

# Creative Global Investments

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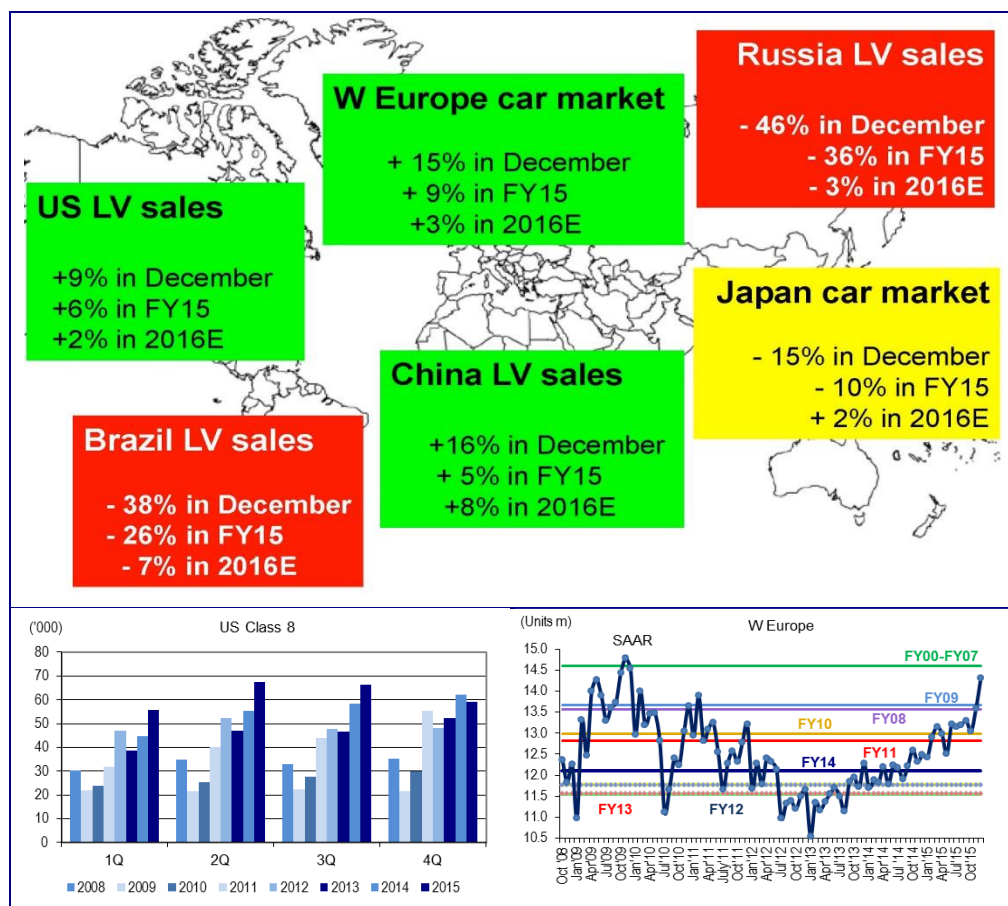
Objectivity  
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## Global Automotive Demand Atlas

January 2016 edition

### Global light vehicle markets

+5% in December  
+2% in FY15  
+3% in 2016E



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**Brent crude oil (-10 years)**



Source: tradesignalonline.com

**USD trade-weighted index (-10 years)**



Source: Board of Governors of the Federal Reserve System (US)

