



Q3 MANHEIM USED VEHICLE VALUE INDEX CALL

Oct. 6, 2023

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Chief Economist



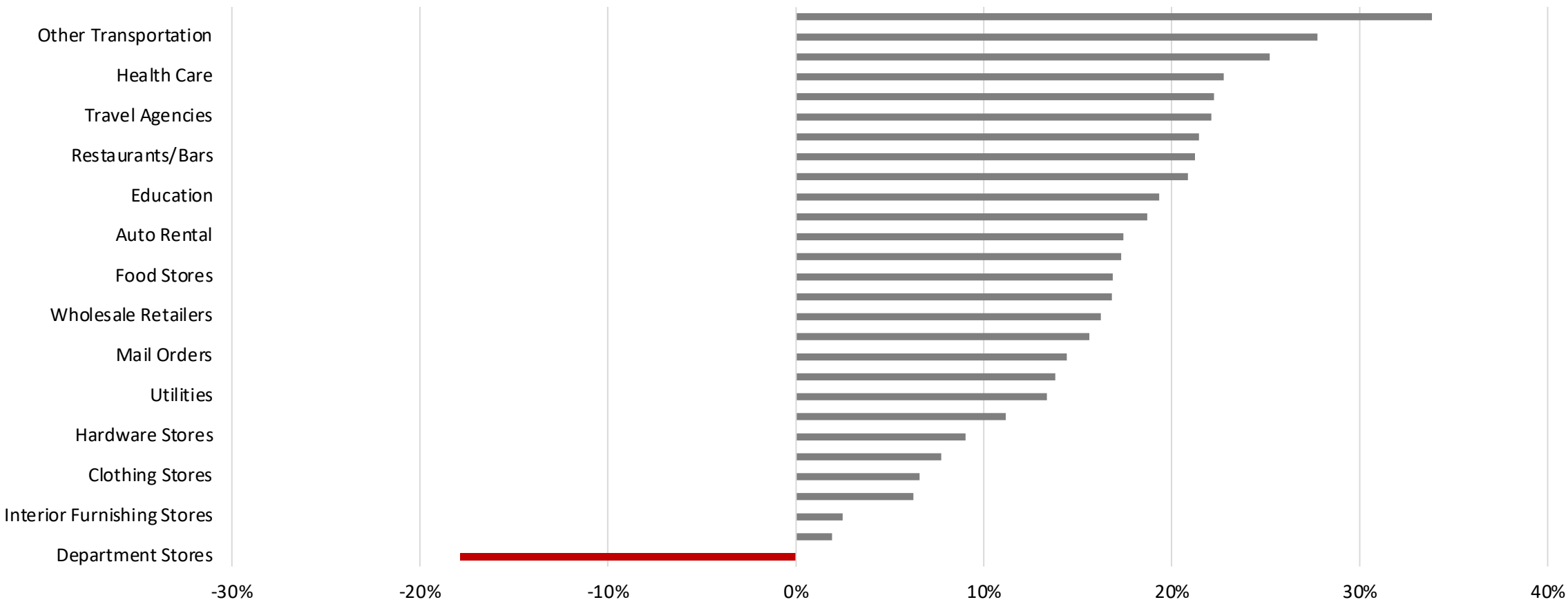
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CONSUMER SPENDING GROWTH REACCELERATED THIS SUMMER

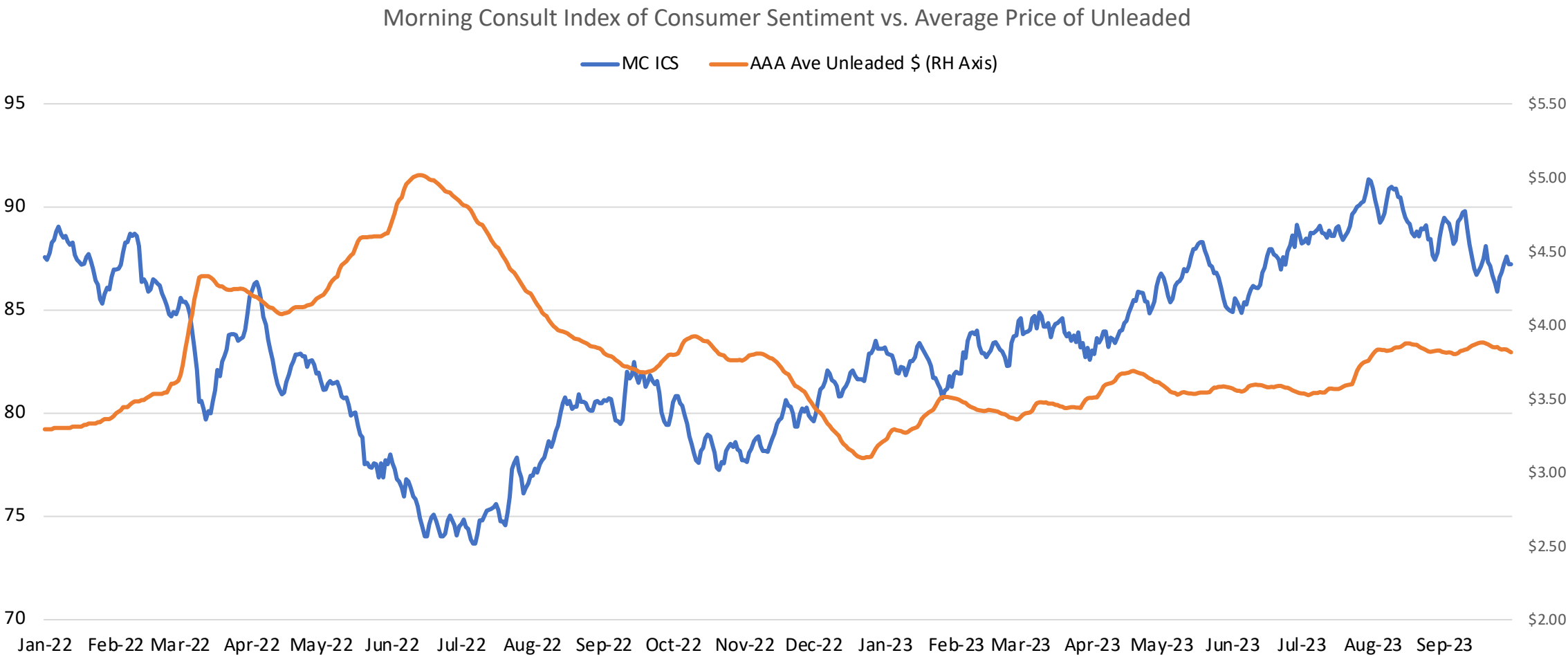
Total spending in mid-September was up 17% y/y with strength in services, back-to-school, travel, and health care

Y/Y Spending % Change for Week Ending September 16, 2023



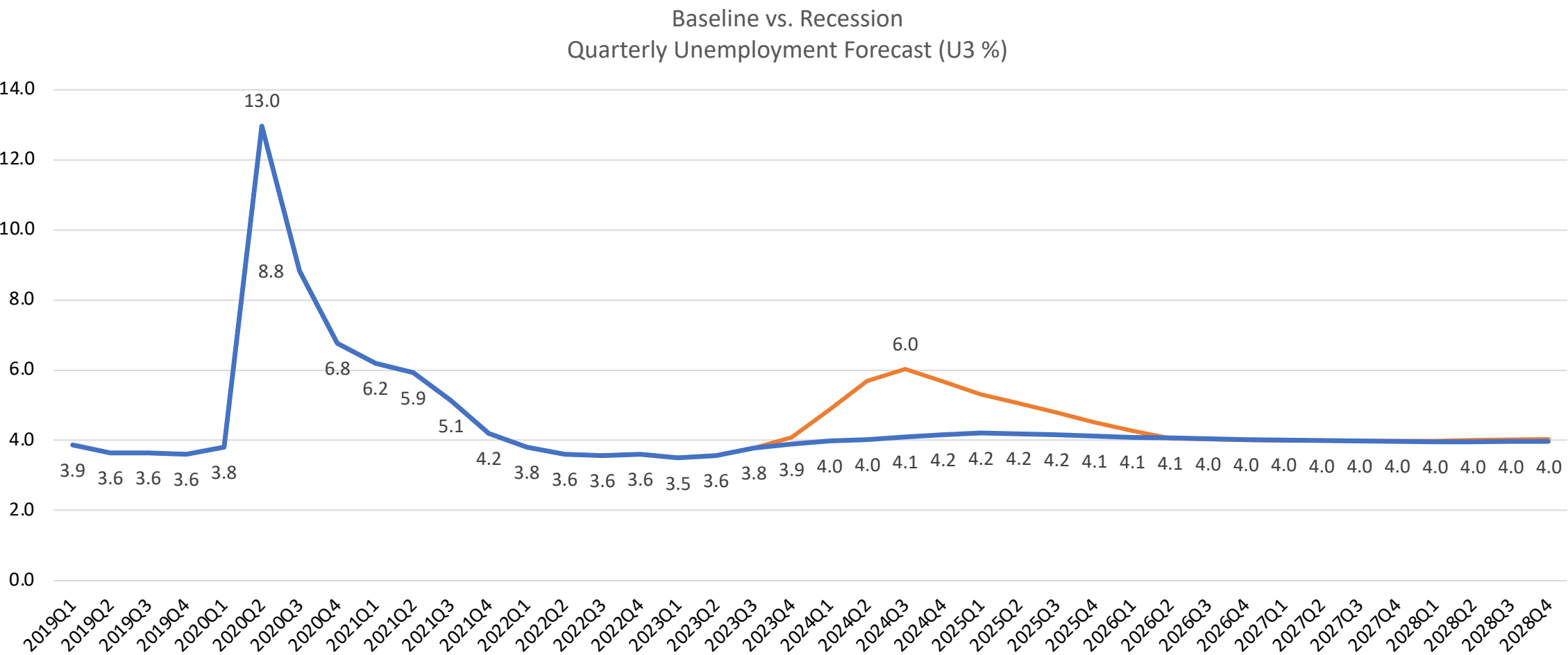
CONSUMER SENTIMENT DECLINED IN AUGUST AND SEPTEMBER

The Index of Consumer Sentiment declined 2.3% in August and 2.1% in September



JOB GROWTH CONTINUES TO SLOW

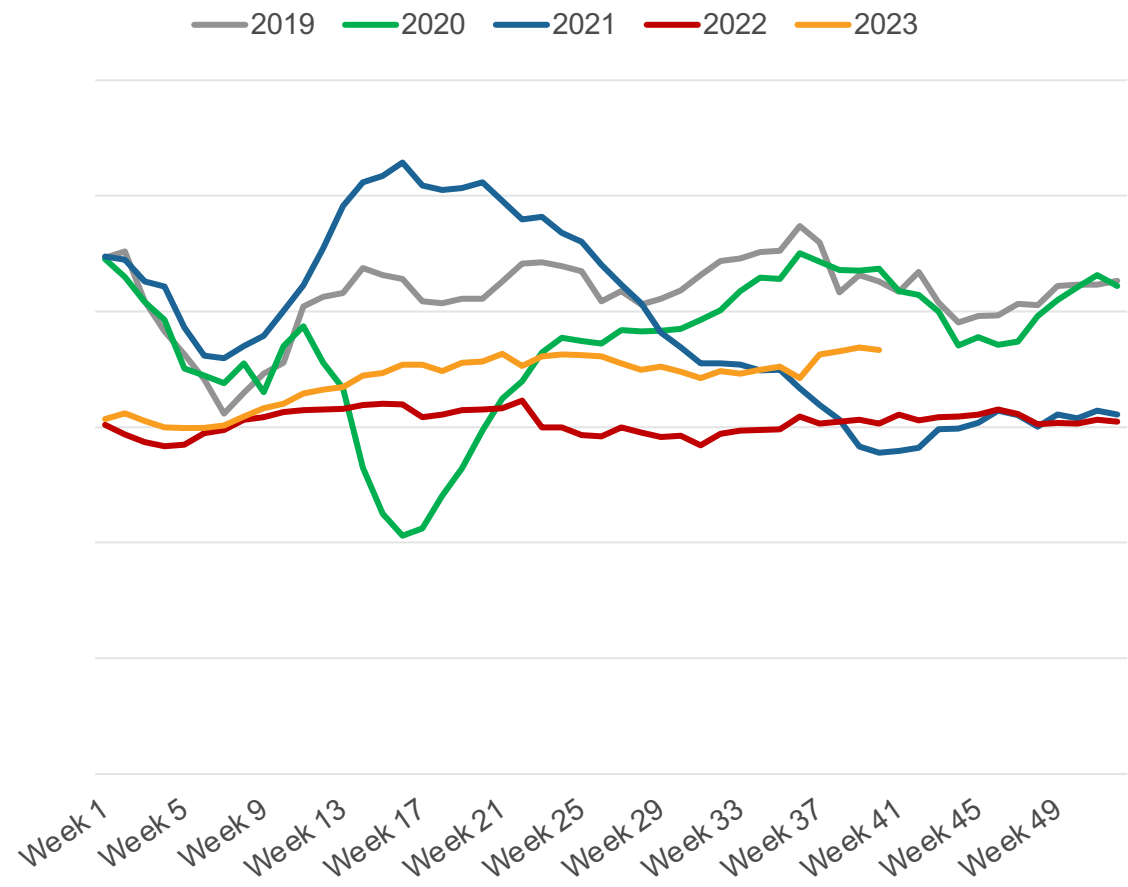
August saw 187,000 new jobs but the unemployment rate increased to 3.8%



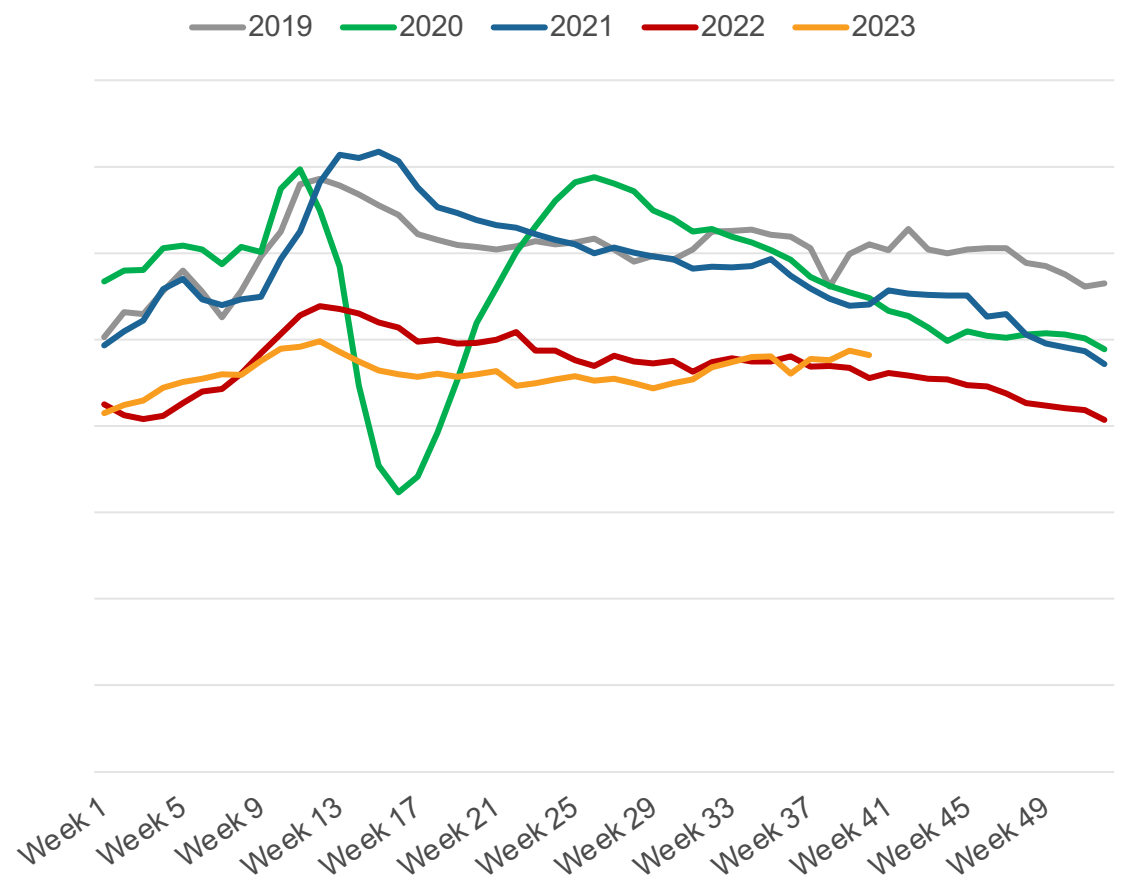
RETAIL VEHICLE SALES ESTIMATES

New sales declined 1% last week and are +21% y/y while used sales also dropped a point w/w & are now +6% y/y

