

# Automotive Market: Where Do We Go From Here?



June, 3<sup>rd</sup> 2011

**Federal Reserve Bank of Chicago**  
**Eighteenth Annual Automotive Outlook Symposium**

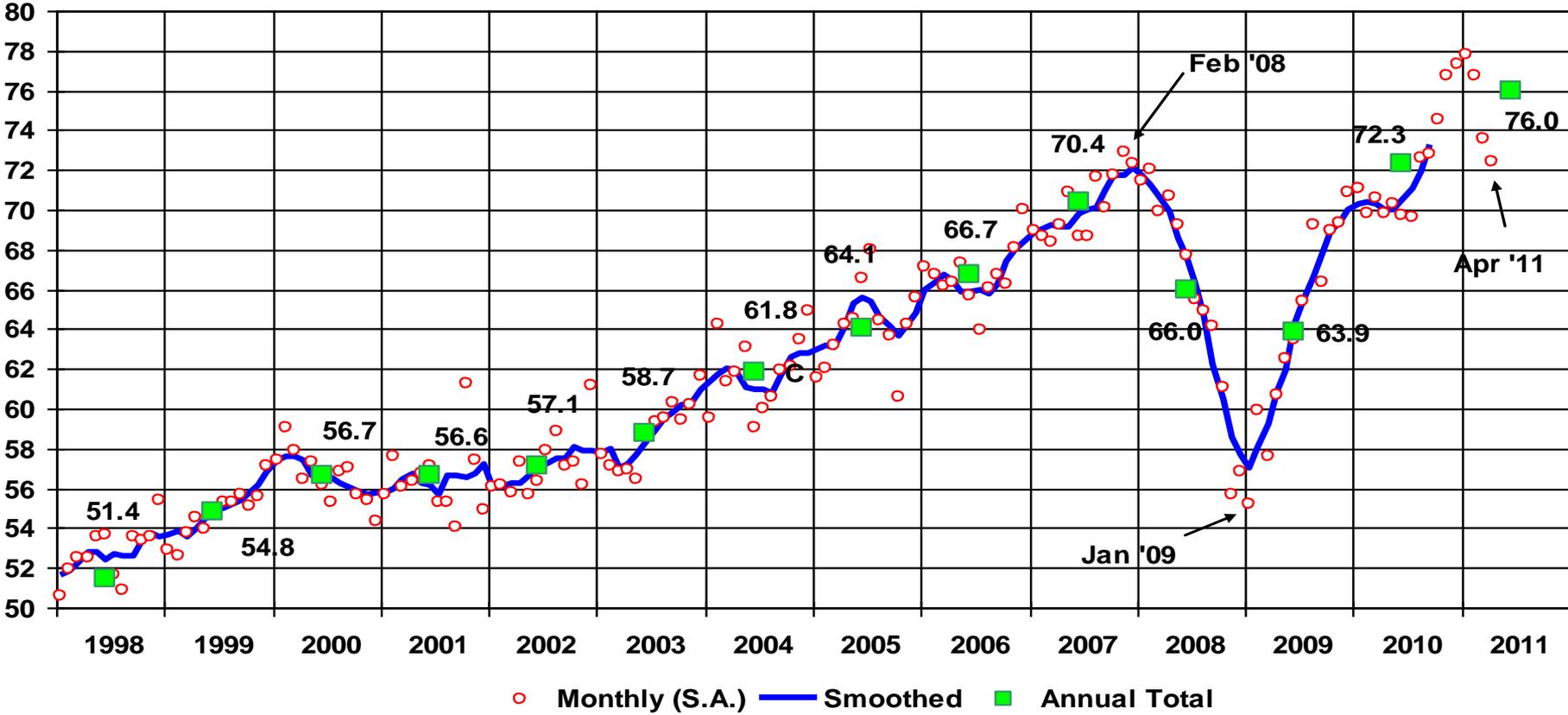
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# Agenda

- ***Global Environment***
- *U.S. Light Vehicle Outlook*
- *Alternative Powertrain Trend*
- *Summary*

# Global Light Vehicle Sales Trend

The Global selling rate has pulled by from the highs at the beginning of the year, with impact from the Japan disaster and a slowing China



