



IHS Markit™

Automotive Industry Outlook:

Managing Volatility and Leveraging Opportunities
in a Dynamic Market Environment

February 2019

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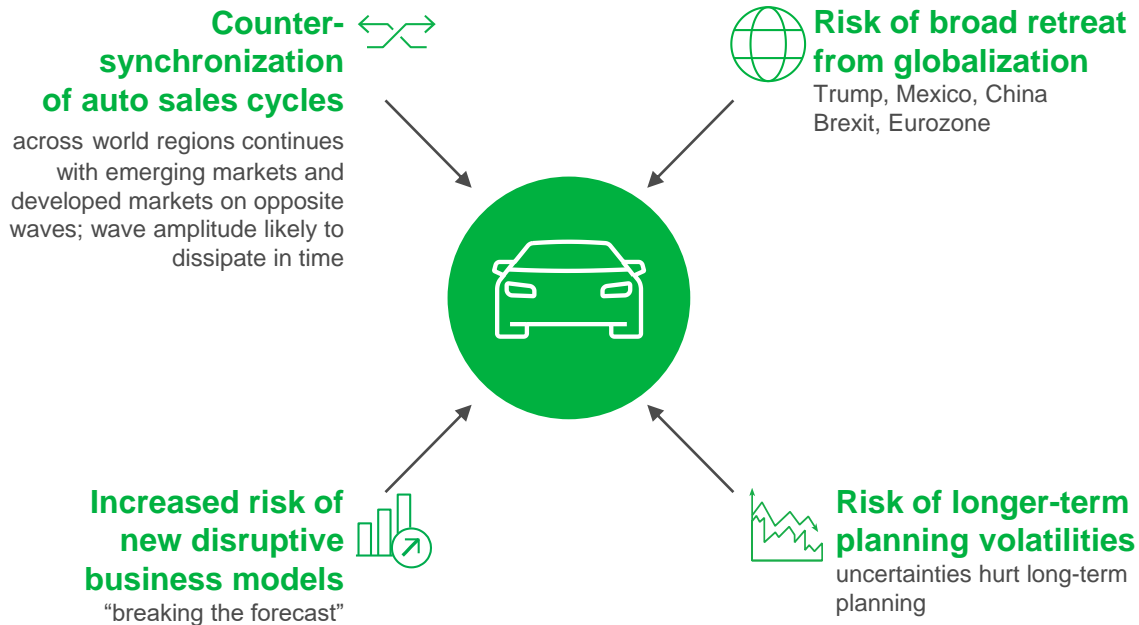
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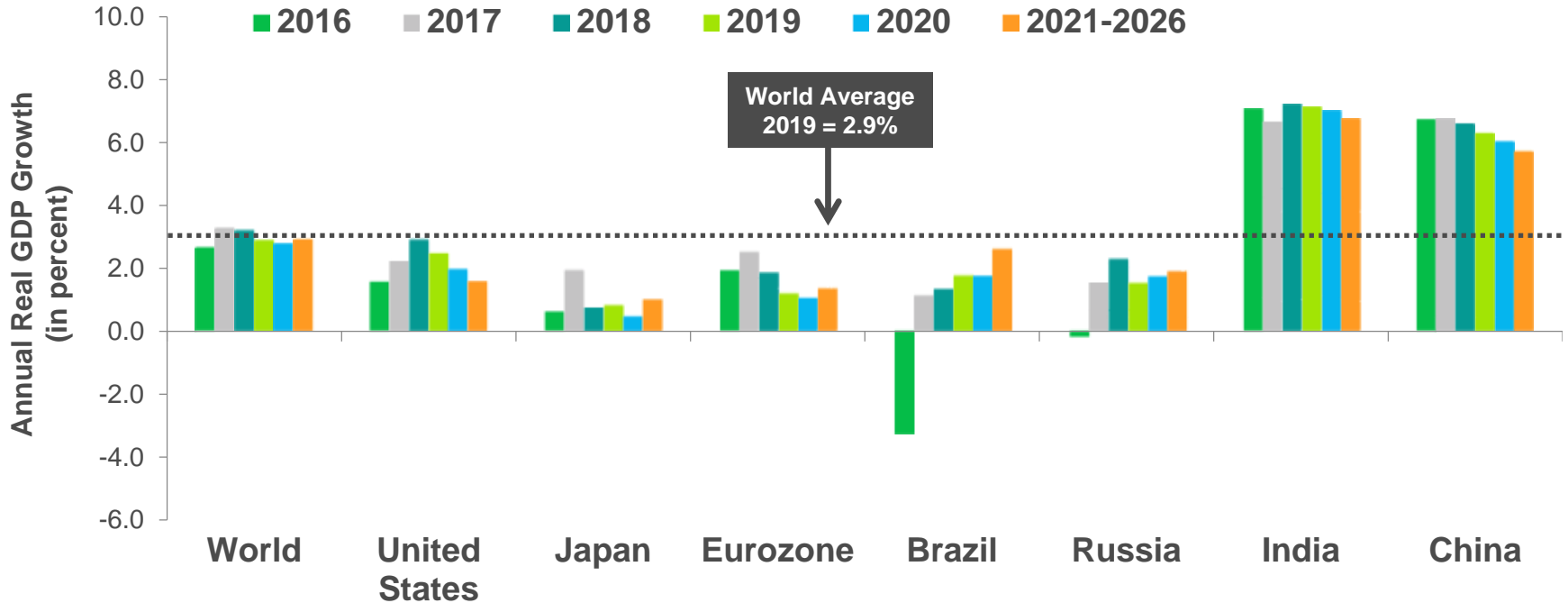
Big Picture: Global Automotive Outlook