New Retail Sales



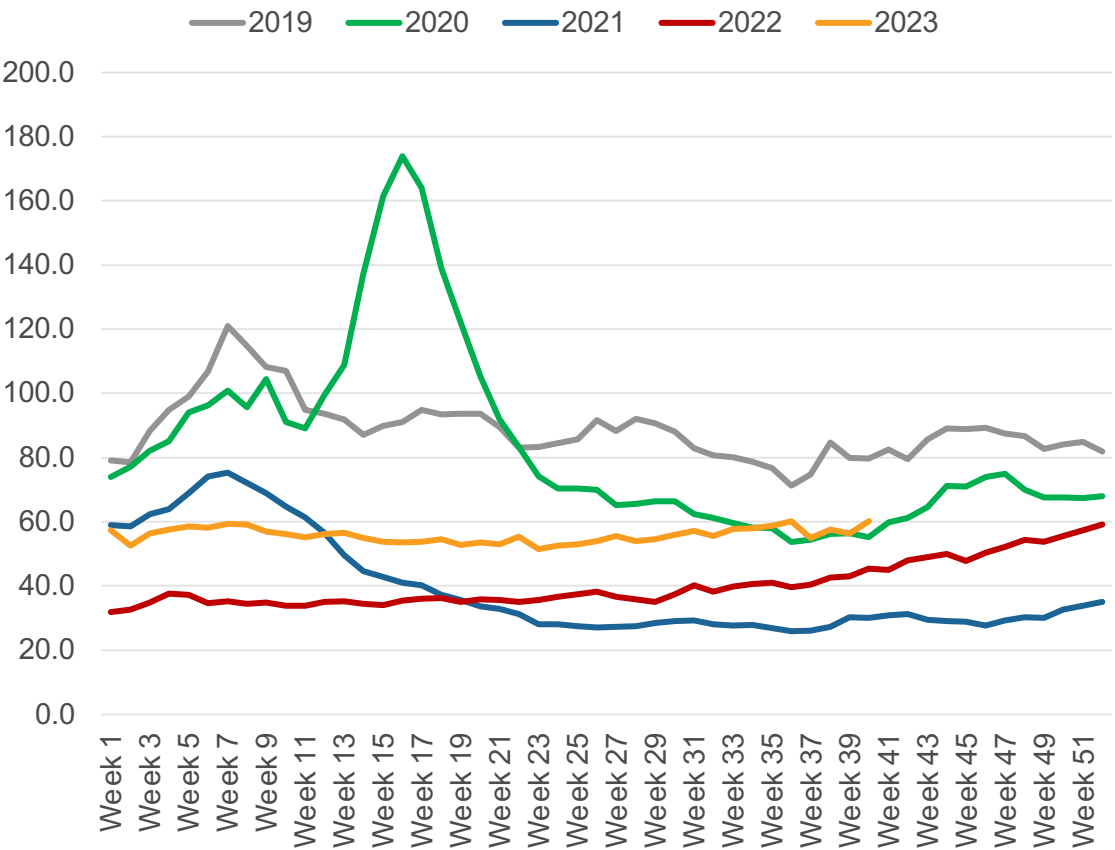
Used Retail Sales



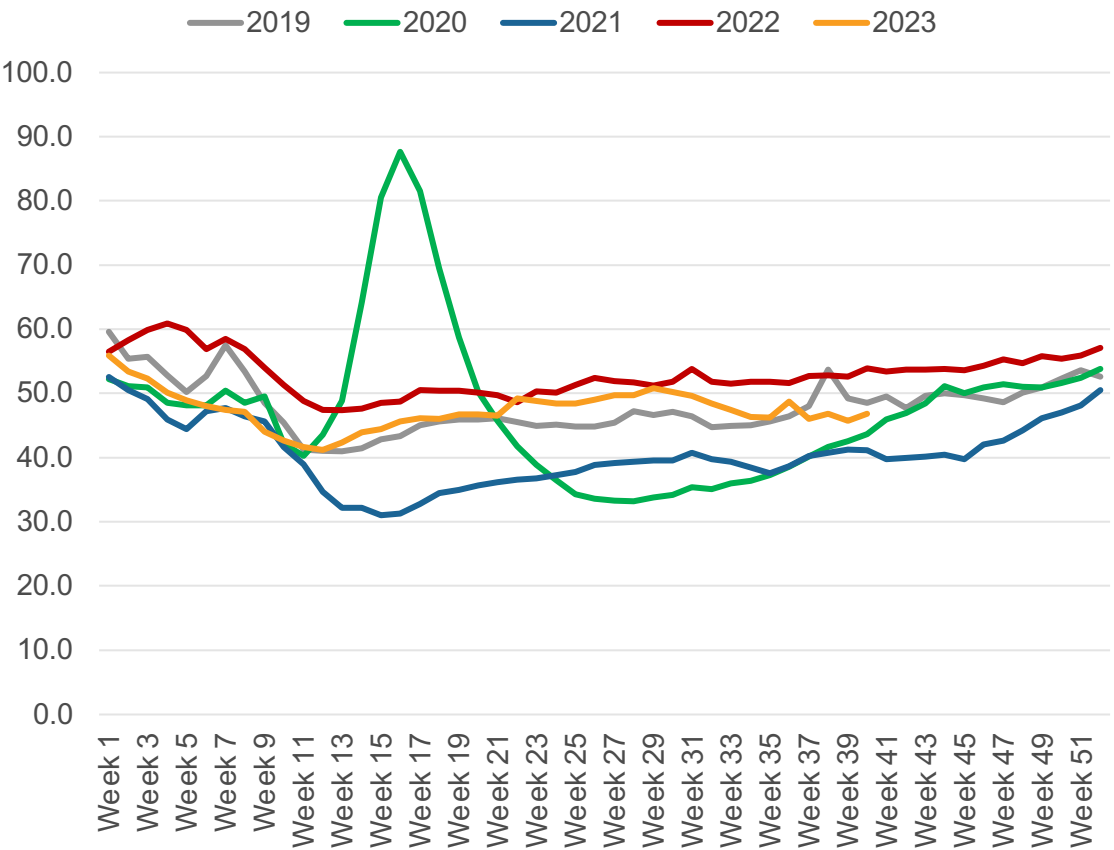
SUPPLY BETTER THAN LAST YEAR FOR NEW BUT TIGHTER FOR USED

New supply is up 15 days y/y and up 7% w/w; used supply is now down 7 days y/y and up 3% w/w

New Days' Supply



Used Days' Supply





DEREK HANSEN

Vice President, Operations, Inventory Management Solutions



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LIVE MARKET VIEW

Founded in 2005; acquired by
Autotrader in 2010

Largest inventory management
platform for dealers today

Provides a real-time view of the
market—down to the local level

14,000+ dealers use vAuto to manage
their vehicle inventory

Dealers sold 23M+ vehicles in 2022
leveraging vAuto's solutions.

ROOTED IN DATA SCIENCE

LOCAL
MARKET

INDIV.
STORES

**vAuto can predict the probability
of any vehicle selling in the next
7 days at any given price.**

EACH
VEHICLE



**vAuto DRIVES DECISIONS
and CREATES CONNECTIONS
that help dealers MAXIMIZE
RETURNS on every vehicle.**

ProfitTime[®]GPS

GLOBAL PROFITABILITY SOLUTION




Stockwave
be a profit finder

CONQUEST
NEW CAR INVENTORY MANAGEMENT & PRICING

DRIVEN BY SOUND PHILOSOPHY

From

Velocity

To

Variable

DEALER TRENDS WE'RE SEEING

- Dealers are sourcing used vehicles from more places.
- More used vehicles dealers are acquiring are falling into the bronze category in ProfitTime GPS.
- For new cars, discounts are returning; dealers are turning to local market data to determine which vehicles to discount--and when.



WHAT'S NEXT FOR VAUTO

1



**More Variable
Management**

2



**More Capabilities
across the Dealer
Workflow**

3



**More Connections
across Retail and
Wholesale**



CHRIS FREY

Senior Manager, Economic and Industry Insights



Cox AUTOMOTIVE



MANHEIM USED VEHICLE VALUE INDEX

Concept

A single measure of used vehicle price change that is independent of underlying segment shifts in the characteristics of vehicles being sold

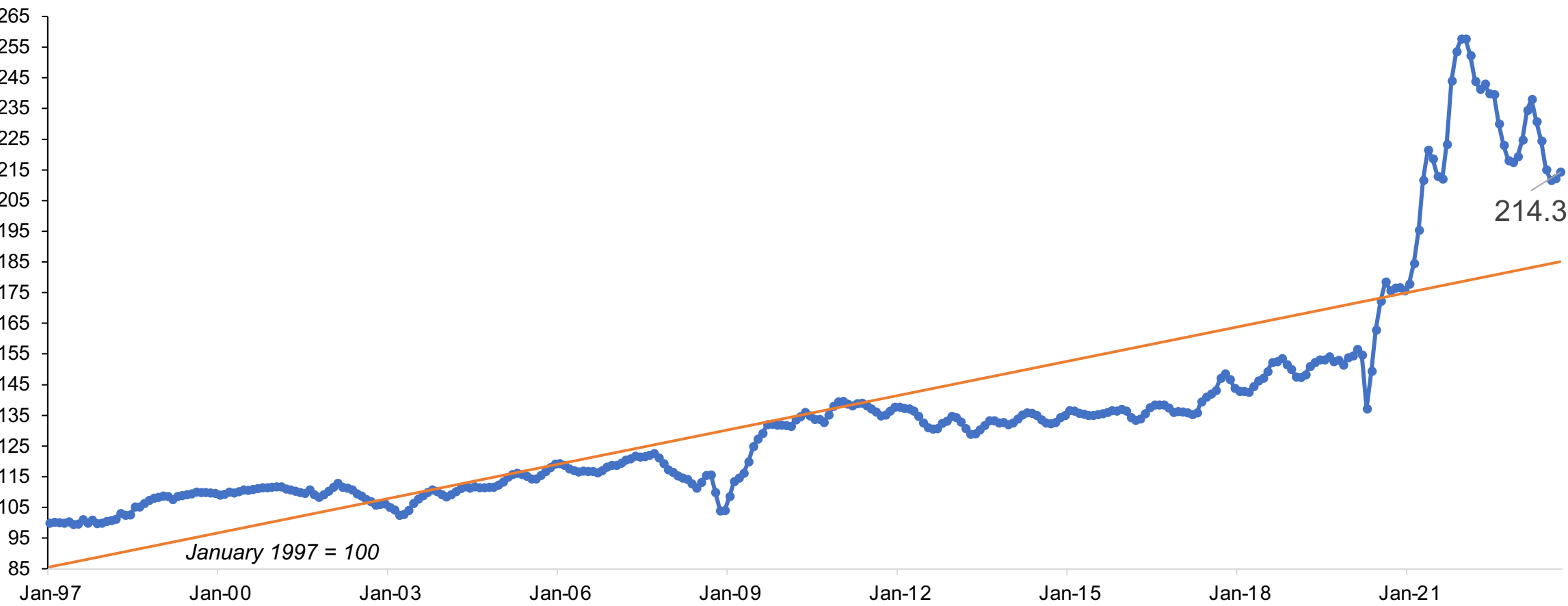
Steps

1. All Manheim U.S. sales
2. Classify by market segment
3. Account for differences in mileage
4. Weight to provide smoother segment mix
5. Seasonally adjust



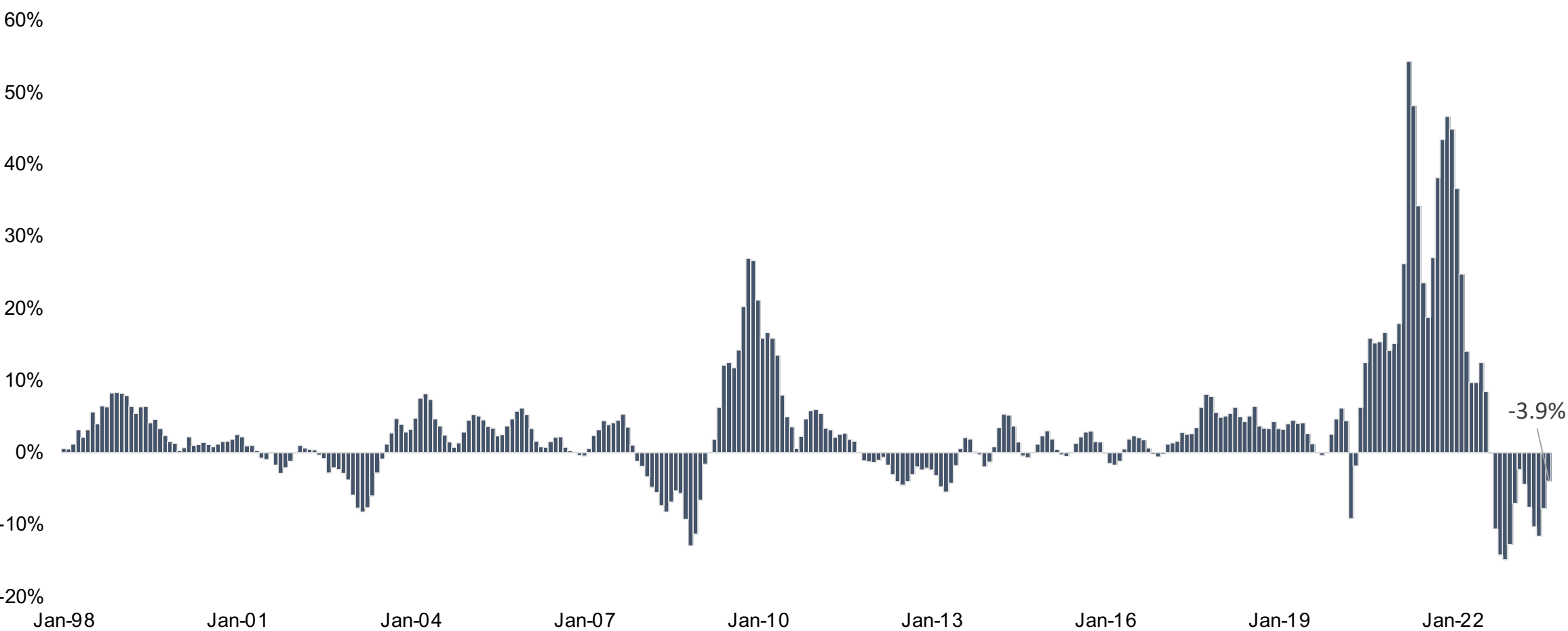
WHOLESALE VEHICLE VALUES INCREASE IN SEPTEMBER