## Global LV markets

**+5.2% in December**

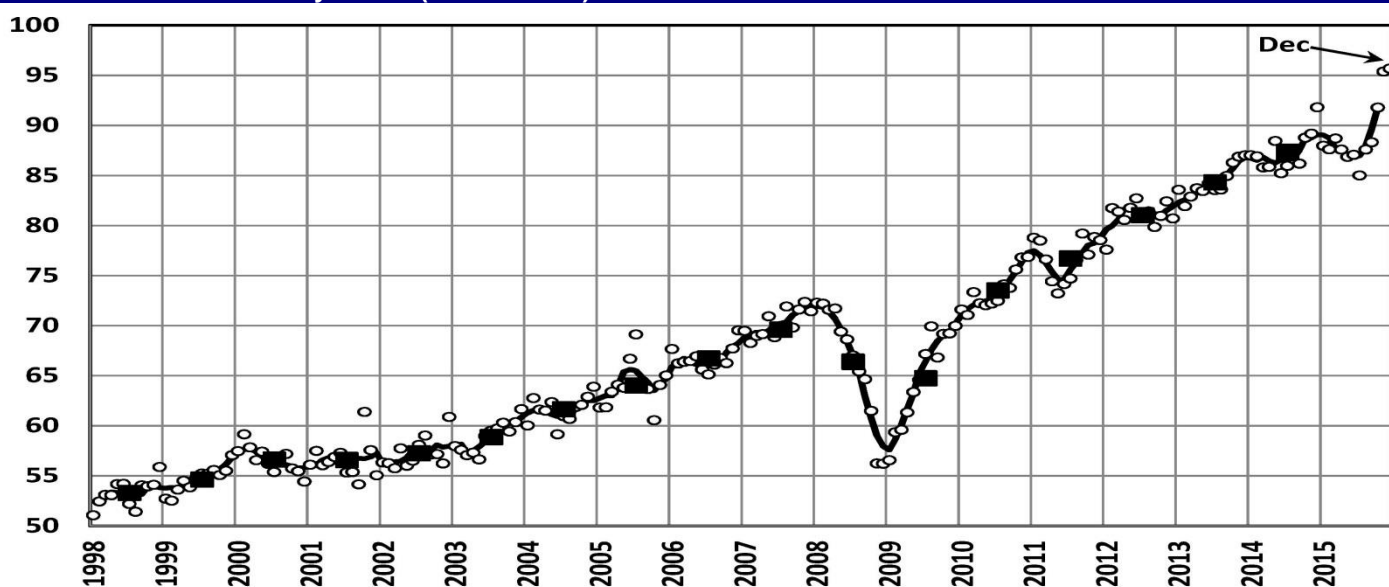
**+2.0% in FY15**

In December, global light vehicle sales increased 5.2% yoy to 8.44m, after 4.9% in November, resulting in a global market of 89.10m in FY15, implying an increase by 2.0% or 1.76m from FY14's 87.34m. LMC Automotive (LMCA) calculate that underlying demand continued to strengthen in December, with a SAAR (seasonally adjusted annualised rate) of 95.7m units/year, 1.7% up from 94.1m in November. The strong recovery of the SAAR in 4Q15, exceeding even those of December'14 (92.1m) and January'15 (89.4m), is due to a strong recovery in China, supported by continuing strong performances in the US and Western Europe.

**+3.2% in FY16E**

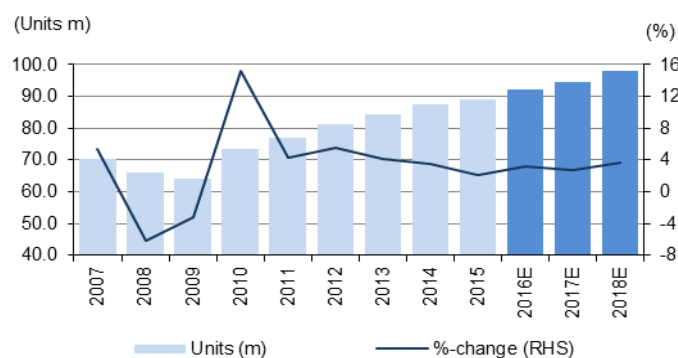
For FY16E, we expect a global LV market of almost 92m, implying an increase by some 3.0% or 2.9m, implying a slight acceleration from FY15's growth of 2.0%. We expect that the LV markets in the US, W Europe and China will continue to grow, while markets in commodity- and oil-dependent economies will be able to stabilise at low level, despite prolonged and deep recessions. In 2016E-18E, global LV sales are expected to grow by just over 3% p.a.