Implications for the Global Automotive Industry



World Economic Growth

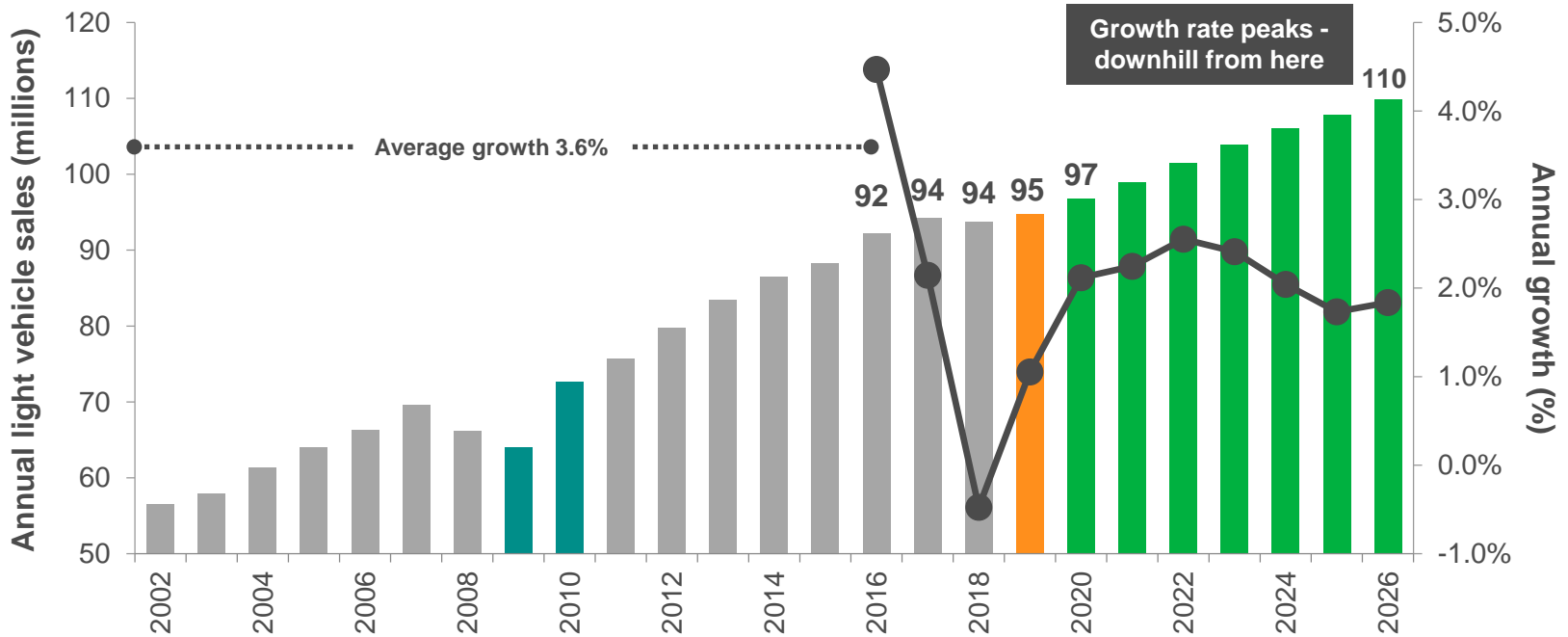
Global Economic Growth has Peaked and is Vulnerable; Trade Tensions Weigh on Outlook



Source: IHS Markit Data Insight

Global Light Vehicle Sales

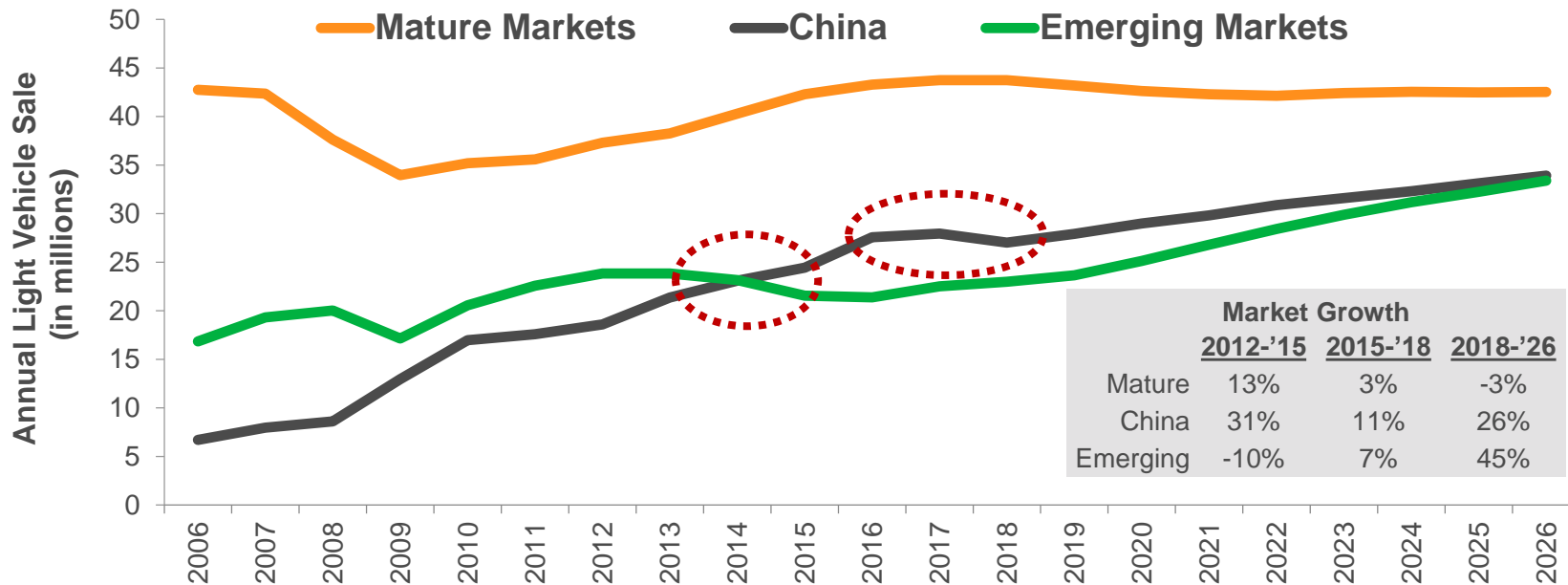
Volatility Impacts the Near-Term Outlook; Mobility Dynamics Drive Slower Growth Long Term