Prices in September increased 1.0% from August and were down 3.9% from September 2022



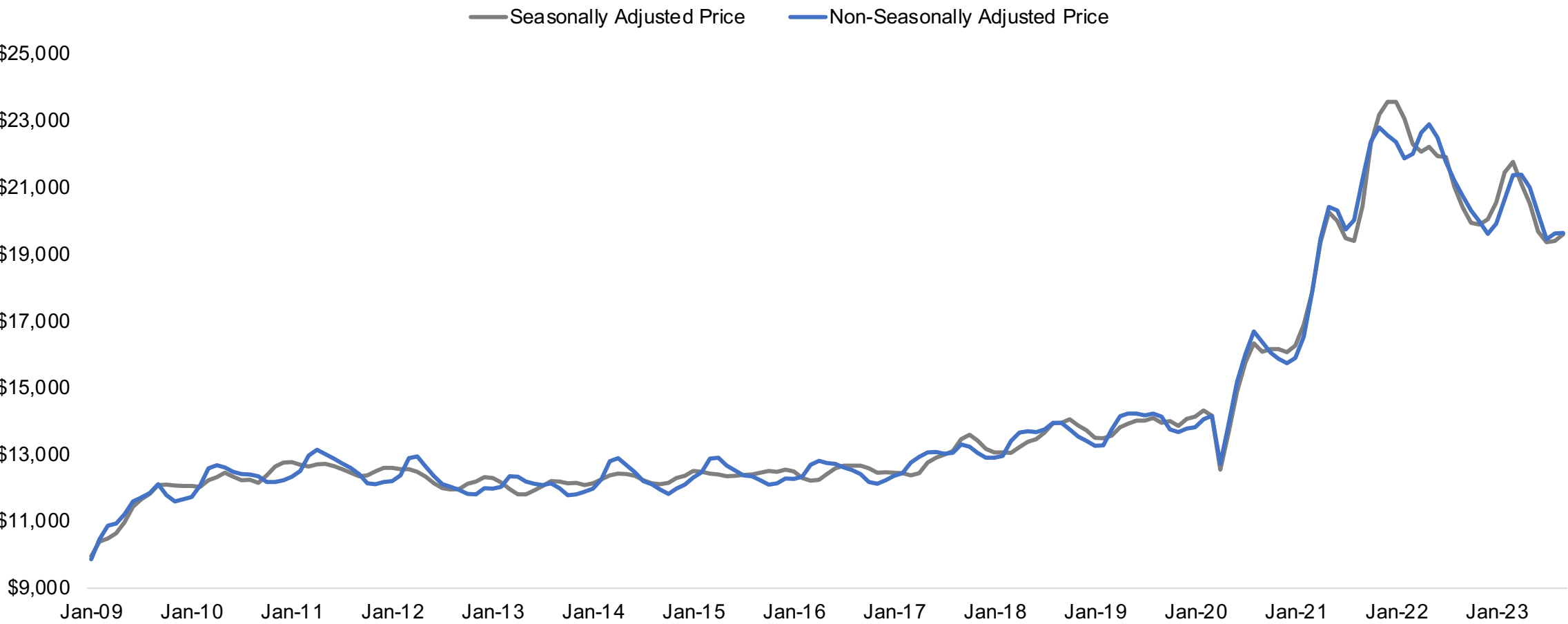
YEAR-OVER-YEAR PERFORMANCE IMPROVED AFTER JULY 2023 LOW

Annualized changes moved closer to spring pace of price declines



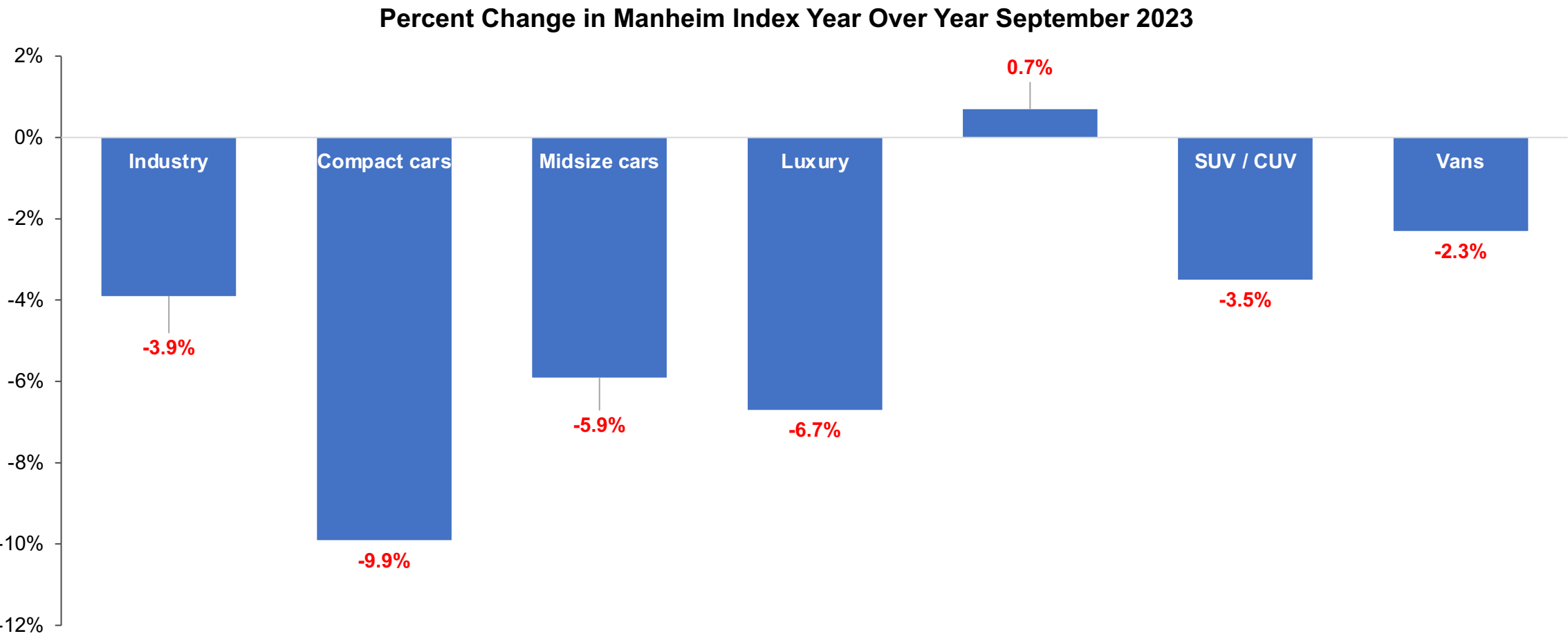
SEASONALLY ADJUSTED PRICE LEVEL STILL REMAINING CLOSE WITH NON-ADJUSTED PRICE

Price movements have tightened since March, but gaps remain unlike post-COVID runups



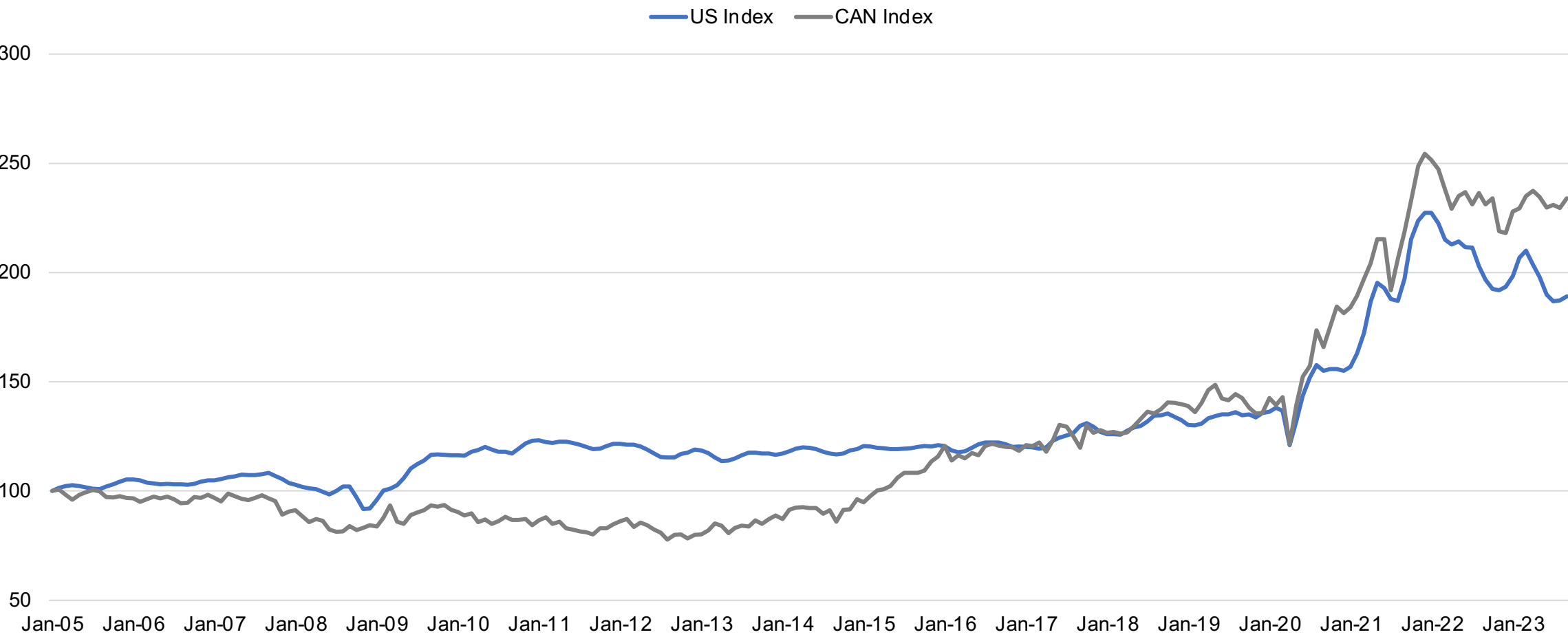
WORK-RELATED UNITS SHOWING MORE RESILIENCY THAN OTHER SEGMENTS

Pickups were the lone beneficiary in September.



