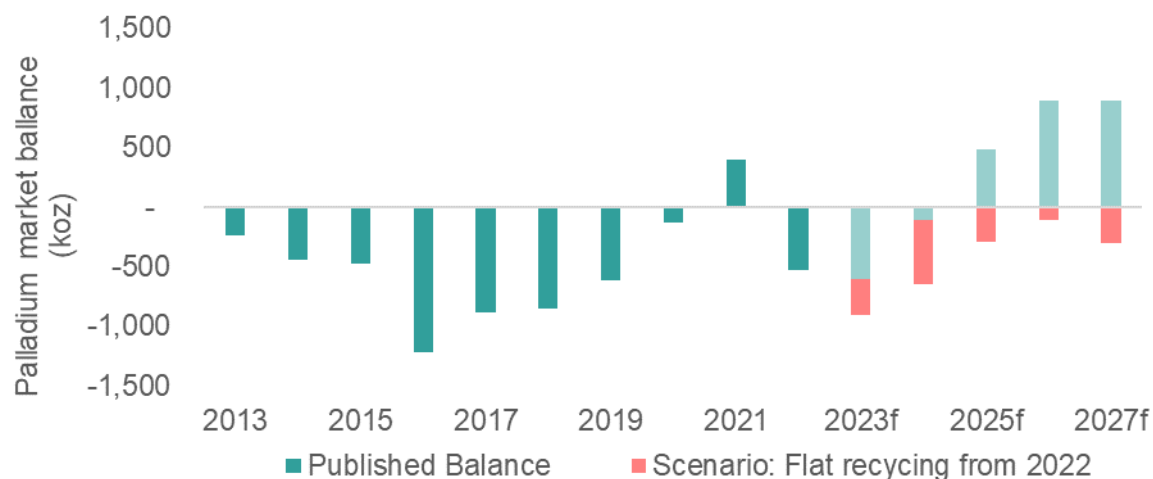
Palladium recycling to grow by 1.2 Moz



Inaugural palladium outlook:

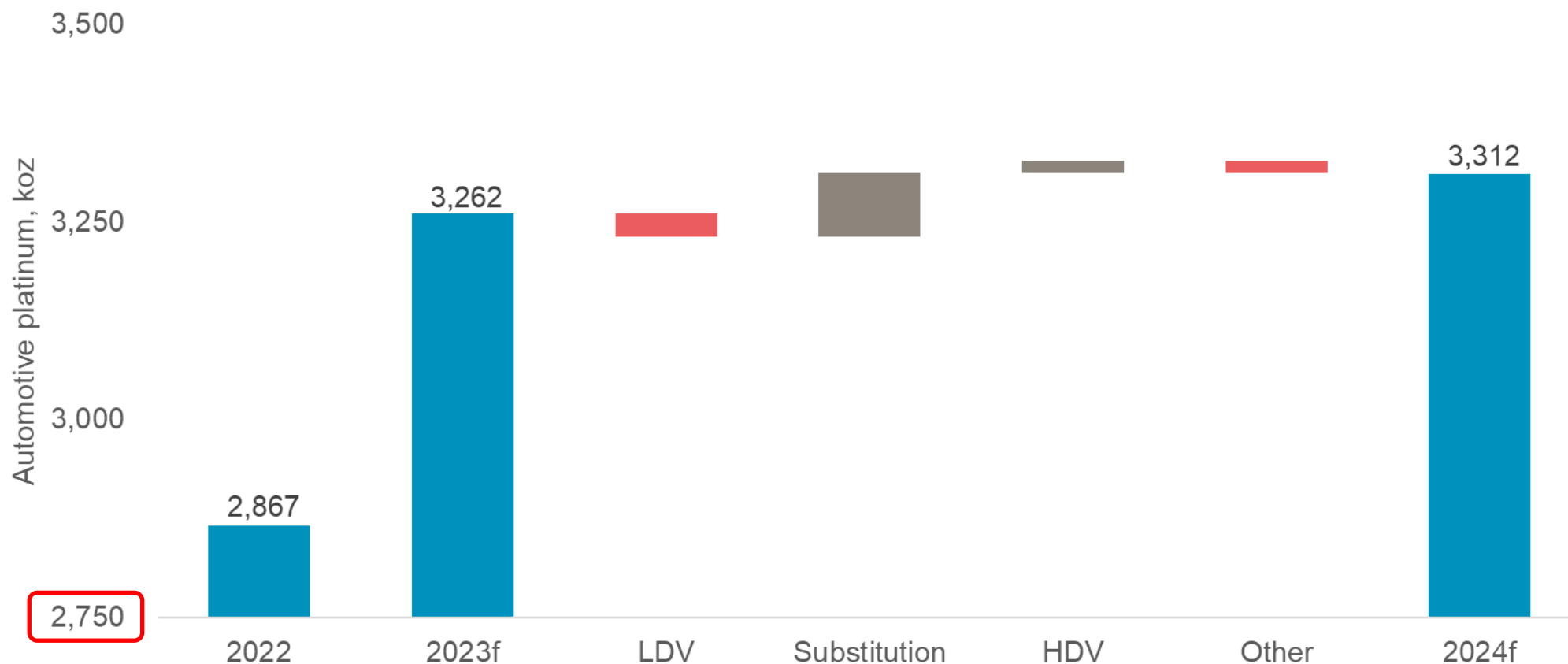
- Deficits transition to surplus in 2025
- Recycling growth (+1.2 Moz) biggest market driver to 2027f