Source: J.D. Power Automotive Forecasting

# 2011 Global LV Sales Growth Stabilizes

**Global: 76.0M**  
**6%**

**N. America: 15.5M**  
**11%**

**Europe: 18.6M**  
**2%**

**S. America: 5.2M**  
**7%**

**Asia: 31.0M**  
**3%**

**USA: 13.0M**  
**12%**

**Germany: 3.4M**  
**10%**

**Russia: 2.1M**  
**11%**

**Japan: 4.0M**  
**(18%)**

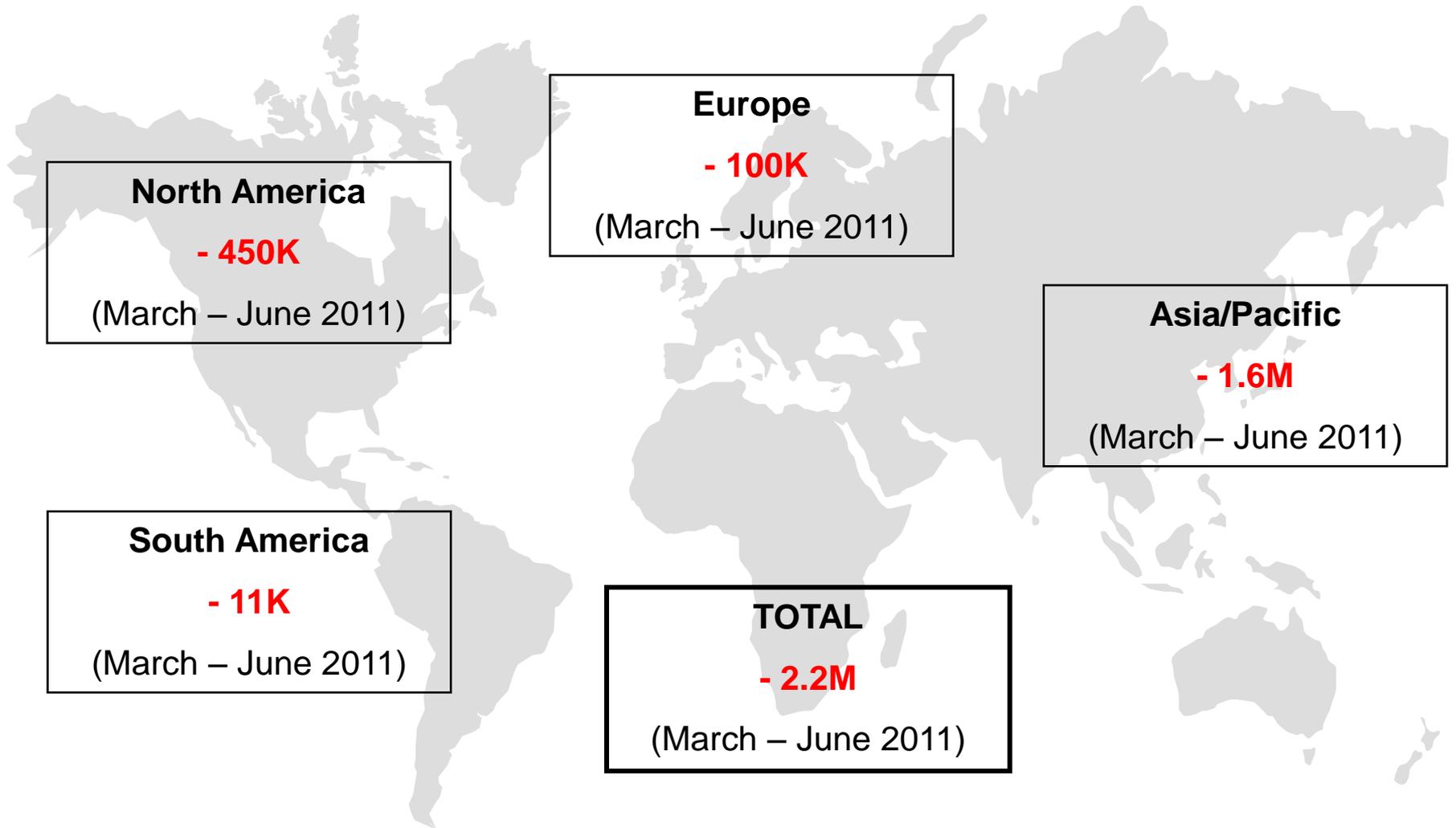
**China: 18.4M**  
**7%**

**Brazil: 3.6M**  
**8%**

**India: 3.2M**  
**17%**

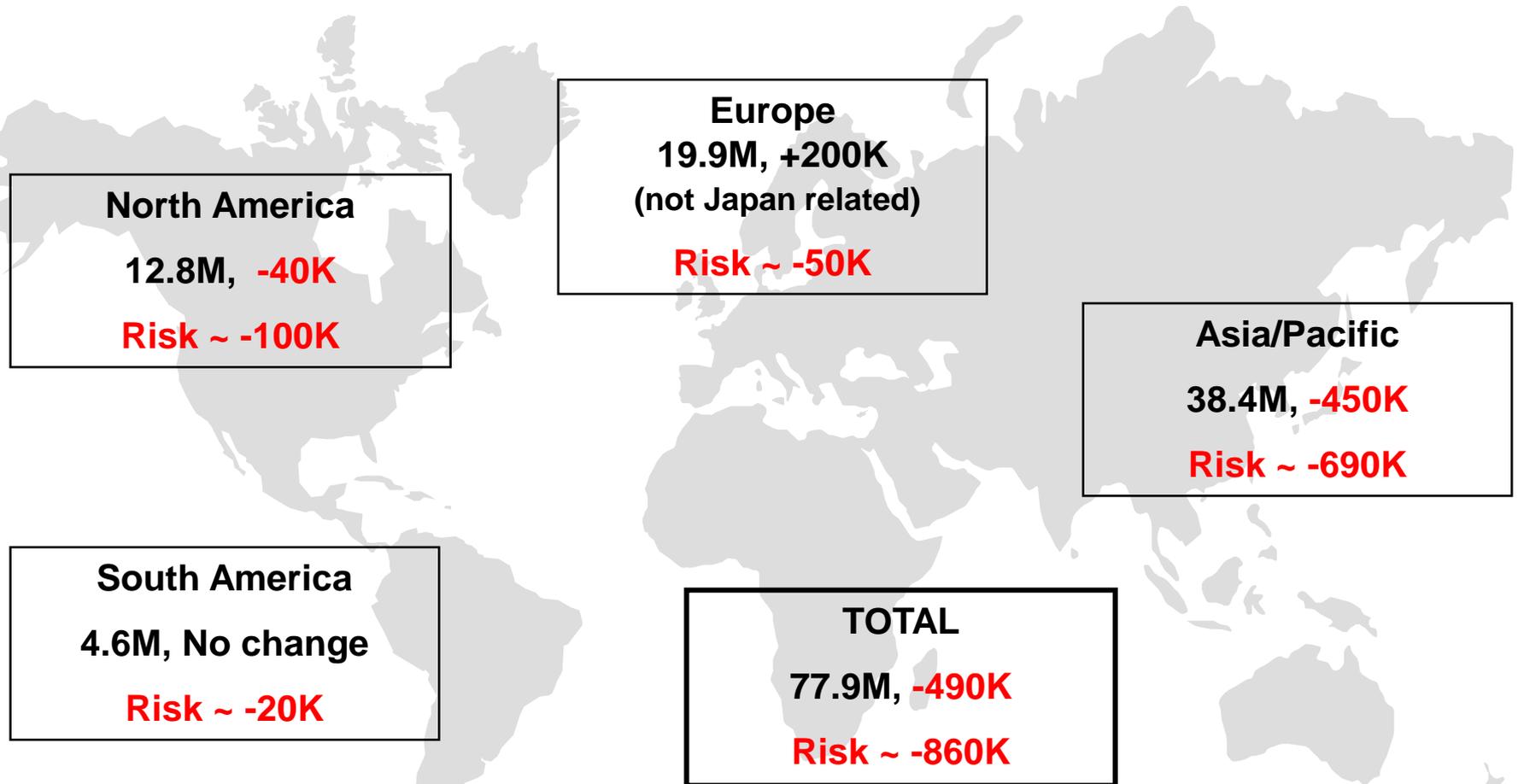
Source: J.D. Power Automotive Forecasting

# Tohoku Earthquake: Short-Term (through 2Q) Impact on the Production



Source: J.D. Power Automotive Forecasting

# Production Forecasts 2011 – Impact on Year

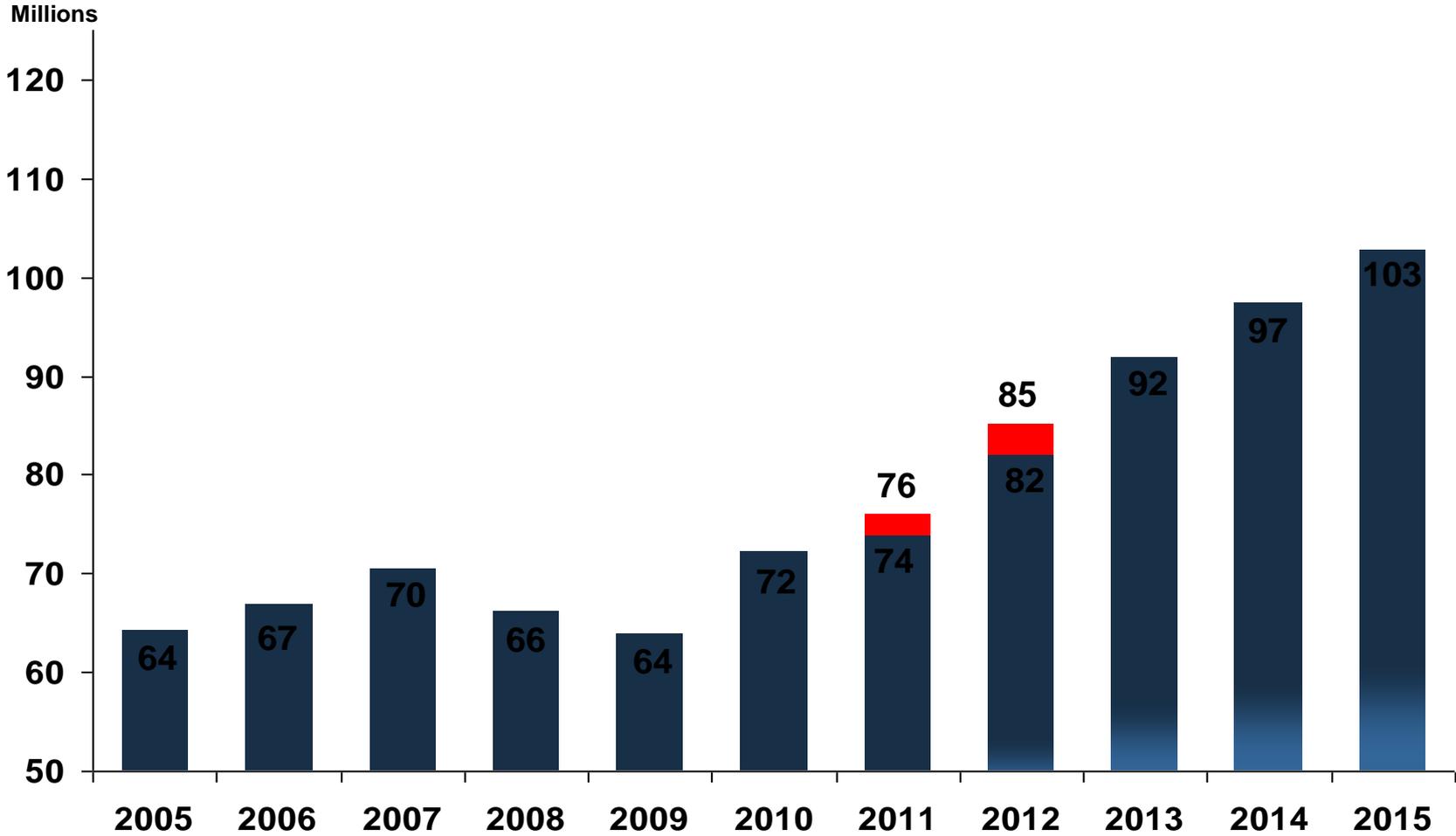


The risk figure represents our current take on potential impact to 2011 volume if production is not returned to near normal levels by 4Q11. There is additional risk in supplier capacity constraints in 2H11.

This is not a “worst case” risk assessment.

