Auto Industry
U.S. Light Vehicle Sales

S.A.A.R – Millions of Units

Source: Ward’s Automotive and BEA
Annual Job Growth

Automobiles & Parts

Average Hourly Earnings

Total Automotive & Parts, Index – 2007 = 100

U.S. Light Vehicle SAAR & Incentives

S.A.A.R – Millions of Units & Incentive as % of Total Price

Note: Total price = Average Transaction Price + Average Incentive

Source: Author’s calculation using Ward’s Automotive and J.D Power data.
U.S. Light Vehicle Incentives

Incentive as Percent of Total Price

Source: Author’s calculation using J.D Power data.

Note: Total price = Average Transaction Price + Average Incentive
Light Vehicle Transaction Price

Price as Percent of Median Household Income

Note: Total price = Average Transaction Price + Average Incentive

Source: Author’s calculation using J.D Power and U.S. Census Bureau data.
Vehicle Recalls

Vehicle Recalls and Affected Units

Source: U.S. Department of Transportation - NHTSA
CPI New and Used Autos

Indexed: 2007 = 100

Ratio

New

Used

Dec ’14
107.7
106.4

'07 '08 '09 '10 '11 '12 '13 '14
Auto Loan Rates

New Autos 48 Month Loan – Commercial Banks

Source: Federal Reserve Board of Governors
## Changing Payment Durations

**Percent Change in Payment to Percent Change in Loan Rate**

<table>
<thead>
<tr>
<th>Percent Change in Loan Rate</th>
<th>36 Months</th>
<th>48 Months</th>
<th>60 Months</th>
<th>72 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>1.5%</td>
<td>2.0%</td>
<td>2.4%</td>
<td>2.9%</td>
</tr>
<tr>
<td>2%</td>
<td>3.1%</td>
<td>4.0%</td>
<td>4.9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>3%</td>
<td>4.6%</td>
<td>6.0%</td>
<td>7.4%</td>
<td>8.7%</td>
</tr>
<tr>
<td>4%</td>
<td>6.2%</td>
<td>8.1%</td>
<td>10.0%</td>
<td>11.7%</td>
</tr>
<tr>
<td>5%</td>
<td>7.8%</td>
<td>10.2%</td>
<td>12.5%</td>
<td>14.7%</td>
</tr>
</tbody>
</table>
Falling Gasoline Prices

Oil to Gasoline Relationship

\[ y = 0.0295x + 0.5808 \]

\[ R^2 = 0.9698 \]

Source: U.S. Energy and Information Agency
Crude Oil & Gasoline Price

WTI & National Average All Formulas - In Nominal Dollars

Note: The average driver will save about $6.00 / year for ever $0.01 decline in fuel price.

U.S. Light Vehicle Sales

Thousands of Units – Calendar Year

Thousands

- '09: 10,401
- '10: 11,554
- '11: 12,735
- '12: 14,440
- '13: 15,532
- '14: 16,434
- '15: 16,900
- '16: 17,000

Source: Ward’s Automotive and BEA and IHS Automotive.
U.S. Light Vehicle Industry

Millions of Units

Source: Ward’s Automotive
U.S. Light Vehicle Pent-Up Demand

 Millions of Units

Years

Millions

15.0
10.0
5.0
0.0
-5.0
-10.0
11.8
7.0
0.0
4.6

2016
http://michiganeconomy.chicagofedblogs.org/