

AUTOMOTIVE

2017 - Bumpy Road Ahead - Global Automotive Outlook

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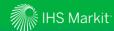
Big Picture – Global and EMEA Automotive Outlook

- Global economic outlook
- Autos challenges for 2017 and beyond
- Light vehicle demand outlook for top selling markets
- Key segmentation outlook guess which one?
- Global production summary
- Automotive predictions





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Real GDP growth 2016

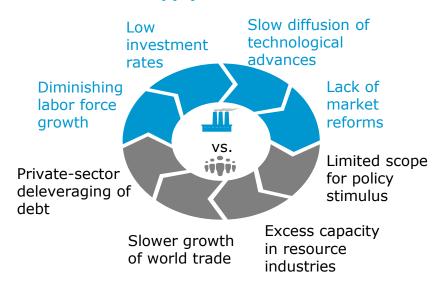
		2016				
Forecast Update	Jan-17	Jan-16	Diff			
World	2.4	2.6	-0.2			
United States	1.6	2.4	-0.8			
Eurozone	1.7	1.7	0.0			
United Kingdom	2.0	2.1	-0.1			
Japan	1.0	0.9	0.1			
China	6.7	6.3	0.4			
India	6.8	7.5	-0.7			
Brazil	-3.6	-3.4	-0.2			
Russia	-0.6	-2.2	1.6			

Source: IHS Markit

Real GDP growth in %: Mid-January forecasts

Why have global economic growth and productivity growth disappointed?

Supply constraints



Demand constraints



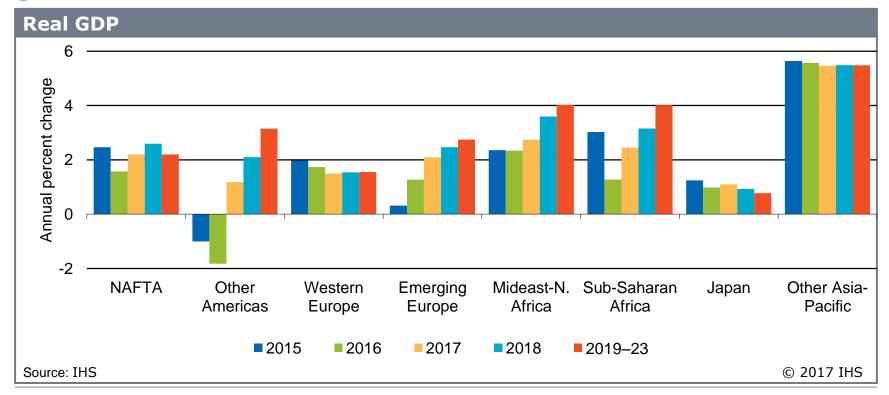
Real GDP growth in major economies

Real GDP					
Percent change	2014	2015	2016	2017	2018
World	2.8	2.7	2.4	2.8	3.1
United States	2.4	2.6	1.6	2.3	2.6
Canada	2.6	0.9	1.3	2.1	2.4
Eurozone	1.2	1.9	1.7	1.5	1.6
United Kingdom	3.1	2.2	2.0	1.4	1.2
China	7.3	6.9	6.7	6.5	6.2
Japan	0.2	1.2	1.0	1.1	0.9
India	7.2	7.5	6.8	7.3	7.6
Brazil	0.5	-3.8	-3.6	0.3	1.9
Russia	0.7	-3.7	-0.6	0.8	1.7
Source: IHS Markit					© 2017 IHS

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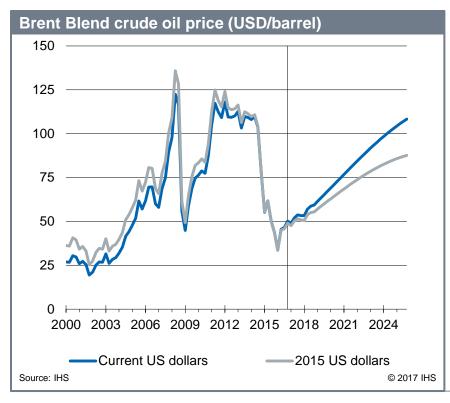


