Vehicle Market Insights

Manheim Used Vehicle Value Index
Call - July 8, 2020

Jonathan Smoke & Zo Rahim
Special Guest: Whitney Gerkin
<table>
<thead>
<tr>
<th><strong>Cox Automotive™</strong></th>
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<tbody>
<tr>
<td><strong>INVENTORY</strong></td>
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<tr>
<td><strong>RETAIL</strong></td>
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<tr>
<td><strong>FINANCIAL</strong></td>
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<tr>
<td><strong>MOBILITY</strong></td>
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</tbody>
</table>
COVID-19 Market Update
Covid-19 Local Impact Assessment
Continuing Claims At 19.3 Million Nationally

Data as of July 2, 2020

Continued Claims % of Jobs by State
3.86% 19.85%
Note: Insured Unemployment For Week Ended June 27

Source: U.S. Department of Labor
**Consumer Sentiment Moves Down Again**

Morning Consult’s Index of Consumer Sentiment on Monday was down 23.4% since February 29.
New Vehicle Sales Down But Recovering

Source: BEA

Total New % Change y/y
# New Vehicle Market Share Performance – 1H 2020

<table>
<thead>
<tr>
<th>Brand</th>
<th>Market Share</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEVROLET</td>
<td>0.59</td>
<td>-1.65</td>
</tr>
<tr>
<td>KIA</td>
<td>0.47</td>
<td>-0.65</td>
</tr>
<tr>
<td>MAZDA</td>
<td>0.36</td>
<td>-0.19</td>
</tr>
<tr>
<td>HYUNDAI</td>
<td>0.29</td>
<td>-0.19</td>
</tr>
<tr>
<td>TESLA</td>
<td>0.28</td>
<td>-0.10</td>
</tr>
<tr>
<td>RAM</td>
<td>0.22</td>
<td>-0.10</td>
</tr>
<tr>
<td>JEEP</td>
<td>0.17</td>
<td>-0.08</td>
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<tr>
<td>TOYOTA</td>
<td>0.17</td>
<td>-0.07</td>
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<tr>
<td>GMC</td>
<td>0.14</td>
<td>-0.05</td>
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<tr>
<td>LINCOLN</td>
<td>0.12</td>
<td>-0.02</td>
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<tr>
<td>SUBARU</td>
<td>0.12</td>
<td>-0.02</td>
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<tr>
<td>VOLVO</td>
<td>0.07</td>
<td>-0.02</td>
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<tr>
<td>VOLKSWAGEN</td>
<td>0.06</td>
<td>-0.01</td>
</tr>
<tr>
<td>LEXUS</td>
<td>0.05</td>
<td>-0.01</td>
</tr>
<tr>
<td>LAND ROVER</td>
<td>0.02</td>
<td>0.00</td>
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</table>

Source: Cox Automotive
## New Vehicle Market Share Performance – 1H 2020

<table>
<thead>
<tr>
<th>Category</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-size Pickup Truck</td>
<td>2.41</td>
</tr>
<tr>
<td>Mid-size SUV/Crossover</td>
<td>1.36</td>
</tr>
<tr>
<td>Subcompact SUV/Crossover</td>
<td>1.12</td>
</tr>
<tr>
<td>Mid-size Pickup Truck</td>
<td>0.68</td>
</tr>
<tr>
<td>Luxury Compact SUV/Crossover</td>
<td>0.22</td>
</tr>
<tr>
<td>Luxury Mid-size SUV/Crossover</td>
<td>0.17</td>
</tr>
<tr>
<td>Compact SUV/Crossover</td>
<td>0.07</td>
</tr>
<tr>
<td>Luxury Full-size SUV/Crossover</td>
<td>0.03</td>
</tr>
<tr>
<td>High-end Luxury Car</td>
<td>0.01</td>
</tr>
<tr>
<td>Electric Vehicle</td>
<td>0.00</td>
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<tr>
<td>Compact Car</td>
<td>-1.83</td>
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<tr>
<td>Mid-size Car</td>
<td>-0.82</td>
</tr>
<tr>
<td>Subcompact Car</td>
<td>-0.80</td>
</tr>
<tr>
<td>Minivan</td>
<td>-0.62</td>
</tr>
<tr>
<td>Full-size Car</td>
<td>-0.53</td>
</tr>
<tr>
<td>Luxury Car</td>
<td>-0.44</td>
</tr>
<tr>
<td>Van</td>
<td>-0.30</td>
</tr>
<tr>
<td>Entry-level Luxury Car</td>
<td>-0.27</td>
</tr>
<tr>
<td>Full-size SUV/Crossover</td>
<td>-0.24</td>
</tr>
<tr>
<td>Hybrid/Alternative Energy Car</td>
<td>-0.20</td>
</tr>
</tbody>
</table>

Source: Cox Automotive
Retail Sales Recovery Estimates

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

New

Used
Update: Manheim’s Shift to All-Digital

Whitney Gerkin
Digital Marketplace Director
Manheim
ACCESSING MANHEIM INVENTORY TODAY

SIMULCAST

DIGITAL BLOCKS
(In-Lane Bidding)

MANHEIM.COM

OVE / PRIVATE STORES

MANHEIM EXPRESS
OPERATIONAL UPDATES SINCE GOING ALL-DIGITAL

Welcomed **sellers back on the block** at all locations.