### Global LV sales – monthly SAAR (1998-Dec'15)



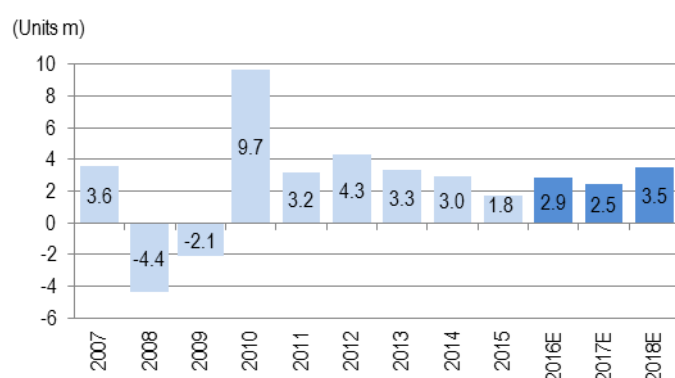
Source: LMC Automotive

### Global LV sales - (2007-2018E)



Source: LMC Automotive and CGI estimates

### Growth - global LV sales - (2007-2018E)



Source: LMC Automotive and CGI estimates

## US LV sales

**+9.0% in December**

**+5.8% in FY15**

**Sales boom driven by consumers....**

**...and trucks**

**Big Four**

**VW brand sales down 11% in 4Q15**

**+1.9% in FY16E**

**Stabilisation from 2017E onwards**

In December, US LV sales increased 9.0% yoy to 1.64m units, after 1.4% in November and 13.7% in October, resulting in a 5.8% increase to 17.44m in FY15. Adjusted for the number of selling days (28 in Dec'15 & 26 in Dec'14, 23 in Nov'15), the market was up 1.2% yoy and up 2.3% mom in December and up 5.5% yoy in FY15. According to LMCA, the December SAAR of 17.3m was up 0.5m yoy and down 0.9m from 18.2m in November.

**Retail sales** have been the US market's dominant driver since May 2012. In December, the retail SAAR of 14.6m was up 0.7m yoy and up 0.6m from November's 13.9m and down 0.7m from a record 15.3m in September. Low gas prices have continued to fuel the outperformance of light trucks that advanced 18.6% in December and 12.4% in FY15, to 10.08m or 57.8% of total market. Sales of SUVs were up 22.8% in December and 15.7% in FY15, at 6.44m or 36.9% of the market. Despite higher discounting, the improving mix has resulted in a further increase in average transaction prices by 1.8% yoy to an all-time record of USD 34.5k in December, (See pp.4-5.)

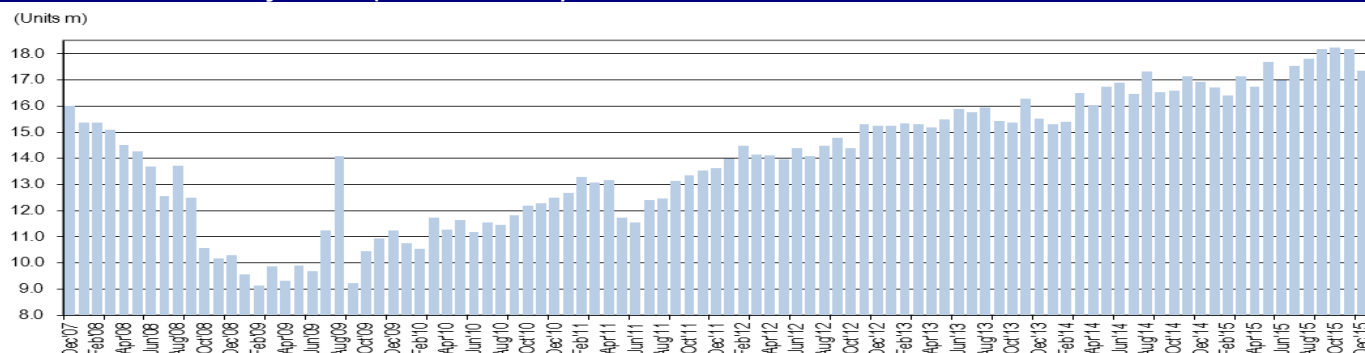
At the **GM group**, sales increased 5.7% in December, resulting in a 5.0% increase to 3.08m in FY15 or a 17.7% share. Sales at the **Ford group** increased 8.8% in December and 5.5% to 2.58m or 14.8% in FY15. **Toyota's group** sales increased 10.8% in December and 5.3% in FY15, to 2.50m or 14.3%. **FCA** generated increases of 12.3% in December and 7.2% in FY15 to 2.26m or 12.9%.

