North America Light Vehicle Outlook

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IHS Automotive
Presentation Outline

- Global Vehicle Sales Forecasts
- North America Overview
- Mexico
- Brazil
- Summary
Global Light Vehicle SAAR
Volume is slowing down

Synchronized Global Crash in November 08
Lehman Bros Trigger (Sept)
Japan Crisis

World Index of Seasonal Adjusted Annualised Sales Rates

June 12

YTD May Est up 4.6%

Global Light Vehicle SAAR Volume is slowing down

SAAR Index = 1 for year 2007
Global Light Vehicle Sales Outlook
Regional SAARs

Seasonally Adjusted Selling Rates Indexed 2007=1

2007 Sales Level

Lehman Bros Collapse
Global Light Vehicle Sales Outlook
2010 – 2012 Sales Volume

Sales in Millions

<table>
<thead>
<tr>
<th>Region</th>
<th>2010</th>
<th>2011</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater China</td>
<td>72.5M</td>
<td>75.6M</td>
<td>+4.1%</td>
</tr>
<tr>
<td>North America</td>
<td>1.6M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan/Korea</td>
<td>863k</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Asia</td>
<td>516k</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>216k</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central/Eastern Europe</td>
<td>99k</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle East/Africa</td>
<td>-325k</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Europe</td>
<td>-1.2M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2012: 78.7 Million

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YTD 2012 global light vehicle sales rose 5.5% versus YTD 2011. Japan/Korea led the regional ranking, up by 38%, with Japan mounting an impressive 55% rise in demand. North America follows with sales rising a very decent 12.8%. South Asia remains in recovery mode, largely due to production and distribution disruptions in 2011 that resulted from the heavy flooding in Thailand.

For full-year 2012, we penciled in 78.7 million units, up a further 4.1%, actually a shade higher than our previous forecast. For 2013 and 2014, we downgraded our expectations. Until the end of the forecast horizon in 2019, the global light vehicle sales market is expected to grow at a compound annual growth rate (CAGR) of 4.3% to reach 105.8 million units.
In May 2012, global production is estimated at 6.84 million units, up 12.3% versus 2011 levels, and a weak comparison due to the immediate aftermath of the Japanese tsunami and earthquake. YTD 2012 output is estimated at 34.53 million units, up 9.9%.

Full-year 2012 output is expected to reach 80.47 million units, the negative trend partially obscured by the positive development year-to-date.

Growth is expected to slow to 2.9% in 2013 and reach 82.83 million units as the economic woes in Europe continue.
Regional and Global Production SAAR Rates

- **North America**
- **Europe**
- **China**
- **Japan/Korea**
- **Global**

**Europe Supported by Luxury Exports**

**North America Stabilizes**

**Economic Uncertainty Slows Growth**

- **Chrysler and GM Bankruptcies**
- **Earthquake in Japan Disrupts Production**
Greece Exit Lowers Global Sales by 1m units for 2013

Source: Company Reports, Trade Associations, IHS Automotive.
Global LV Sales: Changing of the Guard
Long-Term Growth Only In Emerging Markets

Note: Mature=US, Canada, W Europe, Japan    BRICs=Brazil, Russia, India, China    Source: IHS Data Insights

Share of World Sales in Triad -Mature Markets

Change 2011-2020:
BRICs +69%, CAGR = 6.7%
Mature +18%, CAGR =1.9%
Between 2007 to 2024 Real Per Capita GDP will grow by 33% in OECD countries (down from 36% last year) but 150% in non-OECD countries.

March 12

World Real GDP: Growing a little slower than previous forecasts and still being re-distributed.
Recent Signposts to Vortex:
Undercurrents of Protectionism

- **China – US**
  - Solar PV tariffs – US Vs China
  - Steel Wheel Tariffs
  - US Built Vehicle Tariffs
  - China: Rare Earth Policy

- **India**
  - Raises Auto Import Tariffs on CBU in Recent Budget

- **Brazil**
  - Backtracks on FTA with Mexico imposes $1.5bn (100k Vol) quota on imports from Mexico
  - Raises IPI by 30% on imported vehicles (65% local content)
  - New Industrial Policy ‘Brazil Maior’ adds requirement for localisation of 12 identified major auto component target of 8 of the 12 by 2013 must be local/regional and 12 of 12 by 2018

- **Argentina**
  - 1:1 Auto import measures announced in 2011,
  - Nationalisation movement (YPF Oil company) – Spain, EU Retaliate
  - Import delays orchestrated, increasing delays from 30 days to 3-4mths
  - Argentina – Renege on Bilateral auto trade with Mexico
  - Luxury Tax started earlier this year from 10 to 25% on cars over $35K
US - Auto Market Overview