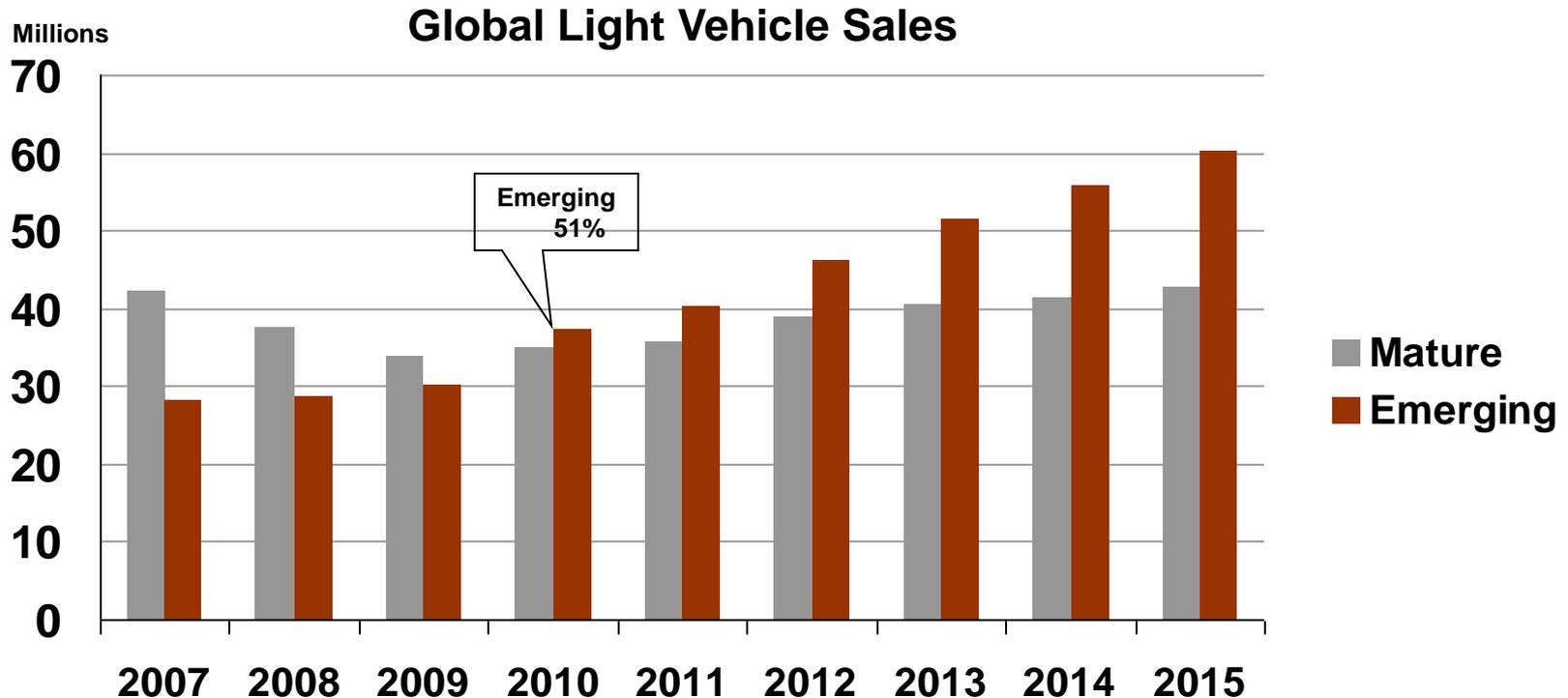
Source: J.D. Power Automotive Forecasting

# Global LV Sales Expected to Cross 100M by 2015



Source: J.D. Power Automotive Forecasting

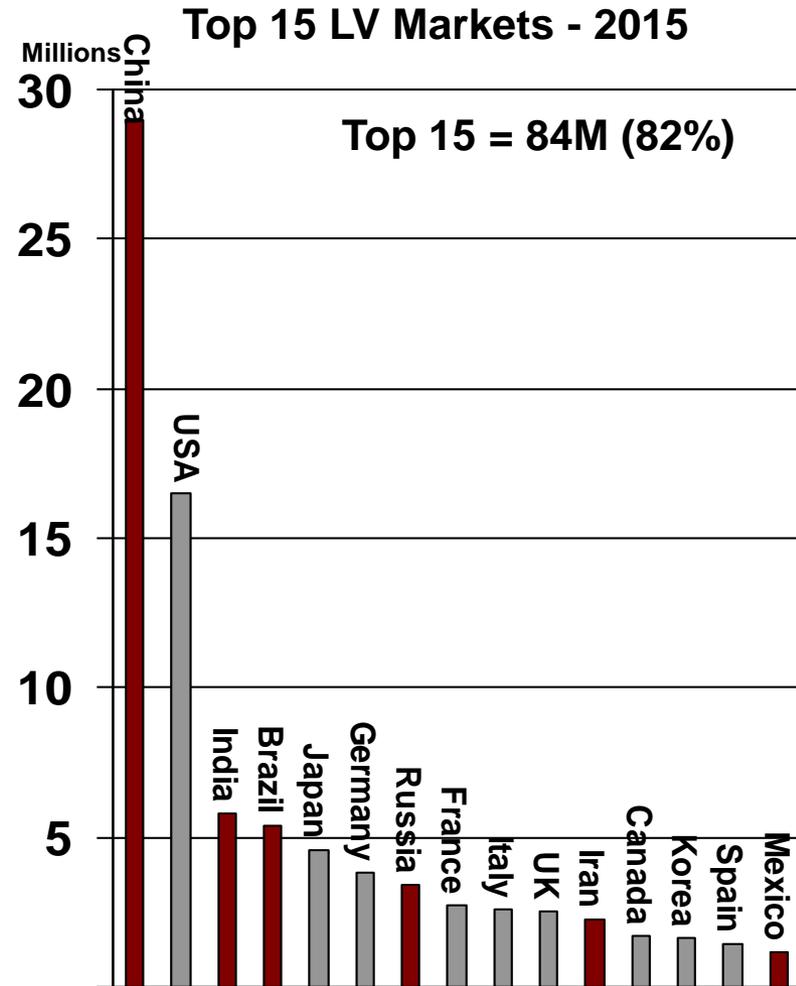
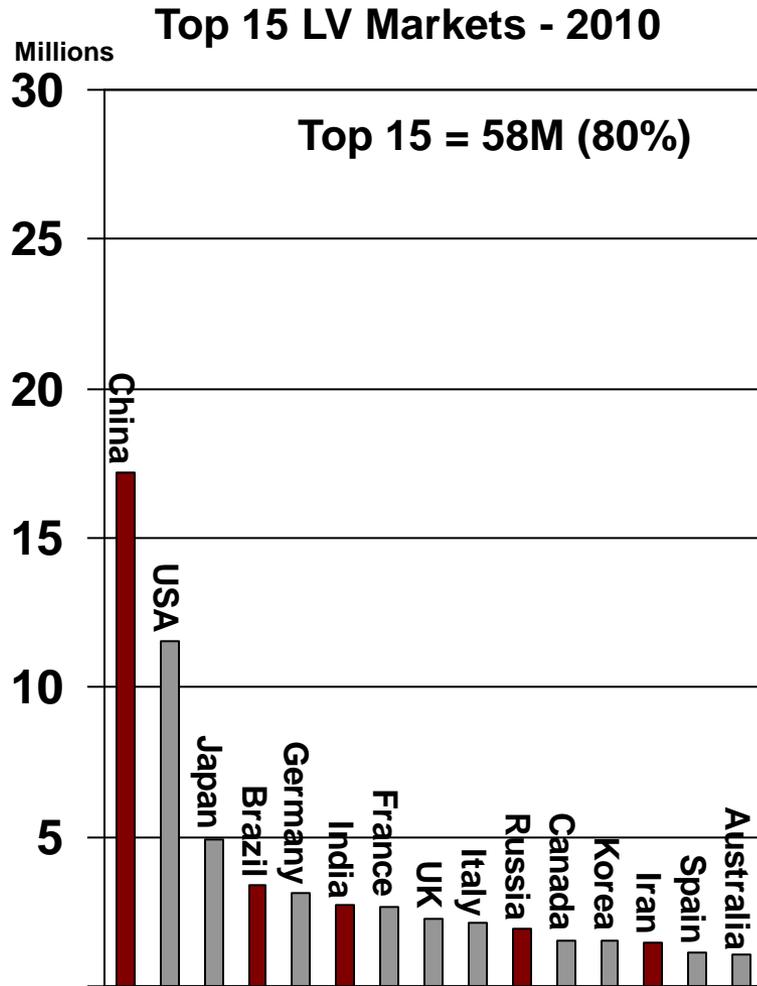
# Growth Has Become Strongly Dependent on Emerging Markets



- Mature markets are expected to recover former levels, but not until 2015!
- Emerging markets – with China at the forefront – have overtaken the mature markets and won't look back!