Source: IHS Markit Light Vehicle Sales Forecasts

The Changing Automotive World

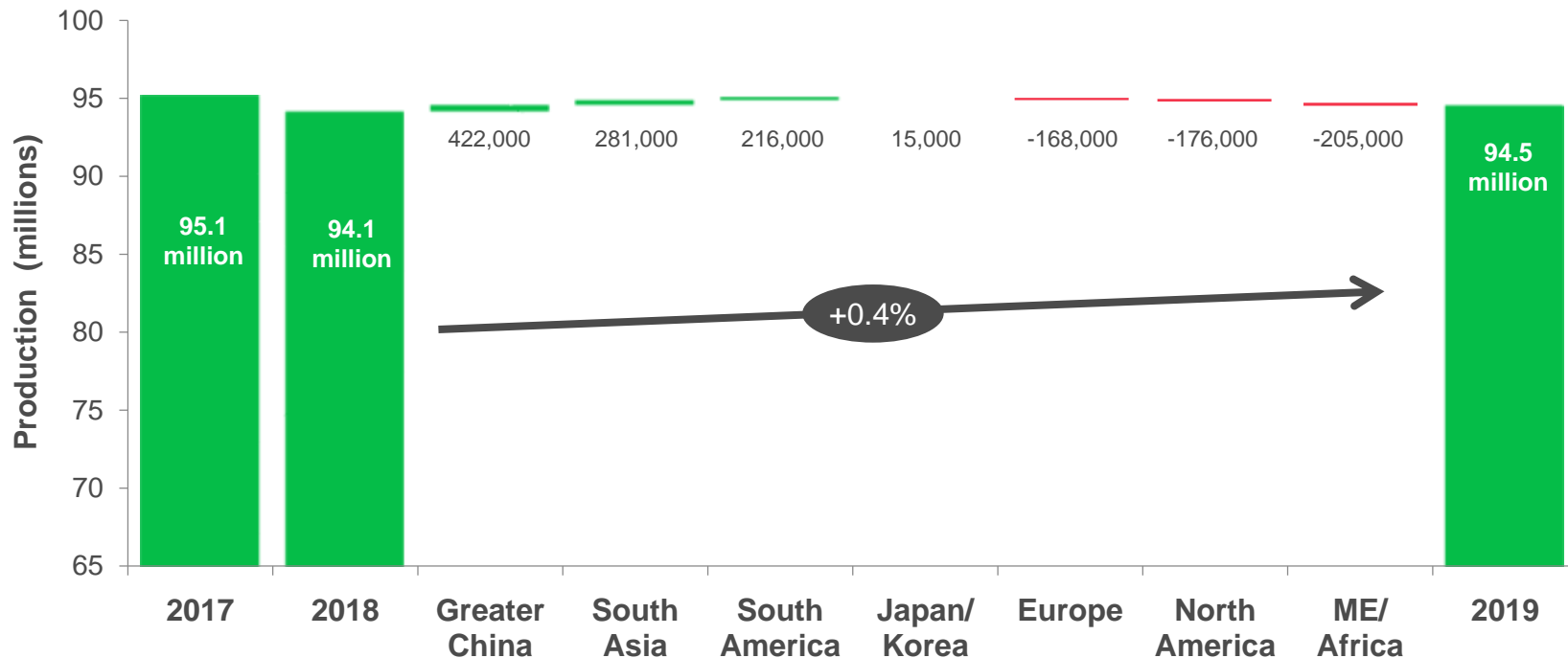
Emerging Markets Outlook is Key to Growth; Limited Potential in Mature Markets



Note: Mature Markets = US, Canada, Japan, S Korea, Australia, New Zealand, Western Europe
 Source: IHS Markit Light Vehicle Sales Forecast

Global Light Vehicle Production

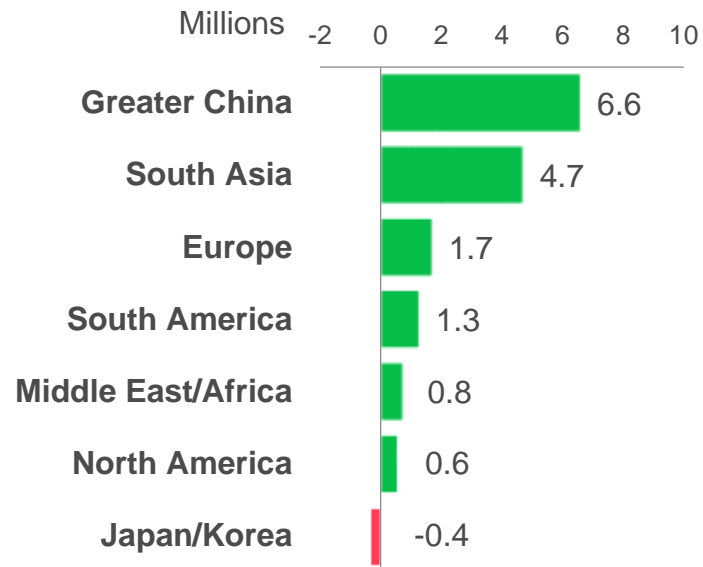
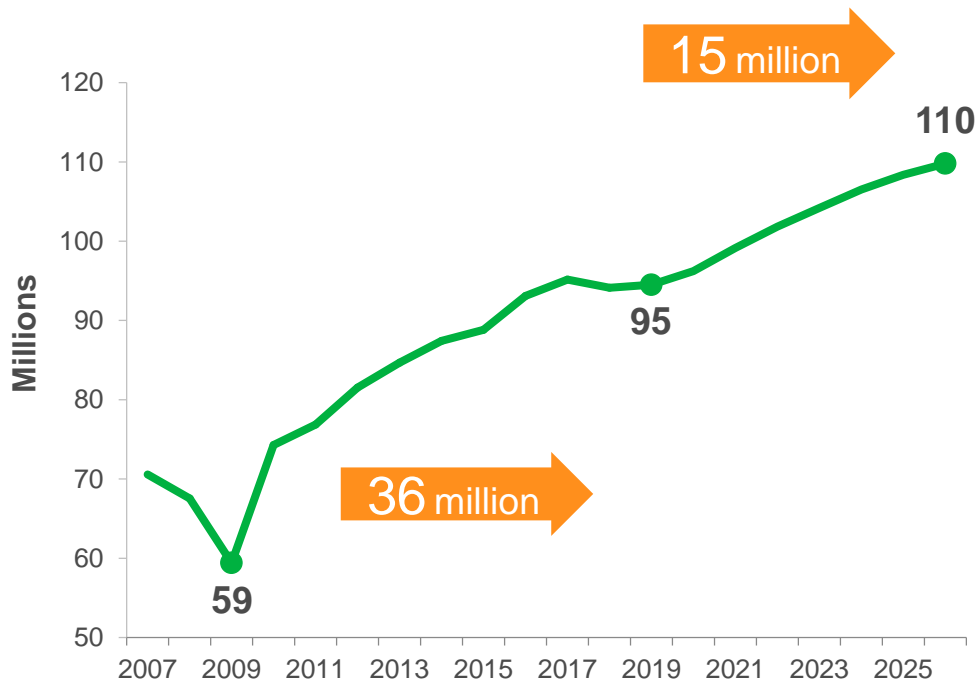
Marginal Growth Driven by Asia and South America; Material Risks Remain



