The Outlook for the Global Economy and Automotive Demand

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World Light Vehicle Selling Rates
Low oil will help weak global market; China remains the key to industry growth

Source: IHS Automotive Analysis, monthly data with X12 Seasonal Adjustment
The “Great Divergence”

- Over the past four years global growth has been remarkably stable – between 2.5% and 3.0%
- However, the composition of growth has changed fundamentally – with a gradual growth acceleration among the advance economies and a sharp deceleration in the emerging world
- Four trends have driven this divergence:
  - Debt and deleveraging
  - The plunge in the price of oil and other commodities
  - Central banks moving on different paths
  - The rise of the dollar and the fall in other currencies
Implications

• The net effect of the “Great Divergence” is that the momentum of the global economy will improve modestly in the second half of 2015 and in 2016

• Better prospects will be the result of solid growth in the US and a slight pickup in the pace of Eurozone and Japanese economic activity

• The plunge in oil prices will add 0.3 to 0.5 percentage point to global growth over the coming year

• More stimulus by the Bank of Japan, People’s Bank of China and the European Central bank will also support growth

• A stronger dollar is a lifeline to Europe and Japan, but is a challenge to many emerging markets – and US exporters

• China’s growth will slow further, and for other large emerging markets it will be a good news (India), bad news (Brazil and Russia) story
Global real GDP growth: divergent paths

Real GDP

Source: IHS
Asia-Pacific (excluding Japan) and Sub-Saharan Africa will achieve the fastest growth in real GDP

<table>
<thead>
<tr>
<th>Region</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017-21</th>
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<tbody>
<tr>
<td>NAFTA Americas</td>
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<td>Emerging Europe</td>
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<td>Other Asia-Pacific</td>
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Source: IHS
Oil and other commodity prices have tumbled in response to structural excess supply

- Rising production and weak demand growth have left the global oil market oversupplied, driving down prices
- A mismatch between fundamentals, on the one hand, and financial market expectations and inventory building, on the other, caused the recent price rally – this may not last
- As oil production growth slows in the second half of 2015, prices will begin to recover
- IHS expects the price of Dated Brent crude oil to average $59 in 2015 and $66 in 2016
- Big difference: the US is now a swing producer – driven by market forces
- Other commodity prices have fallen mostly because of weak demand from and excess capacity in China
US crude oil prices: A big drop – but for how long?

Crude oil and natural gas prices

Source: IHS Energy
Winners and losers from low oil prices

• Winners:
  • US consumers are the biggest winners – especially low-income families
  • European consumers benefit proportionally less because of high gasoline taxes
  • Emerging-market consumers will also benefit less because of large fuel subsidies
  • Energy-intensive industries, such as agriculture and transportation
  • Governments in oil-importing countries with large fuel subsidies

• Losers:
  • Oil producers, especially those with high costs
  • Major oil exporters, especially those at a “fiscal break-even point” above USD100 per barrel such as Iran, Russia, Venezuela, Ecuador, and Angola

• Net effect:
  • In the United States and worldwide, the net effect on consumers and producers is positive, boosting real GDP growth by roughly between 0.3 and 0.5 percentage point in late 2015 and 2016
  • A 40% drop in oil prices represents a transfer of about USD1.4 trillion from oil exporters to oil importers—the latter have a higher marginal propensity to spend than the former
The US Federal Reserve will lead in raising policy interest rates, followed by the Bank of England.
The dollar: Rising but still competitive

### Real trade-weighted dollar index

<table>
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<tr>
<th>Year</th>
<th>Index, 2009 = 1.0</th>
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<tbody>
<tr>
<td>1980</td>
<td>0.6</td>
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<tr>
<td>1984</td>
<td>0.8</td>
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<td>2016</td>
<td>2.4</td>
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<td>2020</td>
<td>2.6</td>
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- **Major trading partners**: Blue line
- **Other important trading partners**: Green line
IHS expects the Euro/$ rate to strengthen again, moving back to its long(er) term trend-value.
US real GDP growth and the unemployment rate: ignore the first quarter data

Real GDP and unemployment

Source: IHS
The Eurozone recovery looks a little stronger; and UK growth remains robust

- Growth will be better in 2015 (1.5%) thanks to lower oil prices, a weak euro, reduced fiscal headwinds, and an accommodative monetary policy – but slow progress on deleveraging is a problem

- A weak euro has helped exporters, but reduced the purchasing power of consumers

- The ECB’s QE program has already led to easing credit conditions – even Greek bond yields remain relatively low (compared with 2011/12)