Asia-Pacific (excluding Japan) will achieve the fastest growth in real GDP





Crude oil prices will gradually recover



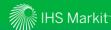
- In a six-month accord that takes effect in January, OPEC agreed to cut its production 1.2 million barrels per day (b/d). Russia's energy minister announced a reduction of 300,000 b/d.
- The US onshore oil industry is proving effective at cutting costs and achieving efficiencies. US crude oil production has bottomed in Q4 2016 near 8.6 MMb/d and will increase about 400,000 b/d during 2017.
- Under a Trump administration, reduced regulation, fewer hurdles for pipeline construction, and an opening of public lands to exploration and production could lead to higher-than-expected oil and gas supplies.
- The price of Dated Brent crude oil is projected to increase from USD44/barrel last year to USD54 in 2017 and USD57 in 2018.



Key challenges affecting the automotive outlook

- 1. Global growth begins to pick up

 Led by the US & commodity-exporting regions balanced by Brexit-related uncertainties & Eurozone
 political concerns
- 2. President Trump a real wild card
- 3. "Brexit means Brexit"
- 4. China car tax incentives tapering for 2017-18
- 5. Demonetization in India
- 6. COP21—Paris conference on climate change December 2015
- 7. VW Emissions scandal—spotlight on diesel & RDE
- 8. Battery Electric Vehicles go mainstream (†OEMs planning BEVs)
- 9. New mobility gaining traction & progress for autonomous cars

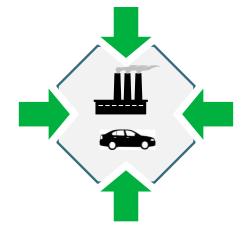


Implications for the global automotive industry

Counter-synchronization of auto sales cycles

across world regions continues with emerging markets and developed markets on opposite waves. Wave amplitude likely to dissipate in time

Increased risk of new disruptive business models "breaking the forecast"

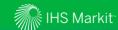


Risk of broad retreat from globalization

Trump, Mexico, China, Brexit, Eurozone

Risk of longer term planning volatilities

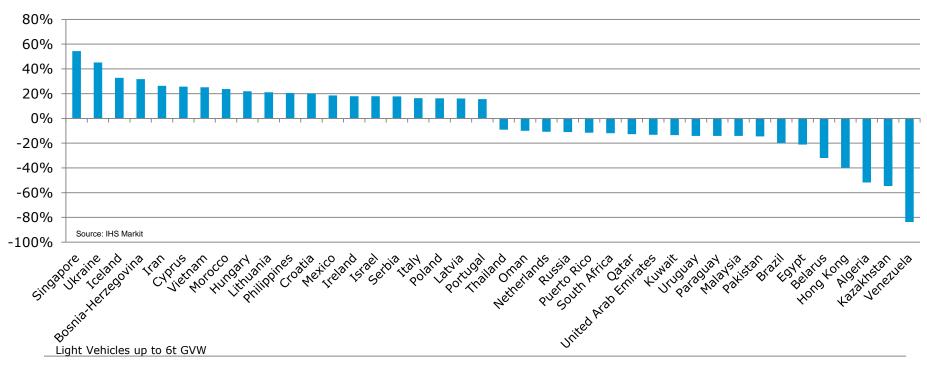
uncertainties hurt long term planning



Top 20 Winners & Losers

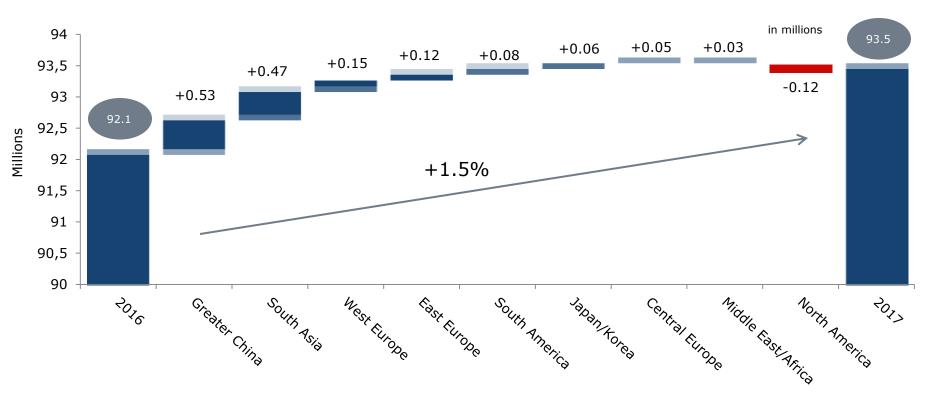
Auto Sales Performance 2016 (Total LV Market)

