Q2 Manheim Used Vehicle Value Index Call

July 8, 2022
Presenters

Mark Schirmer, Director, Corporate Communications
Jonathan Smoke, Chief Economist
Derek Hansen, Vice President of Operations, vAuto
Kevin Chartier, Vice President, Manheim Consulting
The Power of Cox Automotive

Harnessing the power of connected data for game-changing results
Activity Recovery Trend Stalled Out

Moody's-CNN Business Back-To-Normal Index (February 29 = 100)

Source: Moody's Analytics/CNN
Consumer Sentiment Near Record Low

Morning Consult’s Index of Consumer Sentiment on July 4 had declined 0.5% w/w
Consumer Spending Remains Strong

Total spending in 2022 has exceeded 2019 spending levels in almost all categories; no sign of collapse.

Consumer Spending By Week in 2022 Compared to 2019

Spending % Change from 2019 for Week Ending June 11, 2022

Source: Verisk/Equifax
Continuing Claims at 1.3 Million Nationally

Source: Cox Automotive

NOTE: Latest Employment Numbers for May 2022, Continuing Claims Unemployment Data for Week Ending June 11
Retail Sales Estimates

2022 and 2021 % Change vs. 2019 in Retail Sales by Week

Source: Dealertrack, Cox Automotive
Used Days’ Supply Only Slightly Above Normal

Days’ supply at 48 days at end of June, same as end of May, up 9 days from last year, but only up 3 days from 2019

Source: Cox Automotive
Derek Hansen
Vice President, Operations, vAuto
Consumer generates a Kelley Blue Book Instant Cash Offer

Dealer sees the guaranteed Upside offer in vAuto Provision

Manheim comes to dealer’s lot to inspect and list the vehicle

Inventory is listed on UpsideDirect.com, OVE.com and Manheim.com
GOOD FOR SELLERS AND BUYERS

**Seller Benefits:**

- Guaranteed at least $300 over the Kelley Blue Book Instant Cash Offer
- If vehicle sells for more than guaranteed, they get the lion’s share of the profit
- Cox Automotive does all the listing legwork
- Once the vehicle is listed, it’s out of the seller’s hands for good

**Buyer Benefits:**

- Wide variety of vehicles available to purchase
- Comprehensive and consistent vehicle condition disclosure
- Every listing starts at 50% of MMR with NO reserve
- Any vehicle that doesn’t match the condition report is easy to return
# REAL EXAMPLE

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$8,400</strong></td>
<td>Kelley Blue Book Instant Cash Offer</td>
</tr>
<tr>
<td><strong>$9,300</strong></td>
<td>Upside Minimum to Dealer</td>
</tr>
<tr>
<td><strong>$4,500</strong></td>
<td>Starting Bid in Upside Direct Marketplace (50% of MMR)</td>
</tr>
<tr>
<td><strong>$11,800</strong></td>
<td>Selling Price After Receiving 25 Bids</td>
</tr>
<tr>
<td><strong>$2,200</strong></td>
<td>Additional Upside Profit Share</td>
</tr>
<tr>
<td><strong>$3,100</strong></td>
<td>Total Profit to Dealer</td>
</tr>
</tbody>
</table>
UPSIDE RESULTS TO DATE

20K
BIDS PLACED IN THE FIRST SIX UPSIDE DIRECT SALES; AVG OF 17.8 BIDS PER VEHICLE

28K
USERS HAVE LOGGED INTO THE MANHEIM MARKETPLACE TO VIEW UPSIDE INVENTORY

$600K
PAID OUT TO SELLERS ABOVE THE UPSIDE MINIMUM IN THE FIRST SIX SALES
WHAT’S NEXT FOR UPSIDE

- Currently available for sellers in Atlanta and Chicago markets
- Launching soon for sellers in Ohio, then Detroit
- More markets coming throughout 2023
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 Decrease in June

Prices in June decreased 1.3% from May 2022 but were up 9.7% compared to June 2021

Source: Manheim
Year-over-year price performance flat with May against decline in values in June 2021

Source: Manheim
Adjusted prices were more negative in Q2, while non-seasonally adjusted prices were more positive.
Wholesale Used Vehicle Price Index Versus New-Vehicle Price Index

New retail prices continue upward after winter pause; wholesale lower for first half despite some up months

Source: Kelley Blue Book, Manheim
Vans Continue Outperforming Other Segments, Again

