Buckle Up for a Roller-Coaster Ride

Michelle Krebs
Executive Analyst
New Vehicle Sales Forecast for 2019

Source: Cox Automotive, December 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>17.2</td>
</tr>
<tr>
<td>2019</td>
<td>16.8</td>
</tr>
<tr>
<td>2020*</td>
<td>16.5</td>
</tr>
</tbody>
</table>

COX AUTOMOTIVE
FULL-YEAR FORECASTS
Vehicle Shopper Perspective
Market Consideration Above 28,000,000

New Light Vehicle and MY0-4 Used Light Vehicle Demand Strong, Importance of Used Rising

Combined New and Used MY0-4 Vehicle Market

"Gently" Used Share

Source: Cox Automotive analysis of BEA Vehicle Deliveries, IHS Registrations
Estimated Lease Maturities

<table>
<thead>
<tr>
<th>Year</th>
<th>Millions Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2.2</td>
</tr>
<tr>
<td>2015</td>
<td>2.5</td>
</tr>
<tr>
<td>2016</td>
<td>3.1</td>
</tr>
<tr>
<td>2017</td>
<td>3.5</td>
</tr>
<tr>
<td>2018</td>
<td>3.9</td>
</tr>
<tr>
<td>2019</td>
<td>4.1</td>
</tr>
<tr>
<td>2020</td>
<td>3.9</td>
</tr>
<tr>
<td>2021</td>
<td>3.7</td>
</tr>
<tr>
<td>2022</td>
<td>3.6</td>
</tr>
<tr>
<td>2023</td>
<td>3.5</td>
</tr>
</tbody>
</table>
Decline of Cars Not Reflected in Wholesale Market Volumes

The SUV reigns supreme in new vehicle sales while cars still dominated the used car market.
2019: New and Used Buying Conditions Become Less Favorable

- Labor Markets
- Consumer Confidence
- Product Choice

- Credit Availability
- Gasoline Prices
- Tax Reform Impact
- Vehicle Prices
- Inventories

- Equity Markets
- Monetary Policy
- Fiscal Policy
- Housing Market
Interest Rates and Tightening Credit
Easier Lending Supported Peak Auto Sales

Lending grew by 4.6% Y/Y in Q3 by 10% gains in subprime and 8% gains in 760+ $ volumes

Source: New York Federal Reserve Consumer Credit Panel/Equifax

AUTO LOAN ORIGINATION $ BY CREDIT SCORE

LENDING EXPANDED IN Q3

Source: New York Federal Reserve Consumer Credit Panel/Equifax
“Best Available” Auto Rates at Seven-year High

The discount rate ended 2018 up 1% while best available auto rates were up more and up 2.4% from absolute low.
Subprime Penetration Varies by Brand

Source: Dealertrack/Cox Automotive
Trouble with Tax Refunds
Tax Reform Boosted Disposable Personal Income

Lower tax rates effectively allowed average income gains to translate into equivalent gains in spending.

**PER CAPITA INCOME AND BUYING POWER**

- **2017**: $51,630
- **2018**: $53,430

**Unch**:
- **2017**: $(6,241)
- **2018**: $(6,243)

**Interest Payments**
- **2017**: $(901)
- **2018**: $(1,008)

**Buying Power**
- **2017**: $44,488
- **2018**: $46,179

**Growth Rates**
- **Income**: +3.8%
- **Buying Power**: +3.5%
- **Unch**: +12%

Source: US Bureau of Economic Analysis Personal Income and Consumption
Implications of Underwithholding

MORE THAN 102 MILLION FILERS RECEIVED A REFUND IN 2018 FOR 2017 TAXES

Millions of households likely to be in a different position relative to tax refunds than they are accustomed

THE AVERAGE REFUND LAST YEAR WAS ALMOST $2,800

The average refund is likely to be smaller

Consumer spending likely to be negatively impacted
Consumer credit conditions likely to deteriorate
Updated W4 will lead to higher withholdings and lower disposable income
Trade & Tariffs
Vehicle Prices Already Impacted by Tariffs

11 weeks of appreciation in the summer brought prices to a new equilibrium reflecting an average 2% increase in value

Source: Manheim
### Negative Impact of Import Tariffs

<table>
<thead>
<tr>
<th></th>
<th>Q4 2018</th>
<th>Q3 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher prices on all used vehicles as market adjusts</td>
<td>61%</td>
<td>60%</td>
</tr>
<tr>
<td>Higher prices on imported vehicles</td>
<td>57%</td>
<td>55%</td>
</tr>
<tr>
<td>Higher prices on all new vehicles as market adjusts</td>
<td>40%</td>
<td>48%</td>
</tr>
<tr>
<td>Lower (or delayed) used vehicle sales</td>
<td>28%</td>
<td>23%</td>
</tr>
<tr>
<td>Lower (or delayed) new vehicle sales</td>
<td>26%</td>
<td>27%</td>
</tr>
<tr>
<td>Higher prices on domestic vehicles</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>No Concerns</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Q: What, if any, positive impacts would imposing tariffs on imported vehicles and parts have on your business? Please select all that apply.
The US Market is Heavily Dependent on a Complex Global Supply Chain

COMPOSITION OF NEW VEHICLES SOLD IN THE US BY MAJOR SEGMENTS AND MAJOR REGIONS OF ORIGIN

Source: Cox Automotive estimates based on IHS Markit Registrations.
Changing New Vehicle Market
Share of New Vehicle Sales Under $30,000 MSRP Declining

Source: Kelley Blue Book, December 2018
Share of New Vehicle Monthly Payments **Over $600** Increasing

The average payment on a new vehicle reached $533 in 2018 or 10.2% of median household income

Source: Dealertrack
Affordable Cars Outperforming other Segments

Percent change in Manheim Used Vehicle Value Index year-over-year December 2018

<table>
<thead>
<tr>
<th>Segment</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>4.3%</td>
</tr>
<tr>
<td>Compact cars</td>
<td>6.2%</td>
</tr>
<tr>
<td>Midsize cars</td>
<td>6.6%</td>
</tr>
<tr>
<td>Luxury cars</td>
<td>0.2%</td>
</tr>
<tr>
<td>Pickups</td>
<td>1.1%</td>
</tr>
<tr>
<td>SUV/CUV</td>
<td>3.6%</td>
</tr>
<tr>
<td>Vans</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Source: Manheim
The US Market is Heavily Dependent on a Complex Global Supply Chain

![Chart showing the composition of new vehicles sold in the US by major segments and major regions of origin.](chart)

Source: Cox Automotive estimates based on IHS Markit Registrations
PAVING THE WAY TO
THE EVOLUTION
OF MOBILITY
The Cost Benefit of Ownership is Eroding

“Owning/Leasing a Vehicle is Becoming Too Expensive”
% Agree

42% 2015
48% 2018

Source: 2018 Cox Automotive Evolution of Mobility Study
Consumer Attitudes About Vehicle Ownership Are Changing

“Having Transportation is Necessary, but Owning a Vehicle is Not”

% Agree

<table>
<thead>
<tr>
<th>Year</th>
<th>% Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>35%</td>
</tr>
<tr>
<td>2018</td>
<td>39%</td>
</tr>
</tbody>
</table>

Source: 2018 Cox Automotive Evolution of Mobility Study
1/3 of Consumers Are Open to New Mobility Options

33%

“I’m open to exploring new transportation methods”
(vs. 67% I like to own)

Source: 2018 Cox Automotive Evolution of Mobility Study
Thank You!

www.coxautoinc.com/newsroom