Due to the diesel scandal and the stop of sale of diesel powered LVs in the US, the VW brand's sales decline accelerated to -11.3% yoy in 4Q15, from -2.5% in 1-3Q15, resulting in a -4.8% decline to 349.4k units in FY15. At Audi, sales growth decelerated from +12.5% in 1-3Q15 to +7.4% in 4Q15, resulting an 11.1% increase to 202.2k units in FY15. With even a technical solution remaining elusive, domestic and foreign volume brands should continue to gain share from the expense of the VW brand.

At 17.44m units, the FY15 LV market reached the highest level since 2000, exceeding the 17m mark for the first time since 2001. Running currently at a SAAR of 18m, the LV is set for an increase of almost 2% to 1.78m units in FY16E. Positive factors include continuing pent-up demand, the economic recovery, strong consumer confidence, and plunging gas prices. However, the LV market has become increasingly dependent on generous consumer credit conditions, with easy access and extended loan terms. The steady growth of the average term of loans and the rising share of loans with duration longer than 72 months is a growing concern and could hamper future sales growth.

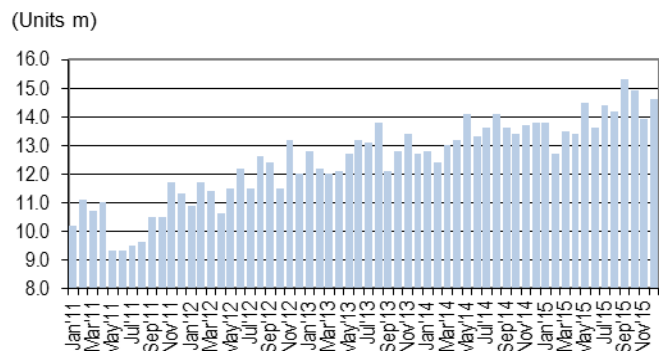
In 2017-18E, the US market is expected to stabilise at high levels; this is based on the assumption of annual GDP growth rates in excess of 2.5% and supporting factors such as replacement demand, growing household wealth, and new household creations.

### US LV sales – monthly SAAR (Dec'07-Dec'15)



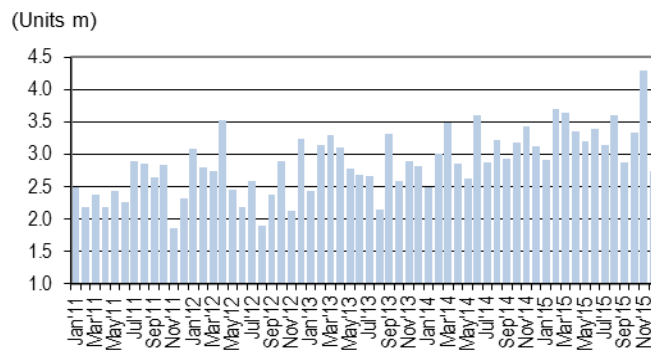
Note: The estimated seasonal factors for the SAAR calculations for July 2014 – June 2015 are restated due to the recent update of seasonal factors from the U.S. Bureau of Economic Analysis (BEA). Source: Autodata