Without recycling growth palladium remains in a deficit



Recycling supply chain volatility could extend deficit

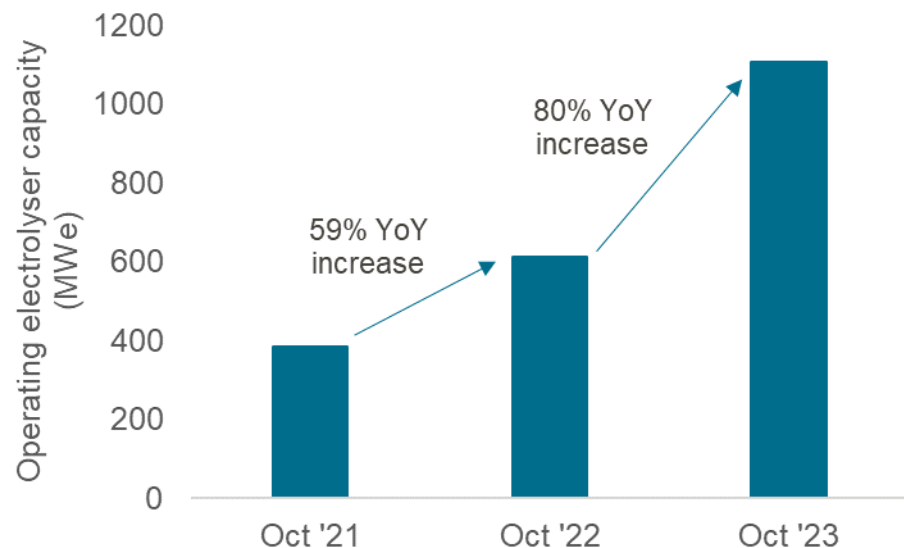
MATURING DRIVETRAIN TRENDS: LOWER LIGHT-DUTY ICE COMPENSATED BY LOADINGS GROWTH



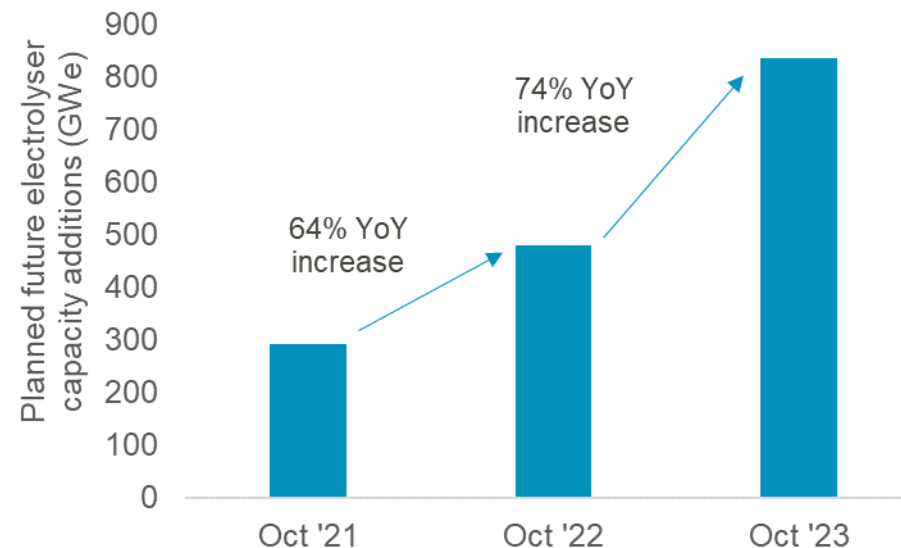
- Automotive platinum demand: +2% in 2024
- BEV share gains offset by substitution, legislation and HD-volumes
- Early FCEV begins offsetting BEV gains, mid-2020s

CONFIDENCE IN THE LONG-TERM HYDROGEN OUTLOOK UP AS APPLICATION CONTINUES TO EVOLVE

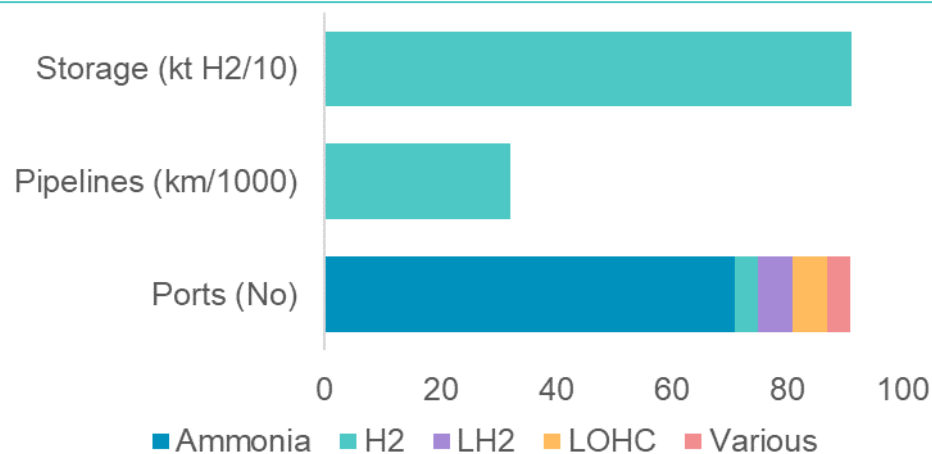
Accelerating growth in installed...



...and planned electrolyser capacity...



...supported by planned infrastructure



- Electrolyser capacity: +80% YoY
- Planned electrolyser capacity: +74% YoY to almost 1TWe
- Advancing hydrogen infrastructure plans

WHY INVEST IN PLATINUM?



- Fourth consecutive increase to projected 2023 deficit (deepest on record)
- Persistent risks to supply for both mining and recycling
- Deficits depleting above ground inventories
- Expecting a normalisation of automaker purchasing patterns to tighten market
- Consecutive deficit forecast for 2024



WPIC initiatives:

- New partnership with leading gold producer Zhao Jin Group, to produce and sell platinum bars in 500 distribution outlets across China
- Our Shenzhen liaison office is supportive of our growing number of partners there; Bai de Jin has successfully launched online sales
- Increased efforts in the Japan market working with Japan Bullion Market Association (JBMA)
- Michelle Bosman joined WPIC as Product Partnerships Manager

WPIC Research:

- Hydrogen 101 report
- WPIC 2025-2028 platinum supply/demand outlook

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Platinum Quarterly ([link](#))

Platinum Essentials ([link](#)):

- Palladium five-year supply/demand outlook
- Platinum chemical demand, benefits of diversity
- Prioritising ICE hybrids would minimise Life cycle CO2

Platinum Perspectives ([link](#)):

- Highlights of the Hydrogen Tech Expo,
- The growth drivers of Platinum glass demand,
- EU anti-dumping duties could extend automotive platinum demand