Source: J.D. Power Automotive Forecasting

# Top 15 Global LV Markets Continue to Shift by 2015

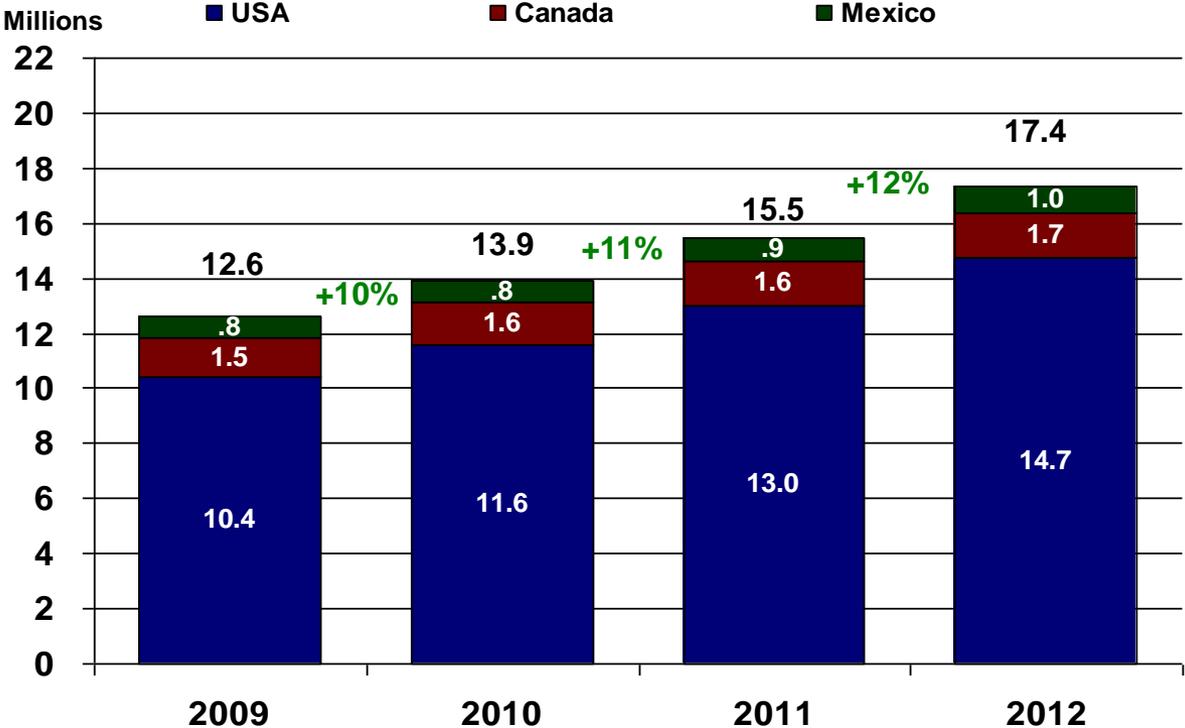


Source: J.D. Power Automotive Forecasting

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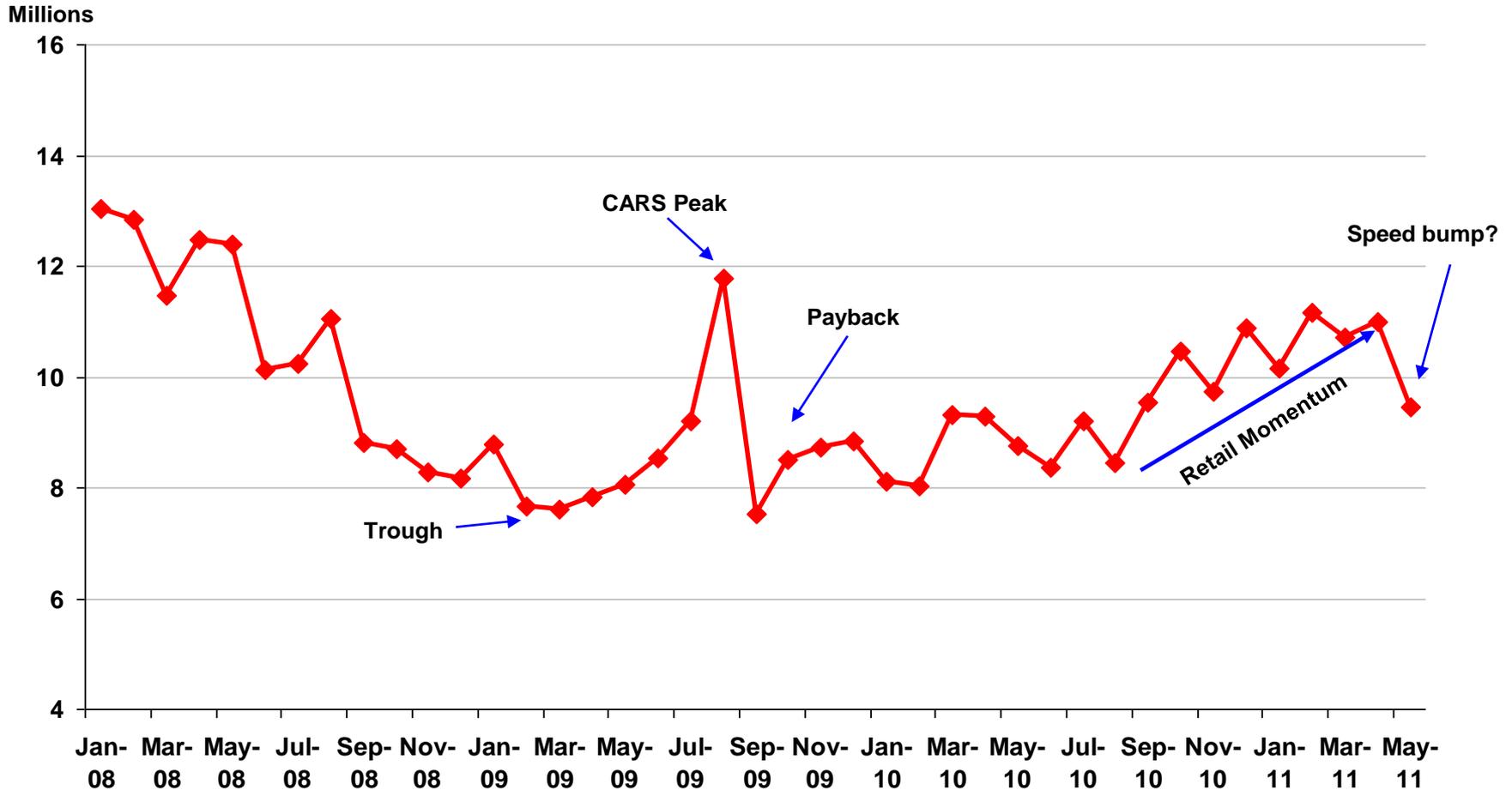
# North American LV Sales Climb Toward Pre-crisis Levels



- U.S. strong through April but hits speed bump in May - upside potential vaporizes
- Canada's slightly ahead of expectations YTD, growth in 2011 expected at 3%
- Mexico posted an 9% increase in 2010 and is expected to grow at a similar pace in 2011, heavily dependant on the US economic recovery

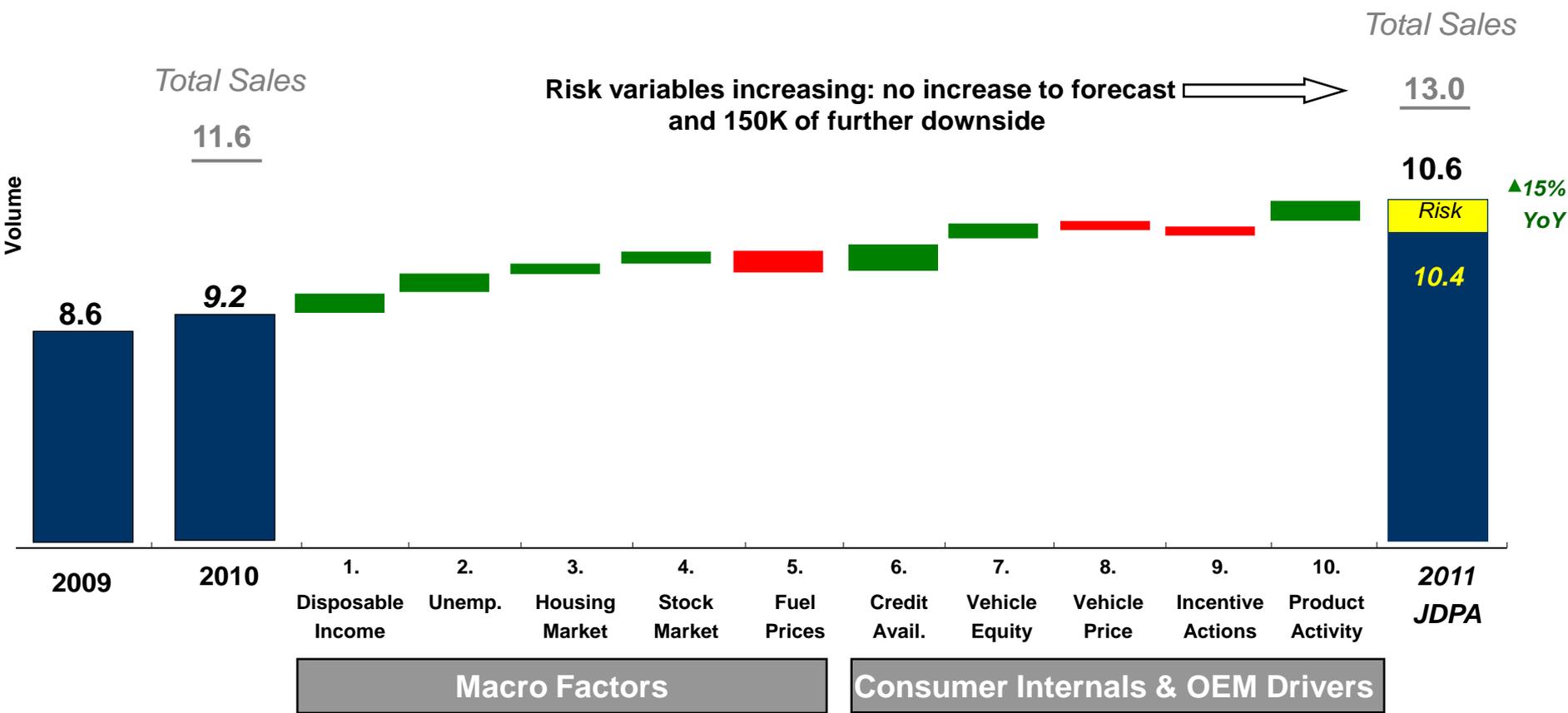
Source: J.D. Power Automotive Forecasting