## US Retail LV sales – monthly SAAR (Jan'11–Dec'15)



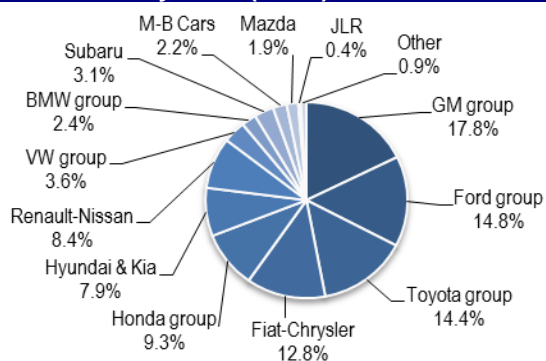
Source: LMC Automotive

## US Fleet LV sales – monthly SAAR (Jan'11–Dec'15)



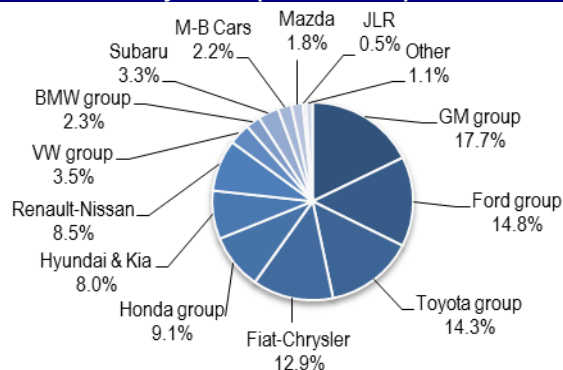
Source: LMC Automotive

## US – LV market by OEM (FY14)



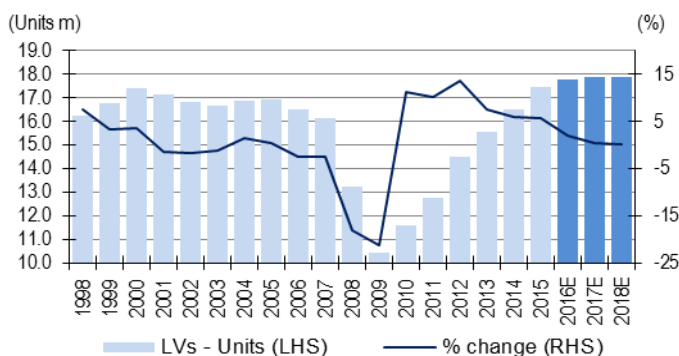
Source: LMC Automotive and CGI calculations

## US – LV market by OEM (Jan-Dec'15)



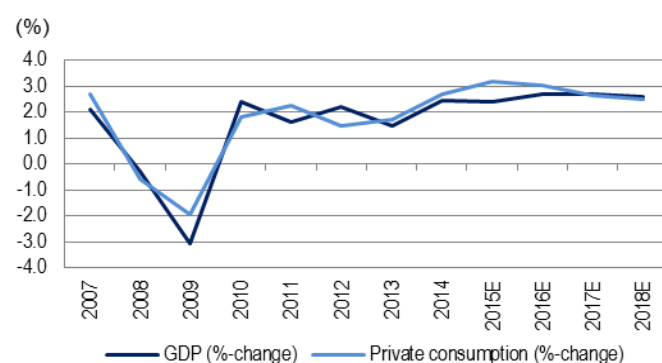
Source: LMC Automotive and CGI calculations

## US LV sales (1998-2018E)



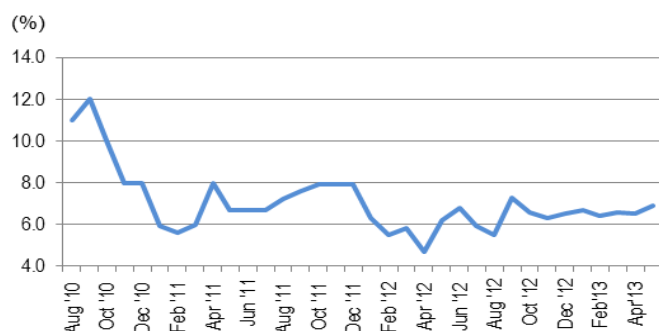
Source: LMC Automotive and CGI estimates

