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### Real GDP growth in 2016

<table>
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<th>Forecast update</th>
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Source: IHS Markit

**Why have global economic growth and productivity growth disappointed?**

#### Supply constraints
- Diminishing labor force growth
- Low investment rates
- Slow diffusion of technological advances
- Lack of market reforms
- Private-sector deleveraging of debt

#### Demand constraints
- Slower growth of world trade
- Excess capacity in resource industries
- Limited scope for policy stimulus

**Big picture—Global GDP: What did change?**

**Real GDP growth in %: Mid-January forecasts**

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## Real GDP growth in major economies

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Source: IHS Markit © 2017 IHS Markit
Asia-Pacific (excluding Japan) will achieve the fastest growth in real GDP
Crude oil prices will gradually recover

- In a six-month accord that took effect in January 2017, OPEC agreed to cut its production 1.2 million barrels per day (MMb/d). Russia’s energy minister announced a reduction of 300,000 barrels per day (b/d).

- The US onshore oil industry is proving effective at cutting costs and achieving efficiencies. US crude oil production bottomed in fourth-quarter 2016 near 8.6MMb/d and will increase about 400,000 b/d during 2017.

- Under the 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 in 2016 to USD54 in 2017 and USD57 in 2018.
Key challenges affecting the automotive outlook

1. **Global growth begins to pick up**
   Led by the United States and commodity-exporting regions balanced by Brexit-related uncertainties and 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/remonetization in India**

6. **COP21—Paris conference on climate change December 2015**

7. **VW emissions scandal—spotlight on diesel and real driving emissions (RDE)**

8. **Battery electric vehicles (BEVs) go mainstream (↑OEMs planning BEVs)**

9. **New mobility gaining traction and 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
Big picture—Global automotive outlook

Top-20 winners and losers

Automotive sales performance in 2016 (total LV market)

Note: Light vehicles up to 6t GVW
Source: IHS Markit

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Global light vehicle sales outlook in 2017 (millions)

- Greater China: +0.53
- South Asia: +0.47
- West Europe: +0.15
- East Europe: +0.12
- South America: +0.08
- Japan/Korea: +0.06
- Central Europe: +0.05
- Middle East/Africa: +0.03
- North America: -0.12

Total: +1.5% (93.5 million)

Note: Light vehicles up to 6t GVW
Source: IHS Markit
Big picture—Global automotive outlook

Total industry volume (TIV): Global light vehicle sales

Forecast on track but near-term uncertainty for key regions

- **Trends**
  - Trump/Brexit impact adds to uncertainty
  - Cautious psychology for some in near term

- **2016-18**
  - US is the wildcard for 2017, probably pauses for breath
  - Less net support from China
  - Europe cautious at best
  - EM “mixed bag”

- **Long term**
  - Maturing emerging markets means “new” car demand is less of a driver
  - Future mobility

Source: IHS Markit

© 2017 IHS Markit
Global light vehicle sales outlook

Mature markets are forecast to stay at precrisis levels

Notes: Light vehicles up to 6t GVW
Source: IHS Markit

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China’s economic growth will slow further because of imbalances in credit, housing, and industrial markets. Means less momentum behind automotive sales growth.

Political uncertainties could contribute to “oddball” phase of globalization. Also, slow pace of economic reforms in many emerging-market economies holds back income growth and car demand.

Russia and Brazil will begin to recover in 2017. The deep economic crises have magnified effects on car sales. Both markets unlikely to “snap back.” Wide economic dislocation has lasting and 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 automotive 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 during 2016–18

- **Trends**
  - Automotive demand grows with subdued pace because of slower economic growth

- **2016–18**
  - Smaller car tax incentives rolled back (5.0% to 7.5%)
  - Yellow label scrappage program ends
  - Payback effect after smaller car tax incentives end

- **Long term**
  - CAFC/NEV program
  - Replacement demand evolves to half of demand
  - Lower GDP trend level

Note: CAFC/NEV stands for corporate average fuel consumption and new-energy vehicle.
Source: IHS Markit

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Big picture—Global automotive outlook

TIV: North America light vehicle sales

North America—Baseline forecast, January 2017

- Trends
  > Emerging Trump doctrine “America First”

- 2016–18
  > US sales volumes expected to slip 1% for 2017 (17.37 million) then reaccelerate for 2018
  > US car-truck mix evolves further to trucks (2018 ↑ 63%)
  > Canada softer demand in 2017 (1.9 million / -2%)
  > Mexico on track for 1.7 million in 2017 (+6%)

- Long term
  > Wildcards: EPA/CARB emissions rulings and trade

Note: EPA is the US Environmental Protection Agency; CARB is the California Air Resources Board.