Pickups lost ground since March 2022, while cars and vans outperform

Source: Manheim

Percent Change in Manheim Index Year Over Year June 2022

- Industry: 9.7%
- Compact cars: 14.7%
- Midsize cars: 10.9%
- Luxury cars: 12.6%
- SUV / CUV: 9.3%
- Vans: 23.1%

Source: Manheim
Later, Flatter Spring Selling Season in 2022

Following close to normal “post peak” spring seasonal pattern after peaking in week 20 (mid-May)

Overall MMR Index Trends
(All Model Years)

Resale Values are NOT following typical seasonal patterns in 2022

Close to normal post peak pattern but later than usual

Later/Flatter/Longer Spring Bounce

Weekly Change In Resale Value
All Model Years
Stronger than typical “post-peak” depreciation on 3-year-old vehicles as we exit June

3-Year-Old MMR Index Trends

Source: Manheim

3-Year-Old Model MMR Index by Week

Weekly Change In Resale Value
3 YO Vehicles Only

Source: Manheim
1-Year-Old MMR Index Trends

Weaker/longer spring bounce followed by normal post-peak depreciation pattern

1-Year-Old Model MMR Index By Week

Source: Manheim
3-Year-Old Luxury Vehicle MMR Index Trends

Post spring peak depreciation pattern much steeper for luxury vehicles

3-Year-Old Luxury Vehicle MMR Index By Week

Total Wk 20-27 Depreciation

14-19 Avg.       2022
   -1.7%          -2.7%

Weekly Change In Resale Value
3 YO Luxury Vehicles Only

Source: Manheim
2022 Depreciation Patterns Differ Greatly By Age Group

Older vehicles turned down earlier and sharper in Q2; YTD value changes are converging which is more normal

2022 MMR Index By Week
By Vehicle Age

2022 YTD Value Change
Through July 1, 2022
Still No Clear Evidence Of Price Shifts Due To Accelerating Gas Prices

Most vehicle segments continue to follow a delayed but typical spring pattern
Pricing Trends Are Not Showing A Demand Shift Into Fuel Efficient Vehicles

Truck & Full-Size SUV Weakness Likely More Affordability Related
Commercial Supply Sources Remain Well Below Historical Norms

 Repos following long, slow recovery path while Rental recovers a bit and Off-lease remains near all-time lows

- **Off-Lease Check-ins Trend**
  - No Change in Off-Lease check-ins trends as equity positions remain near historic highs

- **Repo Check-ins Trend**
  - Repo Volumes Slowly Recovering But Still Well Below Pre-Covid Levels

- **Rental Check-ins Trend**
  - Rental De-Fleeting volumes rising recently but the de-fleeted vehicles are older with higher mileage than the historical norm

Source: Manheim
Retention Values Now Slowly Coming Down

Retention values peaked at 94% in January; now 88%
Average price for rental risk units sold in June up 30% year over year and up 1% month over month

Source: Manheim
Rental Risk Vehicle Variety Represented in Sales

Configuration distribution moving back toward 2020 levels, but with >10% more variety in YMMB sales

<table>
<thead>
<tr>
<th></th>
<th>2020 Q2</th>
<th>2021 Q2</th>
<th>2022 Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of unique year, make, model, body configurations sold</td>
<td>3,090</td>
<td>2,800</td>
<td>3,472</td>
</tr>
<tr>
<td>Share accounted for top 10 YMMB</td>
<td>14.0%</td>
<td>10.0%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Share accounted for top 25 YMMB</td>
<td>25.9%</td>
<td>18.7%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Number of YMMB to reach 50% share</td>
<td>86</td>
<td>204</td>
<td>94</td>
</tr>
</tbody>
</table>

Source: Manheim
Average mileage for rental risk units in June was down 32% compared to a year ago and down 8% month over month.
Q2 2022 distribution almost identical to Q3 2021

Source: Manheim
Chevy, Nissan, and Ford increased share by 1%+ since Q1, while Toyota share declined nearly 3%
Rental Risk Sales By Vehicle Segment

Pickup, Sports Car share increased from Q1, while Compact and Midsize Car share declined again.

