Vehicle Market Insights

Manheim Used Vehicle Value Index Call – October 7, 2020

Jonathan Smoke & Zo Rahim
Special Guest: Zach Hallowell
<table>
<thead>
<tr>
<th>Category</th>
<th>Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVENTORY</td>
<td>Manheim</td>
</tr>
<tr>
<td>RETAIL</td>
<td>Autotrader, Dealertrack, Kelley Blue Book,</td>
</tr>
<tr>
<td></td>
<td>xtime, HOMENET AUTOMOTIVE, VinSolutions,</td>
</tr>
<tr>
<td></td>
<td>DEALER.COM, vAuto, LIVE MARKET VIEW</td>
</tr>
<tr>
<td>FINANCIAL</td>
<td>NEXTGEAR CAPITAL</td>
</tr>
<tr>
<td>MOBILITY</td>
<td>PIVET, CLUTCH, RideKleen</td>
</tr>
</tbody>
</table>
Covid-19 Local Impact Assessment

Pandemic Level:
- RED
- ORANGE
- YELLOW
- BLUE

Source: Cox Automotive
Continuing Claims At 11.8 Million Nationally

Data as of October 1, 2020

Note: Unemployment Data For Week Ending September 19

Source: U.S. Department of Labor
Consumer Sentiment Improved In Summer

Morning Consult’s Index of Consumer Sentiment on Monday was down 19.1% since February 29.
New Vehicle Sales Down But Recovering

Source: BEA

[Diagram showing total new % change y/y from Jan-06 to Mar-20]

[Graph showing data points with % change from -50% to 40%]
<table>
<thead>
<tr>
<th>Category</th>
<th>YTD 2020 (%)</th>
<th>Source: Cox Automotive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-size Pickup Truck</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Mid-size SUV/Crossover</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Subcompact SUV/Crossover</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Mid-size Pickup Truck</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Luxury Compact SUV/Crossover</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Luxury Mid-size SUV/Crossover</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>High Performance Car</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>High-end Luxury Car</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Electric Vehicle</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Luxury Full-size SUV/Crossover</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Compact Car</td>
<td>-1.7</td>
<td></td>
</tr>
<tr>
<td>Mid-size Car</td>
<td>-0.8</td>
<td></td>
</tr>
<tr>
<td>Subcompact Car</td>
<td>-0.6</td>
<td></td>
</tr>
<tr>
<td>Minivan</td>
<td>-0.5</td>
<td></td>
</tr>
<tr>
<td>Full-size Car</td>
<td>-0.5</td>
<td></td>
</tr>
<tr>
<td>Luxury Car</td>
<td>-0.3</td>
<td></td>
</tr>
<tr>
<td>Hybrid/Alternative Energy Car</td>
<td>-0.2</td>
<td></td>
</tr>
<tr>
<td>Van</td>
<td>-0.2</td>
<td></td>
</tr>
<tr>
<td>Full-size SUV/Crossover</td>
<td>-0.2</td>
<td></td>
</tr>
<tr>
<td>Entry-level Luxury Car</td>
<td>-0.2</td>
<td></td>
</tr>
</tbody>
</table>
Retail Sales Recovery Estimates

Y/Y % Change in 7-Day Moving Average of Retail Sales

Source: Cox Automotive
Update: Manheim’s Shift to All-Digital

Zach Hallowell
Vice President, Manheim Digital
95% of Manheim locations now offer in-lane bidding

BUT

87% of purchases are still from digital buyers

dealers are choosing digital over physical
OFFSITE WHOLESALe IS SETTING NEW RECORDS

42% Increase in Offsite Transactions YoY
MANHEIM AUDIENCE HAS GROWN

83.8K
Pre-COVID Average Attendance
Weeks 1-11, 2020

87.9K
Current Average Attendance
Weeks 22-39, 2020

Digital

Physical
IMAGING IS CRITICAL TO DIGITAL SUCCESS

Committed Investment:

$20M  invested in better, faster imaging

Expanded Image Package:

15+ images on condition reports (2X higher)

COMING SOON

Undercarriage imaging pilot

Automated image capture

High-res imaging across platforms
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:
- All Manheim U.S. sales
- Classify by market segment
- Account for differences in mileage
- Weight to provide smoother segment mix
- Seasonally adjust
Wholesale Prices Begin To Cool

Prices in September decreased 1.58% from August 2020 and were up 15.2% compared to September 2019

January 1995 = 100
Used Vehicle Values Showing Seasonal Strength

Year-over-year price performance stronger than average
Manheim Index versus Mix & Quality Adjusted New Vehicle Price with 3 ½ year Lag

Used vehicle prices back above the historical new vehicle price relationship trend

Source: Bureau of Labor Statistics, Manheim/Cox Automotive
Wholesale Used Vehicle Prices vs. New Vehicle Prices

Source: Manheim/Cox Automotive
2020 Weekly Price Trend Continues Fall Decline

After 16 weeks of price appreciation, weekly values continue to see a fairly typical fall decline.

3-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
Retention values ended September up 5.5% relative to 2019.

Retention values are up 5.5 percentage points compared to last year at the beginning of October.