WHOLESALE PERFORMANCE, U.S. VERSUS CANADA

Canada again outperformed the U.S. on an index level in the third quarter





JEREMY ROBB

Senior Director, Economic and Industry Insights

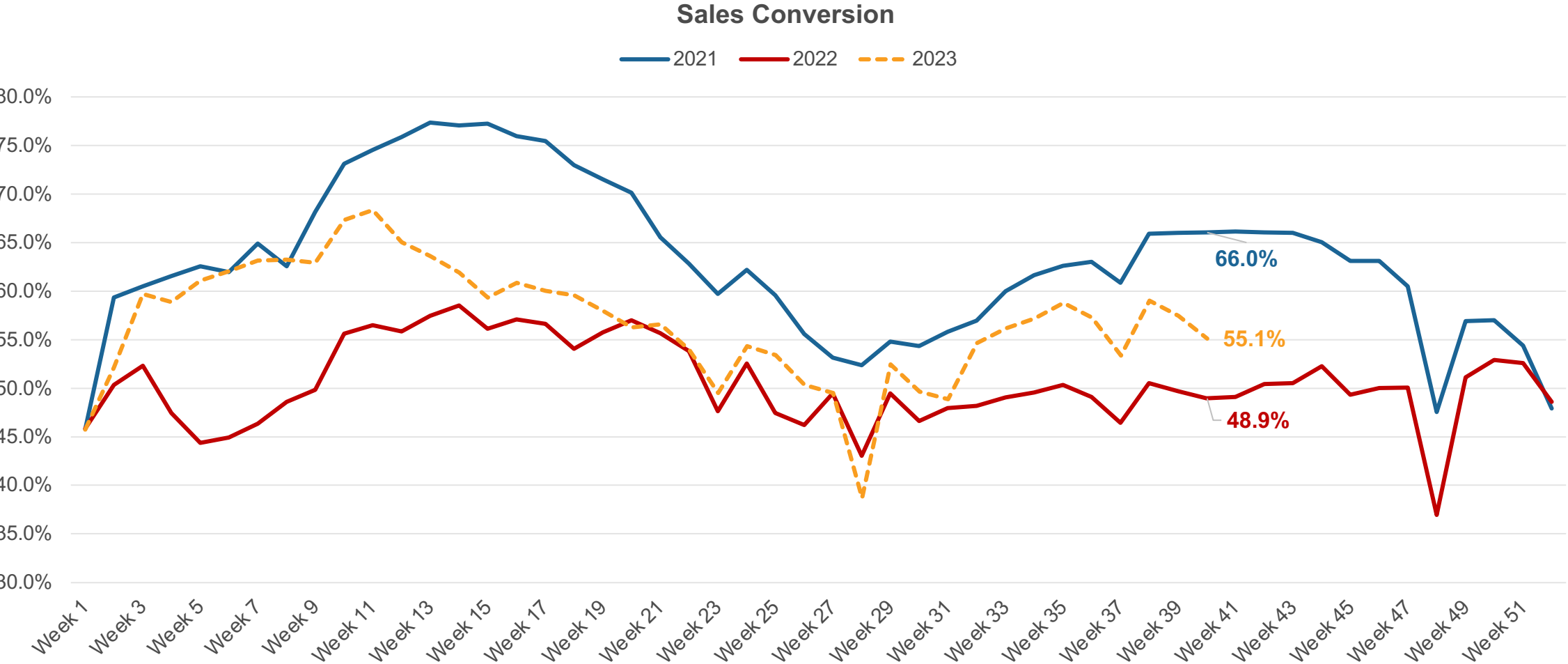


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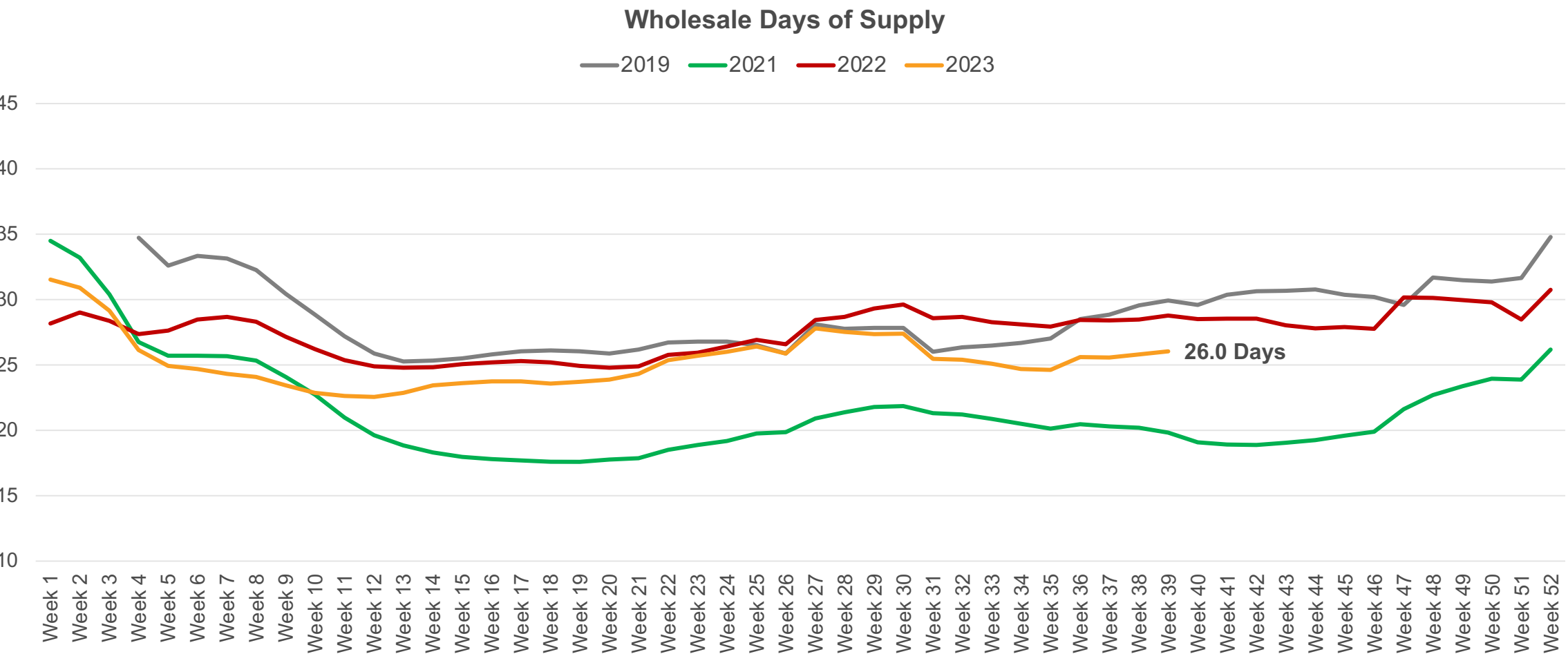
WHOLESALE SALES CONVERSION

Sales Conversion is running higher than 2022 now as demand picked up in late summer



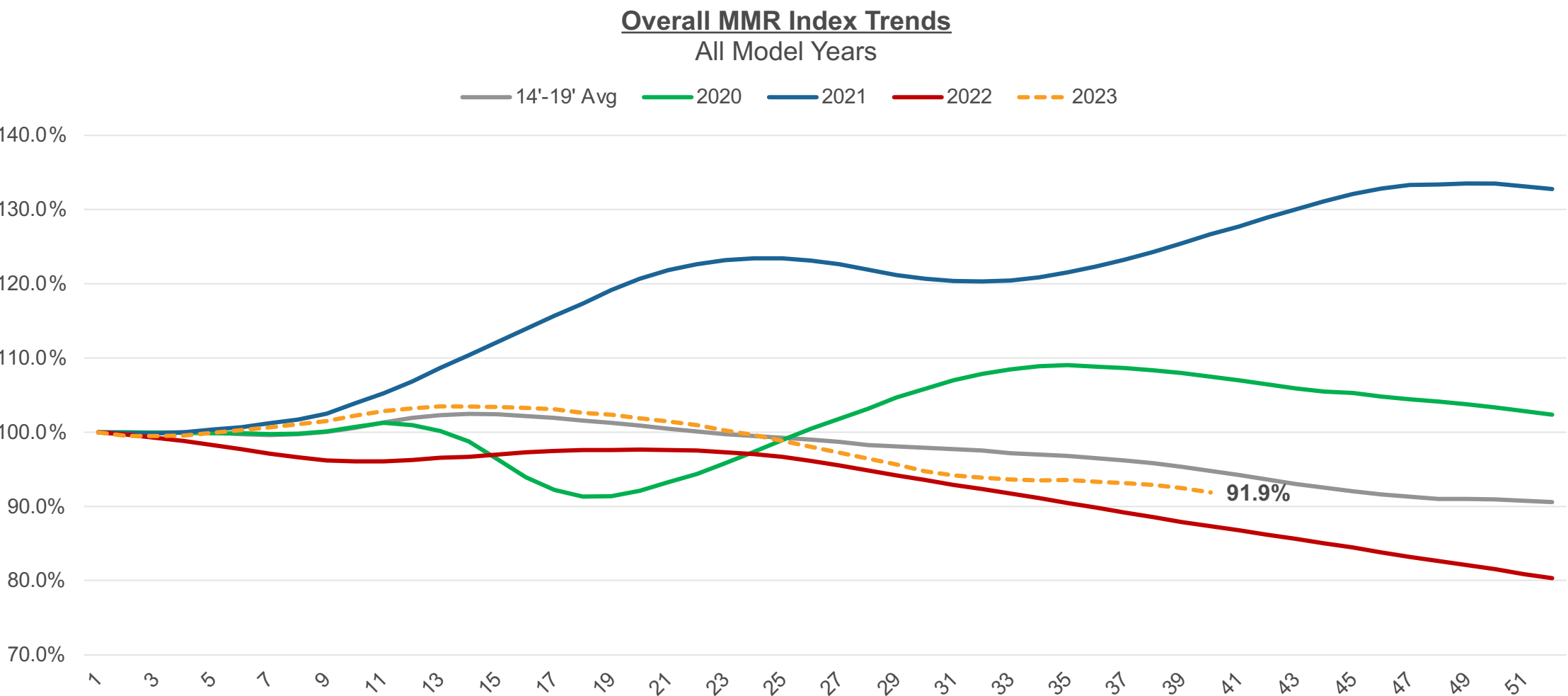
WHOLESALE SUPPLY

Inventory now +2% with sales +9% against 2022, Days Supply increased to 26.0, down 10% Y/Y



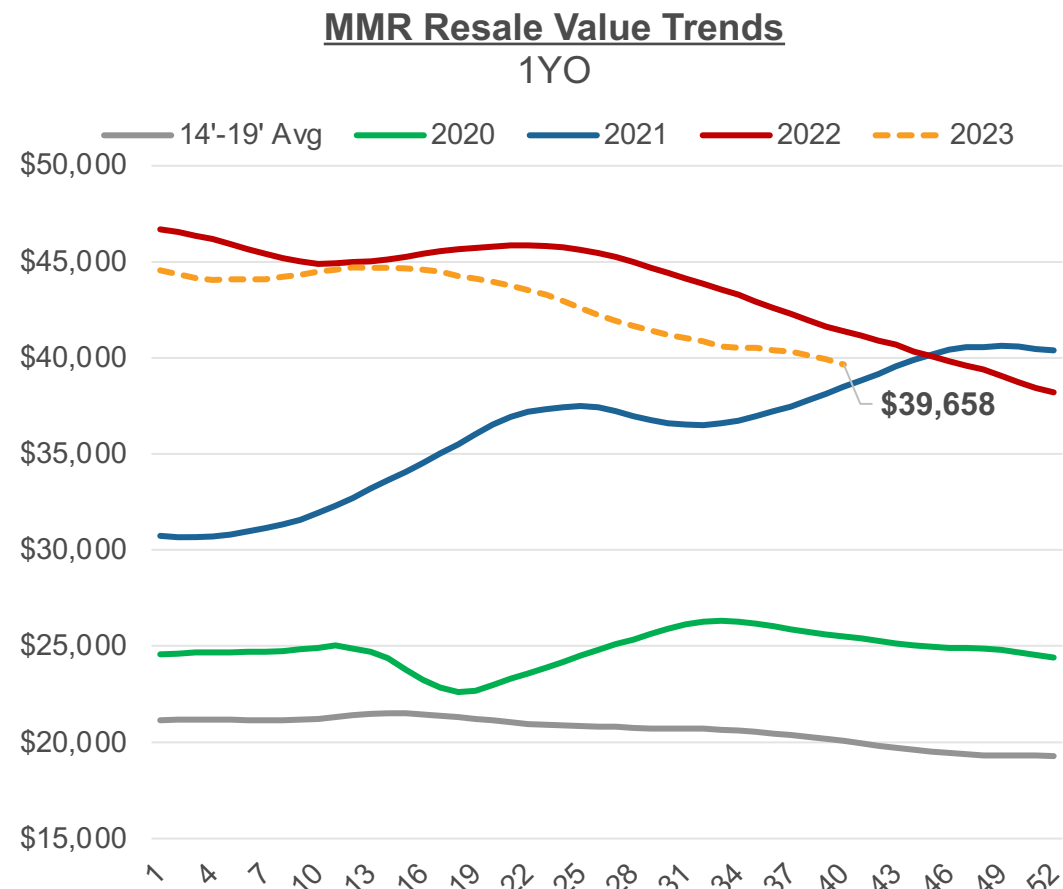
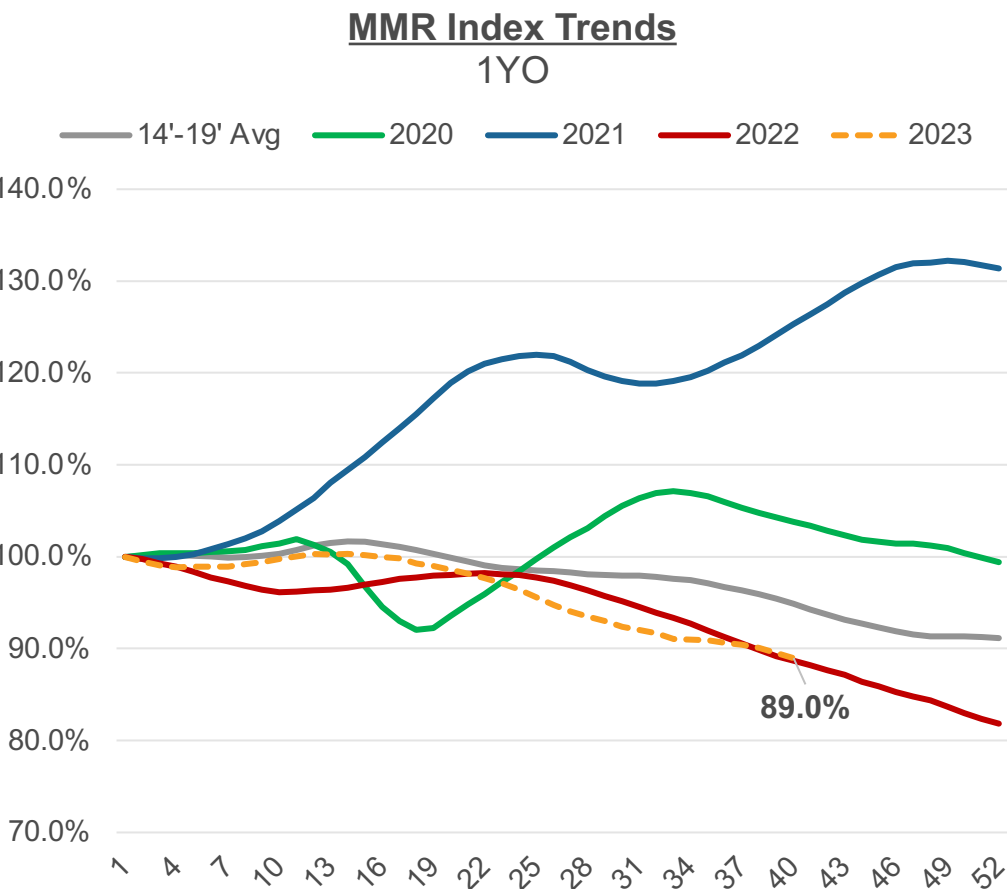
OVERALL WHOLESALE MMR VALUE TRENDS

This year, the overall index has shown volatility, but recent depreciation was more muted



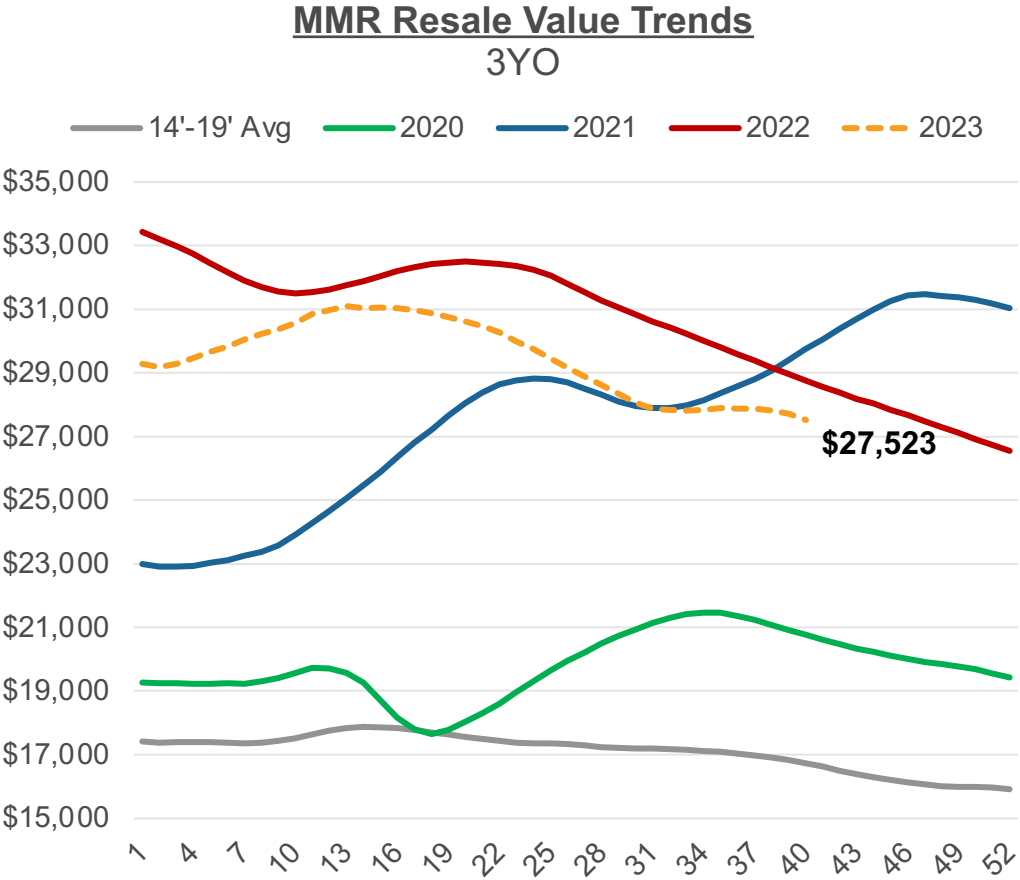
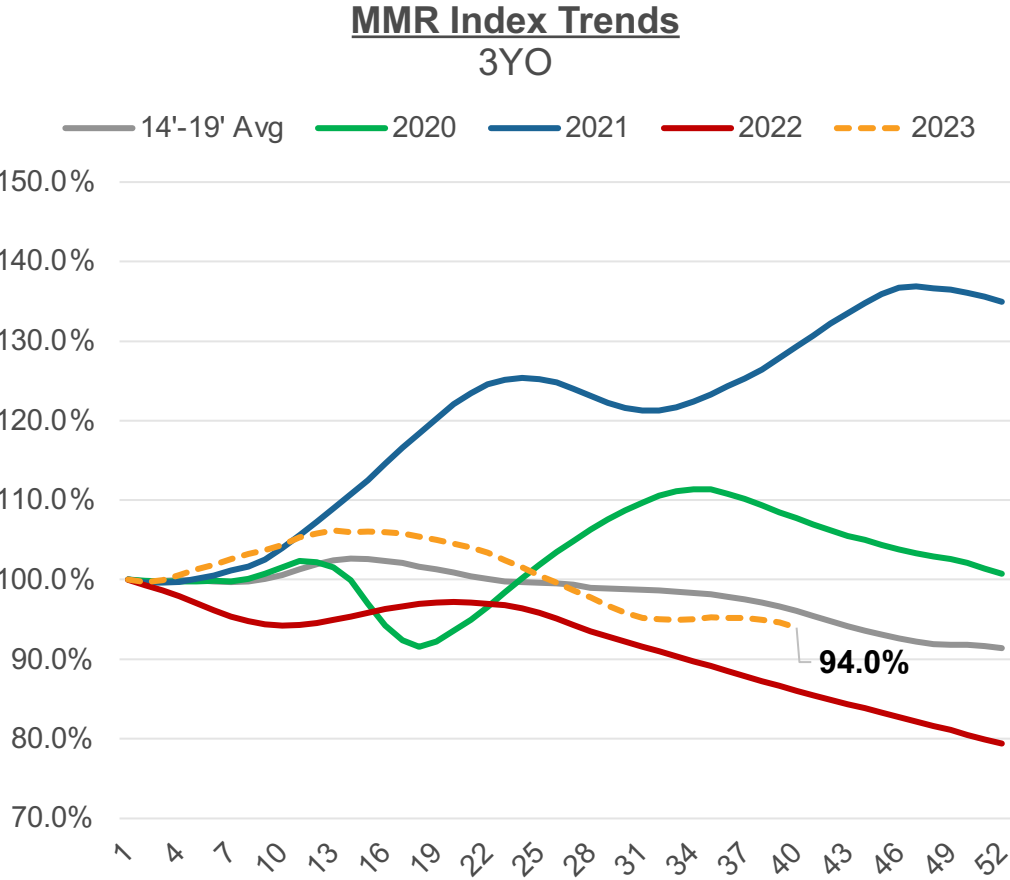
1YO MMR INDEX WITH RESALE VALUES BY CALENDAR YEAR