## US – real GDP and private consumption (2007-18E)



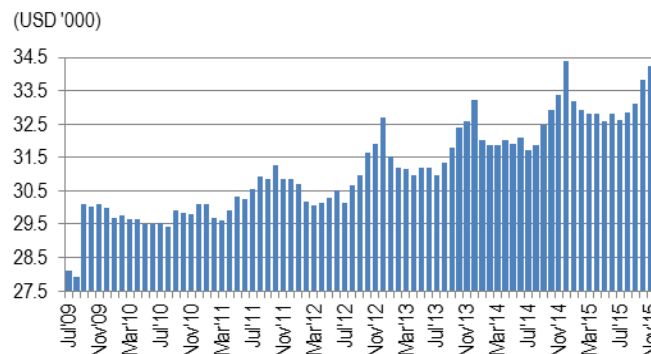
Source: Oxford Economic, IMF and CGI estimates

## US LV – avge. discount from MSRP (Aug'10-May'13)



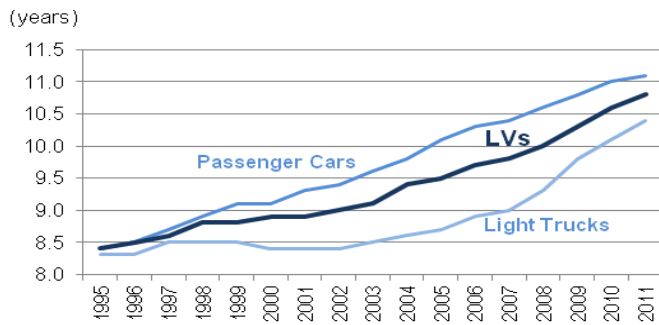
Source: TrueCar

## US LV market – avge. transaction price (Jul'09-Dec'15)



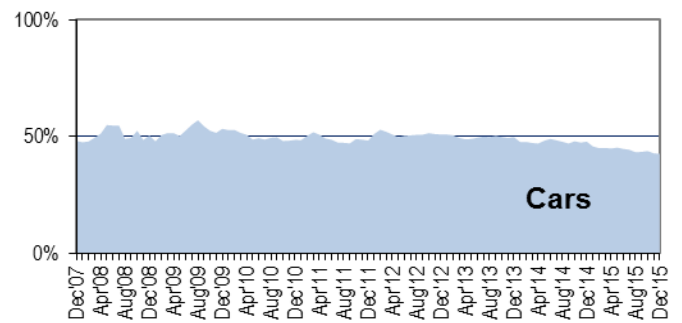
Source: PIN (Power Information Network by J.D. Power and Associates)

## US LV population – average age (1995-2011\*)



(\*) July of respective year. Source: Polk

## US LV sales - split cars &amp; trucks (Dec'07-Dec'15)



Source: Autodata

## US – Gas retail price (USD/US gallon) (Jan'07-Jan'15)



Weekly U.S. All Grades All Formulations Retail Gasoline Prices (Dollars per Gallon) Source: EIA

