Automotive Outlook:
From Plateau to ? – Where is the Industry Headed

Jeff Schuster - Senior Vice President, Global Forecasting
September 13th, 2016
Outline

• Global Automotive Backdrop

• North America Demand Environment and Trends

• North American Production Outlook and Sourcing Trends

• Summary
# Global Economy by Major Market

<table>
<thead>
<tr>
<th>Real GDP Growth</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>2.4%</td>
<td>2.4%</td>
<td>1.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Argentina</td>
<td>-2.6%</td>
<td>2.4%</td>
<td>-0.8%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.1%</td>
<td>-3.9%</td>
<td>-3.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Japan</td>
<td>-0.1%</td>
<td>0.6%</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>ASEAN</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>4.6%</td>
</tr>
<tr>
<td>China</td>
<td>7.3%</td>
<td>6.9%</td>
<td>6.5%</td>
<td>6.2%</td>
</tr>
<tr>
<td>India</td>
<td>7.0%</td>
<td>7.2%</td>
<td>7.5%</td>
<td>7.2%</td>
</tr>
<tr>
<td>UK</td>
<td>3.1%</td>
<td>2.2%</td>
<td>1.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Russia</td>
<td>0.7%</td>
<td>-3.7%</td>
<td>-0.8%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Germany</td>
<td>1.6%</td>
<td>1.5%</td>
<td>1.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>World</td>
<td>2.8%</td>
<td>2.6%</td>
<td>2.2%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

- **Near-term weaker, rebound expected**
- **Contraction expected in ’16, risks high**
- **Cautious improvement**
- **Slightly better, but weak growth**
- **Stable, but some risk**
- **Downward pressure remains**
- **Positive environment, risks skewing downward**
- **Uncertainty high, endures slowdown**
- **Edging out of recession**
- **Shrugging off Brexit? More risk in 2017**
- **Slightly weaker in 2016, sable in 2017**

Source: Oxford Economics
Global LV sales – Current Environment

World 2016 forecast: 91.9 mn, up 2.4 mn units (+2.7%)

2016 Top 5 Countries LV Sales (Mn)

- China: 26.4
- US: 17.4
- Japan: 4.8
- Germany: 3.3
- India: 3.4

Source: LMC Automotive

Global LV Short-term

- 2015: 89.5
- 2016: 91.9
- 2017: 93.2
- 2018: 96.4
• Volume expected to be up 2.8% from 2015, 2017 expected to increase 2% with demand.

• Western Europe still up 3% this year but next year expected to increase only 1% with some Brexit uncertainty focused more in 2nd half of 2017 and into 2018. Bexit

• Russia and Brazil remain as volume decliners. Russia expected to be off by 110,000 units from 2015 and Brazil’s now down by nearly 300,000 units.
Global OEMs - Short-term Outlook

2016F Global LV Production Growth from 2015

- Global OEM leads mixed but up 3%. 3 groups dip into negative growth.
- VW diesel scandal risk - China growth and US prod. stability driving pace
- Toyota improves some as Japan is stable - RAV4 and C-HR in EE doing well.
- R-N growth with new product barrage - Lannia in China, Kwid in India
- GM up with expansion in China (Cadillac)
- Ford slightly negative with weakness across Europe and exposure in BR/AR
- Honda tops growth – Fit/Freed MPV in Japan and CR-V/Ridgeline in NA.
- FCA gains with Alfa expansion and Fiat Egea in EE, but falls in NA/SA
- Suzuki transition in Asia – ceases in Malaysia, down in Japan, growth in India

Note: GM does not include Wuling, Baojun, Jiefang

Source: LMC Automotive
Will Global Growth be Sustained?

Average historical growth rates
LV Sales: 3.1%
GDP: 2.9%

Average 2015-2023 growth rates
LV Sales: 2.7%
GDP: 2.7%

Source: LMC Automotive, Oxford Economics
Outline

• Global Automotive Backdrop

• **North America Demand Environment and Trends**
  
  • North American Production Outlook and Sourcing Trends
  
  • Summary
• Slowing growth picture solidifying with recent performance, but stable outlook in near-term is holding. Interest rates and political uncertainty are risks.
• 2017/2018 growth halts across the board with all three countries growth expected under 0.5%.

Source: LMC Automotive
Sales pace at beginning of year started off ahead of expectations but have leveled off. YTD August is clinging to a Y-on-Y gain of 0.7%, with the SAAR averaging just under 17.3mn.

H2 poses challenge to meet or exceed 2015, given current slowing trend and 17.9mn average in H2 2015 – now expect H2 2016 to be solid but track at 17.5mn average, a risk as the July/August pace is 17.4mn.

Source: LMC Automotive, Oxford Economics, JDP PIN, Industry Sources
Fleet sales + “Fleetail” Has Masked Demand Slowing

Retail has outpaced non-retail only 4x since 2015

Source: JDP PIN, LMC Automotive
• Baseline US LV topline is expected to grow at a CAGR of just 0.4% from 2015-2023 with slow (2%) economic growth supporting long run in autos! Risks to baseline include lease maturities (used car substitute) and tighter credit.
• Negative bias with recession scenario - mild with short duration as volume falls to 15.4mn in 2019, a 12% drop from baseline. Recovery may be hampered by lower density growth, car sharing and regulations impact.
• Outperform scenario – Near-term up from VW buyback and lease maturities followed by technology driven increase as market transitions. CAGR sill only 0.8%.