Source: IHS Markit Light Vehicle Production Forecast

Global Production Growth

Transition from Mature Markets to Emerging Markets Intensifies in the Longer Term



US: Light Vehicle Sales Outlook

Gauging the Health of the Market



- Consumer confidence
- Economic growth
- Job growth
- Credit availability
- Vehicle fleet age/composition



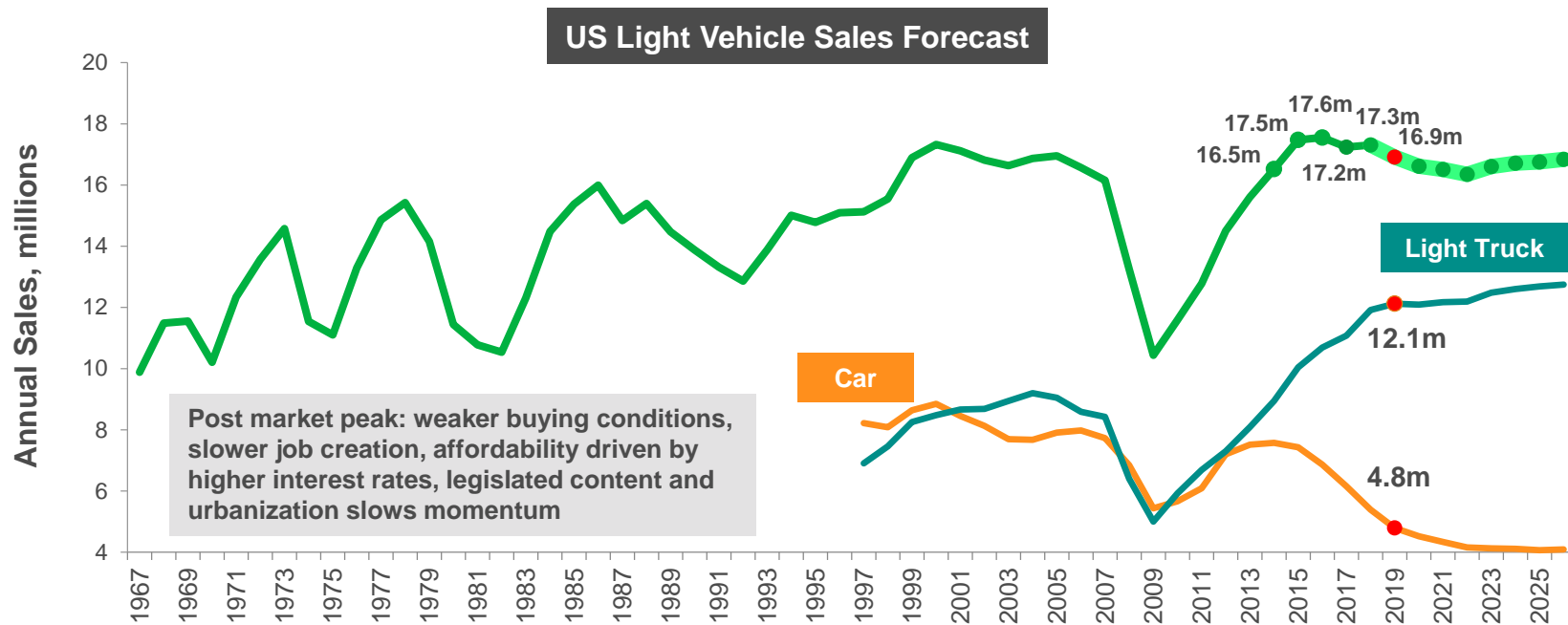
- Wage growth
- Incentives vs. average transaction prices: can the discipline be maintained?
- Scrap rate/vehicle density
- Yield curve inversion?
- Tariff/trade tensions



- Fed action/ interest rates
- Risk of policy mistakes
- Lease returns/ used vehicle pricing/residuals
- Rising input costs
- Vehicle affordability pressures

US: Light Vehicle Sales Outlook

Market Shifting to a “Declining Plateau”; Mobility Dynamics Factor in Longer Term