- While the risks of a Greek exit are still elevated, the contagion effects will probably be small

- Low inflation and (very) gradually improving labor market conditions will support consumer spending, especially in Northern Europe

- Stronger export growth and growing pent-up demand boost capital spending

- Meanwhile (much like the US), UK growth will be solid (around 2.5%) – the strong election results will help
Real GDP growth in Western Europe

Real GDP

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<tr>
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<th>2013</th>
<th>2014</th>
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<th>2017-21</th>
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<td>Germany</td>
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<td>United Kingdom</td>
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<td>France</td>
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<td>Italy</td>
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<td>Spain</td>
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Source: IHS

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Can Greece de-stabilise Europe?

• Greece’s real GDP growth was beginning to recover …

• … And public finances were headed in the right direction

• The renewed uncertainty discourages investment and caused a further tightening of credit conditions

• The spill-over effects of a Grexit on the rest of Europe will be limited …

• … if there is no contagion to Spain, Portugal and Italy
Financial contagion is unlikely

Most of Greece’s public debt is held by the official lenders

Manufacturing only accounts for 13.3% of Greece’s Value Added. Tradeable services account for another 10%.

Manufacturing: 13.3%
Tradeable services: 10.1%
Non-tradeable services: 76.6%

Greece’s Value Added:
- Manufacturing: 13.3%
- Tradeable services: 10.1%
- Non-tradeable services: 76.6%

- EFSF
- EU Bilateral Loans
- Bonds (ECB/NCB)
- Bonds (No-ECB)
- IMF
- Other
Should Greece exit the Eurozone, its economy would fall back for another 4 years before partly recovering – Real GDP
The impact on Europe and the world depends on the reaction of financial markets and the Euro/$ rate.
China’s growth rate will decelerate more

• The recent deceleration in the Chinese economy is due mostly to weak domestic demand (because of the real estate bust)

• The government is trying to balance concerns about weak jobs growth and social unrest with its desire to tackle the glut of debt and industrial over-capacity in the Chinese economy – although it is providing modest stimulus and has lowered the target growth rate from 7.5% to 7.0%

• Since November, the People’s Bank of China has cut interest rates three times and reduced the required reserve ratio – but real interest rates are still high and the PBoC will likely ease more again

• Lower borrowing costs and the new debt swap program will help ease debt servicing costs but have done nothing to cut the stock of debt

• The vast (and growing) excess industrial capacity in China, financed by an explosion of debt, is the biggest threat to China’s growth prospects

• Bottom line: limited support from fiscal and monetary policy will not be enough to prevent growth from weakening further, from 7.4% in 2014 (the weakest since 1990) to around 6.5% in 2015 and 6.3% in 2016
China’s economic growth will downshift in the long run

Real GDP

Source: IHS

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Global Light Vehicle Sales: How did the forecast change?
Downgrade builds across forecast

Long term forecast has been lowered by around 2.3% on average

- Impacting autos growth path via a lower long term motorisation and resulting annual auto sales volume

Mismatch with the cheap oil price environment! Although mature markets have been upgraded in line they cannot offset the big corrections in Russia and Brazil.

By early 2020’s World GDP is approx. $2 trillion smaller than we forecast one year ago

2.39 m unit forecast downgrade in 2021

1.5 million unit downgrade in 2015

- Apr 14
- Apr 15

<table>
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<tr>
<th>Year</th>
<th>Vol</th>
<th>% Chg</th>
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<tr>
<td>2014</td>
<td>86.3</td>
<td>3.5%</td>
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<tr>
<td>2015</td>
<td>87.5</td>
<td>1.4%</td>
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<tr>
<td>2016</td>
<td>90.7</td>
<td>3.6%</td>
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</table>
Consumer boon from low oil is being more than offset by downgraded economic performance in the BRICs.

Forecast changes to LV sales volume over the last 6 months (March 2015 vs Sept 2014) – i.e. the period of the oil price collapse.
Global Light Vehicle Sales (IHS Total Market for LV’s)

2015 Outlook by Region

- Greater China: 493k, +3.6%
- West Europe: 475k, +3%
- North America: 420k, +5%
- South Asia: 33k, +1.4%
- Central Europe: -24k
- Middle East/Africa: -145k
- Japan/Korea: -228k
- South America: -784k, -23%
- East Europe: 1.63m, +6.9%

Total Sales: 87.5 Million

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Country Light Vehicle Sales Growth
Among the largest markets, Russia/South America will have a tough year