The 1YO has shows the most depreciation as new supply increases, down 11%



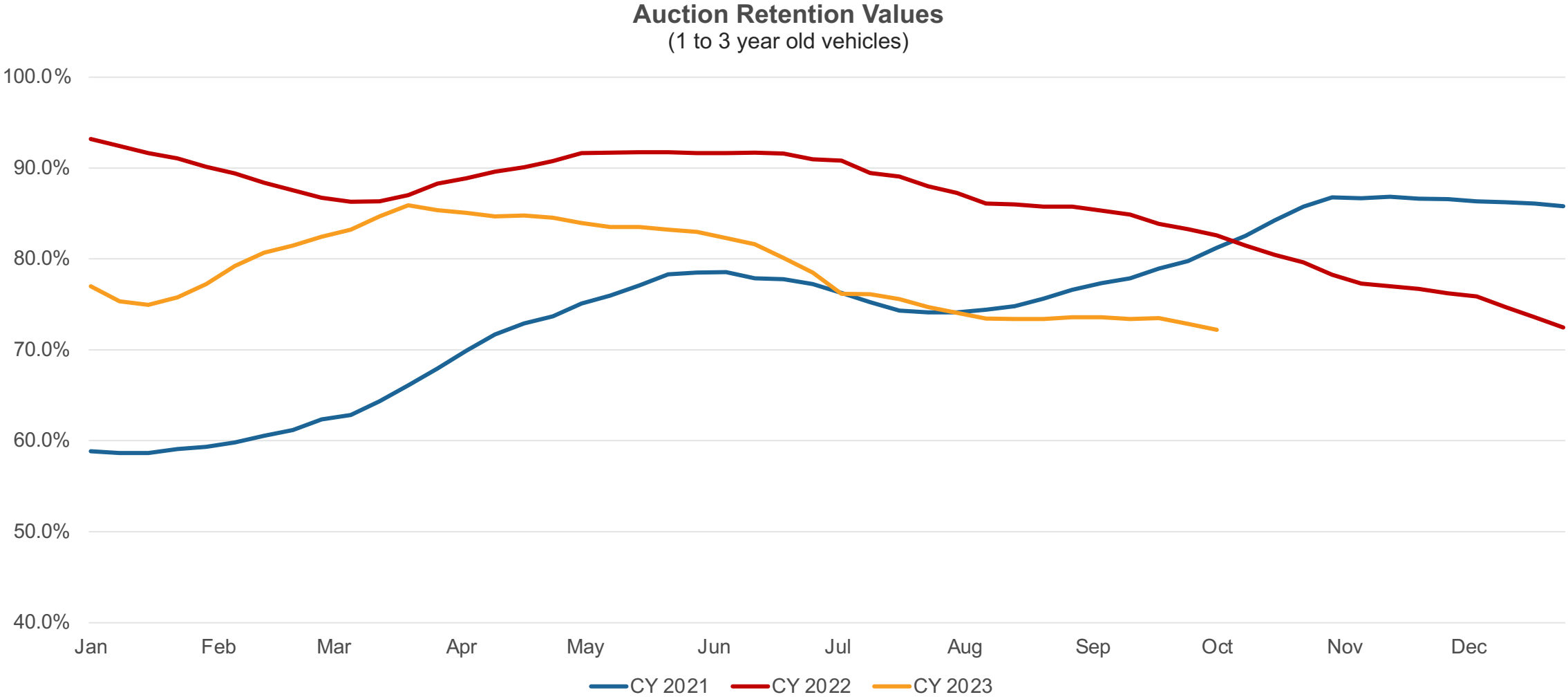
3YO MMR INDEX WITH RESALE VALUES BY CALENDAR YEAR

3YO down 6% this year but resale values have been flatter over the last month



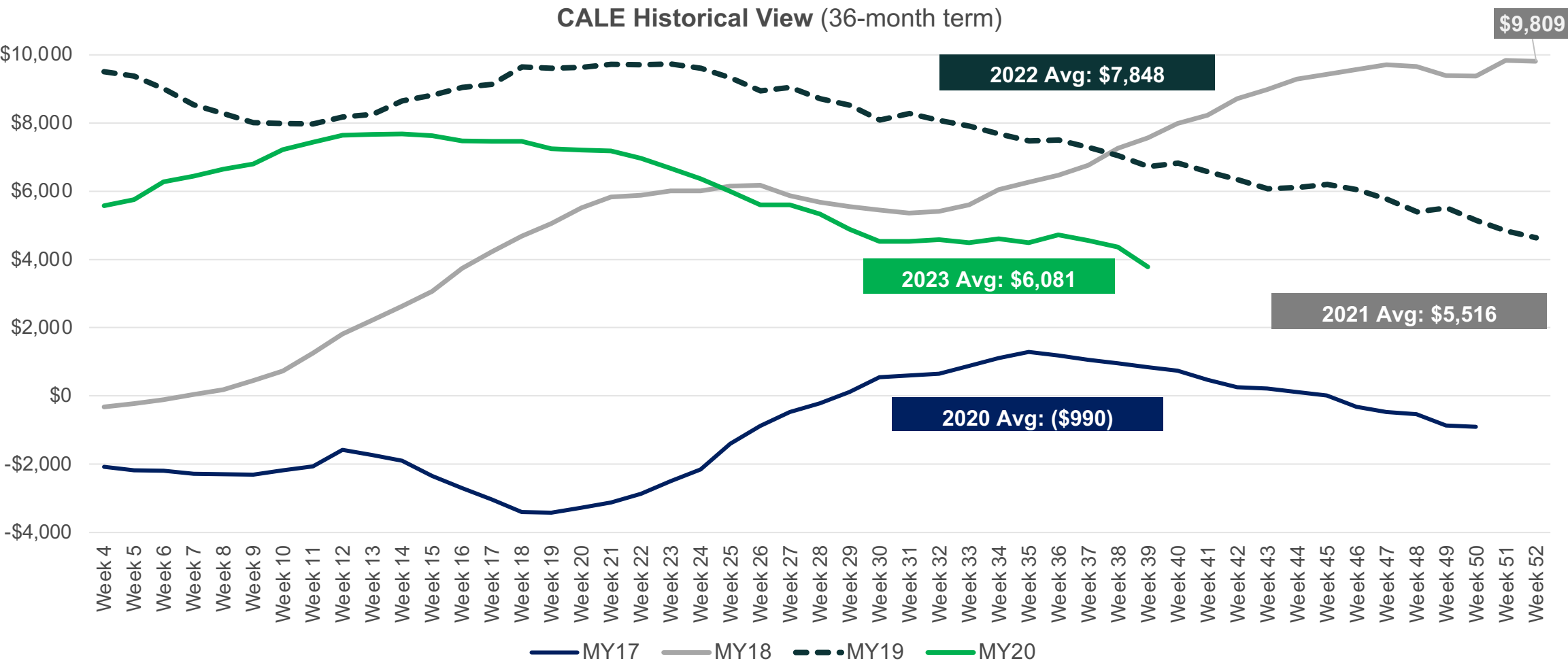
RETENTION VALUES AT AUCTION

Auction Retention Values declined in July but were flatter in August & September



CALE: LEASE EQUITY ELEVATED BUT DECLINING

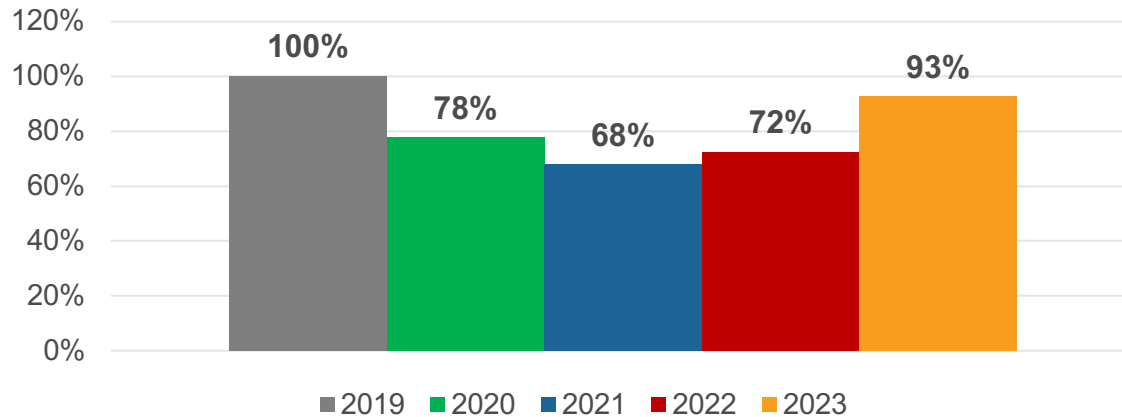
2023 fell in early summer but flattened in August, declines increased for late September



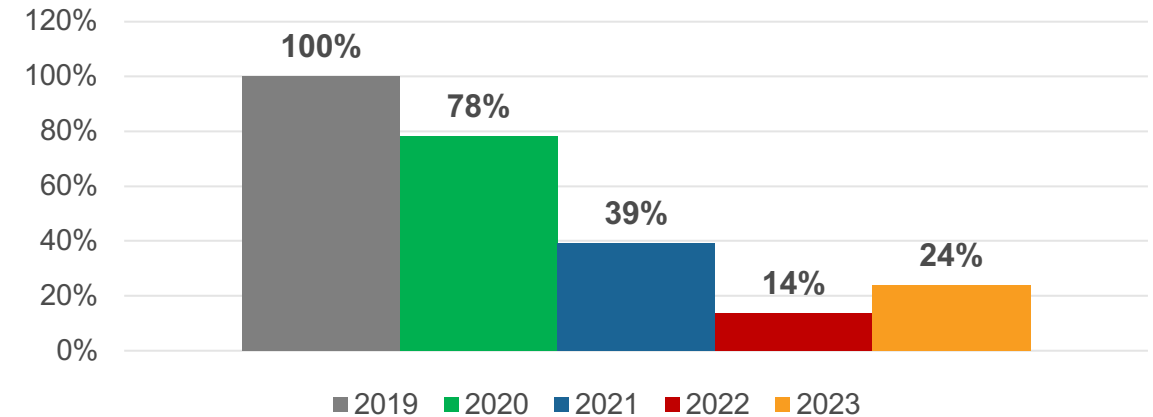
AUCTION CHECK-INS FOR COMMERCIAL SEGMENTS

Repo & Lease Check-In Rates continue to rise, but a long road to normal for Off-Lease