Source: Manheim
Price trends on top selling vehicles in June at Manheim 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>1-Jul</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>2020 CHEVROLET MALIBU 4D SEDAN LT</td>
<td>$20,700</td>
<td>$21,000</td>
<td>$18,800</td>
<td>-1.4%</td>
<td>0.8%</td>
</tr>
<tr>
<td>2</td>
<td>All</td>
<td>Compact Car</td>
<td>Compact Car Premium</td>
<td>2020 TOYOTA COROLLA 4D SEDAN LE</td>
<td>$20,200</td>
<td>$20,300</td>
<td>$18,150</td>
<td>-0.5%</td>
<td>0.9%</td>
</tr>
<tr>
<td>3</td>
<td>All</td>
<td>SUV</td>
<td>SUV Midsize</td>
<td>2019 CHEVROLET EQUINOX FWD 4D SUV 1.5L LT</td>
<td>$20,100</td>
<td>$20,800</td>
<td>$20,400</td>
<td>-3.4%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>4</td>
<td>All</td>
<td>Midsize Car</td>
<td>Midsize Car Premium</td>
<td>2020 NISSAN ALTIMA FWD 4D SEDAN 2.5L S</td>
<td>$22,900</td>
<td>$23,000</td>
<td>$22,000</td>
<td>-0.4%</td>
<td>0.3%</td>
</tr>
<tr>
<td>5</td>
<td>All</td>
<td>SUV</td>
<td>SUV Midsize</td>
<td>2020 CHEVROLET EQUINOX AWD 4D SUV 1.5L LT</td>
<td>$23,000</td>
<td>$23,600</td>
<td>$21,200</td>
<td>-2.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>1 Dealer</td>
<td>Dealer</td>
<td>SUV</td>
<td>SUV Midsize</td>
<td>2019 CHEVROLET EQUINOX FWD 4D SUV 1.5L LT</td>
<td>$20,100</td>
<td>$20,800</td>
<td>$20,400</td>
<td>-3.4%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>1 Lease</td>
<td>Lease</td>
<td>SUV</td>
<td>SUV Luxury</td>
<td>2019 VOLVO XC90 AWD 4D SUV T6 MOMENTUM</td>
<td>$38,900</td>
<td>$39,800</td>
<td>$43,500</td>
<td>-2.3%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>1 Rental</td>
<td>Rental</td>
<td>Midsize Car</td>
<td>Midsize Car Entry</td>
<td>2020 CHEVROLET MALIBU 4D SEDAN LT</td>
<td>$20,700</td>
<td>$21,000</td>
<td>$18,800</td>
<td>-1.4%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Source: Manheim
Three-Year Old Average Prices Now Seeing Above Average Declines

Following spring uplift in wholesale prices, last two weeks have seen higher than normal declines

MY 2019 Retail and Wholesale Price Indices

Source: Manheim, Cox Automotive
Wholesale Days’ Normalized This Spring

Level of supply suggests balance between sellers and buyers

Estimated Wholesale Days’ Supply

Source: Manheim, Cox Automotive
Wholesale Flows at Tightest Point

2022 will see 3% decline from 2021; recovery begins in 2023 but remains below 2019 through 2024

Estimated Wholesale Volumes by Inflow Channel (Annual Volume)
Repo Dip in 2020-2021 Followed by Slow Recovery

Repossessions in 2020 and 2021 impacted by stimulus support, accommodations, and record values

Estimated Repossession Volumes

Source: Manheim, Cox Automotive
Off Lease Peaked in 2019 and Collapsed with Record Values

Return rate expected to hit historical low of 10% in 2022 following 15% in 2021; normal is >65%

Off Lease Returns

Source: Manheim, Cox Automotive
Dealer Volumes Surged in 2021

Off-lease arbitrage and record retail sales powered a 18% jump in dealer consignments in 2022

Estimated Dealer Volumes

Source: Manheim, Cox Automotive
### 2022 Forecasts

#### Q2 Update

<table>
<thead>
<tr>
<th>Category</th>
<th>2022 Forecast</th>
<th>Q1 Forecast</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Sales</td>
<td>14.4M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>New Retail Sales</td>
<td>12.6M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>Fleet Sales</td>
<td>1.8M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>New Lease Volume</td>
<td>2.7M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>Lease Penetration</td>
<td>21%</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>CPO Sales</td>
<td>2.3M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>Used Sales</td>
<td>37.1M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>Used Retail Sales</td>
<td>19.6M</td>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>manheim Used Value Index</td>
<td>-6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicates decrease from Q1 forecast
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/marketssnapshot
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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