Source: IHS Automotive 2015 and 2016 LV sales forecasts
West & Central Europe – LV Sales

- **Great Recession**
- **Eurozone Crisis Peaks**
- **Buying Propensities Rebound**
- **Employment Fundamentals and Replacement demand**
- **Weak replacement demand – Echo of Crisis**
- **Weak European Demographics take hold**

**The Bottom line – Europe's Auto Market Phases**

- Structural adjustments from crisis = lower long term purchase propensities

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In April 2015, European sales reached 1.61 million units, a 1.3% y/y increase. Western and Central Europe kept a good rhythm in April (up 7.3% y/y) while the situation in Eastern Europe kept deteriorating (down 21.9% y/y). YTD through April, the European continent has grown 2.7% y/y, slightly decelerating over the first quarter.

Western and Central Europe seem to be on the road to recovery, up 8.5% y/y up to April. The general environment is increasingly supportive (with, notably, quantitative easing from the European Central Bank and lesser pressure on households' wallets thanks to relatively low resources prices). Meanwhile, Eastern Europe remains in dire straits. Despite the rebound in Turkey (correcting from previous tax-related distortions), the subregion is embroiled in a vicious cycle centered on the collapsing Russian economy. The subregion was down 22.7% y/y in the first four months of the year. Consequently, we anticipate an awkward situation in 2015 for the continent: a strong recovery in the West totally wiped out by the effects of the Russian crisis.
German sales remained solid in April, increasing 6.3% y/y. This maintained the year-to-date performance at a satisfying level, with 6.6% y/y growth. Tactical (dealer, rental) sales channels, a typical feature of the German market, remain strong (up 11%). We anticipate this situation to continue throughout 2015, with an increase of around 3.0–3.5% y/y.

In the longer run, despite very sound macro factors, we confirm Germany as essentially a replacement-only market—mostly stable and no longer passing the 3.5-million-unit threshold on a regular basis.

French sales decelerated neatly in April, up 3.2% y/y. This brought the year to date below 5% y/y.

The actual potential of the market lies in the return of private buyers (currently still very cautious). We continue to expect this to happen in the second part of the year (amid a better economic climate and some product activity). In this context, we have slightly raised our outlook for 2015 to around 2.5–3.0% y/y.
The Italian market accelerated markedly in April, up 23.1% y/y. The remarkable fact is that for the second month in a row, private buyers made strong contributions to growth (increasing 28% y/y in April).

Italy is on the recovery track but artificial support (discounts, incentives, etc.) is definitely a part of the equation. We expect the current scenario to continue into 2015, with growth of nearly 6% y/y.

Spain slowed down in April, up 4.9% y/y after months of double-digit progressions. The YTD gain was brought back to 25.3% y/y. The PIVE scrapping incentive funds ended in April with immediate consequences. Consequently, officials confirmed the renewal of the scheme (PIVE 8) in May for a last round that will end with the current year. This strategy will help sustain sales and, consequently, will improve our expectations for full-year 2015.
Sales in the United Kingdom remained strong in April, up 6.6% y/y (8.0% y/y for the YTD). The market increased on robust fleet and private demand (rising 9% and 3%, respectively).

In addition, customer confidence in April reached its highest level since 2002. The very attractive lease offers and incentives by OEMs also help maintain the momentum. Nevertheless, we anticipate some leveling off during the year as pent-up demand should dry up. For the full year, we currently expect growth around 3.0–3.5% y/y.

In April, the Russian market kept nose diving, with sales down 41.5% y/y.

Consequently, our forecast for 2015 calls for a 36% y/y decline to barely 1.6 million units; by comparison, the market reached nearly 3.0 million units in 2012.

Under our present assumptions, the Russian market will not reach the 3-million-unit mark before the next decade—far later than previously envisioned.
US: Status of Automotive Market
Consumer buying desire remains high; stronger wages will improve ability

- Since August SAAR hit 17.5m units some momentum has been lost, but many positive factors contribute to strong outlook and March’s 17.1 SAAR a modest surprise.

- The cyclical nature of autos is kicking in – growth rate slowing now as pent-up demand has now been spent and want based demand replaces need based.

- Low oil prices will help consumer spending, and autos in particular, but oil volatility may make consumer skeptical thus moderating potential gains.

- Housing market has much more recovery to come which will help sales through jobs and wealth.

- Transactions prices are strong, and will remain strong in the long-run.

- Manufacturing cost pressures will remain low over near-term due to weak commodity prices.

- Credit and jobs will bring the younger buyers into the showrooms.

