Outlook

The Global Light Vehicle Marketing – Trekking Through Uncertainty

Kevin Riddell, Senior Manager of Americas Powertrain
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Outline

- Current Automotive Environment and Near-term Risks
- Long-Term Outlook and Trends
- Summary
Global short-term uncertainty

**Momentum**
Global LV sales will contract for 2nd year in a row, as key markets fail to support growth. Issue spilling into production/capacity utilization concerns as 2020 risks to be 3rd year negative.

**Trade**
Tariffs and a trade war remain concern for autos. USMCA awaiting Senate vote. China impacts all trade-Phase 1 pending. EU uncertainty carries significant auto risk but holding for now.

**Brexit**
Brexit bill passed in Parliament, but hard Brexit risk and uncertainty remain. Full auto impact will take time to flush out and trade deals are negotiated – is December 2020 realistic?

**Regulations**
Tougher Emission regulations pushing market toward EVs – US an outlier? Will consumers buy EVs given the various challenges?
Global economic growth slowing…

2019 – after two years above 3.0%, growth cools to 2.6%, with further downside in 2020.

Source: Oxford Economics
Global Light Vehicle sales

Relatively weak selling rates have persisted throughout 2019

Source: LMC Automotive
Composition of Light Vehicle sales decline
Volume decline across emerging markets and China

Source: LMC Automotive
Demand in near-term is cloudy and uncertain
Global 2019 down 4.1mn to 90.3mn; 2020 now expected at 90.0mn

Source: LMC Automotive
Current North America Light Vehicle sales pattern
Region outperforming expectations but remains negative
Pricing and incentive trend explain some volume decline

- Customer facing transaction price is up 4% from 2018, as increase accelerated throughout year.

- Total incentives are up 3% from 2018; Car incentives are down 2%; Trucks up 4%.

- Incentives as percent of MSRP fall marginally from 10.2% last year to 10.1% in 2019.

Source: J.D. Power PIN
US short-term shifts – Trucks/Premium standout

US segment share

<table>
<thead>
<tr>
<th>Segment</th>
<th>2018 CAGR</th>
<th>2020 CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>-11%</td>
<td>-9%</td>
</tr>
<tr>
<td>SUV</td>
<td>+3%</td>
<td>+3%</td>
</tr>
<tr>
<td>MPV/MAV</td>
<td>-6%</td>
<td>-3%</td>
</tr>
<tr>
<td>Sporty</td>
<td>-9%</td>
<td>+2%</td>
</tr>
<tr>
<td>Pickup/Truck</td>
<td>+3%</td>
<td></td>
</tr>
<tr>
<td>Van</td>
<td>-3%</td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td></td>
<td>+2%</td>
</tr>
</tbody>
</table>

Source: LMC Automotive
Risks: Global utilization falls as investment continues

- 2019 - 36 net new plants (50 new less 14 closures) and an additional 16 in 2020.
- Utilization falls to 60% this year and holds at 61% in 2021 with investment still concentrated in China.
- Idle capacity increases to nearly 60mn this year, from 41mn in 2016.

Source: LMC Automotive
Mixed Outlook for 2020

2020 versus 2019, change in 000s

-300 -200 -100 0 100 200 300 400

VW
Toyota
R-N-M
Hyundai
GM
Ford
Honda
FCA
PSA
Daimler
Suzuki
BMW
SAIC
Geely
Mazda

Source: LMC Automotive
Risks: Several OEMs are significantly underutilized

<table>
<thead>
<tr>
<th>OEM</th>
<th>2018</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>VW Group</td>
<td>82%</td>
<td>76%</td>
</tr>
<tr>
<td>Toyota</td>
<td>84%</td>
<td>82%</td>
</tr>
<tr>
<td>R-N-M</td>
<td>70%</td>
<td>64%</td>
</tr>
<tr>
<td>Hyundai-Kia</td>
<td>78%</td>
<td>76%</td>
</tr>
<tr>
<td>GM</td>
<td>68%</td>
<td>69%</td>
</tr>
<tr>
<td>Honda</td>
<td>87%</td>
<td>85%</td>
</tr>
<tr>
<td>Ford</td>
<td>64%</td>
<td>62%</td>
</tr>
<tr>
<td>FCA</td>
<td>62%</td>
<td>56%</td>
</tr>
<tr>
<td>PSA</td>
<td>61%</td>
<td>56%</td>
</tr>
<tr>
<td>Suzuki</td>
<td>79%</td>
<td>67%</td>
</tr>
<tr>
<td>Daimler</td>
<td>89%</td>
<td>78%</td>
</tr>
<tr>
<td>BMW</td>
<td>86%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Source: LMC Automotive
PSA-FCA merger opportunities and challenges

Benefits
- Significant scope for cost reduction.
- Scale through optimized shared technologies. (platforms, powertrains, EV R&D).
- Spin off Alfa/Maserati?
- PSA enter N America.

Issues
- Utilization = plant closures?
- Integration pace?
- China competitiveness?
- Exposure to low-margin Small Segment?
- Regulatory exposure?