■ Change 2015-2016





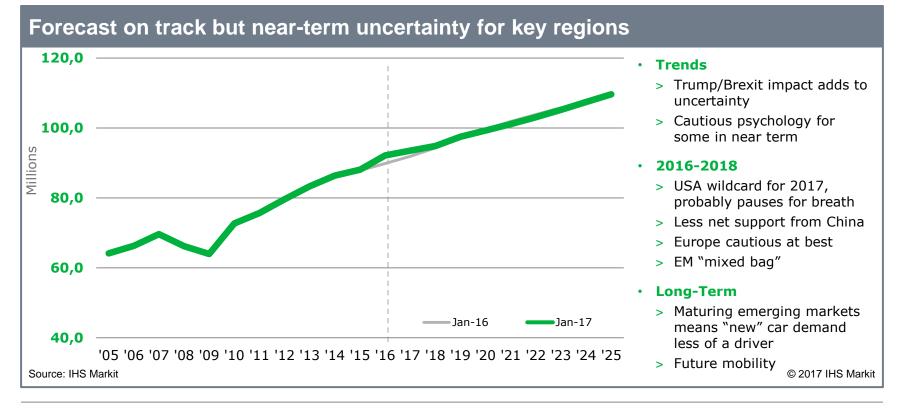
Global Light Vehicle Sales 2017 Outlook



Light Vehicles up to 6t GVW

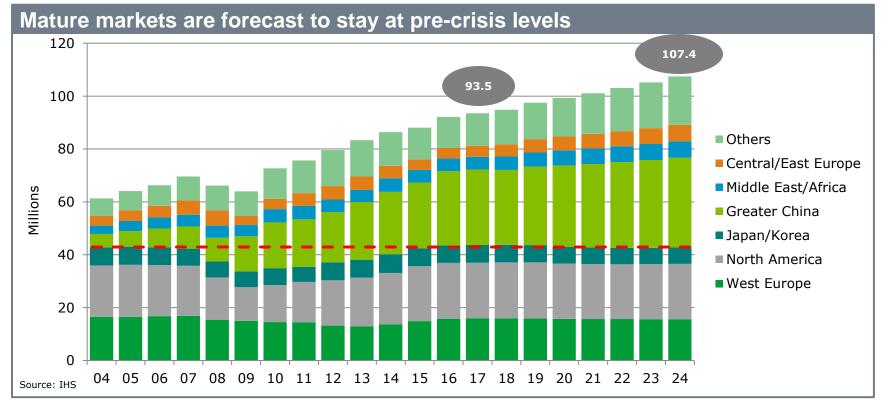


TIV: Global Light Vehicle Sales

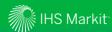




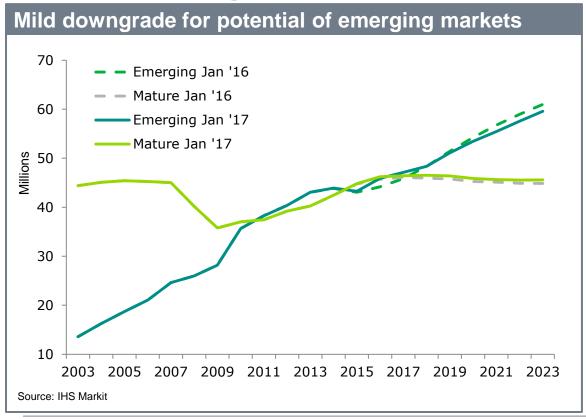
Global Light Vehicle Sales Outlook



Light Vehicles up to 6t GVW



TIV: Global Light Vehicle Sales – Mature vs. Emerging

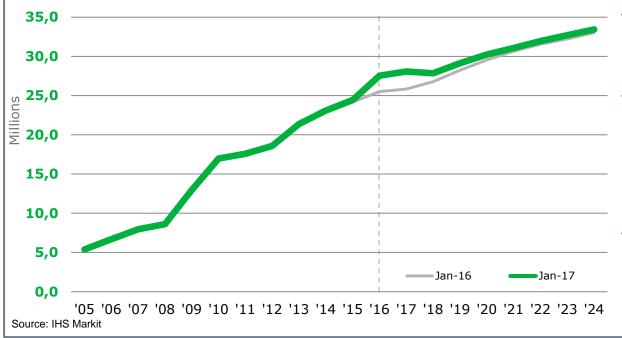


- China's economic growth will slow further because of imbalances in credit, housing, and industrial markets. Means less momentum behind autos sales growth.
- Political uncertainties could contribute to "oddball" phase of globalization. Also slow pace of economic reforms in many emergingmarket economies holding back income growth and car demand.
- Russia and Brazil will begin to recover in 2017. But deep economic crises have magnified impacts on car sales. Both markets unlikely to "snap back". Wide economic dislocation has lasting & lowering effect on car market potential.