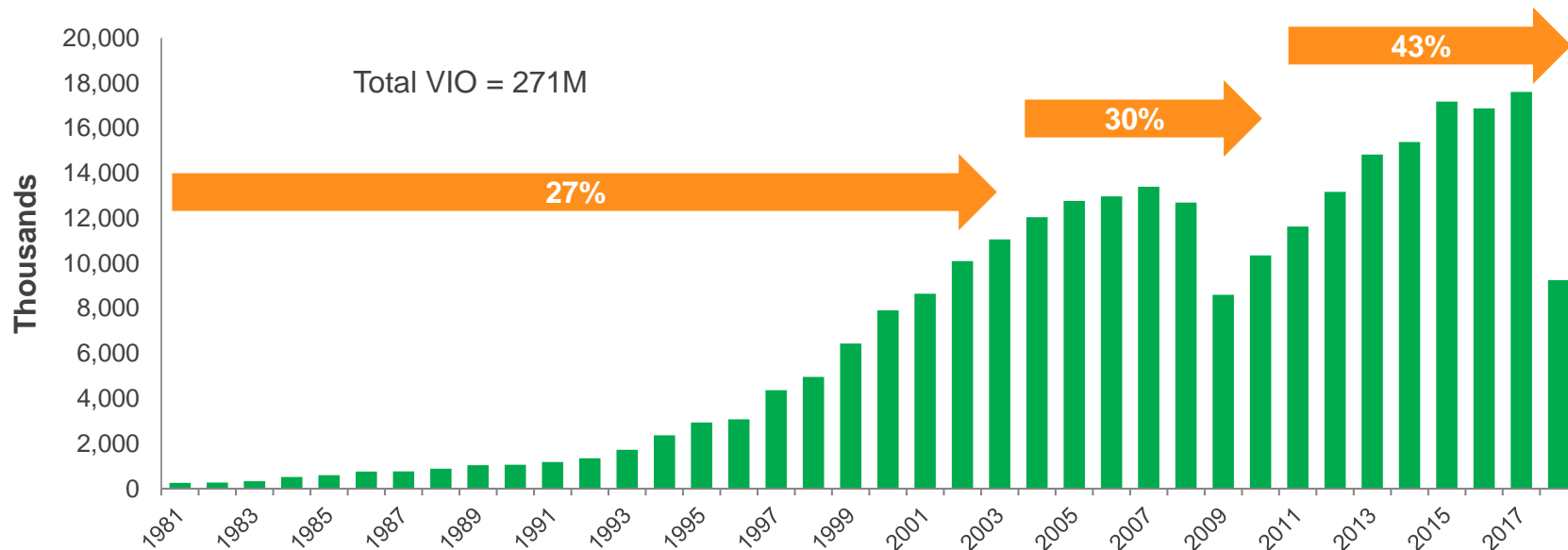


Source: IHS Markit Light Vehicle Sales Forecast

US: Light Vehicle Sales Outlook

Pool of Potential Buyers Remains Strong

Light Vehicles in Operation (VIO) by VIN Year



Source: IHS Markit

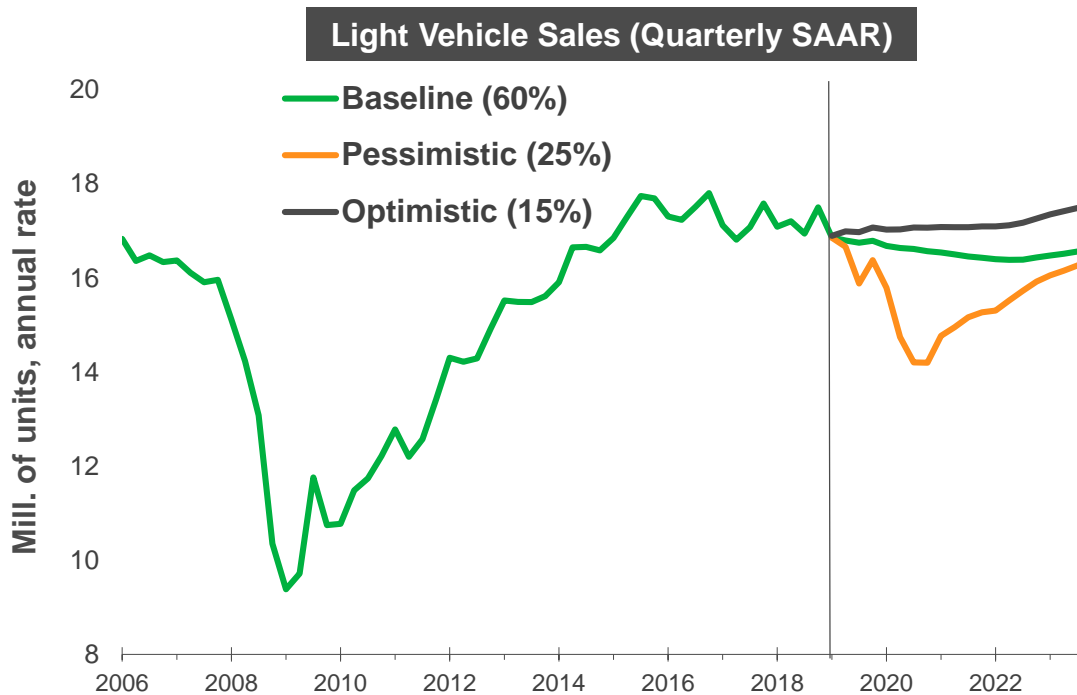
US Light Vehicle Sales in Alternative Scenarios

Positives

- Consumer confidence
- Economic growth
- Housing recovery
- Job growth
- Credit Availability

Negatives

- New & used vehicle pricing
- Off lease returns
- Incentives
- Longer loan terms
- Interest rate outlook
- Uncertainty