# Retail Sales SAAR Shows Momentum Through April



Source: J.D. Power Automotive Forecasting

# 2011 U.S. Retail Sales: Recovery's 2<sup>nd</sup> Gear?



Source: J.D. Power Automotive Forecasting

# North America – Imported Inventory Challenges

Imported models seeing inventory shortages in some regions due to the recent Japan earthquake/tsunami. Highlights of select models include:

**Toyota Prius**



Days Supply - 10

**Honda Civic**



Days Supply - 23

**Nissan Juke**



Days Supply - 19

**Subaru Legacy**



Days Supply - 34

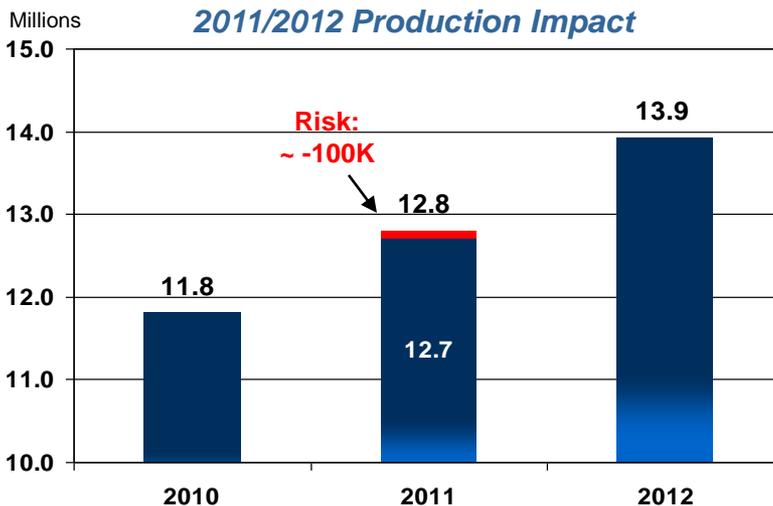
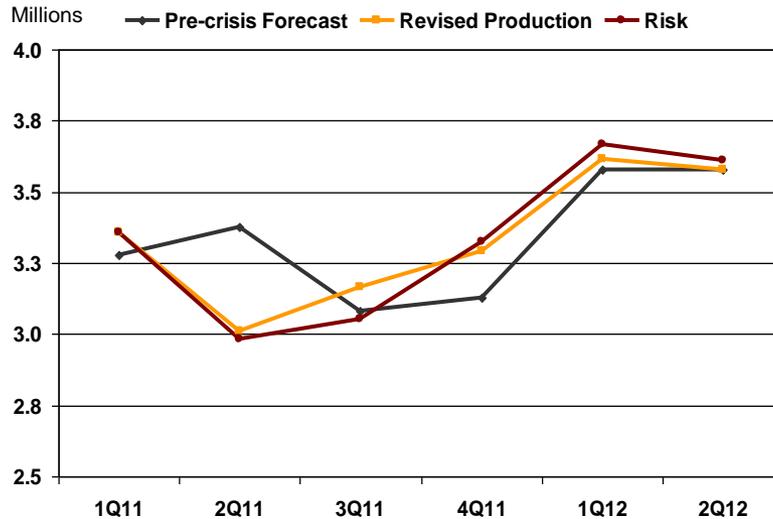
Brand	Days Supply
<b>Toyota</b>	<b>48</b>
<b>Lexus</b>	<b>39</b>
<b>Scion</b>	<b>43</b>
<b>Honda</b>	<b>36</b>
<b>Acura</b>	<b>51</b>
<b>Nissan</b>	<b>64</b>
<b>Infiniti</b>	<b>85</b>
<b>Subaru</b>	<b>36</b>

- Some Japanese OEM's have reduced incentives in May as their vehicle inventory lessens — lower incentives are expected to continue though the summer
- Select North American produced models also could face shortages into June — as volume starts to normalize
- Some models, such as the Toyota Prius and Lexus CT-200H virtually ran out in May

Source: J.D. Power Automotive Forecasting, Ward's Automotive

# Japan Disaster - North America Production Impact

## Short-Term Production Impact



- Impact on North American Japanese OEM production has been more severe than initially expected. Current short-term is projected at -450K in 2Q; we expect most of this to be made up in 3Q and 4Q (loss of 40K).
- The topline volume to be made up is now expected to split between the Japanese and non-Japanese OEMs through the remainder of the year, but capacity constraints come into play in the small segments.
- Our forecast now assumes that a majority of the cuts have been announced or planned, so further risk has been reduced.
- Inventory started May at a 54-day supply – unchanged from early April; Expect it to be in mid-40s at end of May.
- Our NA topline now rounds down to 12.8M from 12.9M and there remains an additional 100K of risk through the summer.

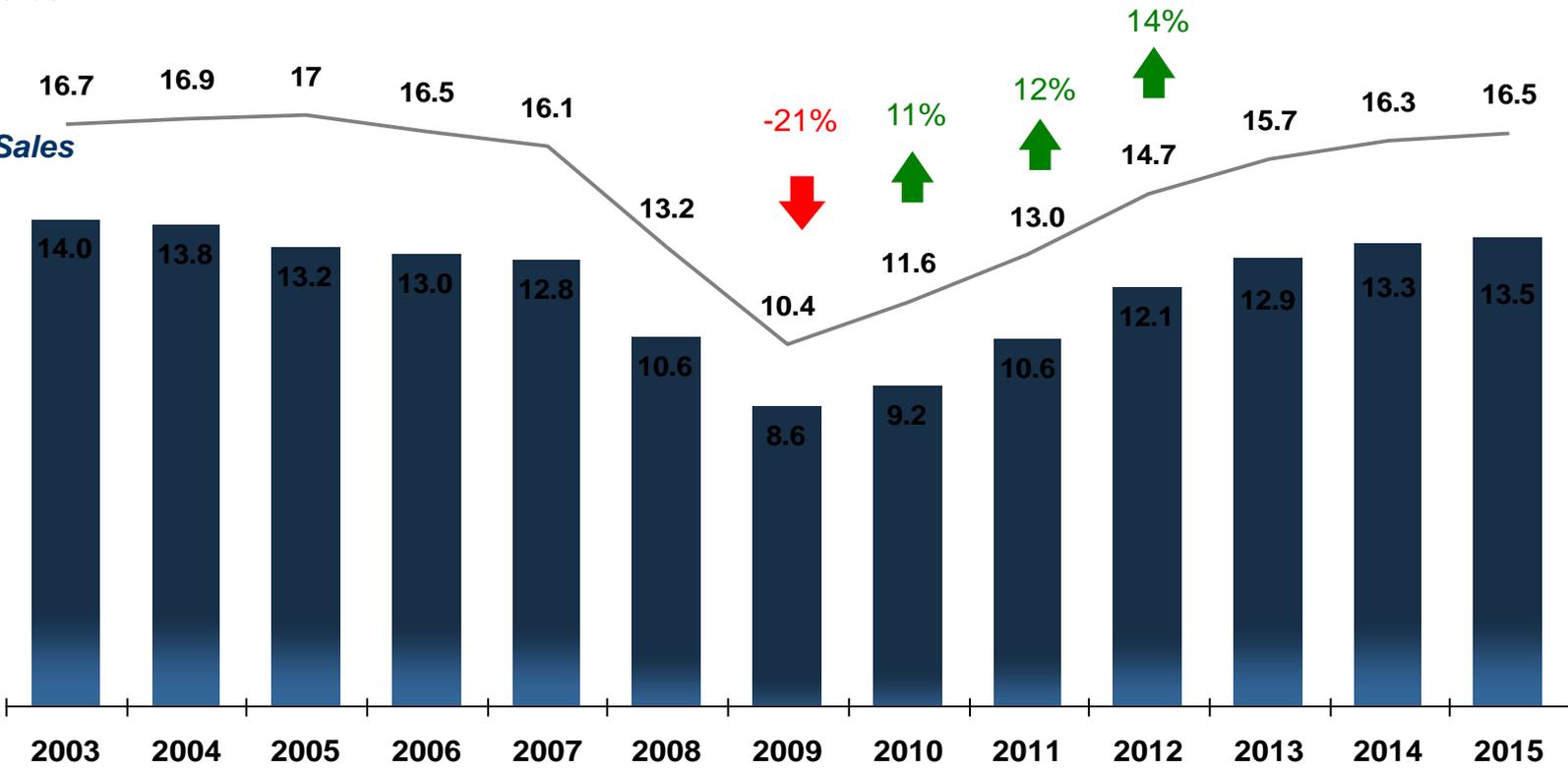
Source: J.D. Power Automotive Forecasting