Source: LMC Automotive
US Product Activity Remains High

- Fragmentation and competition increases exponentially going forward – along with SUVs, dedicated HEVs, EVs are a priority.
- 92 new entries from 2016 forward, with 186 redesigns planned.

Source: LMC Automotive
Collision Course?

Consumers want SUVs!

US Sales – SUV share

<table>
<thead>
<tr>
<th>Year</th>
<th>SUV Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD Aug10</td>
<td>29%</td>
</tr>
<tr>
<td>YTD Aug15</td>
<td>36%</td>
</tr>
<tr>
<td>YTD Aug16</td>
<td>38%</td>
</tr>
<tr>
<td>2020F</td>
<td>40%+</td>
</tr>
</tbody>
</table>

- Regulation coming tougher on cars to hit milestones
- Expected price of oil will not drive push toward compact car EVs
- SUVs continue to grow – but will likely need stronger EV penetration
- Pickups have place in future, share expected to hold at 15%

Price of Oil to 2025

Hybrid/EV Sales are Down!

Source: LMC Automotive
More SUVs are Coming!

Source: LMC Automotive
The full range of electrification is expected to accelerate from 2016, despite fuel prices. Significant expansion of the number of product offerings combined with improvements in technology as the industry grapples with regulation will drive share to more than 12% when including mild hybrids.

We expect full hybrid to remain dominate but share of electrification expected to fall from 70% in 2016 to <50% by 2023 as BEV, PHEV and Mild growth accelerates.

Source: LMC Automotive
Outline

• Global Automotive Backdrop

• North America Demand Environment and Trends

• North American Production Outlook and Sourcing Trends

• Summary
Short-Term NA Production Outlook

- 2016 – Launch activity remains strong with 16 new production entries or in first full year. Volume reduced slightly in 2016 (25k) on flattening demand.
- NA up 3.0% or 200k in 2H16, but build plans not aligned with our expectation for reduced demand suggesting volume risk in 4Q.
- 2017 outlook remains solid but lower growth rate of 1.1%. As demand is on watch so will be production but most risk is beyond 2017.
Inventory very stable and in good shape through August at a 61-day supply – suggesting industry has not started an overbuild as demand flattens out though there are some trouble spots in certain vehicle types

• Interplay between inventory levels and incentives will be key indicator!

Source: LMC Automotive
Volume growth slows through ‘17 – investment help offset slowing US demand

Hyundai/Kia localizing at Monterrey plant drives growth, Montgomery adds Santa Fe

Daimler in ‘16 benefits from full year of GLE Coupe and Metris van; ‘17 pullback with aging GLE/GLS, R-Class exit

GM ‘16 gains on strong SUV and Pickup volume and new CT6/Bolt; ‘17 falls on lower Car and Large PU/SUV output

Ford F-150, new Midsize SUV’s drive growth ‘16; ‘17 slight growth with new Continental

VW for ‘16 under pressure, offset by new Audi capacity; ‘17 adds needed SUVs

FCA ‘16 off with Toluca and Sterling Heights downtime; ‘17 falls on sourcing shifts/changeovers

Toyota decline in ‘17 on Camry changeover, Venza and GCC Sequoia end

Subaru continues expansion with Legacy/Outback growth and adds Impreza

Source: LMC Automotive
• Localization and exports production expansion strongest through 2019. Utilization settling in above 85% but some risks with new capacity remain.

• Demand flattening impacts production levels in longer-term but to lesser extent due to resourcing trends. Stability with sales expectations does help to maintain volume levels, risk grows post 2017/18.

Source: LMC Automotive
NA Production by OEM Grouping

**Detroit 3**

- Production (millions of units)
- Capacity Utilization %
- CAGR: 0.1%
- New Entries/Redesigns: 83

**Asian OEMs**

- Production (millions of units)
- Capacity Utilization %
- CAGR: 1.8%
- New Entries/Redesigns: 82

**European OEMs**

- Production (millions of units)
- Capacity Utilization %
- CAGR: 5.5%
- New Entries/Redesigns: 26

Source: LMC Automotive
• 2016 onward: 60% of new capacity to Mexico
• FTA’s, low costs and incentives boost Mexico but also push with B- and C-segment growth and shift
• US aided initially by weaker dollar, now currency hedge
• Costs hurt Canada, ~400k volume loss from ‘15

Source: LMC Automotive
North American Production Body Type Mix

- Car share falls slightly as another shift to trucks continues to progress. Shift of small car to Mexico drives volume to increase to 4 million units by 2017.
- Consumer demand for SUVs drives significant expansion with volume reaching 40% of total NA production. US continues to dominate but expansion in Mexico leads to significant growth (140%).
- Demand for Premium has been underperforming but strong capacity investment in Mexico, will drive production growth - Audi/BMW/MB-Infiniti investment.

Source: LMC Automotive
Outline

• Global Automotive Backdrop

• North America Demand Environment and Trends

• North American Production Outlook and Sourcing Trends

• Summary
Summary

• Globally, the auto market is stable at topline with marginal growth, but with risks in both emerging and mature markets.

• Brexit, Emerging market economic stability and US/WE/Japan leveling off dominate risks.

• US demand growth appears to be coming to a halt, with some risk in the second half of 2016. No evidence of major contraction coming, but long-term growth expected to average less than 0.5%.

• North American production outpaces demand, investment still pouring in with volume into the 19 mn unit range. Launch activity is strong, though some risk with new plants being underutilized if demand slows further.

• Number of entries increase, adding opportunity but also complexity and risk, with SUV production leading growth.
Thank You

BRinna@lmc-auto.com