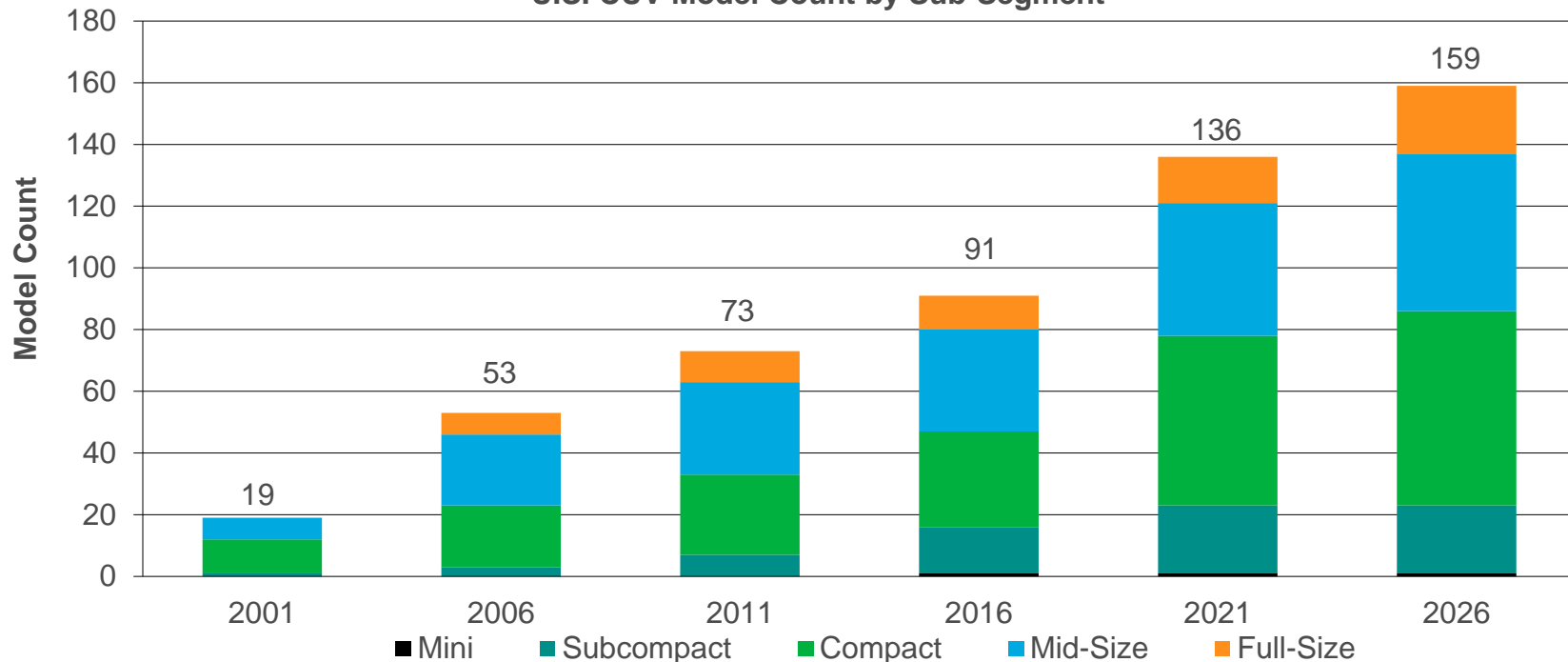


Source: IHS Markit

U.S.: Light Vehicle Sales Outlook

Are We Reaching a Saturation Point for CUV Models? Differentiation will be Critical!

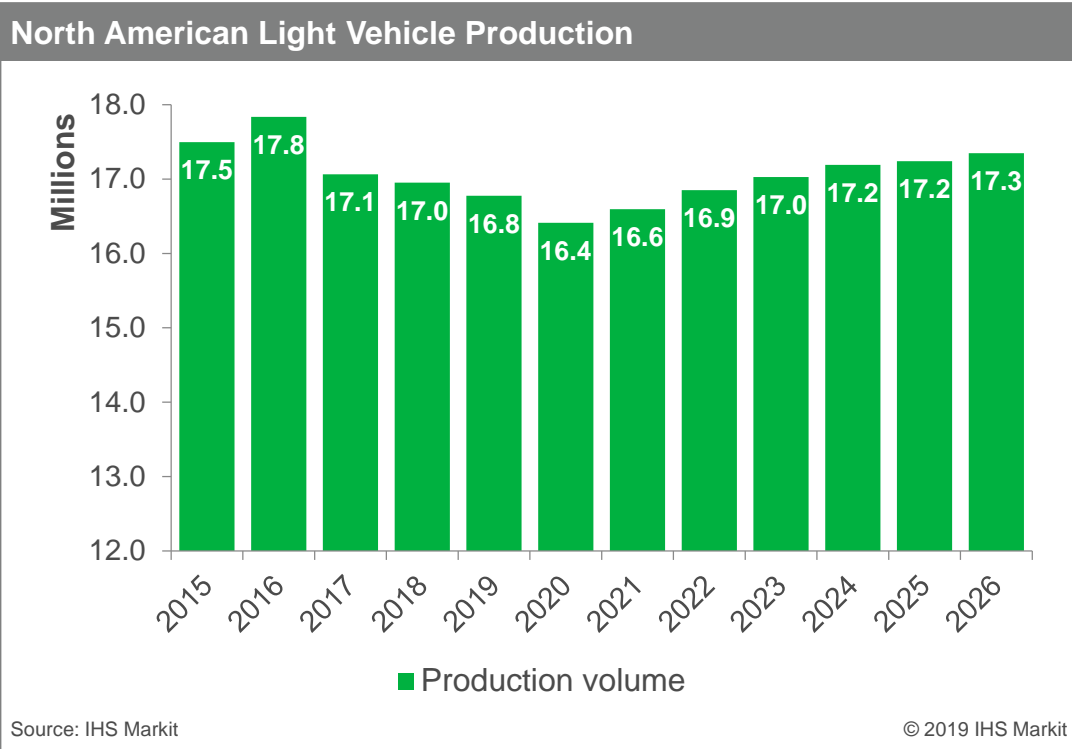
U.S. CUV Model Count by Sub-Segment



Source: IHS Markit Light Vehicle Sales Forecast

North American Light Vehicle Production

Push to Reduce Exposure to Cars and Tariff/Trade Situation Impacts Near-Term Outlook