Source: IHS Markit

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## Risks to the US forecast

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Characteristics</th>
</tr>
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</table>
| **Recession induced by strained trade relations** (Probability = 20%) | - Strained trade relations with Mexico and China undermine business confidence, investment, and productivity.  
- A major stock market correction, a surge in oil prices, and a weakening job market hurt consumer spending.  
- The US suffers a recession in the middle quarters of 2018. |
| “Bad Trump”                                   |                                                                                                                                            |
| **Lower taxes and fewer regulations** (Probability = 15%) | - 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. |
| “Good Trump”                                  |                                                                                                                                            |
| **Baseline forecast** (Probability = 65%)     | - The Federal Reserve 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. |
| “Contained Trump”                             |                                                                                                                                            |

Source: IHS Markit
Robust performance of Germany, Italy, and Spain drives short-term forecast increase (esp. pent-up). Mild negative as election year for Netherlands, France, and Germany. So far, UK holding up despite Brexit vote 😊.

Further downward revision of Russia explains bulk of the overall decrease. Turkey performed above expectations in 2016 despite political turmoil, but new auto taxes hurt midterm.
The UK economy was resilient in the second half of 2016, led by robust gains in consumer spending.

With rising inflation draining purchasing power, retail sales decreased in December and January.

Economic growth is expected to slow in 2017–18, as uncertainty about Brexit dampens investment, hiring, and consumer spending.

Under Prime Minister May’s Brexit plan, the United Kingdom would leave the EU single market and customs union but seek the greatest possible market access on a reciprocal basis.

As Brexit triggers capital flight, sterling will depreciate to a low of USD1.12, fueling inflation. Once trading relationships are clarified, the currency will recover.

Long, uncertain road ahead and many recently positive automotive drivers are expected to turn negative. Automotive demand stabilizes and normalizes once Brexit fog begins to lift; 2017–19 looks set to be quite a ride.
TIV: Russia light vehicle sales

Three-million-unit mark only reachable under ultraoptimistic scenario

- **Trends**
  - Illusion of strong growth—in reality from very low base

- **2016–18**
  - Oil extraction at record levels
  - Sanctions to end mid-2017, long-term sanctions to remain
  - Oil prices recover to USD80 (critical level for Russian budget) by 2021

- **Long term**
  - Oil USD100/barrel by 2024
  - Stagnation of economic and political reforms
  - Unfavorable demographics

Source: IHS Markit
Demonetization limits 2017, but future growth path intact (at a lower level)

- **Trends**
  - Demonetization impacts the short term
  - Growth remains from a low base (density still low)

- **2016–18**
  - Massive credit rate cut helps
  - Budget stimulus of 2017 should boost growth
  - 7th Pay Commission
  - GST implementation

- **Long term**
  - Taxi aggregators
  - Favorable demographics
  - Increasing disposable incomes

Note: GST is goods and services tax.
Source: IHS Markit

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**TIV: Brazil light vehicle sales**

**Economic and political fallout “haunts” the market—Recovery slow and low at best**

- **Trends**
  - Growth potential remains—investors wary of false dawns
  - If sustained, global growth should benefit region

- **2016–18**
  - 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

Source: IHS Markit
Big picture—Global automotive outlook

**TIV: Japan and ASEAN light vehicle sales**

**Japan—Ongoing market saturation**

- Source: IHS Markit

Automotive demand barely sustains current level—then another value-added tax (VAT) hike for 2019. A longer-term gradual pervasive decline trend reflects slowing economic trend growth, an aging society, and a falling population.

**ASEAN—A region with potential**

- Source: IHS Markit

Strong support from green car projects; such as Thailand’s eco-cars, Indonesia’s low-cost green cars (LCGCs), Malaysia’s energy-efficient vehicles (EEVs), and Philippines’ Comprehensive Automotive Resurgence Strategy (CARS) programs. Midterm: Positive economic climate with rising purchasing power.
Segments: Global SUV sales

SUV boom largely continues (1 in 4 sales for 2016; soon to be 1 in 3)

- **Trend**
  - Solid growth from product activity and demand (push/pull)

- **2017 growth continues**
  - Model launches
  - New generations

- **Midterm**
  - Products’ age and launch impacts more subdued
  - China SUV boom calms
  - Rising oil prices and CO₂/Fuel taxes

- **Long term**
  - New generations launch in more saturated market
  - Euro SUVs work w/out diesel?
  - Evolving mobility risk: Is SUV a private-car concept?

Source: IHS Markit

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Top-10 “Autonomics” predictions for 2017

1. Uncertainty levels have risen, but risk of declining global automotive sales remains low.
2. Automotive sales for 2017 should set a further new record—autos is still a growth industry.
3. Tapered Chinese automotive stimulus programs should help deliver another year of growth.
4. US auto sales are 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 it is more than a “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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