# U.S. Light Vehicle Sales Forecast – Slow, Progressive Recovery!

Base Case Forecast Trend – Fleet mix expected to settle around 18%

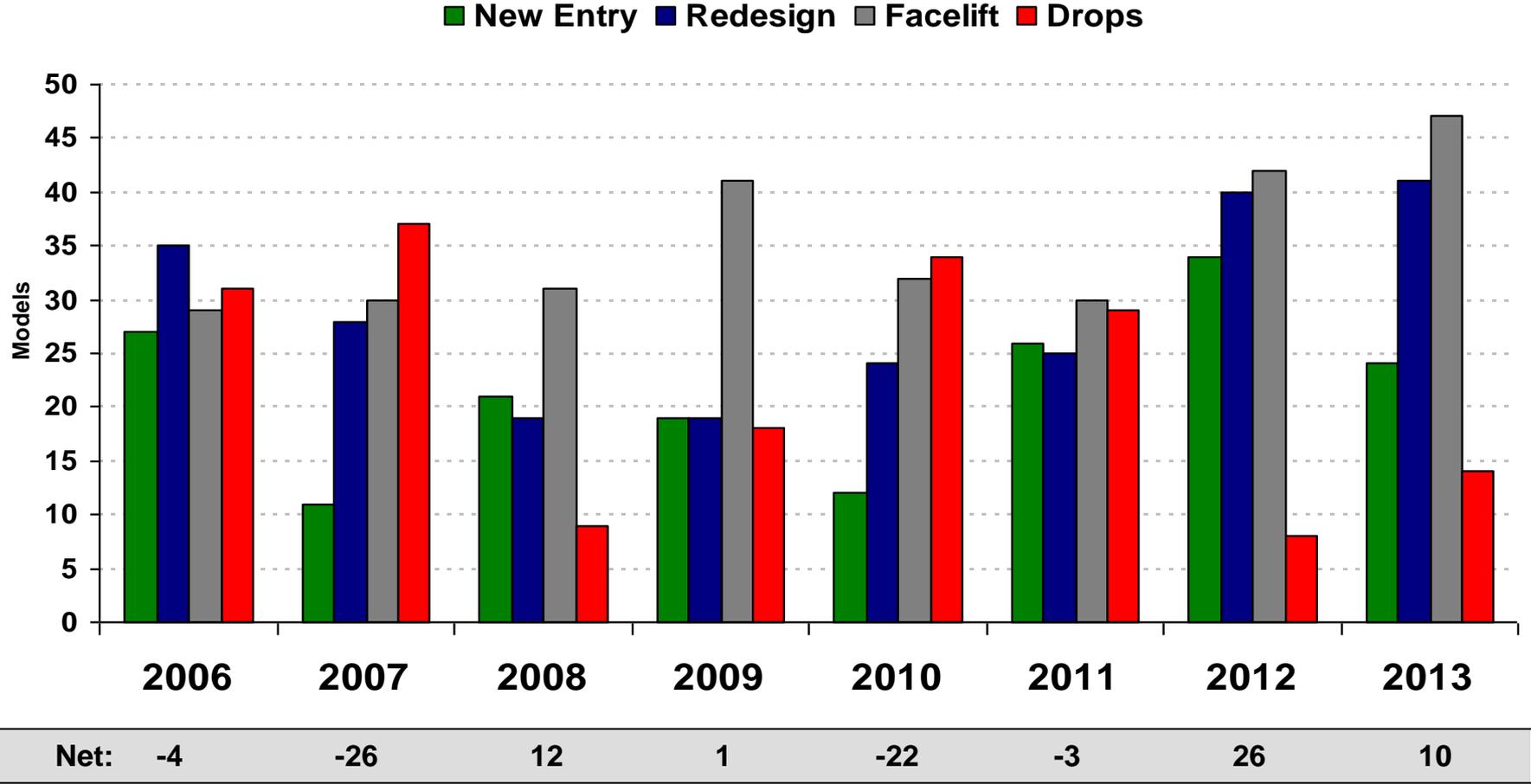
Total Sales

Retail Sales



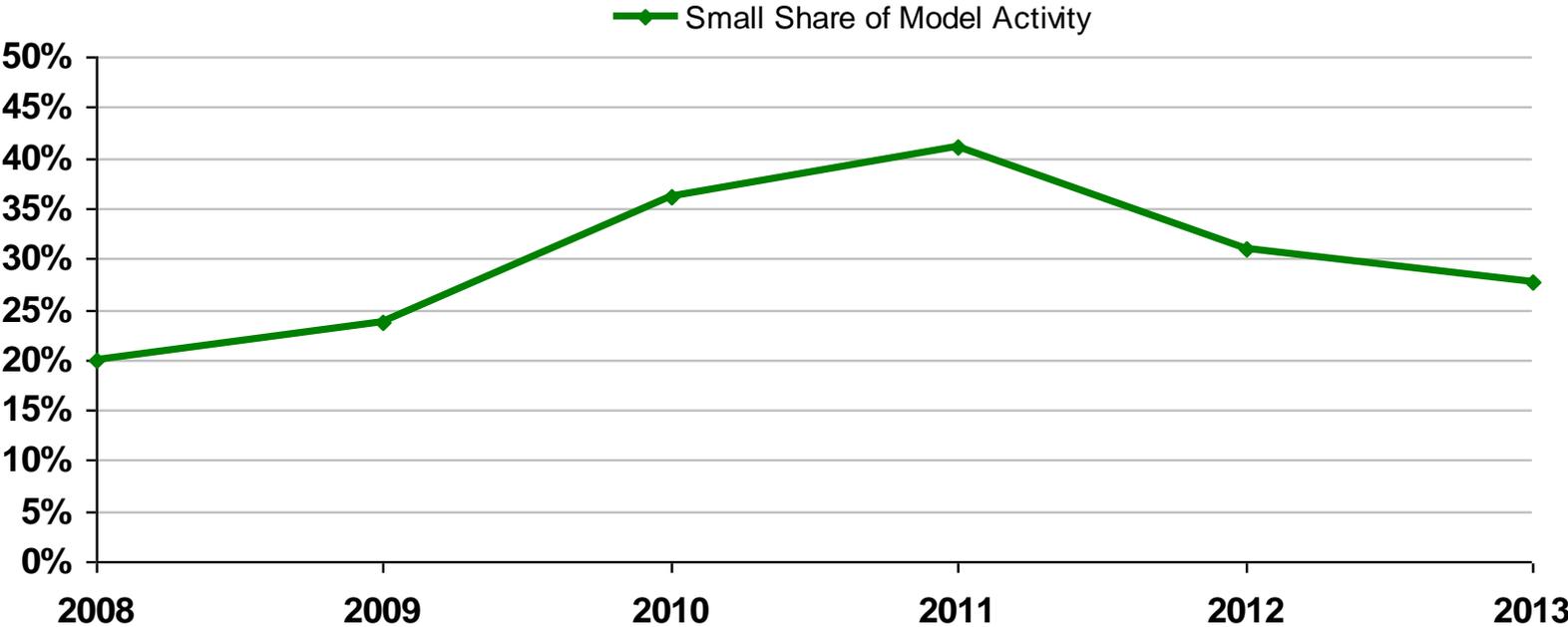
Source: J.D. Power Automotive Forecasting

