Trends Impacting the Global Automotive Aftermarket

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June 17, 2015
Agenda

• Where Do Our Insights Come From
• Key Industry Driver
• The Trends
IHS Automotive

- IHS acquired Polk in July 2013
- IHS Automotive – Southfield, MI
- IHS – Denver, CO – started in 1959 as a provider of product catalog databases

Automotive market intelligence and solutions

Vehicle history reports for U.S. consumers and dealers

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IHS Verticals

AEROSPACE & DEFENSE
100+ years’ experience delivering unrivaled news, insight and intelligence on defense and security equipment, markets, industries and risk

CHEMICAL
Over 200 leading industry authorities creating integrated views and analysis across more than 300 chemical markets and 2,000 processes for 95 industries

FINANCE
Research on 200+ countries and territories with harmonized indicators from IHS analysts and economists

TECHNOLOGY
World’s largest electronics component database with more than 350 million parts

AUTOMOTIVE
The world’s largest team of automotive analysts with hundreds of experts located in 15 key markets around the world covering the entire automotive value chain

ENERGY
Extensive Oil & Gas well information on 5.5+ million wells worldwide dating back as far as 1860

MARITIME
World’s largest maritime database with an information gathering heritage of 250+ years with comprehensive information on all vessels 100 GT and over

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Global Footprint

- 180+ Automotive analysts in 27 offices = *global capability w/local expertise*
- VIO & Forecasts covering nearly every country in the world
- Cover 97% of global vehicle demand, 99% of production & 97% of VIO
Key Driver: Vehicles Miles Traveled (VMT)
First positive trend after 6 years of sustained flat miles driven.

First time > 3 trillion miles since 2007 peak.
Change in Driving Volumes – Yr-o-Yr

Source: IHS Automotive, DOT and FHWA
The Trends
The auto industry is back!

Light vehicle sales continue their strong recovery – here and around the world.
U.S. Light Vehicle Sales

U.S. light vehicle sales hit 16.5 million units in 2014...

...first time > 16M since 2007.

Source: IHS Automotive
U.S. Light Vehicle Sales

U.S. light vehicle sales will hit 16.9 million units in 2015...

...could break 17 million for first time in 10 years.

Source: IHS Automotive
U.S. Light Vehicle Sales

2014 = 16.5 million units

History

Forecast

Source: IHS Automotive
Global Auto Industry

- Assembled Vehicles: 80M growing to 100M units
- Growth Rate: Global 4.1% CAGR
- Employment: 9M Direct, 50M Adjacent
- Annual Output: $5 Trillion
- Research & Development: $85 Billion: Annual Spend
- Global Manufacturing: 5% of Total
- $430 Billion Annual Contribution to 26 Governments
Global Auto Industry

Investment: $11.5 Billion for 23 New Vehicle Assembly Plants

Materials Demand: +43% Increase

Investment: $4.2 Billion for 70 New Auto Parts Plants

100 Million
2020 Annual Production
AUTOS
Global Light Vehicle Sales

Global light vehicle sales were over 86 million units in 2014...

...and will break 100 million units by 2020.

Source: IHS Automotive
Global Light Vehicle Sales

© 2015, IHS Inc.

Source: IHS Automotive
Top 8 markets account for close to 70% of global sales

China Remains Dominant; Little Sales Growth Expected for Developed Markets

Source: IHS Automotive Light Vehicle Sales Forecast
Global Light Vehicles-in-Operation

Global VIO growing

1.4 Billion vehicles by 2021

27% over next 6 years

2.0 Billion vehicles by 2040
Global Light Vehicle VIO

World Total
2013  1.02 Billion
2021  1.35 Billion

- China and India to see fleets nearly double over forecast horizon – oil import cost exposure improving dramatically.
- Policies to promote more fuel efficient vehicles facing more difficult economics.

Source: CY 2002-2015-2020, IHS Automotive
U.S. Light Vehicles in Operation

VIO will Increase 9.2% by 2020

Data as of January 1 each year.

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Source: IHS Automotive
As VIO & new sales grow, the U.S. vehicle mix continues to evolve.