- Many mature markets have been running hot with quicker release of pent-up demand from the recession/crisis years. Record low auto financing deals have helped fund this miniboom. Brexit handbrake could take the shine off the European outlook through 2017-19.



TIV: China Light Vehicle Sales

Demand loses momentum as auto stimulus program tapers over 2016-18



Trends

> Autos demand grows with subdued pace due to slower economic growth

2016-2018

- > Smaller car tax incentives rolled back (5% to 7.5%)
- Yellow label scrappage program ends
- > Payback effect after smaller car tax incentives end

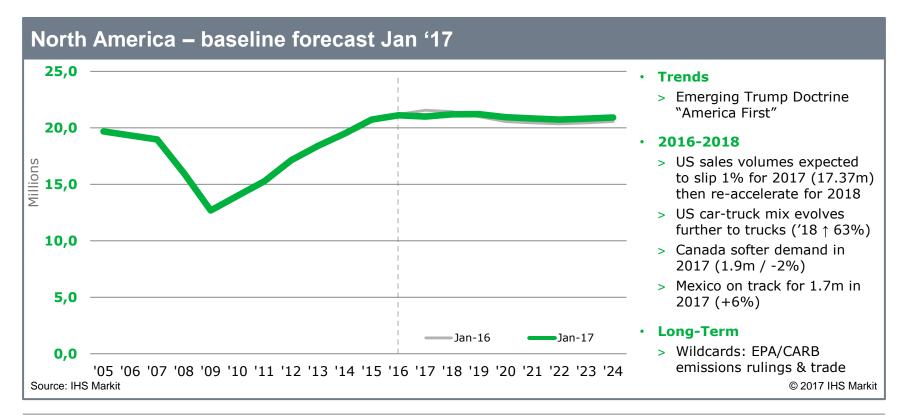
Long-Term

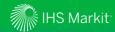
- > Replacement demand accounting half of demand
- > Lower GDP trend level

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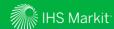
TIV: North America Light Vehicle Sales