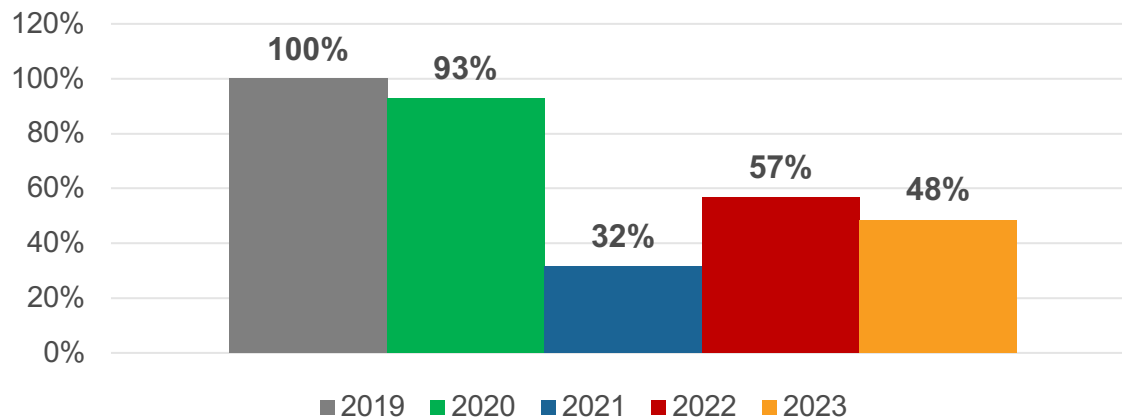
Repo Check-In Index
2019=100



Lease Check-In Index
2019=100



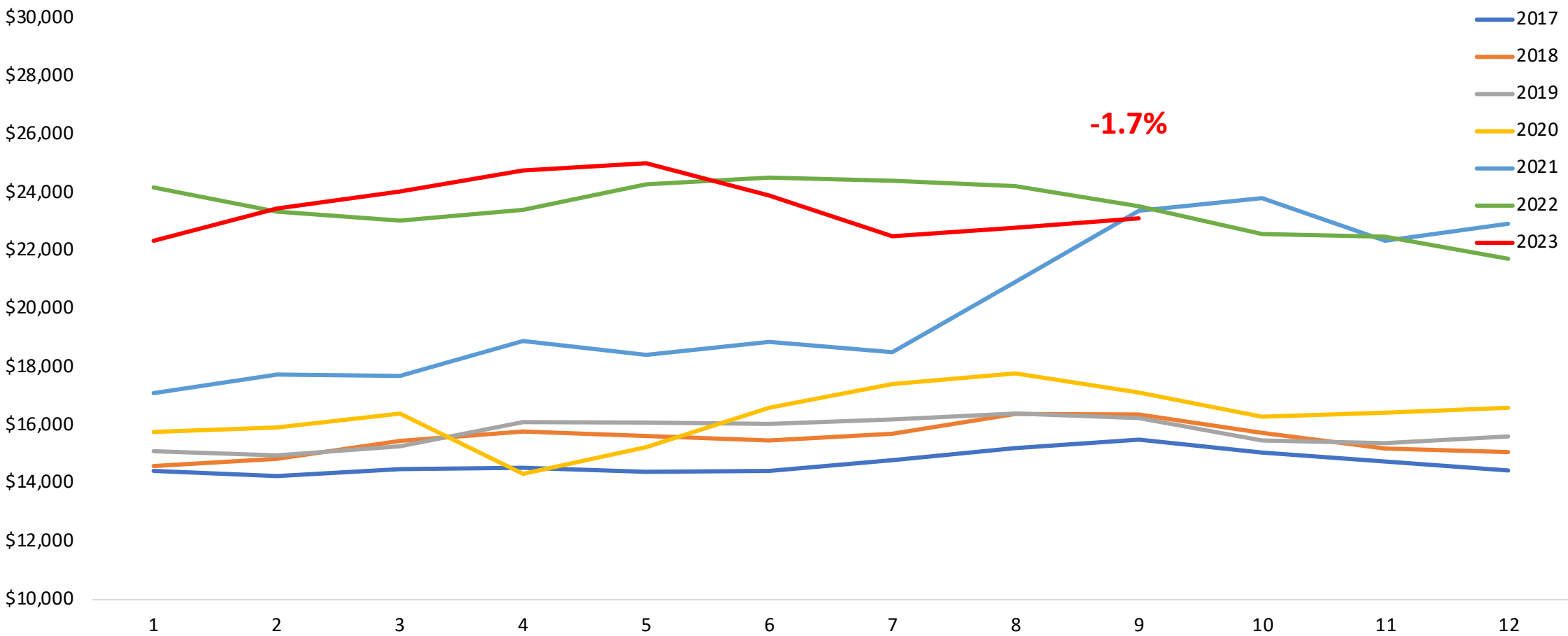
Rental Check-In Index
2019=100



- Repo +28% vs '22 but down (7%) vs '19
- Lease +73% vs '22 yet down (76%) vs '19
- Rental down (15%) vs '22 and down (52%) vs '19

RENTAL RISK AVERAGE AUCTION PRICES

Prices for units sold in September were down 1.7% year-over-year but up 1.4% from August



RENTAL RISK VEHICLE VARIETY INCREASING

Shares of top configurations flattening

	2021 Q3	2022 Q3	2023 Q3
Number of unique year, make, model, body configurations sold	2,890	3,892	4,502
Share accounted for top 10 YMMB	17.2%	10.9%	10.7%
Share accounted for top 25 YMMB	30.0%	19.7%	19.4%
Number of YMMB to reach 50% share	77	128	150

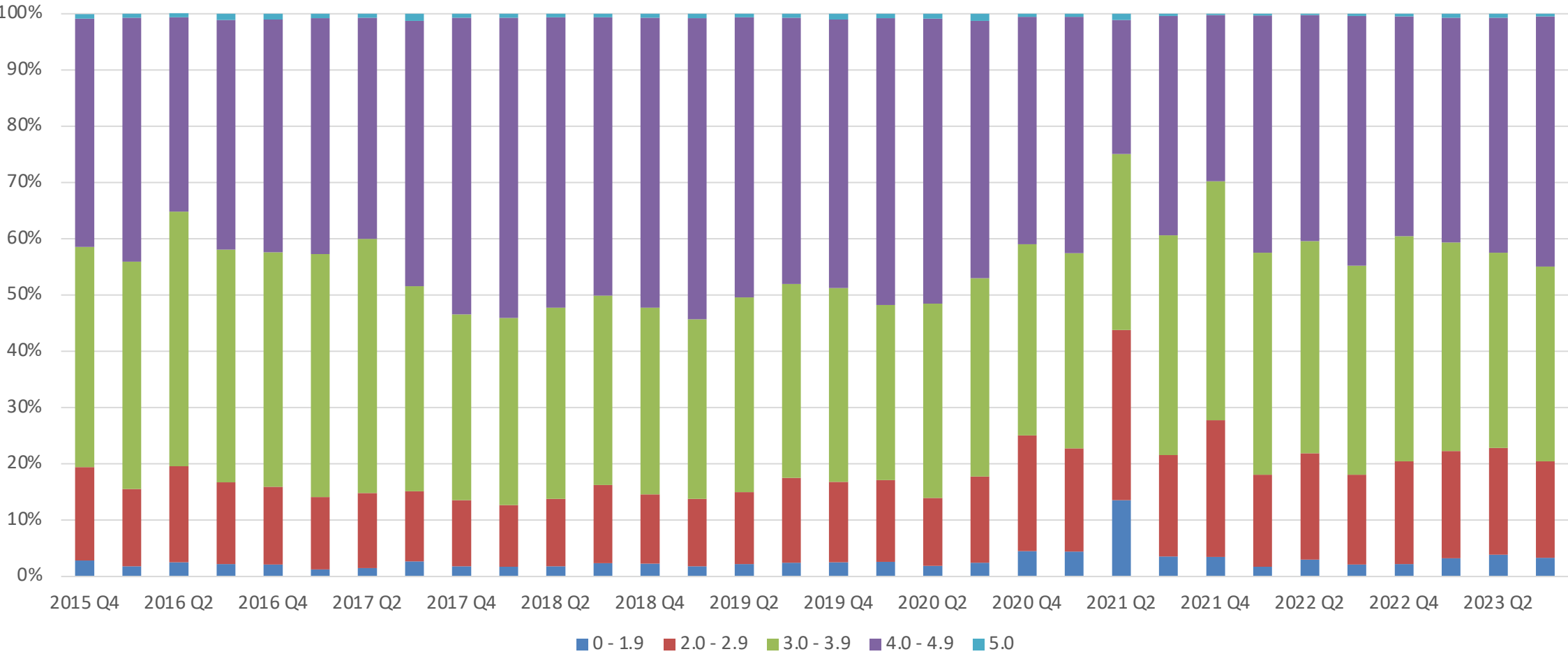
RENTAL RISK AVERAGE MILEAGE

Average mileage was down 6.9% from August and down 5.3% from September 2022



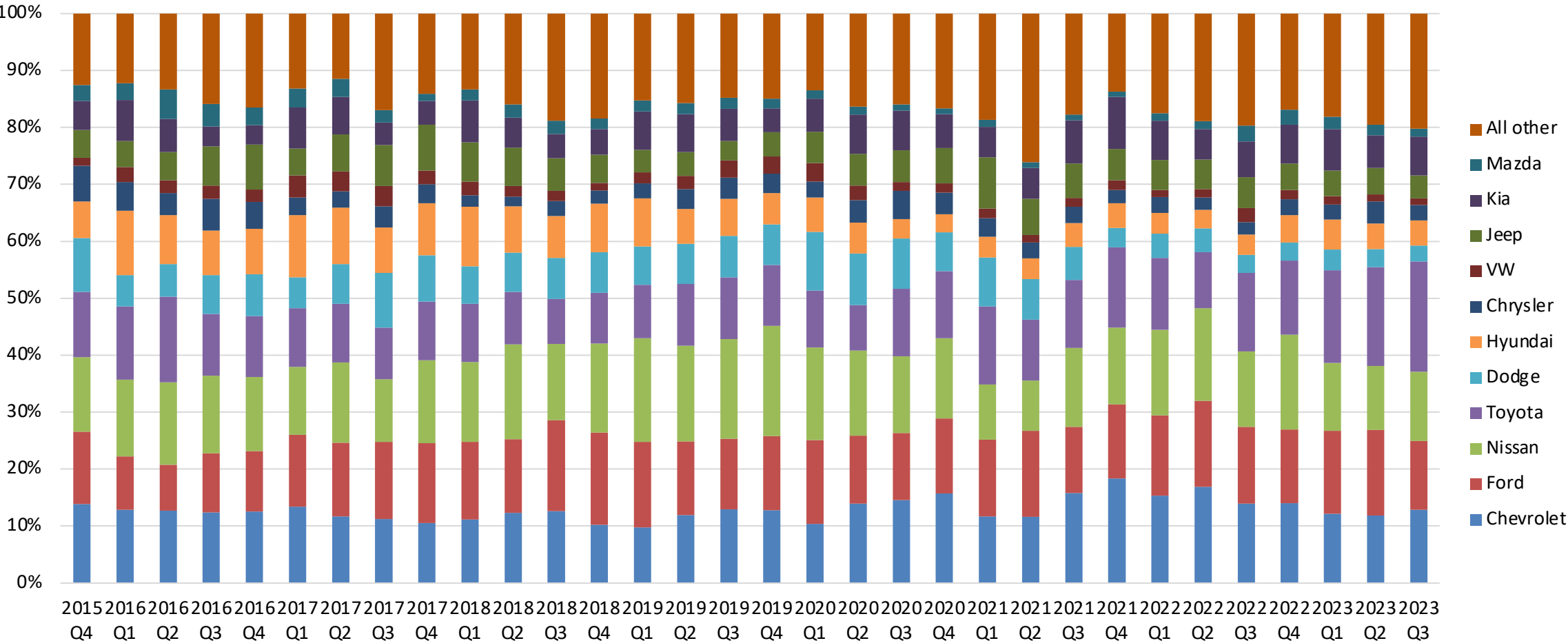
RENTAL RISK SALES CONDITION

Minimal changes and more balance in rental sales



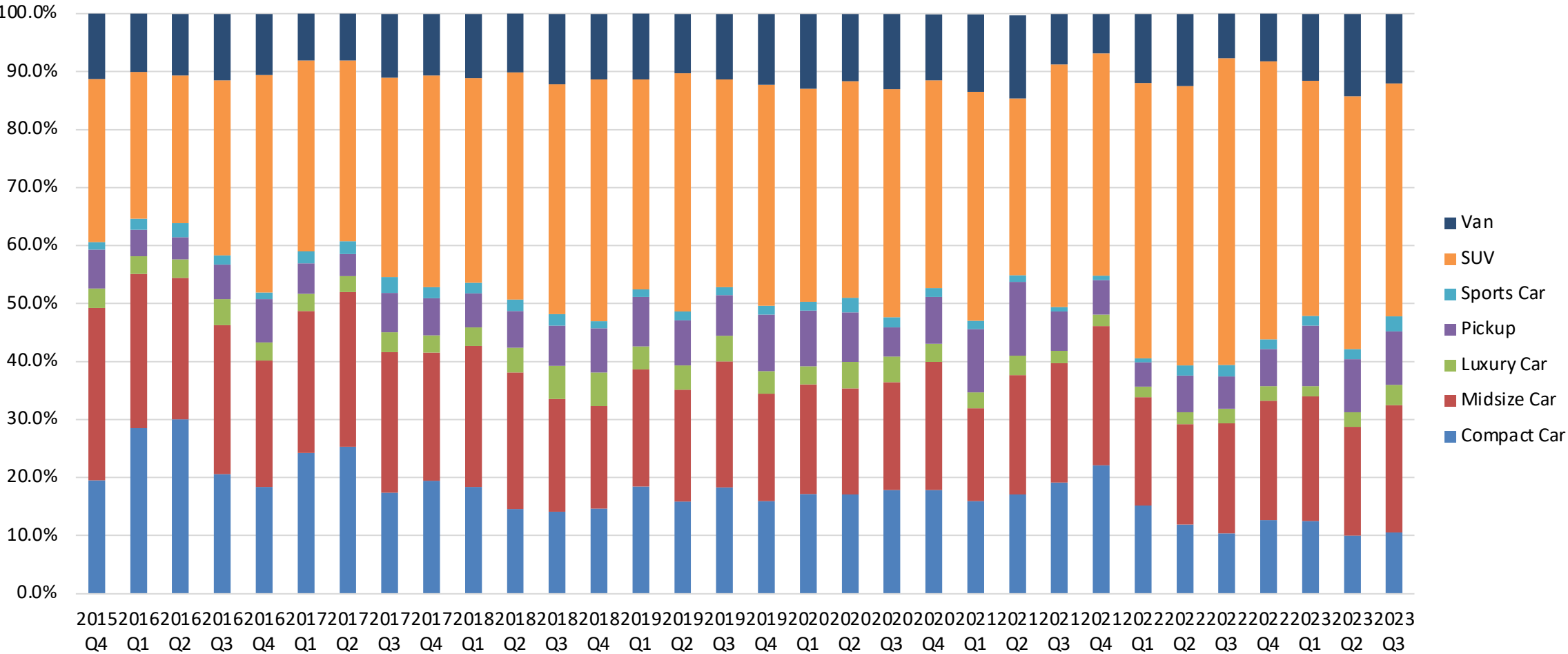
RENTAL RISK SALES BY MAKE

Stable sales mix but more Toyota product showing at auction



RENTAL RISK SALES BY VEHICLE SEGMENT

Midsize cars showed the most gain from Q2, while vans retreated 2.2%



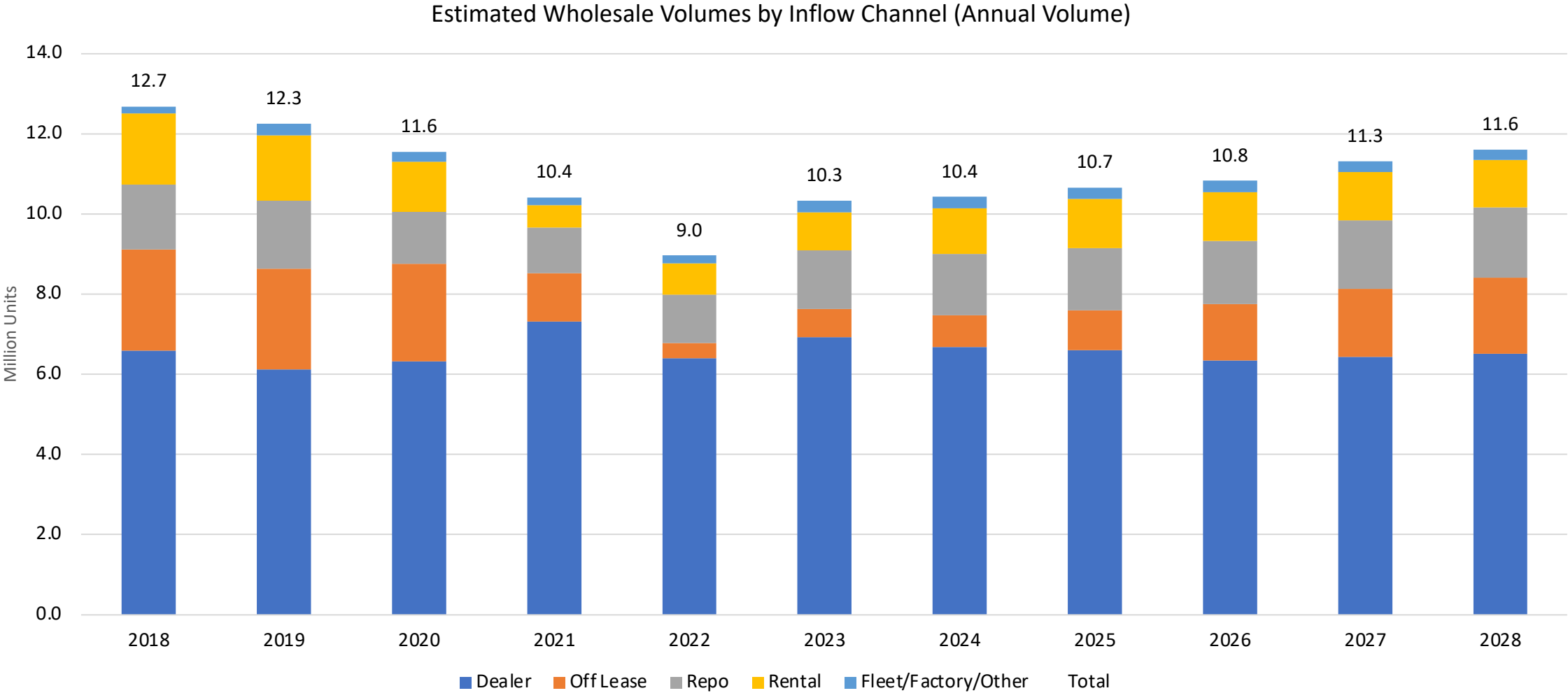
MANHEIM INSIGHTS ON TOP VOLUME VEHICLES

Price trends on top selling vehicles in September at Manheim mostly showed declining values for the month