## US – Diesel retail price (USD/gallon) (Jan'07-Jan'15)



Weekly U.S. Diesel (On-Highway) - All Types (Dollars per Gallon) Source: EIA

## WTI crude oil (-5 years)



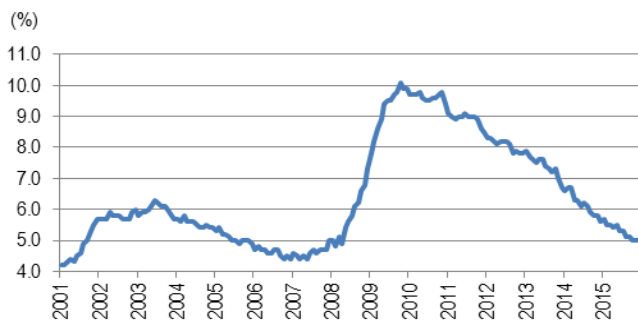
Source: tradesignalonline.com

## Brent crude oil (-5 years)



Source: tradesignalonline.com

## US – Unemployment rate (Jan'01-Dec'15)



Source: Bureau of Labor Statistics

## US – Consumer confidence (Jan'08-Dec'15)



S Source: Thomson Reuters/University of Michigan



## Western Europe car market

**+15.2% in December**

**+9.0% in FY15**

In December, WE passenger car registrations increased 15.2% yoy to 1.06m units, after +12.6% in November and +2.5% in October, resulting in a 9.0% increase to 13.20m in FY15. In December, the SAAR continued to strengthen strongly, to 14.31m, 5.3% up mom/from November's 13.59m and the best result since December 2009 (14.53m) that had been boosted by scrappage schemes in the Germany and the UK.

However, December saw a major pull forward in sales in the Netherlands (ahead of changes in taxation) and a spike in the UK market. Adjusted for these outlier results, WE SAAR was closer to 13.5m, in line with November.

Over the past 36 months, the SAAR has improved by some 30%, from an exceedingly low SAAR of 10.55m in January 2013. Although FY15's market of 13.20m was 9.0% better than FY14's 12.10m, it remained 9.7% below the long-term pre-crisis average of 14.6m units. (See p.7.)

**All Big 5 advance strongly in FY15**

**Germany +5.6%**

**France +6.8%**

**UK +6.3%**

**Italy +15.8%**

**Spain +20.9%**

**Germany**, Western Europe's largest car market by far increased 7.7% in December and 5.6% in FY15. However, at 3.21m units, the FY15 market remained 2.9% below the LT pre-crisis level of 3.3mm. **French** car registrations increased 12.5% in December and 6.8% to 1.92m in FY15. However, at 1.92m units the market 3.8% below the pre-crisis 2000-07 level of 2.09m. In the UK, the car market increased 8.4% in December and 6.3% in FY15. At 2.63m units, the market was 7.6% above the long-term pre-crisis average of 2.45m units. In FY15, **Italian** car registrations increased 14.5% to 1.57m and thus remained 33% below the 2.34m LT pre-crisis trend. **In Spain**, improving consumer confidence and the PIVE incentive scheme drove the car market's 20.9% increase in FY15. At 1.05m, the FY15 market remained 30% below pre-crisis trend. (See discussion for the Big Five on pp. 9-13.)

**+3.0% in FY16E**

**+1.9% in 2017E**

A weak euro and lower energy prices have greatly enhanced the macro-economic fundamentals in the Eurozone. After two years of contraction, GDP growth in the Eurozone is expected to accelerate from 0.9% in FY14 to 1.5% in FY15E and 1.7% in 2016E. The UK economy is expected to decelerate moderately, from FY14's 2.9%. Growth in the WE car market is set to continue to grow, 3.0% to 13.60m in FY16E and by 1.9% to 13.85m in 2016E. In 2016E, Italy, Spain and peripheral markets are expected to drive the expected 0.4m increase in unit sales, whereas in FY15, all major markets contributed to the 1.09m increase.