# Model Activity Reignites Hyper-competitive Market



Source: J.D. Power Automotive Forecasting

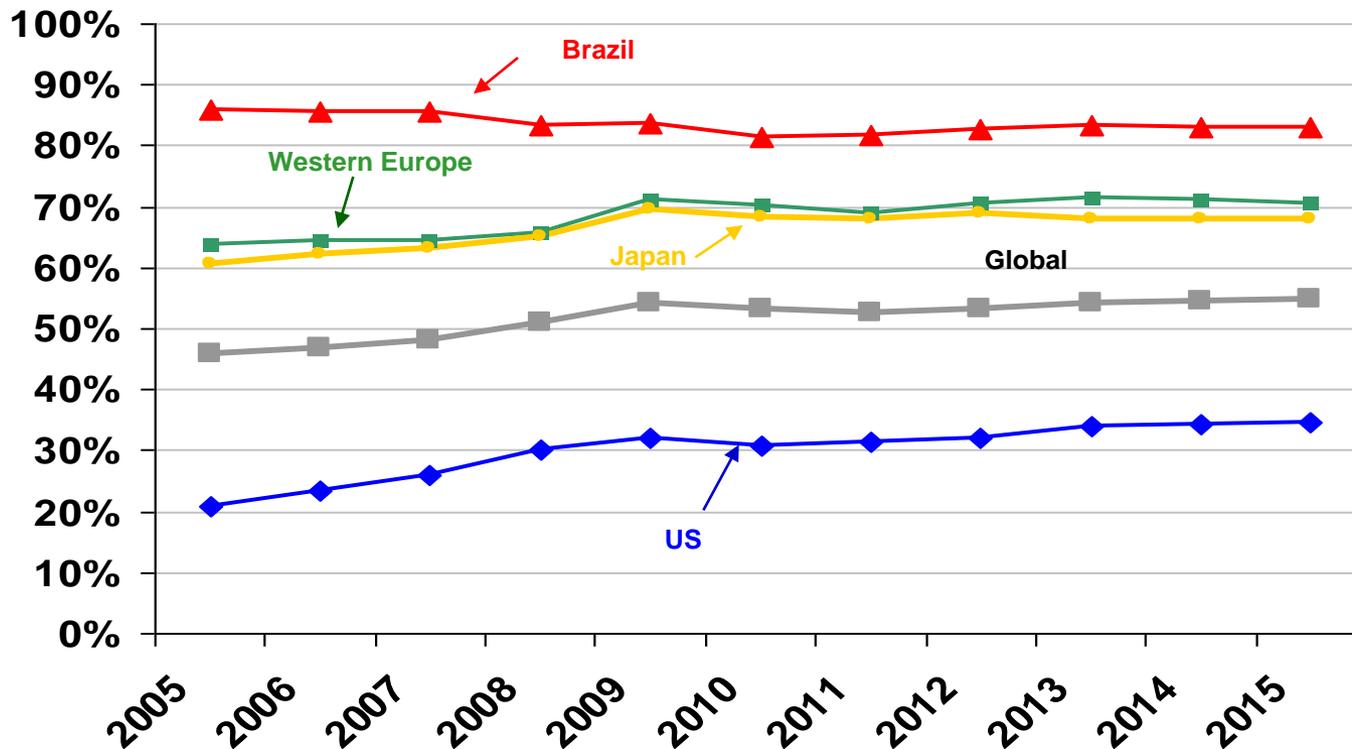
# Product Activity Skews Toward Small



Source: J.D. Power Automotive Forecasting

# Small Car Share Will Grow, But...

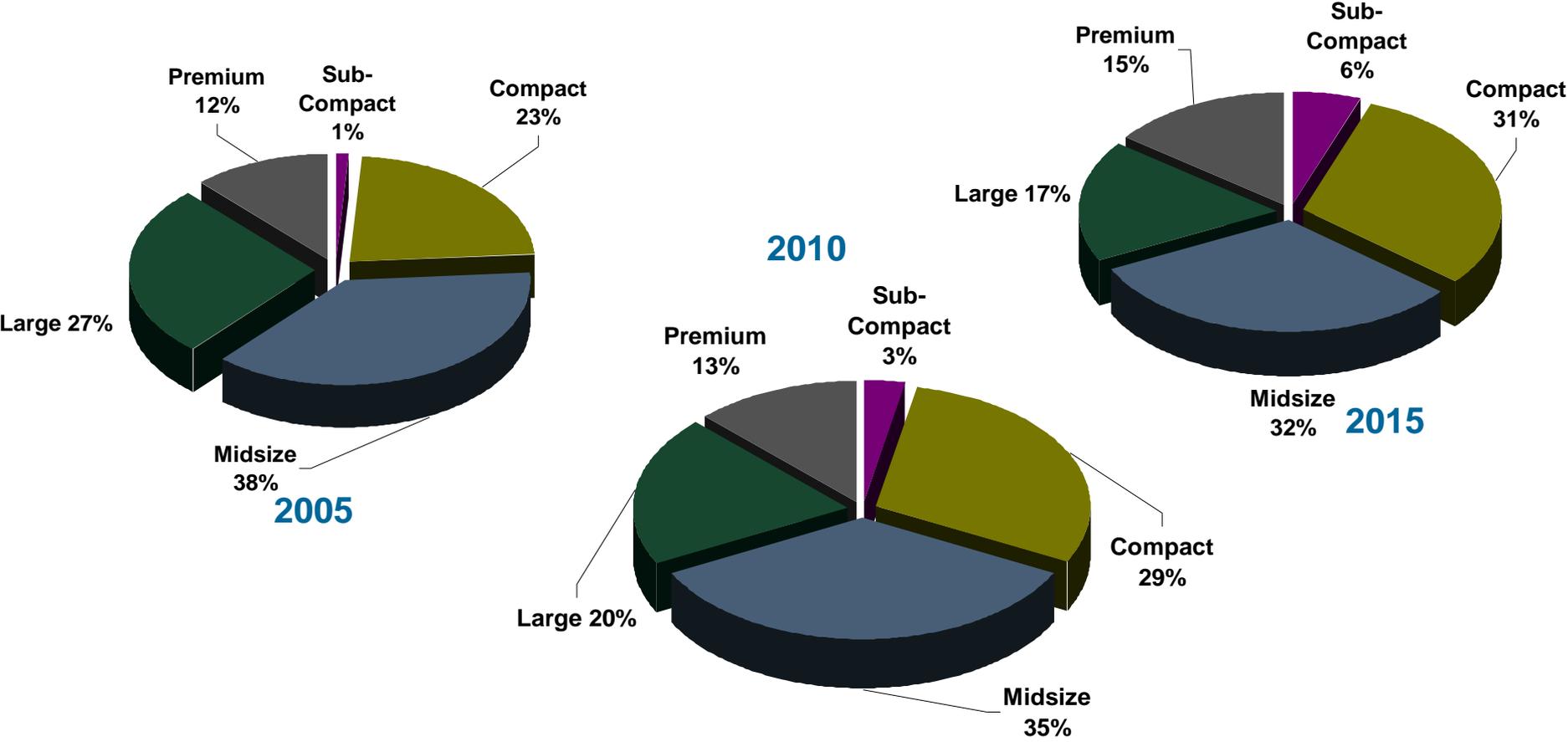
A/B/C Car Segment Share of Industry



- Small car demand grows as fuel prices rise and availability increase (push and pull)
- Product activity skews toward small vehicles over next three years
- Regulations will continue to force the issue, but still 6-10 years out and is it what consumers want?
- Demand in U.S. expected to remain significantly below rest of world

Source: J.D. Power Automotive Forecasting

# U.S. Future Size/Price Landscape Remains Balanced



- Shift to non-premium small will be more pronounced and will likely lead to additional body types
- Premium growth is expected, but at smaller end of market with new products
- Large (including pickup trucks) will suffer continued decline, but will not be extinct