Welcomed **buyers to preview vehicles** on the lot at all locations.

Piloting **in-lane bidding** "Digital Blocks" at select locations.
DIGITAL WHOLESALE IS STRONG

Manheim’s sales rates are now higher than pre-COVID levels.

January through June, Manheim experienced 1.5+ million digital transactions, which is more than 20% higher than the same period in 2019.

OVE sales were up nearly 70 percent in June compared to last year.

Source: Manheim Data
6 in 10
DEALERS SAY THAT SIMULCAST IS WORKING AS A REPLACEMENT

STATS:
MANHEIM DIGITAL MARKETPLACE

8200+
VEHICLES SOLD IN A WEEK AT MANHEIM PA IN JUNE, 900 HIGHER THAN SAME WEEK 2019

23,000
SIMULCAST SALES OCCURRED ON A SINGLE DAY IN JUNE, A RECORD ON THE PLATFORM

8300+
BUYERS MADE FIRST TIME PURCHASES ON SIMULCAST

~40%
IS THE INCREASE IN USAGE OF SIMULCAST REMOTE SELLER SINCE MARCH 16

15,000
SIMULCAST SALES OCCURRED ON A SINGLE DAY IN JUNE, A RECORD ON THE PLATFORM
SIMULCAST ATTENDANCE & BIDDING ARE ON THE RISE

Simulcast Attendance & Bidding in 2020

- Attendees Per Lane
- Bids Per Unique Offer

Source: Manheim Data
“The system is really easy and I really enjoy it. I'll be honest. I was one of the biggest skeptics against it because I really hadn't tried it and I couldn't get over the idea of bidding online. But since I've done it the last few weeks I do like it. The more I use it, the more I like it.”

- Manheim Dealer Client
What’s next for Wholesale?

Wholesale will remain heavily digital for the foreseeable future.

We’re going all-in on vehicle imaging.

New vehicle tracking technologies will make it easier to locate and preview inventory.

In-lane bidding is contingent on safety first.
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
Record-Setting Rebound In Wholesale Prices

Prices in June increased 8.95% from May 2020 and were up 6.3% compared to June 2019.
Used Vehicle Values Back to Pre-Covid Strength

Year-over-year price performance stronger than average

Source: Manheim/Cox Automotive
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 More Than Recovered

2020 spring bounce ended abruptly as COVID-19 pandemic hit the US but prices more than recovered in weeks since

3-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
Retention Values Ended June Up 1.9% Relative to 2019

Relative to MSRP and fixing the basket of vehicles by what was sold leaves residuals following similar pattern.
Most major segments saw year-over-year gains in June

Source: Manheim/Cox Automotive
Average price for rental risk units sold in June up 3.4% y/y and up 8.9% m/m

Source: Manheim/Cox Automotive
## Distribution of Rental Risk Vehicles

<table>
<thead>
<tr>
<th></th>
<th>2018 Q2</th>
<th>2019 Q2</th>
<th>2020 Q2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of unique year, make, model, body configurations sold</td>
<td>3,023</td>
<td>3,337</td>
<td>3,090</td>
</tr>
<tr>
<td>Share accounted for top 10 YMMB</td>
<td>13.5%</td>
<td>12.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Share accounted for top 25 YMMB</td>
<td>22.9%</td>
<td>22.3%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Number of YMMB to reach 50% share</td>
<td>109</td>
<td>106</td>
<td>86</td>
</tr>
</tbody>
</table>
Average mileage for rental risk units in June was down 7% compared to a year ago and down 6% m/m
Rental Risk Units Sold by Condition

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

Source: Manheim/Cox Automotive
All top selling vehicles in June at Manheim saw higher prices over the last 30 days (June 1 – July 1). Prices year-over-year saw mostly lower than normal depreciation, but a few vehicles sold for more than year-ago prices.
Sales Impact Varies by DMA As Evidenced By Unique Credit Apps

April 5th

July 5th

Source: Cox Automotive
Appendix
Weekly Price Trend Similar For Non-Luxury

Slightly stronger declines followed by stronger recovery

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 similar strength

Luxury 3-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
Weekly Price Trend Now Strong for One-Year-Old Vehicles

One-year-old vehicle prices were very stable throughout most of 2019 but had a rough March and April.

1-Year-Old Model MMR Index by Week

Source: Manheim/Cox Automotive
Luxury prices in June were up 7% compared to June 2019, while non-luxury prices increased 6%.
Electric Car Prices Improve In June

Electric car prices in June were up 5% compared to June 2019

Source: Manheim/Cox Automotive
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**
- CAR
- PICKUP
- SUV
- VAN

**Manheim Sales by Category**
- CAR
- PICKUP
- SUV
- VAN

Source: Manheim/Cox Automotive
Thank You

Jonathan Smoke & Zo Rahim
Economic Industry Insights

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