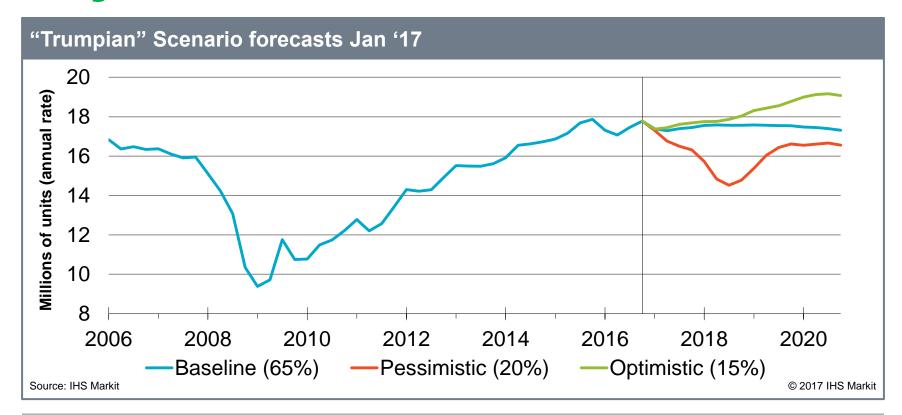


Risks to the US forecast

Scenario	Characteristics
Recession induced by strained trade relations (Probability = 20%) "Bad Trump"	 Strained trade relations with Mexico and China undermine business confidence, investment, and productivity. A major stock market correction, rising oil prices, and federal budget cuts hurt consumer spending. The US suffers a recession in the first half of 2018.
Lower taxes and fewer regulations (Probability = 15%) "Good Trump"	 A rollback of regulations and lower corporate taxes result in higher capital spending and productivity. Consumer and housing markets benefit from higher incomes and lower inflation and interest rates. Stronger global economic growth helps exports.
Baseline forecast (Probability = 65%) "Contained Trump"	 The Fed gradually raises interest rates through 2019. Personal and corporate income tax rates are cut in 2018. Consumer spending growth continues; capital spending on equipment and structures rebounds. Global economic growth picks up moderately in 2017–18.



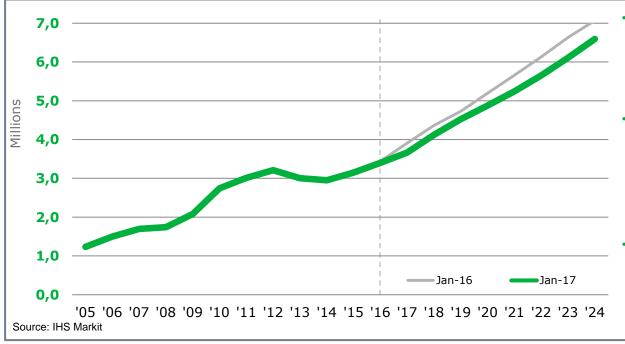
US Light Vehicle Sales in alternative scenarios





TIV: India Light Vehicle Sales

Demonetization limits 2017 but future growth path intact (at a lower level)



Trends

- > Demonetization impacts badly short-term
- > Growth remains from a low base (density still low)

2016-2018

- > Massive credit rate cut helps
- > Budget stimulus 2017 should boost growth
- > 7th Pay Commission
- > GST Implementation

Long-Term

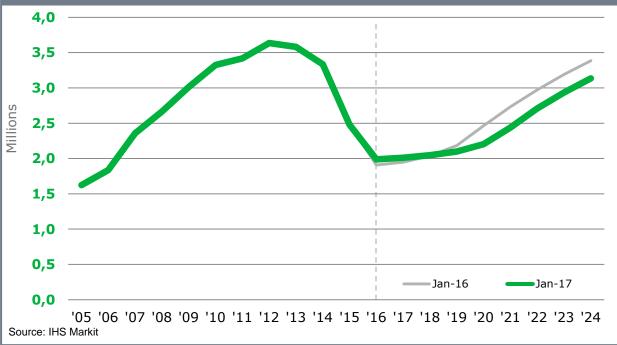
- > Taxi aggregators
- > Favorable demographics
- > Increasing disposable incomes

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TIV: Brazil Light Vehicle Sales

Economic & Political fall-out "haunts" the market – recovery slow & low at best



Trends

- > Growth potential remains investors wary false dawns.
- > If sustained, global growth should benefit region.

2016-2018

- > Brazil forecast on track.
- > Dead-cat bounce for 2017? Or first signs of life?
- > Much to do before real growth prospects reappear.

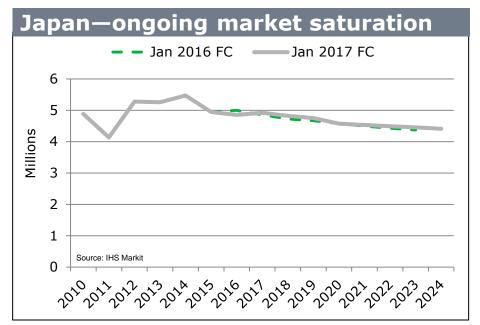
Long-Term

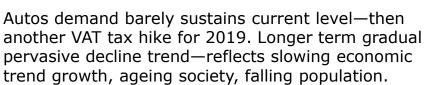
- > Favorable demographics.
- > Region remains vulnerable to the commodity cycle.