Aftermarket must prepare for the vehicles entering service bays for years to come.
4 non-Luxury Segments Dominate

Represent over 58% of all new U.S. registrations in 2014

- COMPACT CUV: 15.7%
- TRADITIONAL MID SIZE: 15.1%
- TRADITIONAL COMPACT: 15.1%
- FULL SIZE PICKUPS: 6.8%
- Mid-Size CUV: 12.2%

Source: IHS Automotive
Shift in Favor of CUV Design Continues in the Near Term

US Light Vehicle Sales

Source: IHS Automotive

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US Passenger Car Sales

Compact & Midsize Maintain Dominance

Source: IHS Automotive
Shift to Smaller Vehicles

Global Production by Segment

NAFTA Production by Segment

2000 – 2020
Smallest 3 Segments Grow Share by 27%

Smallest 3 Segments Grow Share by 64%

Source: IHS Automotive
4 Cylinder Engines

Smaller Size - More Power

Source: IHS Automotive
4 Cylinder Engines

4 Cylinder Engines Gaining in Popularity

2014: 55% Market Share
2013: 53% Market Share
2012: 50% Market Share
2008: 41% Market Share

Source: IHS Automotive
Light Trucks - Imports Gaining Share

Source: IHS Automotive

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VIO Import Growth Forecast

-15%

89%

Source: IHS Automotive
As vehicles age around the world, aftermarket repair opportunities are beginning to evolve.
Global Passenger Car Average Age 2010-2020

+9.3%

+9.5%

+5%

-14%

+53%

+14%

Note: US is calculated to 2019

Source: IHS Automotive
Average Age - Europe

Source: IHS Automotive
Average Age - BRIC

Passenger Cars

Source: IHS Automotive
Average Age History – U.S.

Cars & Light Trucks Combined

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<thead>
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<th>Year</th>
<th>Average Age</th>
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<tbody>
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<td>2015</td>
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Source: IHS Automotive
The market felt the impact of the 40% drop in new vehicle registrations.

Source: IHS Automotive
Rapid acceleration of average light vehicle age in the U.S. is slowing down.

Source: IHS Automotive
Average Age – Slowing Down

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<td>2016</td>
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<td>2019</td>
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</tbody>
</table>

Source: IHS Automotive
Impact on VIO Age Groups - by 2019

Vehicles new to 5 years old grow 32%
Vehicles 6-11 years old decline -21%
Vehicles 12+ years old grow 15%

Is the aftermarket “sweet spot” really shrinking – or just changing?

Source: IHS Automotive
Increasing vehicle complexity

Brings both challenges and opportunity
To reach this goal, every OEM must improve fuel efficiency by 5% per year!
Share of Global New Sales - 2021

- Mild: 2.9%
- Full: 4.7%
- Plug: 1.1%
- Battery: 0.0%

Source: IHS Automotive
2014 Top 10 Markets for Hybrid Registrations - > 30% of Total

Source: IHS Automotive
The Traditional Internal Combustion Engine – w/New Technology

- Gasoline direct-injection
- Turbo chargers
- Stop/start capability
- Cylinder de-activation
- AWD disconnect
- More efficient transmissions
  - More speeds and CVTs

Source: IHS Automotive
OEM Powertrain Investment - 2013

Powertrain Technology by Region

Production in Millions

Start-stop, Mild, Full, EV, GDI, GDI-T, Diesel, Deact, A8+, AMT, CVT, DCT, MT


Europe, GC, JK, NAFTA, SA, Sasia

Source: IHS Automotive
OEM Powertrain Investment - 2021

Powertrain Technology by Region

Production in Millions

Europe
GC
JK
NAFTA
SA
Sasia

Source: IHS Automotive
2 Technologies Emerge

16% Today

50% by 2021

66% by 2021

Source: IHS Automotive
Electronics & Sensors Increasing

- Stereoscopic Multi-purpose Forward Camera Sensors
- Infrared Night Vision Sensors
- Radar Collision/ACC Sensors
- Additional Sensors, ECUs
- Camera Parking Sensors
- Ultrasonic Parking Sensors
Electronics & Sensors Increasing
The Aftermarket has the needed parts & trained technicians to service this new technology just as efficiently & more cost-effectively than other channels.
1. The auto industry is back! Global light vehicle sales continue strong recovery
2. As new sales & VIO continue to grow, the vehicle mix is changing rapidly
3. As vehicles age, the aftermarket repair opportunities are evolving
4. Increasing vehicle complexity brings both challenges & opportunity
Thank You

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