Source: LMC Automotive
Risks: Things could get worse in 2020

2020 Global LV Production Scenarios

Accumulating risks could wipe out 2020 YoY growth

Source: LMC Automotive
North American LV production rebounds some in 2020

- Weakened regional demand driving production in 2019 – some GM strike impact.
- Favorable inventory and new products drive increase in 2020 - Inventory down 9% YoY to 3.5mn units.

Source: LMC Automotive
Risk – North America production export exposure

Tariff risk has been reduced but have not disappeared.

Retaliatory tariffs on US exports to China and the EU would predominately hurt the premium brands.

Current Europe tariffs at 10% and on hold of further increase pending US actions.

Source: LMC Automotive
World: xEV Sales will Approach 7mn this Year

xEV Markets
Passenger Cars (including Light Truck in USA)

- Global growth in 2019 at 22% slowed from 32% average over last two years.
- China growth hit in H2 by sales topline slowdown but still increased 27%.

Source: LMC Automotive
World: BEV Sales continue to expand

BEV Markets
Passenger Cars (including Light Truck in USA)

- Policy & model availability led to China accounting for 67% of world BEV demand
- Europe’s BEV market is waking after Tesla impact kept US ahead in 2018.

Nearly 5mn BEVs on the road by end 2019

Source: LMC Automotive
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Risky Markets drive demand growth

- Global CAGR 2.5% 2019-2026, with >95% of growth concentrated in non-mature – circa 60% of demand by 2026.
- High risk with Turkey, Russia and India – expected recovery is driving growth. Brazil and China return to growth?

Source: LMC Automotive
US Sales are expected to hold in 16.5-17.0mn range

Source: LMC Automotive
Global Segments (demand) – 2019-2026 CAGR

**SUV** reign continues throughout forecast.

**Car** segment under pressure but EVs slow share decline.

New entries in NA LCV expansion in Asia drive **truck** growth

Recovery in Chinese **MPV** market offset by declines in NA and WE.

Premium EVs drive **Sporty** growth globally.

Total **Premium** gains more ground after SUV and EV expansion

Source: LMC Automotive
Global SUV production expands across regions

- Massive growth in SUVs across the regions with share of SUV volume growing – NA does lose some share as other markets catch up.
- EVs provide some support for Cars – China increases by 1.1mn, while NA volume falls by 1.3mn units, as transition continues.

Source: LMC Automotive
US and Mexico add capacity, new models drive growth

2018 – 2026

Capacity

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>13.6</td>
<td>15.2</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.4</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Total Capacity: 2092 10%

Production

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>1,571</td>
<td>2,230</td>
</tr>
<tr>
<td>Mexico</td>
<td>700</td>
<td>1,015</td>
</tr>
<tr>
<td>Canada</td>
<td>-179</td>
<td>-1,959</td>
</tr>
</tbody>
</table>

Total Production: -1,959

Source: LMC Automotive
Europe and China dominate BEV market into 2031

Passenger Car & NA Light Truck Market

- Global BEV demand approaching 20% of total car demand
- PHEV growth is slower, could even disappear as BEV capability & cost improves

LMC 2031 Forecast:

<table>
<thead>
<tr>
<th>Market</th>
<th>BEV (mn)</th>
<th>BEV (%)</th>
<th>xEV (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>&lt;2</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>China</td>
<td>&gt;5</td>
<td>18</td>
<td>51</td>
</tr>
<tr>
<td>Europe</td>
<td>~7</td>
<td>27</td>
<td>76</td>
</tr>
</tbody>
</table>

Source: LMC Automotive
Global BEV model onslaught
Number of mainstream BEV models on sale

Some key sales launches:
- Porsche Taycan
- Ford Mustang Mach E
- Audi e-tron
- Volkswagen ID.3
- Tesla Model Y
- Honda e
- MB EQC
- DS3 Crossback E-Tense

Source: LMC Automotive
Top 10 OEM share of global BEV market by sales

**2019**
- **Tesla**, 22%
- **BYD**, 10%
- **Ford**, 0%
- **GM**, 2%
- **VW**, 4%
- **Geely**, 4%
- **SAIC**, 6%
- **Hyundai**, 5%
- **BAIC**, 9%
- **R-N-M**, 9%

**Global 1.5mn**

**2031**
- **VW**, 18%
- **R-N-M**, 9%
- **Geely**, 4%
- **Hyundai**, 4%
- **BMW**, 3%
- **Toyota**, 3%
- **Ford**, 5%
- **Daimler**, 5%
- **GM**, 4%
- **Tesla**, 9%

**Global 17.3mn**

Source: LMC Automotive
Baseline US electrified Light Vehicle Sales

- Increased application of HEVs, boosted by 48V system introductions.
- BEV crosses 1mn by 2026 on strong model activity.
- Plug-In models primarily driven by ZEV regulations, but some volume sold in other states as well.
- Fuel Cell on chart but immaterial.

Source: LMC Automotive
Summary

- The global market posted 2\textsuperscript{nd} year of decline for first time since Great Recession.
- Level of uncertainty across the regions has improved but remains high and is centered on trade, political risk and economic cycles.
- There is still too much capacity globally and more investment planned.
- SUV growth continues but is expected to slow in some markets.
- EVs face first real test as launch activity accelerates over next couple of years!