• Pent – Up demand is driving the auto recovery
• The first quarter (the high point for the year) was outstanding but unsustainable
• Retail, rather than fleet, remains the main driver, although February saw more fleet volume
• Sales have improved, as Japanese cars return to the showrooms, but there are still some issues of availability
• High gasoline prices actually helped sales (trade-in gas guzzlers)
• Incentive spending has risen modestly, as inventories rebuild, but there is more pricing discipline today
• Auto credit availability is improving
• Supply constraints are becoming a concern
• The used car and truck market remains very strong
• Cost pressures will return but industry profits are good

Bottom Line – A weak economy will hurt the release of pent up demand, slowing not derailing, the auto market recovery
Pure Raw Material Cost in a Car – Debt Crisis Lowers Input Costs

European Car @ 2700 Lbs in Euro
US Vehicle @ 3500 Lbs In $

Steel, Aluminium, Plastic Resins, Rubber, Glass, Iron

(Excludes Fuel, Processing and Transportation costs)

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Latest Data Point March 2012
New Auto Loans — Delinquency Rates

(% - Accounts past due 30 days or more)

Source: American Bankers Association
New Vehicle Buyers Average Credit Score

Source: CNW Marketing

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New Auto Loan Application Approvals

Unweighted Average of Prime, Near and Subprime

Source: CNW Marketing
New Auto Loan Rates – Commercial Banks

Federal Reserve Board

Quarters

(Percent)

5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0

Incentives to MSRP

(Percent)

Months


N/A
Residual Value Index

(Index = Lease contract residual value versus CNW estimate of residual at end of lease term)

Source: CNW Marketing
U.S. Light Vehicle Inventory — Units

(Units in thousands)

<table>
<thead>
<tr>
<th>Units in thousands</th>
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</thead>
<tbody>
<tr>
<td>4,500</td>
</tr>
<tr>
<td>4,000</td>
</tr>
<tr>
<td>3,500</td>
</tr>
<tr>
<td>3,000</td>
</tr>
<tr>
<td>2,500</td>
</tr>
<tr>
<td>2,000</td>
</tr>
<tr>
<td>1,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Months — Seasonally Adjusted</th>
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</thead>
</table>

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U.S. Light Vehicle Inventory — Days Supply

(Days Supply)

Light Trucks

Cars

Months — Seasonally Adjusted
Gasoline Retail Price - All Grades Per Gallon

Source: DOE
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Big Three by Manufacturer — Car & Truck Sales, SAAR

(Units in millions)

Months

GM
FORD
CHRYSLER

Jan-00 Jan-02 Jan-04 Jan-06 Jan-08 Jan-10 Jan-12
U.S. Light Vehicle Sales

(Units in millions)

June 2012 Forecast

July 2011 Forecast

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U.S. Light Vehicle Sales: Relative to Employment

(Percent)

- Non-farm Payroll
U.S. Sales — Major Manufacturers Market Share
U.S. Sales — Asian Manufacturers Market Share

*HYUNDAI*  *KIA*  *SUBARU*  *MAZDA*  *MITSUBISHI*  *SUZUKI*
U.S. Sales — European Manufacturers Market Share

- BMW
- DAIMLER AG
- VW GROUP
- PORSCHE

Market share percentages from 1999 to 2019 are shown for each manufacturer.
U.S. Sales — By Car Segment (54%)
U.S. Sales — By Light Truck Segment (46%)
North America - Light Vehicles Exports

(Units/)

Volume - L

Change - %

Millions

-30%
-20%
-10%
0%
10%
20%
30%
40%


N.A Export Sales – By Region of Destination

- Asia
- Europe
- Middle East/Africa
- South America
Autos - The Bottom Line

- The auto industry is in its best shape to withstand economic adversity
- Auto credit quality is outstanding, availability will improve this year
- Industry pricing power will continue to improve
- Leasing is on the way back
- Small cars will gain market share but crossovers will remain very popular
- Higher fuel economy standards are the next big challenge (opportunity)
- The industry has done a great job reducing capacity and cost, but we can’t rest on our laurels
- Initially replacement demand drives volume, longer term demographics sustain sales
- Eventually the economy will support volume levels that are more normal for the auto industry
- The industry has become more profitable and once volume returns, it will become even more so
Mexico Light Vehicle Sales —
Seasonally Adjusted Annual Selling Rate - SAAR

(Units in Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Monthly</th>
<th>Annual Average</th>
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</thead>
<tbody>
<tr>
<td>1/1/1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/1/1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/1/2001</td>
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<td>1/1/2005</td>
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<td></td>
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<tr>
<td>1/1/2007</td>
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<td></td>
</tr>
<tr>
<td>1/1/2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/1/2011</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mexico - Light Vehicle Sales

Used car imports and credit availability limit growth

Units

-1500000
-1400000
-1300000
-1200000
-1100000
-1000000
-900000
-800000
-700000
-600000
-500000
-400000
-300000
-200000
-100000
0
10
20
30
600000
700000
800000
900000
1000000
1100000
1200000
1300000
1400000
1500000