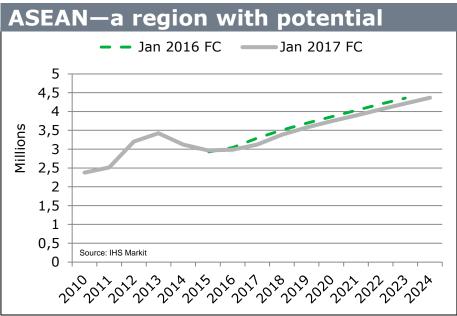
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TIV: Japan & ASEAN Light Vehicle Sales



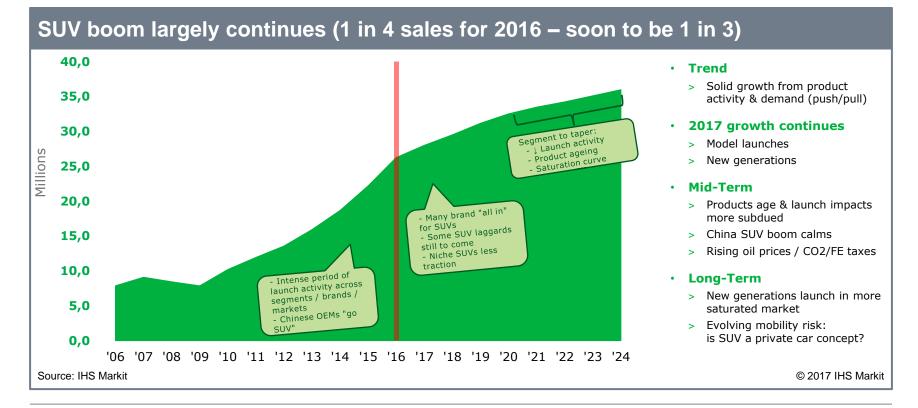




Strong support from green car projects; such as Thai Eco-Cars, Indonesia LCGCs, Malaysia EEVs, & Philippines CARS programs. Mid-Term: Positive economic climate with rising purchasing power.

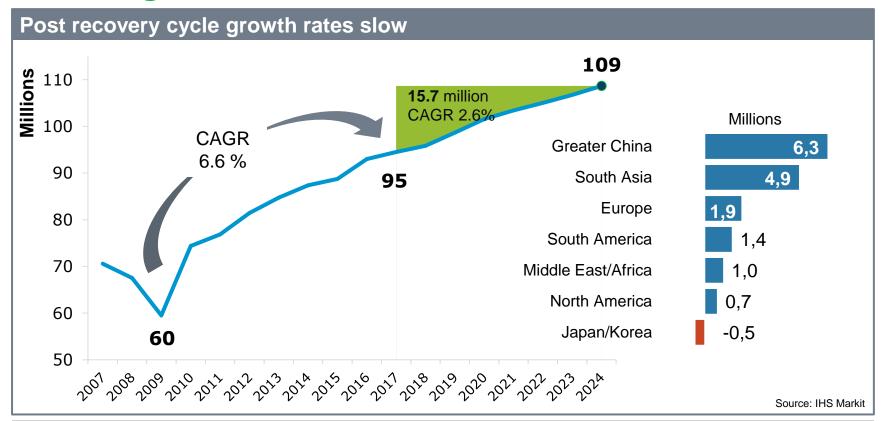


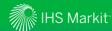
Segments: Global SUV Sales





Global Light Vehicle Production Outlook





NAFTA implications under President Trump

- Recent announcements indicate new administration plans to renegotiate NAFTA agreement. Original negotiation period lasted approx. 6 years between initial meetings and Jan 1st 1994 implementation.
- Other means available to President to impose tariffs:
 - **1. Trade Expansion Act of 1962**: Impose tariffs or quotas after finding that imports have an adverse impact on national security
 - **2. Trade Act of 1974**: Impose tariffs up to 15% and/or quantitative restrictions for up to 150 days against countries with large balance of payments surpluses
 - **3. Trading with the Enemy Act of 1917**: In time of war, powers to regulate international commerce, freeze/seize foreign-owned assets
- Under WTO rules, MFN tariffs between US/Canada/Mexico revert to 2.5% for vehicles and automotive parts. Dispute settlement within WTO takes upwards of 1 year to resolve.