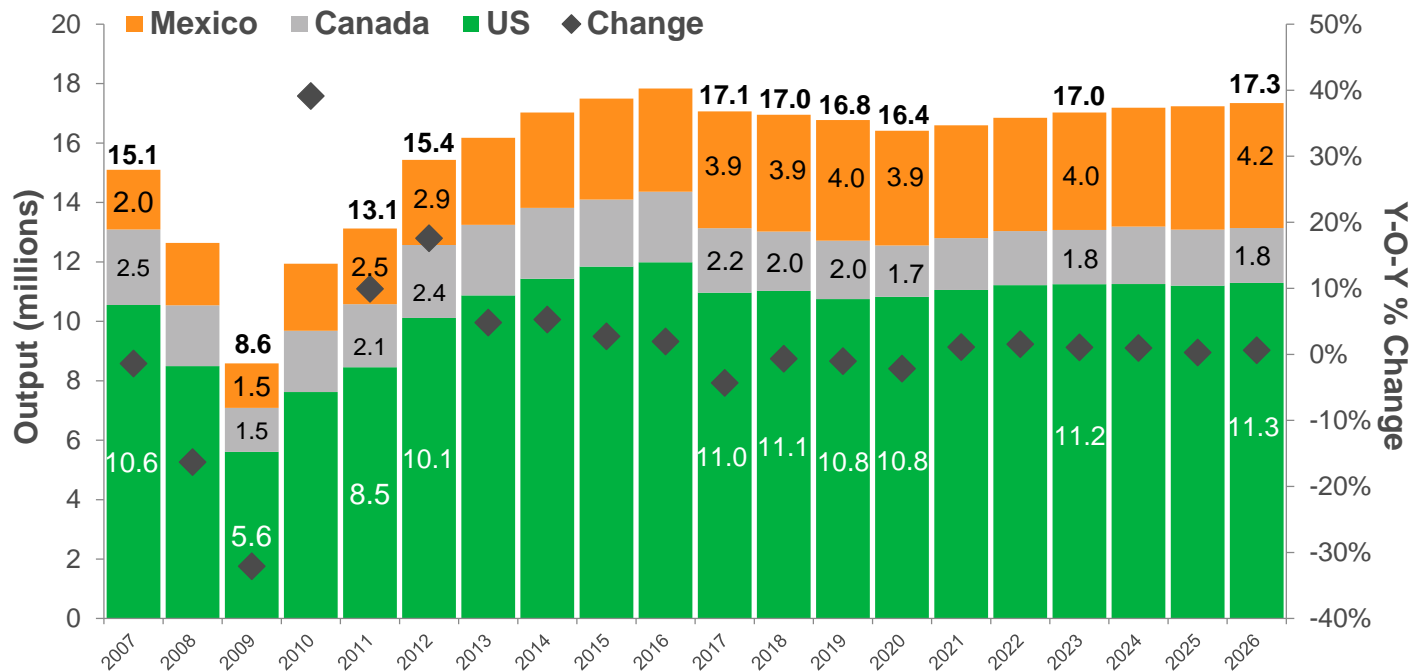


Short-term pain, longer-term gain


- Finding balance
 - Incentives
 - Fleet
 - Inventory
 - Production planning (e.g. car vs. light truck, electrification, etc.)
 - Quality versus quantity
- Growth due primarily to localization and portfolio expansion
- Off-shoring
 - Cancellations
 - Backfilling

Production Outlook


North American Light Vehicle Production by Country




2018 – 2026



+278,000
CAGR = 0.9%



-151,000
CAGR = -1.0%

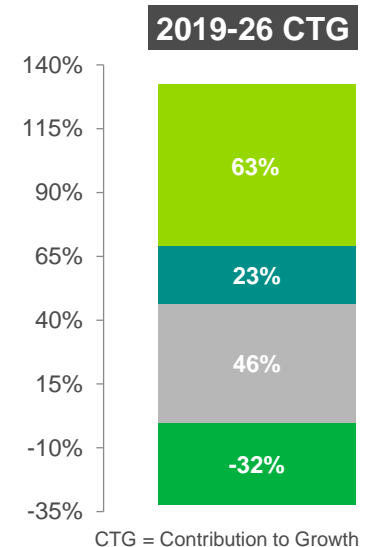
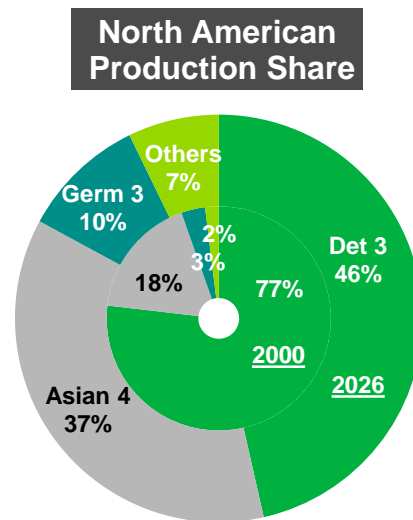
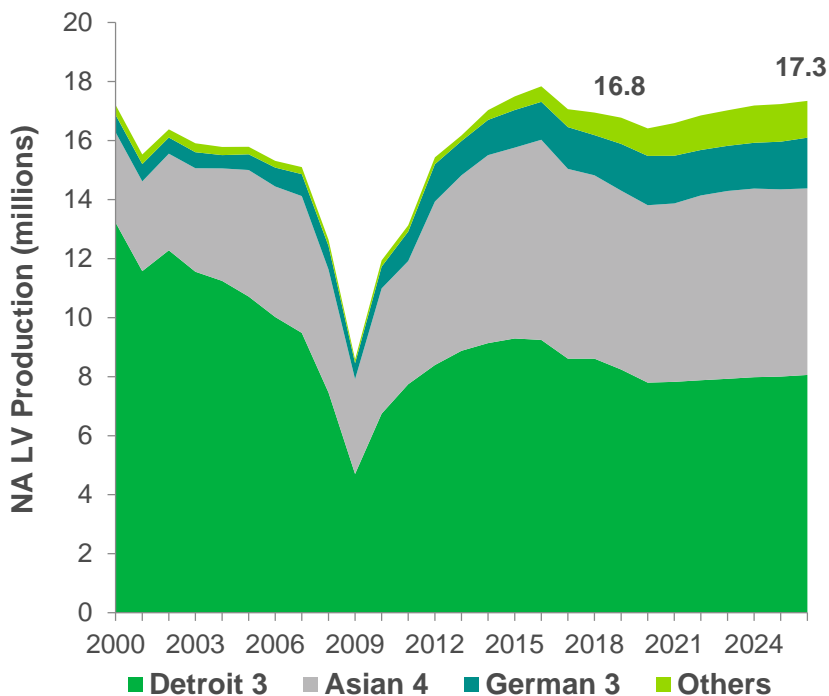


+269,000
CAGR = 0.3%

Source: IHS Markit Light Vehicle Production Forecast

North American Light Vehicle Production

Customer Mix is Changing; Opportunity Targeting is More Critical than Ever!