Rank	Source(Rank)	Category	Subcategory	Vehicle	2-Oct	Past 30 Days	Last Year	Current Dep	L12M Dep/Mo
1	All	Midsize Car	Midsize Car Entry	2022 CHEVROLET MALIBU 4D SEDAN LT	\$17,750	\$18,950	\$22,400	-6.3%	-1.7%
2	All	SUV	SUV Midsize	2022 CHEVROLET EQUINOX AWD 4D SUV LT	\$22,400	\$22,100	\$28,200	1.4%	-1.7%
3	All	Compact Car	Compact Car Premium	2021 TOYOTA COROLLA 4D SEDAN LE	\$16,250	\$16,750	\$19,850	-3.0%	-1.5%
4	All	Compact Car	Compact Car Premium	2022 TOYOTA COROLLA 4D SEDAN LE	\$18,900	\$19,300	\$23,500	-2.1%	-1.6%
5	All	SUV	SUV Midsize	2020 FORD EXPLORER 4WD 4C 4D SUV XLT	\$28,000	\$28,200	\$32,200	-0.7%	-1.1%
1 Dealer	Dealer	Compact Car	Compact Car Premium	2021 TOYOTA COROLLA 4D SEDAN LE	\$16,250	\$16,750	\$19,850	-3.0%	-1.5%
1 Lease	Lease	SUV	SUV Midsize	2022 CHEVROLET EQUINOX AWD 4D SUV LT	\$22,400	\$22,100	\$28,200	1.4%	-1.7%
1 Rental	Rental	Midsize Car	Midsize Car Entry	2022 CHEVROLET MALIBU 4D SEDAN LT	\$17,750	\$18,950	\$22,400	-6.3%	-1.7%

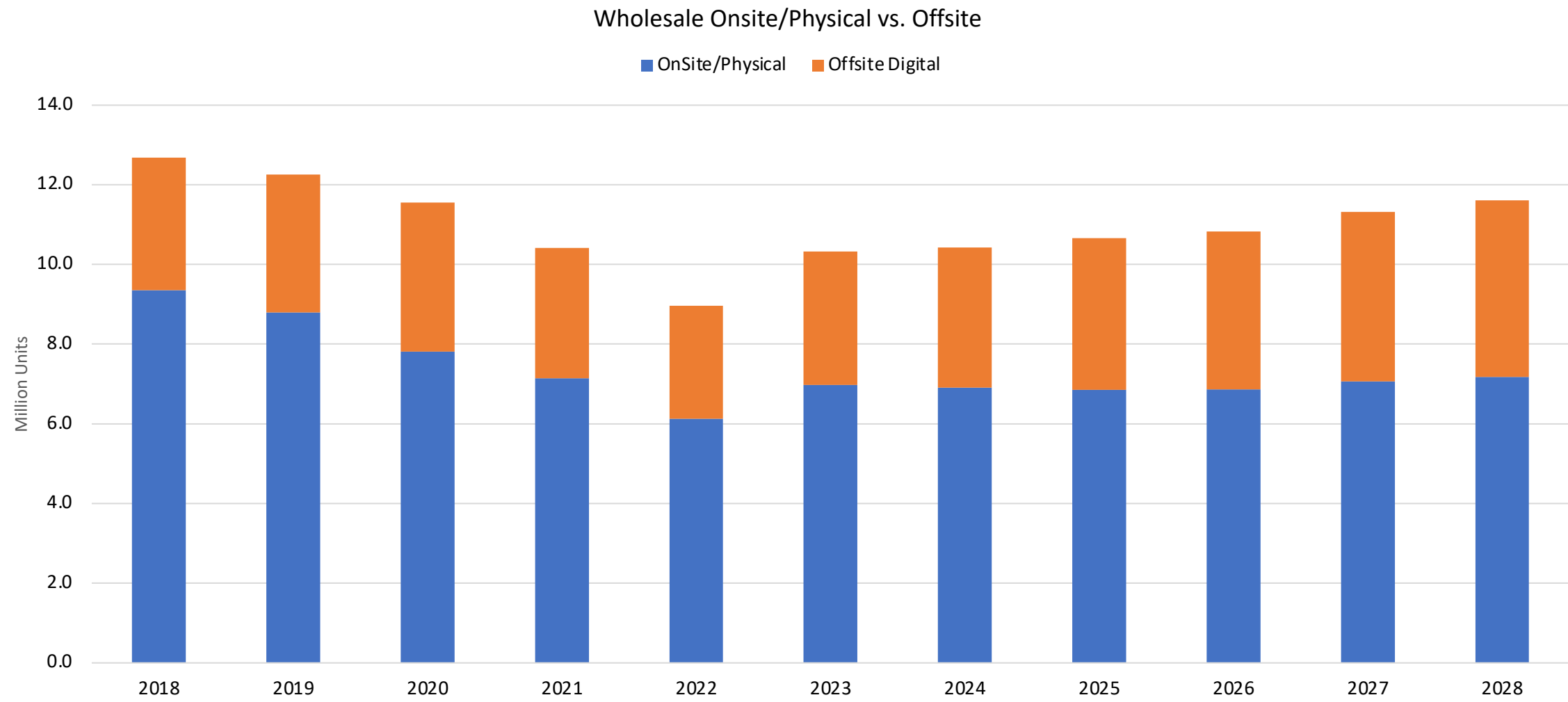
WHOLESALE FLOWS BOTTOMED IN 2022

After 13% decline in 2022, the wholesale market should see a slow and gradual recovery to 2020 levels by 2028



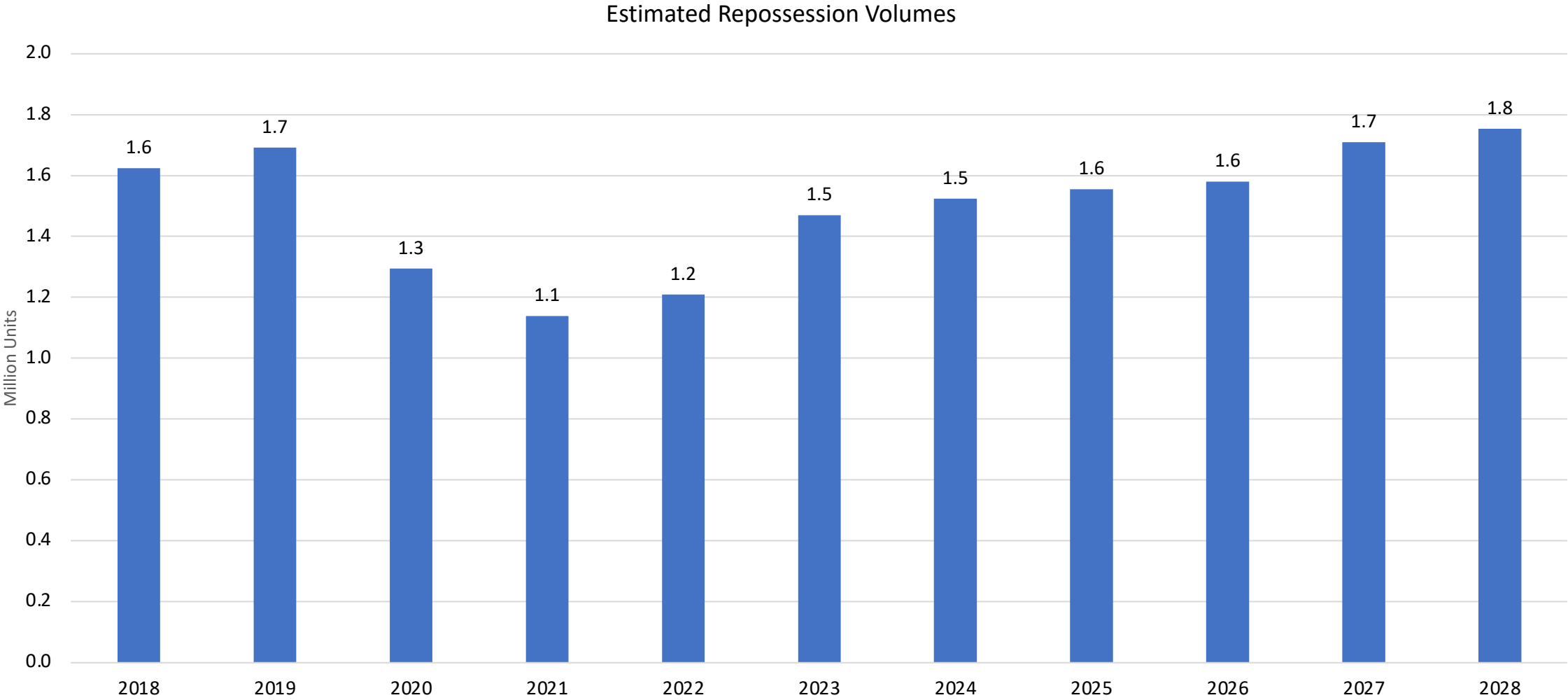
ON-SITE PHYSICAL AUCTION VOLUMES DO NOT FULLY RECOVER

With gradual shift to more transactions offsite and fully digital, onsite volumes in 2028 expected to be 18% below 2019



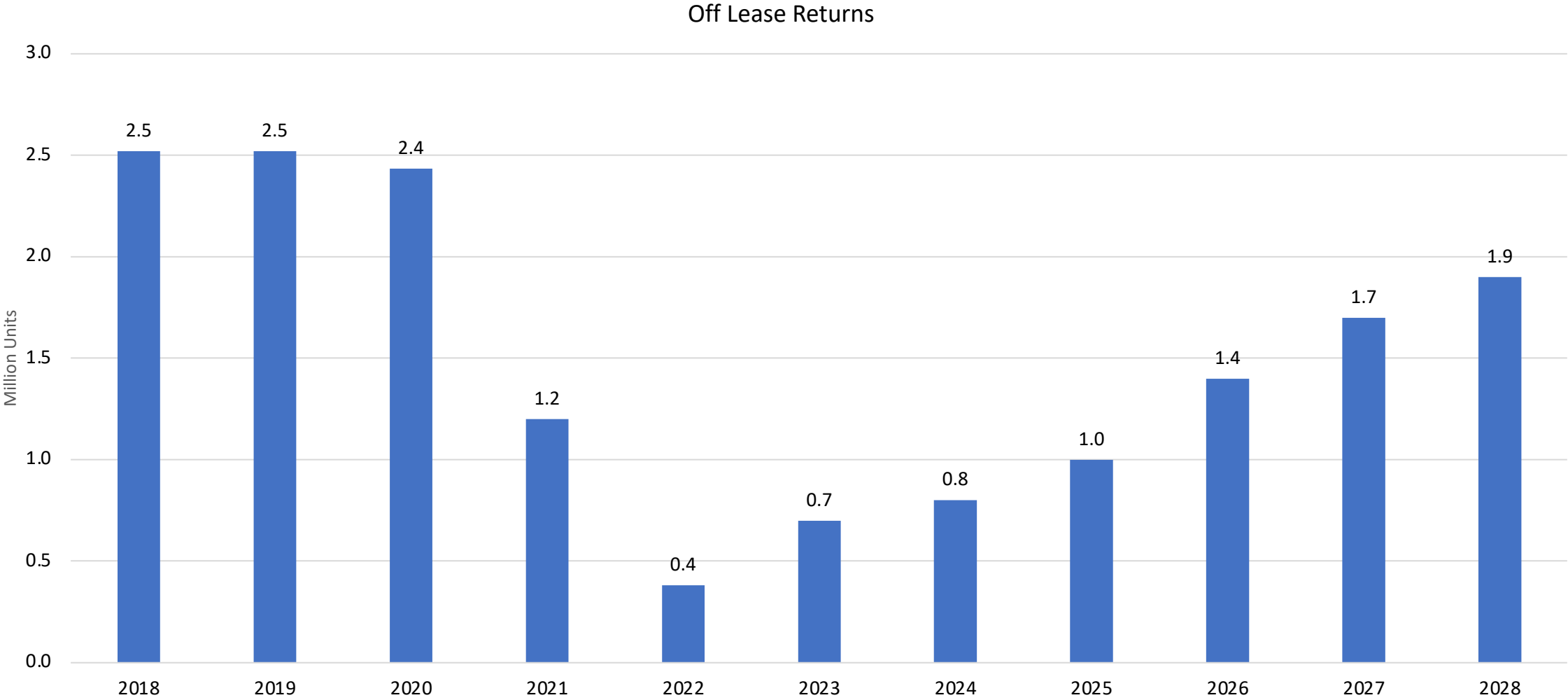
REPO DIP IN 2020-2021 SEES NORMALIZED RECOVERY

Longer term expects normal default rates by credit tier resulting in higher defaults in 2028 compared to 2019