Light Veh -L
Annual Change -R

Used car imports and credit availability limit growth
Mexico –Market Share

Nissan grows in coming years
Mexico — Global Segmentation

The chart shows the global segmentation of Mexico from 2006 to 2016. The x-axis represents different segments labeled A to HVAN, and the y-axis represents units and millions. Each year from 2006 to 2016 is represented with a different color, allowing for a visual comparison over the years.
Mexico — Bodystyle

Units

Millions

Chassis-Cab  Convertible  Coupe  Hatchback  MPV  Pickup  Roadster  Sedan  SUV  Van  Wagon

Producing for Export

Forecast at risk due to Brazil

Mexico Light Vehicle Production (millions of units)
## Mexico to Brazil –ACE 55

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports from Mexico [US$]</td>
<td>947,500,00</td>
<td>1,260,900,000</td>
<td>2,070,000,000</td>
<td>1,450,000,000</td>
<td>1,560,000,000</td>
<td>1,640,000,000</td>
</tr>
<tr>
<td>Imports from Mexico [Units]</td>
<td>60,138</td>
<td>76,748</td>
<td>121,745</td>
<td>93,500</td>
<td>100,000</td>
<td>104,500</td>
</tr>
<tr>
<td>Vehicle price per unit [US$]</td>
<td>15,755</td>
<td>16,429</td>
<td>17,003</td>
<td>15,500</td>
<td>15,600</td>
<td>15,700</td>
</tr>
</tbody>
</table>

- Very little impact YOY to 2012 figures, but we had expected 200-250K. Impact will be hardest for 2013 and 2014.
- Difficult to compete after quota is hit, so far Asians are down 20-40%
Mexico Light Vehicle Production — By OEM

Units

Renault/Nissan  General Motors  Volkswagen  Ford  Chrysler  Fiat  Mazda

Brazil Outlook Summary

**Real GDP Growth (%)**

- Annual average, **Billions of US dollars**

**Consumer Price Inflation (%)**

**Exchange Rate per USD**

**Current-Account Balance**

*Annual average, **Billions of US dollars*
GDP per Capita has broken US $10,000, allowing for strong consumer power.
Exchange Rate

FX is poised to remain strong, despite gov’t trying to ease
Brazil Market Outlook

Promising growth outlook with incredible potential
Brazil – Market Share

Big four continue to lose
Brazil — Global Segmentation

Units

Millions


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Brazil is using the IPI Tax Changes to increase local manufacturing (Manufacturer Wholesale Tax)

<table>
<thead>
<tr>
<th></th>
<th>OEMs with local content</th>
<th>OEMs that don't meet requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IPI</td>
<td>IPI</td>
</tr>
<tr>
<td><strong>Passenger Cars</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 1000cc</td>
<td>Flex-Fuel</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
</tr>
<tr>
<td>Up to 1000cc</td>
<td>Gasoline</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
</tr>
<tr>
<td>1001cc to 2000cc</td>
<td>Flex-Fuel</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>1001cc to 2000cc</td>
<td>Gasoline</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43</td>
</tr>
<tr>
<td>2001cc</td>
<td>Flex-Fuel</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>2001cc</td>
<td>Gasoline</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td><strong>HCVs</strong></td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td><strong>Light Commercial Vehicles (PUPs/Vans)</strong></td>
<td>NA</td>
<td>4</td>
</tr>
</tbody>
</table>
Brazil New Regional Content Requirements rely heavily on the types of components

- Brazil has raised the IPI (manufacturers wholesale tax) by 30 percentage points.
- The government’s plan, Brasil Maior it aiming at protecting the industry.
- An OEM may be exempt from the new IPI if it has 65% regional content and meets eight out of these 12 requirements:
  - Assembly
  - Chassis assembly
  - Chassis production with regional parts
  - Corrosion treatment and paint
  - Drivetrain/steering assembly
  - Engine production
  - Final assembly of cabins and accessorizing
  - Plastic Injection
  - Stamping
  - Transmission production
  - Welding
  - Research and Development
Brazil – Investment by the automotive industry

- Investment OEMs
- Investment Suppliers

US $ 76 Billion 1980-2010
US $ 26 Billion 2011-2026
Production: Recent Investments Prepare for Market Growth

- 5 MM capacity by 2015
- Two new plants in 2012: Hyundai, Toyota

Million Units

- Light Vehicle Production
- Capacity
Bottom Line

• With the exception of Western Europe, global demand will continue to gather momentum
• BRICs will outsell TRIAD (USA, WE and Japan) within a few years
• Mexico has to explore new opportunities given this scenario, South America presents great potential
• The US has turned the corner, promising outlook for sales and production
• Mexican demand has broken the million unit mark!
• Production is promising but big uncertainties lie in the future
Thank You for Your Participation!

- Guido Vildozo
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- IHS Automotive

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