Source: Kelley Blue Book/Cox Automotive

(1 to 3 year-old models)
All major segments saw year-over-year gains in September.
Average Auction Price – Rental Risk Units

Average price for rental risk units sold in September up 5.4% y/y and down 4% m/m
## Distribution of Rental Risk Vehicles

<table>
<thead>
<tr>
<th></th>
<th>2018 Q3</th>
<th>2019 Q3</th>
<th>2020 Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of unique year, make, model, body configurations sold</td>
<td>2,980</td>
<td>3,496</td>
<td>3,903</td>
</tr>
<tr>
<td>Share accounted for top 10 YMMB</td>
<td>11.1%</td>
<td>12.7%</td>
<td>16.9%</td>
</tr>
<tr>
<td>Share accounted for top 25 YMMB</td>
<td>20.6%</td>
<td>23.6%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Number of YMMB to reach 50% share</td>
<td>132</td>
<td>106</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Manheim/Cox Automotive
Average mileage for rental risk units in September was down 9% compared to a year ago and up 8% m/m.
Rental Risk Units Sold by Condition

Source: Manheim/Cox Automotive
Rental Risk Units Sold by Make

Source: Manheim/Cox Automotive
Manheim Market Report (MMR) Vehicle Insights

Price trends on top selling vehicles in September at Manheim was very consistent over the last 30 days (September 1 – October 1). Prices year-over-year also saw appreciation while higher than normal depreciation was evident in the last 30 days for most.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Source(Rank)</th>
<th>Category</th>
<th>Subcategory</th>
<th>Vehicle</th>
<th>1-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>SUV</td>
<td>SUV Midsize</td>
<td>2017 NISSAN ROGUE AWD 4D SUV 2.5L SV</td>
<td>$15,150</td>
<td>$15,450</td>
<td>$14,650</td>
<td>-1.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>2</td>
<td>All</td>
<td>SUV</td>
<td>SUV Entry</td>
<td>2017 FORD ESCAPE FWD 4D SUV 1.5L SE</td>
<td>$13,050</td>
<td>$13,300</td>
<td>$12,700</td>
<td>-1.9%</td>
<td>0.2%</td>
</tr>
<tr>
<td>3</td>
<td>All</td>
<td>SUV</td>
<td>SUV Midsize</td>
<td>2017 FORD EXPLORER 4WD V6 4D SUV XLT</td>
<td>$24,000</td>
<td>$24,400</td>
<td>$23,100</td>
<td>-1.6%</td>
<td>0.3%</td>
</tr>
<tr>
<td>4</td>
<td>All</td>
<td>Compact Car</td>
<td>Compact Car Premium</td>
<td>2017 NISSAN SENTRA 4D SEDAN SV</td>
<td>$9,625</td>
<td>$9,800</td>
<td>$9,250</td>
<td>-1.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>5</td>
<td>All</td>
<td>Midsize Car</td>
<td>Midsize Car Entry</td>
<td>2017 VOLKSWAGEN JETTA 4D SEDAN S</td>
<td>$10,600</td>
<td>$10,800</td>
<td>$9,600</td>
<td>-1.9%</td>
<td>0.9%</td>
</tr>
<tr>
<td>1 Dealer</td>
<td>Dealer</td>
<td>Pickup</td>
<td>Pickup Lite Duty Full</td>
<td>2018 FORD F150 4WD V8 FFV CREW CAB 5.0L XLT</td>
<td>$32,200</td>
<td>$32,700</td>
<td>$27,800</td>
<td>-1.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>1 Lease</td>
<td>Lease</td>
<td>SUV</td>
<td>SUV Midsize</td>
<td>2017 NISSAN ROGUE AWD 4D SUV 2.5L SV</td>
<td>$15,150</td>
<td>$15,450</td>
<td>$14,650</td>
<td>-1.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>1 Rental</td>
<td>Rental</td>
<td>Midsize Car</td>
<td>Midsize Car Entry</td>
<td>2019 CHEVROLET MALIBU 4D SEDAN LT</td>
<td>$13,650</td>
<td>$14,100</td>
<td>$14,500</td>
<td>-3.2%</td>
<td>-0.5%</td>
</tr>
</tbody>
</table>
Sales Impact Varies by DMA As Evidenced By Unique Credit Apps

April 5\textsuperscript{th}

October 4\textsuperscript{th}
Appendix
Weekly Price Trend Similar For Non-Luxury

Slightly stronger declines followed by stronger recovery and now declining at a slightly higher pace

Non-Luxury 3-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
Weekly Price Trend Less Severe For Luxury

Luxury vehicles have outperformed by not declining as much and now seeing smaller declines

Luxury 3-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
One-year-old vehicle prices fell more in March and April but now seeing smaller declines.

1-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
Luxury Prices Move Higher Than Non-Luxury In September

Luxury prices in September were up 17% compared to September 2019, while non-luxury prices increased 14%.
Electric Car Prices Up In September

Electric car prices in September were up 8% compared to September 2019.
Rise of SUV Not Yet Fully Reflected in Wholesale Market

The SUV reigns supreme in new vehicle sales while cars still dominated the used car market.

**New Vehicle Sales by Category**

**Manheim Sales by Category**

Source: Manheim/Cox Automotive