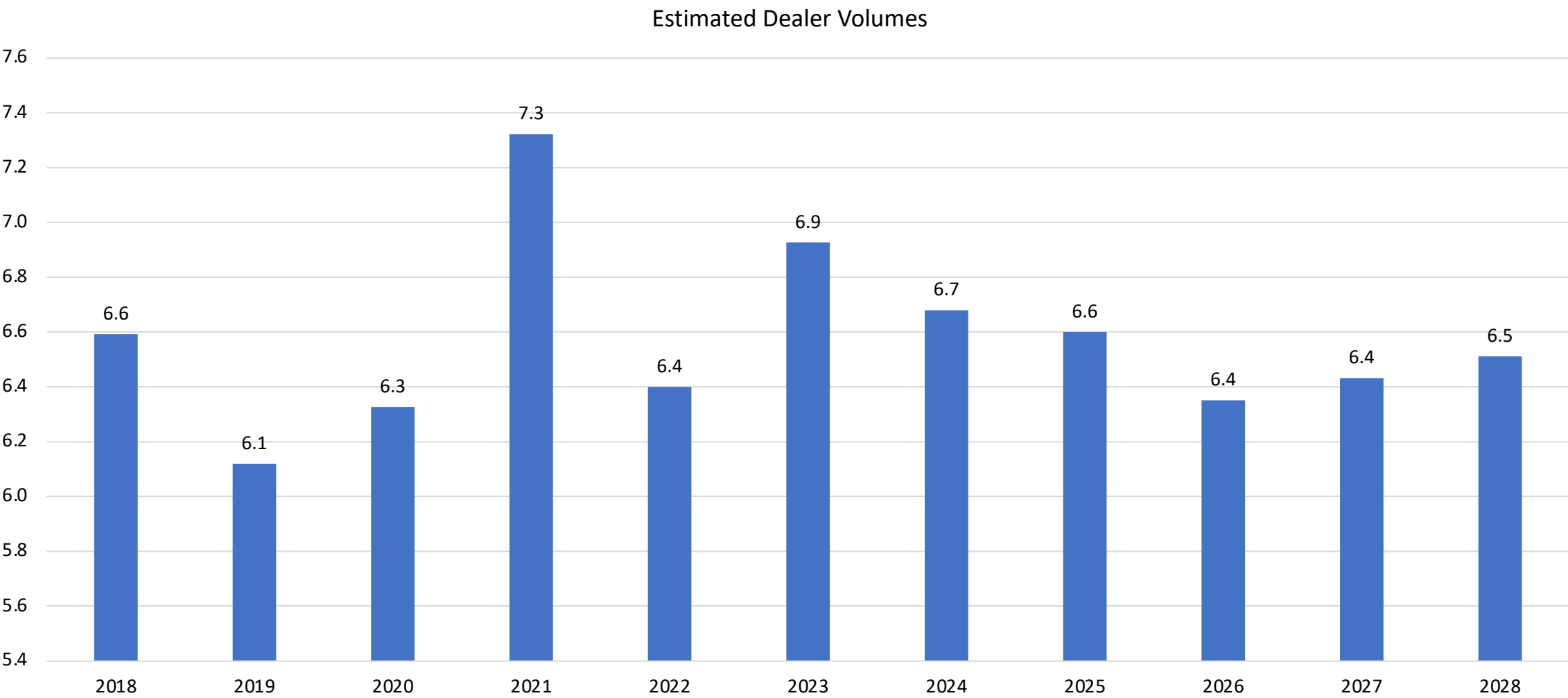
OFF LEASE RETURNS COLLAPSED BUT WILL RECOVER AS MATURITIES FALL

Return rate hit historical low of 11% in 2022 vs. 62% in 2019; now lease maturities are falling



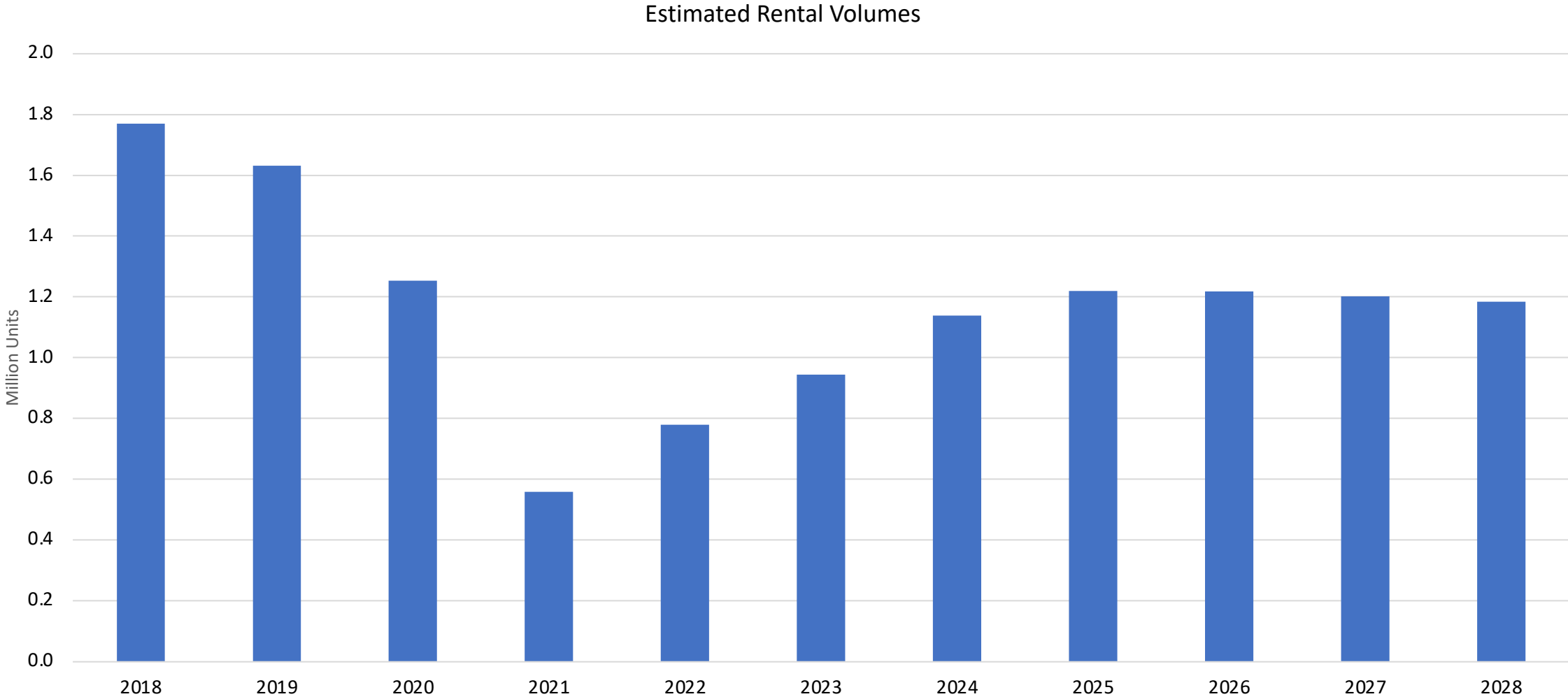
DEALER VOLUMES SPIKED IN 2021; NORMAL FLOWS AHEAD

Off-lease arbitrage and record retail sales powered 11% jump in dealer consignments in 2021



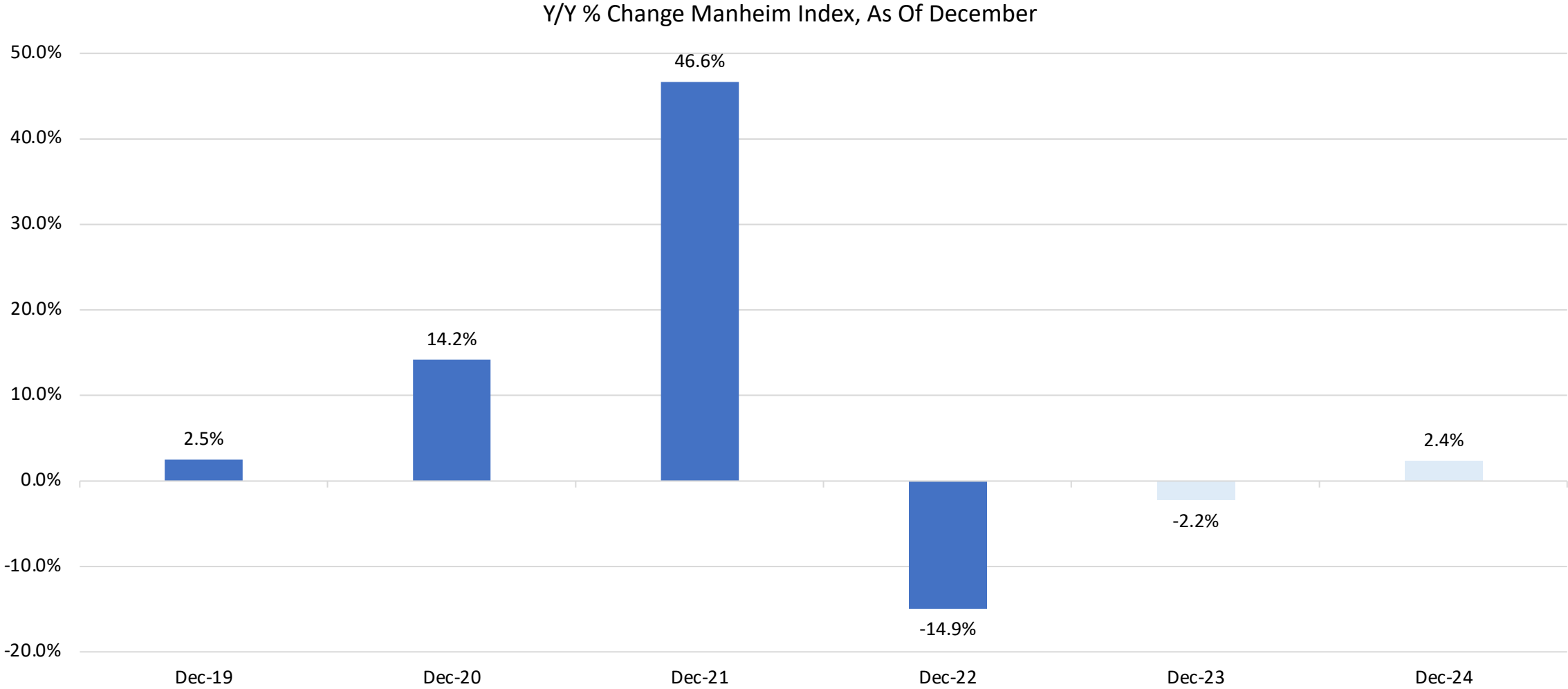
RENTAL VOLUMES IMPROVE AS FLEET SIZE RECOVERS

Total fleet size expected to get back to pre-pandemic levels by 2026 as share of new market recovers



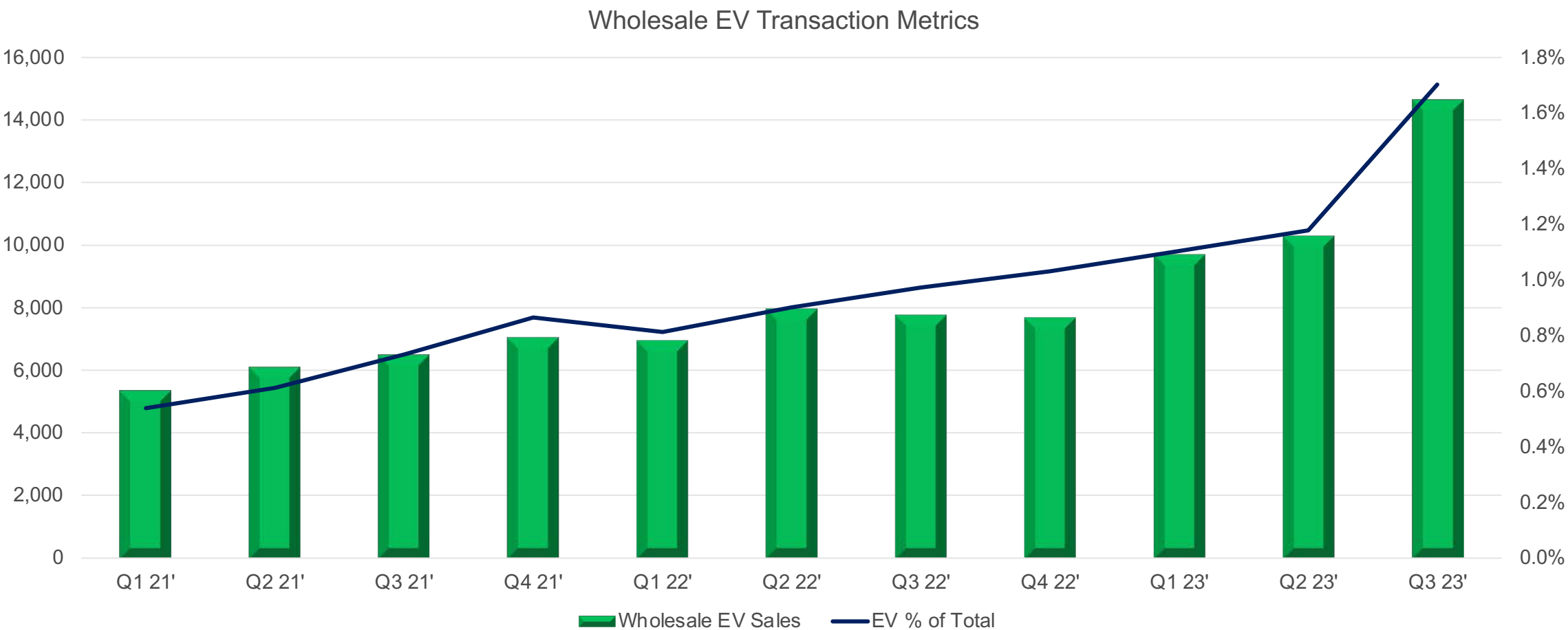
HIGHER THAN NORMAL DEPRECIATION IN 2023 TRANSITIONS TO NORMAL PRICE CHANGE IN 2024

2023 saw more price pressure than normal in spring and summer but balance has returned in the fall

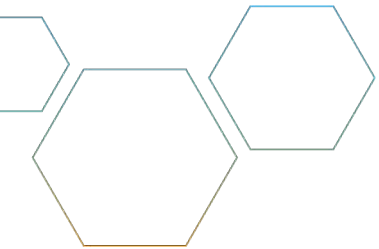


EV TRANSACTIONS CONTINUE TO INCREASE AT MANHEIM

Q3 EV transactions rose 88% year over year as more makes and models entered the wholesale marketplace



2023
FORECASTS
Q3 Update



15.4M
NEW SALES

(original 2023: 14.1M)

New

12.6M
NEW RETAIL SALES

(original 2023: 11.9M)

New

2.8M
FLEET SALES

(original 2023: 2.2M)

New

2.4M
NEW LEASE
VOLUME

(original 2023: 2.5M)

New

19%
LEASE
PENETRATION

(original 2023: 21%)

New

2.7M
CPO SALES

(original 2023: 2.2M)

New

35.7M
USED SALES

(original 2023: 35.6M)

18.9M
USED RETAIL SALES

(original 2023: 18.9M)

-2.2%
DEC 2023 Y/Y MANHEIM
USED VEHICLE
VALUE INDEX

(original 2023: -4.3%)



Q&A

Cox AUTOMOTIVE

MORE AUTO INDUSTRY DATA AND INSIGHTS FROM COX AUTOMOTIVE

The go-to source for insights based on the largest breadth of first-party data in the automotive ecosystem

Cox Automotive Newsroom: www.coxautoinc.com/newsroom/

Fresh content from Chief Economist Jonathan Smoke and the Industry Insights team is published regularly.

Auto Market Snapshot: www.coxautoinc.com/marketsnapshot

This dashboard is a one-stop dashboard for the most recent data points our team is tracking.

From the Newsroom: www.coxautoinc.com/signup

The Cox Automotive biweekly newsletter, published every other Tuesday, is a round-up of news from Cox Automotive and perspectives from its analysts and experts on topics dominating the automotive industry.





THANK YOU FOR ATTENDING!

Contact us with questions or to speak with an expert:

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