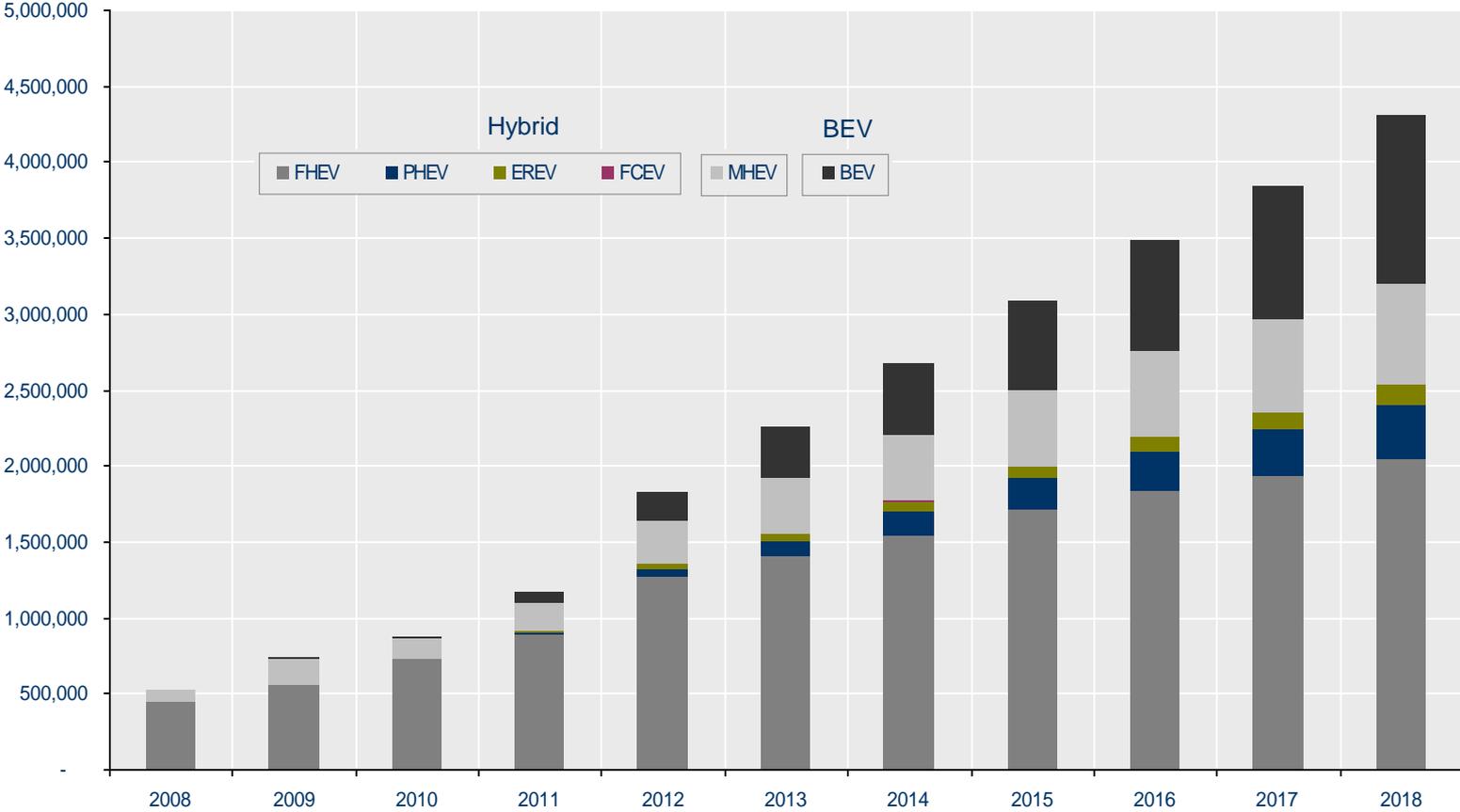
Source: J.D. Power Automotive Forecasting

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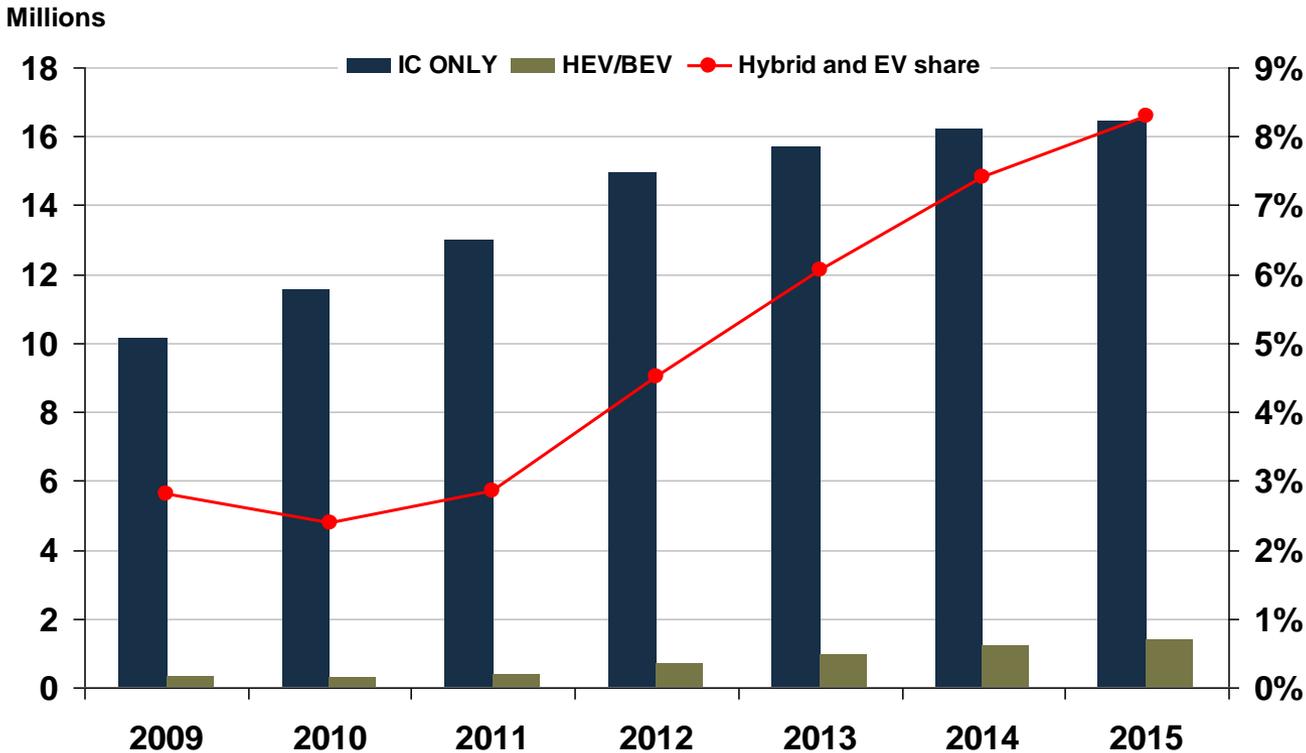
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# Global Hybrid/EV Sales to Top Four Million by 2018

Global Hybrid/EV Sales by Type

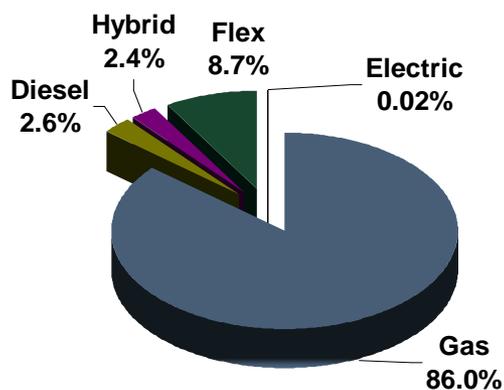


# U.S. Hybrid and Electric Vehicle Forecast

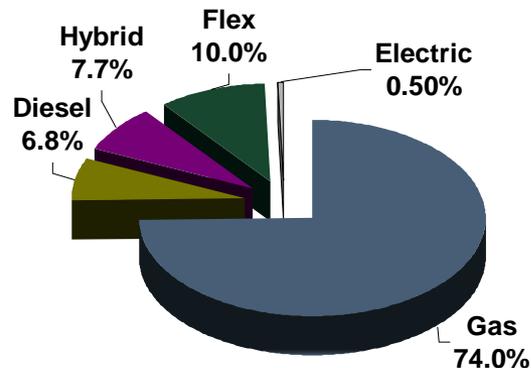


- Hybrid sales peaked at 353,000 units in 2007
- Hybrid and EV sales finished 2010 at 275,000; Toyota Prius continues to dominate, accounting for 50% of hybrid sales
- 2016 CAFE requirements will help hybrid sales reach 1.4m units by 2015, representing 8% of light vehicle sales
- Less than 100k BEVs by 2015, but 150k PHEVs.

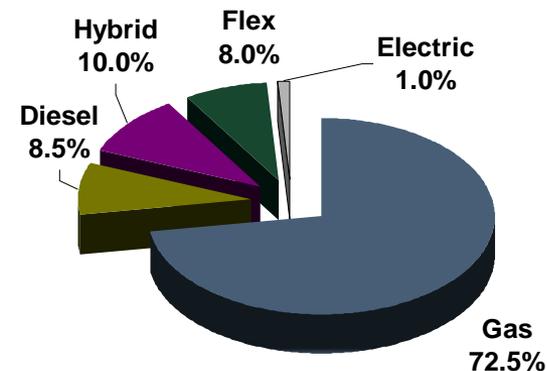
# U.S. Light Vehicle Demand Breakdown by Fuel Type



2010



2015



2020

- Flex fuel vehicles currently have the highest share of the alternative fuel market, but consumers mostly power them with gasoline
- We expect about 1/4 light vehicles sold in the U.S. to be an alternative fuel vehicle by 2015 and 27.5% by 2020
- Gasoline-electric hybrids are expected to grow at a faster rate than diesels
- Electric vehicle share is expected to remain below 1% until 2020

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# Summary

- **Global automotive environment split between emerging and mature**
- **U.S. market continues recovery, but not without risks!**
- **Supply and demand discipline is holding**
- **Volume will return to 16 million level, but long road ahead**
- **Small and Alternative Power will grow, but balance is key**

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**Real-Time Market Intelligence**