- Auto credit availability may be slowing - lengthening loan maturity is an issue.

- The US sales forecast peaking at 17.7m units in 2017 before sales growth declines.
US: Light Vehicle Sales SAAR
Strong recovery since 2009, expected to continue

“Keep America Rolling”

“Employee Pricing For All”

“Cash For Clunkers”

Source: IHS Automotive, light vehicle sales forecast
US: Product Launches
New/refreshed nameplates will drive showroom traffic; OEMs need products to be liked

New/Refresh Nameplate Counts

New/Refresh Sales Market Share

Source: IHS Automotive, current light vehicle sales forecast
Comments:

- China GDP forecast for 2015-2017 was downgraded in line with lower acceptable government target growth and policy.
- Despite slowdown 2014 sales came in line with last years forecast.
- Slowdown in investment sectors rather than consumer sector which has bounced up to over 52% of GDP. Changes in components of economic growth reflected in still strong passenger sales.
- China provincial level analysis increased our long term forecast (2020-2025) by 250k-400k units per year using bottom up approaches which uplifted base demand before slower economic growth rates were pulled back – leaving net impact smaller at just -1.1% (i.e. less than implied by simple adjustment modeling).
- IHS expects anti-trust campaign could alter the relationships among consumer, dealer and OEMs. The campaign is expected to have a long lasting effect on premium parts/vehicle prices in China. Coupled with anti-corruption campaign, the momentum could lead to faster downward adjustment in premium pricing which helps provide another boost to premium penetration to further increase in China in the next decade. Consequently, we raised our outlook for premium TIV by 3%-4 in the forecast horizon.
Russia
General Market Developments

Total Light Vehicle Sales
Russia 2012 - 2025 (in thousands)

Comments:
• 3 rounds of significant downgrade of Russian TIV in 2014
• Short-term downgrade based on underperforming economy
• Short-, mid- and long-term downward revision due to influence of sanctions against Russia on its economy
• Short-term downgrade owing to liquidity crisis, oil price slump and substantial currency depreciation
• Russian stimulus program has been launched in Sep. ‘14 and is highly appreciated by consumers. The program should end in Sept. 2015. Additionally, 3rd round of loan subsidy program was introduced in Apr. 2015. However, their scale won’t be enough to save the market from notable decline.
• Much slower recovery compared to the crisis in 2009 is expected. Lack in growth of disposable incomes and significant increase in vehicle prices together with postponed reduction of import tariffs will not allow market to post impressive growth rates in the near future.
• Rebound in 2017/18 is mainly based on improving energy prices, abolishment of sanctions and new pre-election initiatives of the government. Replacement demand from years 2008 and 2012 will spur Russian sales volumes in this time frame.
• Further very strong downward potential comes from weak currency and possible escalation of Ukrainian conflict
Brazil
General Market Developments

Total Light Vehicle Sales
Brazil 2012 - 2025 (in thousands)

Comments:
Key Information:
• Short-term: Full IPI tax has been restored, gasoline/ethanol prices are up and consumer confidence is at all time low.

• Short-term: Government is focused on increasing revenues and has removed several subsidies (IPI being among them). April GDP for 2015 is now -0.9% (not reflected in forecast) as SELIC is now at 12.75% whereas consumer confidence is hitting lows.

• Medium-term: Without exports or strong consumer to rely upon we expect weak GDP growth in the medium term. Inflation remains stubbornly high making credit more expensive and currency continues to devalue.

• Long-term: GDP outlook saw serious downward revision:

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<thead>
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<th>Year</th>
<th>GDP in US$ Trillion</th>
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<td>2020</td>
<td>Feb '14: US$ 3.26</td>
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<tr>
<td>2020</td>
<td>Feb '15: US$ 2.59</td>
</tr>
<tr>
<td>2025</td>
<td>US$ 4.53</td>
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<tr>
<td>2025</td>
<td>US$ 3.44 (-24.1%)</td>
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</tbody>
</table>

• Long-term: GDP per Capita has also been revised downwards
Key themes of this year’s forecast

- Lower global economic growth projections– across the forecast horizon.
- EM’s - Downgraded again. Almost all key emerging market economies have decelerated, some are forecast to enter recession and even medium term trend growth has been shaved due to inadequate evidence on progress of structural reforms.
- Stronger recovery phase for Western mature markets. Overshoot with dip or uplifting the longer term trend?
- How much to adjust car demand forecasts for new ‘price’ environments
  - Oil Price collapse
  - Currency adjustments
- China - a new normal and new reform policy approach