THE WORLD'S LARGEST AUTOMOTIVE SERVICES AND TECHNOLOGY PROVIDER

THE POWER OF COX AUTOMOTIVE

The World's Largest Automotive Services and Technology Provider
PRESENTERS

Mark Schirmer, Director, Corporate Communications
Jonathan Smoke, Chief Economist
Derek Hansen, Vice President, Operations
Chris Frey, Senior Manager, Economic and Industry Insights
Jeremy Robb, Senior Director, Economic and Industry Insights
JONATHAN SMOKE
Chief Economist
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

Source: Verisk/Equifax
CONSUMER SENTIMENT DECLINED IN AUGUST AND SEPTEMBER

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

Morning Consult Index of Consumer Sentiment vs. Average Price of Unleaded

Source: Morning Consult; AAA
JOB GROWTH CONTINUES TO SLOW

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

Baseline vs. Recession
Quarterly Unemployment Forecast (U3 %)

Source: BLS, Moody’s Analytics, Cox Automotive
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.
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

Source: vAuto, Cox Automotive
DEREK HANSEN
Vice President, Operations, Inventory Management Solutions
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.
vAuto can predict the probability of any vehicle selling in the next 7 days at any given price.
vAuto DRIVES DECISIONS and CREATES CONNECTIONS that help dealers MAXIMIZE RETURNS on every vehicle.
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
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

-20%  -10%  0%  10%  20%  30%  40%  50%  60%
Jan-98 Jan-01 Jan-04 Jan-07 Jan-10 Jan-13 Jan-16 Jan-19 Jan-22

-3.9%
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.

Percent Change in Manheim Index Year Over Year September 2023

- Industry: -3.9%
- Compact cars: -9.9%
- Midsize cars: -5.9%
- Luxury: -6.7%
- SUV / CUV: -3.5%
- Vans: -2.3%
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
WHOLESALE SALES CONVERSION

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

Source: Manheim
WHOLESALE SUPPLY

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

Source: Manheim
OVERALL WHOLESALE MMR VALUE TRENDS

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

Source: Manheim
The 1YO has shown the most depreciation as new supply increases, down 11%.

Source: Manheim
3YO MMR INDEX WITH RESALE VALUES BY CALENDAR YEAR

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

Source: Manheim
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

Source: Cox Automotive

CALE Historical View (36-month term)

2020 Avg: ($990)
2021 Avg: $5,516
2022 Avg: $7,848
2023 Avg: $6,081

$9,809
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
  - 2019: 100%
  - 2020: 78%
  - 2021: 68%
  - 2022: 72%
  - 2023: 93%

- Lease Check-In Index
  - 2019=100
  - 2019: 100%
  - 2020: 78%
  - 2021: 39%
  - 2022: 14%
  - 2023: 24%

- Rental Check-In Index
  - 2019=100
  - 2019: 100%
  - 2020: 93%
  - 2021: 32%
  - 2022: 57%
  - 2023: 48%

- 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

Source: Manheim
RENTAL RISK AVERAGE AUCTION PRICES

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

Source: Cox Automotive
## RENTAL RISK VEHICLE VARIETY INCREASING

Shares of top configurations flattening

<table>
<thead>
<tr>
<th></th>
<th>2021 Q3</th>
<th>2022 Q3</th>
<th>2023 Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of unique year, make, model, body configurations sold</td>
<td>2,890</td>
<td>3,892</td>
<td>4,502</td>
</tr>
<tr>
<td>Share accounted for top 10 YMMB</td>
<td>17.2%</td>
<td>10.9%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Share accounted for top 25 YMMB</td>
<td>30.0%</td>
<td>19.7%</td>
<td>19.4%</td>
</tr>
<tr>
<td>Number of YMMB to reach 50% share</td>
<td>77</td>
<td>128</td>
<td>150</td>
</tr>
</tbody>
</table>
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%
Price trends on top selling vehicles in September at Manheim mostly showed declining values for the month

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

Estimated Wholesale Volumes by Inflow Channel (Annual Volume)

Source: Manheim, Cox Automotive
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

Wholesale Onsite/Physical vs. Offsite

Source: Manheim, Cox Automotive
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

Estimated Repossession Volumes

Source: Manheim, Cox Automotive
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

Source: Manheim, Cox Automotive
DEALER VOLUMES SPIKED IN 2021; NORMAL FLOWS AHEAD

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

Estimated Dealer Volumes

Source: Manheim, Cox Automotive
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

Estimated Rental Volumes

Source: Manheim, Cox Automotive
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

<table>
<thead>
<tr>
<th>Category</th>
<th>Forecast</th>
<th>Original 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW SALES</td>
<td><strong>15.4M</strong></td>
<td><strong>14.1M</strong></td>
</tr>
<tr>
<td>NEW RETAIL SALES</td>
<td><strong>12.6M</strong></td>
<td><strong>11.9M</strong></td>
</tr>
<tr>
<td>FLEET SALES</td>
<td><strong>2.8M</strong></td>
<td><strong>2.2M</strong></td>
</tr>
<tr>
<td>NEW LEASE VOLUME</td>
<td><strong>2.4M</strong></td>
<td><strong>2.5M</strong></td>
</tr>
<tr>
<td>LEASE PENETRATION</td>
<td><strong>19%</strong></td>
<td><strong>21%</strong></td>
</tr>
<tr>
<td>CPO SALES</td>
<td><strong>2.7M</strong></td>
<td><strong>2.2M</strong></td>
</tr>
<tr>
<td>USED SALES</td>
<td><strong>35.7M</strong></td>
<td><strong>35.6M</strong></td>
</tr>
<tr>
<td>USED RETAIL SALES</td>
<td><strong>18.9M</strong></td>
<td><strong>18.9M</strong></td>
</tr>
<tr>
<td>DEC 2023 Y/Y MANHEIM VALUE INDEX</td>
<td><strong>-2.2%</strong></td>
<td><strong>-4.3%</strong></td>
</tr>
</tbody>
</table>
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:

Dara Hailes
Senior Manager
Cox Automotive Corporate Communications
dara.hailes@coxautoinc.com

Mark Schirmer
Director
Cox Automotive Corporate Communications
mark.schirmer@coxautoinc.com