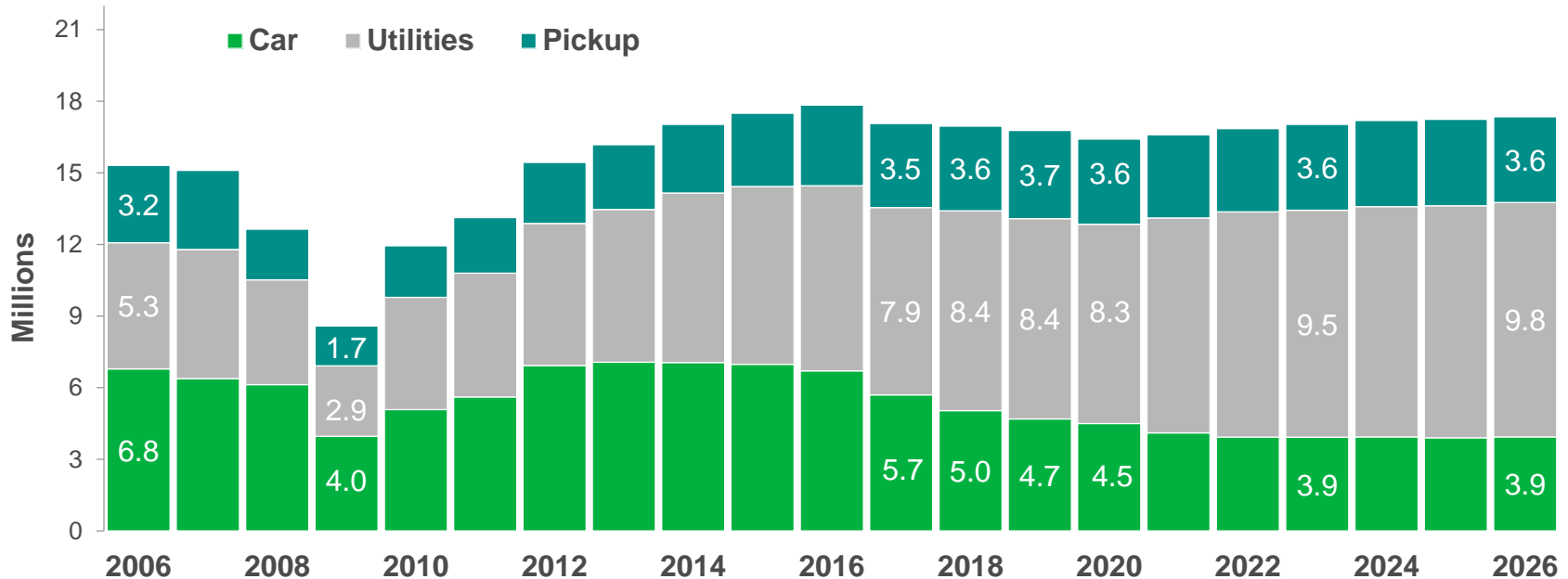


- Asian, German and 'Other' OEM production accelerates with continued localization and new white space products.
- Detroit 3 production declines due to plant rationalization, product realignment and vehicle production sourcing decisions.

North American Light Vehicle Production

Vehicle Mix Continues to Change; Segment Targeting is Necessary

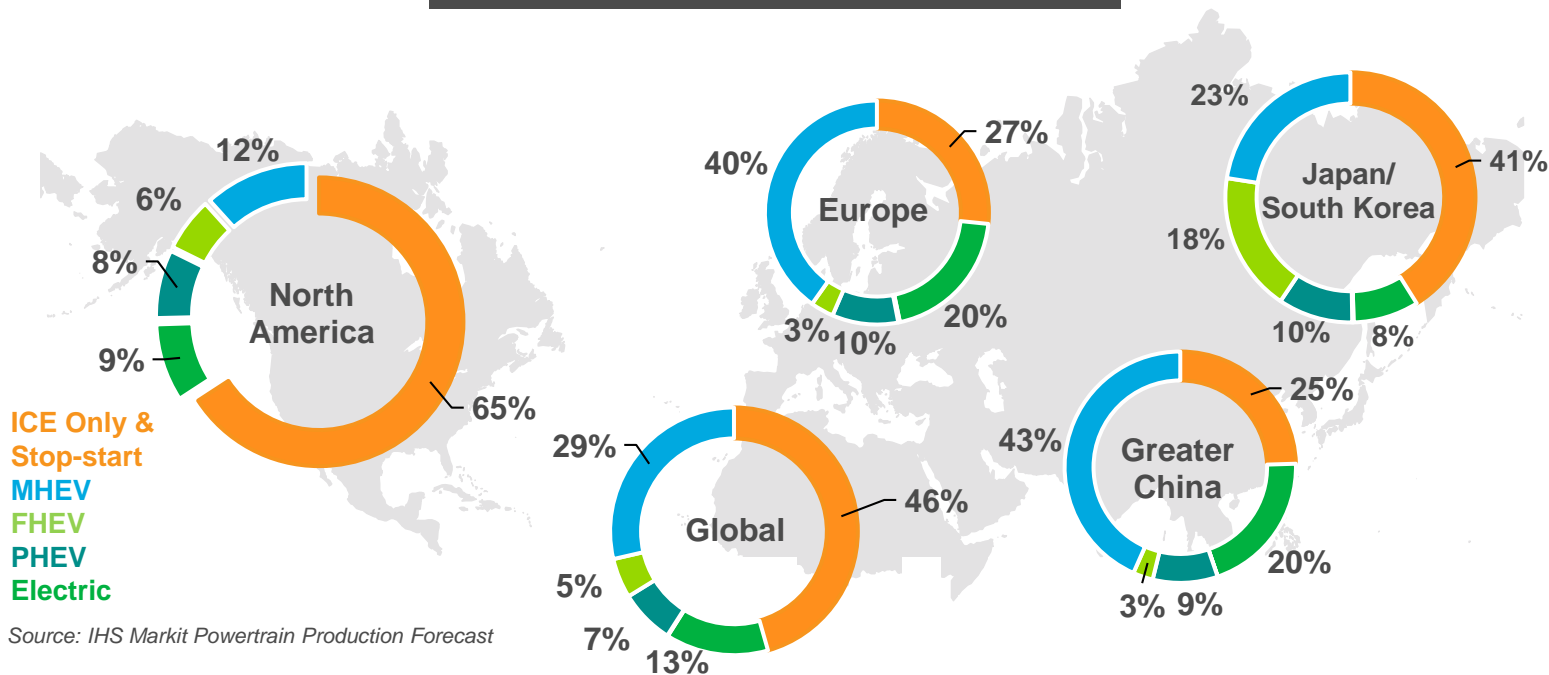
Cars Struggle; SUVs Soar



Powertrain Technology Outlook

Regional Preferences and Incentives Result in a Varied Propulsion Mix; Watch the Model Count!

Global Propulsion Design Islands in 2031



Source: IHS Markit Powertrain Production Forecast

Thank You!

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