Mexico Production as % of US Sales

Sales Parent	2015	2016	2017	2018	2019	2020	2021	2022	2023
BMW	0%	0%	0%	0%	5%	15%	16%	19%	20%
Daimler	0%	0%	0%	1%	6%	8%	8%	8%	8%
FCA	17%	17%	26%	24%	22%	17%	15%	16%	17%
Ford	13%	13%	12%	14%	17%	18%	18%	17%	17%
General Motors	15%	14%	17%	19%	21%	20%	18%	18%	18%
Honda	6%	8%	8%	8%	8%	8%	9%	9%	9%
Hyundai	0%	4%	9%	11%	11%	10%	9%	9%	10%
Mazda	17%	18%	17%	21%	26%	18%	18%	17%	17%
Renault/Nissan	25%	23%	20%	22%	25%	21%	22%	23%	22%
Toyota	2%	2%	2%	2%	4%	7%	6%	6%	7%
Volkswagen	36%	34%	40%	42%	41%	38%	36%	35%	37%

Mexico has a network of 10 FTAs with 45 countries including with the EU



IHS Watchlist – Mexico Sourcing Risks

Sales Parent Potential Sourcing Changes

BMW Minimal

Daimler Minimal

FCA Compass to Belvidere; Ram 1500/2500/3500 to Warren Truck

Ford Cancelled San Luis Potosi; CX430 C-CUV and C730 C-HEV AV to Flat Rock

General Motors

Blazer and Terrain to Spring Hill and/or CAMI; Silverado/Sierra dispersed to Flint Truck, Fort

Wayne and Oshawa; Cruze increased at Lordstown; Trax already resourced to China

Honda Fit resourced to Japan

Hyundai Accent, Rio and Forte resourced to South Korea; back fill Monterrey with higher margin CUVs;

increase exports

Mazda2, Mazda3 resourced to Japan; back fill Salamanca with higher margin CUVs; increase

exports

Renault/Nissan New US plant for small vehicle production

Toyota Cancel Celaya plans or resource Corolla to USA and Japan; back fill Celaya with higher margin

CUVs; increase exports

Volkswagen Increase exports; add higher margin vehicles; BEVs at Chattanooga



Alignment & flexibility - OEM sourcing footprint 2024

ОЕМ	Units (Million)	Europe (UK)	Greater China	Japan/ Korea	MEA	North America (MEX)	South America	South Asia
VW Group	12.1	44% (0.1%)	38%	0%	2%	7% (5.3%)	5%	5%
Toyota	<u>11.6</u>	8% (0.8%)	15%	32%	2%	19% (2.6%)	3%	21%
Ren/Niss	10.8	36% (5%)	15%	11%	8%	16% (8%)	6%	9%
GM	<u>8.3</u>	16% (1.5%)	28%	4%	1%	39% (11%)	8%	4%
Ford	<u>6.6</u>	23% (0%)	15%	0%	1%	46% (7%)	5%	9%
FCA	<u>5.2</u>	35% (0%)	5%	0%	0%	43% (8.3%)	14%	2%
PSA	<u>3.5</u>	60% (0%)	26%	0%	9%	0% (0%)	5%	0%
Daimler	<u>3.1</u>	62% (0%)	17%	1%	3%	12% (4.6%)	1%	3%
BMW	2.6	58% (10.4%)	17%	0%	1%	20% (8.5%)	1%	2%
JLR	1.0	76% (55%)	16%	0%	0%	0% (0%)	2%	6%
Volvo Cars	0.8	47% (0%)	35%	0%	0%	17% (0%)	0%	1%

Light Vehicles Production up to 6t GVW



Top-10 "Autonomics" Predictions for 2017

- 1. Uncertainty levels have risen—but risk of declining global autos sales remains low.
- 2. Autos sales for 2017 should set a further new record—autos is still a growth industry.
- 3. Tapered Chinese autos stimulus programs should help deliver another year of growth.
- 4. US autos sales expected to slow for 2017—think pre Trump-stimulus pause for breath.
- 5. Europe struggles to shrug off Brexit and other political uncertainties—momentum slows.
- 6. Russia back in growth phase—"risk of recovery" could surprise us all.
- 7. Brazil should do better—but could be a wait before confident that more than "dead cat bounce".
- 8. Iran—the biggest car market you never thought about—firmly back in growth territory.
- 9. Not much of a prediction—the global SUV boom continues! SUVs soon 1 in 3 sales.
- 10. New mobility concerns more mid-long term issues—make the most of 2017!

It's Going to be a Bumpy Ride!

Thank You!

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