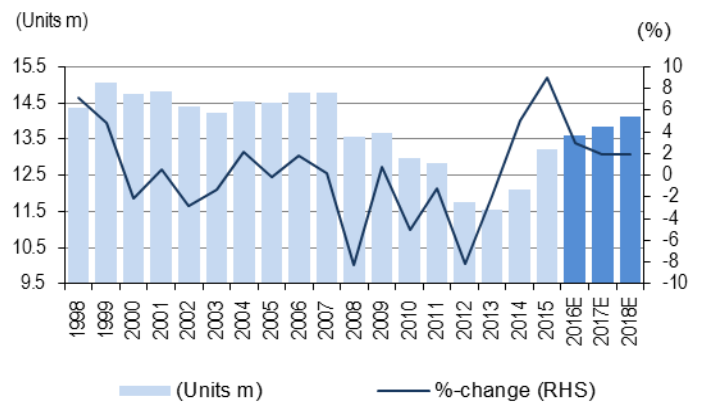
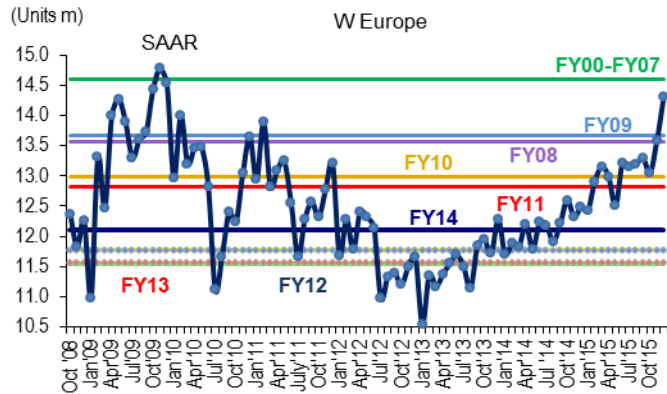
**Only limited reversal of collapse in pricing discipline in the short term**

However, we continue to caution that the recovery in the WE car market after six years of recession is overshadowed by OEMs expecting to be able to increase pricing only slowly and indicating that discounts from sticker prices in excess of 10% are still widespread. Although the horrendous competitive pressures originated in the crisis-hit Southern European markets, they have been spreading to the better performing northern European ones, a trend that has intensified since mid-2012. In addition to record discounts, special deals and cheap financing, OEMs and dealers have increasingly resorted to tactics such as pre-registering. This is the more the case as the VW group is seen and expected to continue to use aggressive marketing as a means to contain the erosion of market share as a result of the emission scandals.

**VW emission scandals should intensify again competitive pressure**

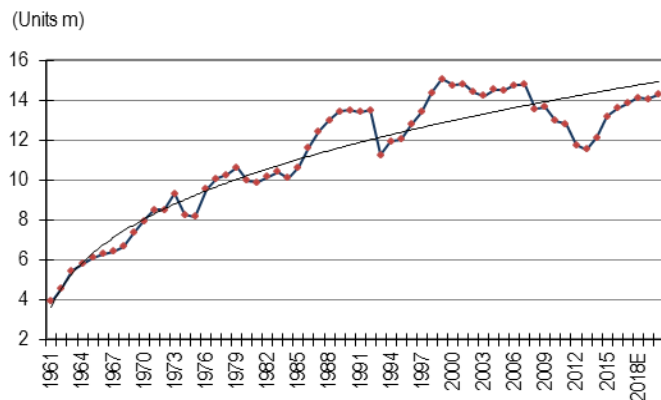
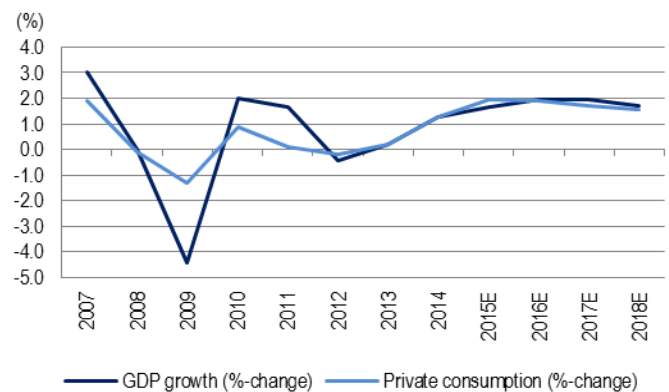
**Polarisation in demand**

The trend of polarisation in demand into premium and discount brands and products has been intact for the past 20 years and intensified during the prolonged crisis. Driving forces have been the downsizing on the part of the premium brands and an improvement in quality of discount branded products.

**W Europe – monthly SAAR<sup>1</sup> vs. trend (Oct'08–Dec'15) W Europe – pc registrations (1998-2018E)**

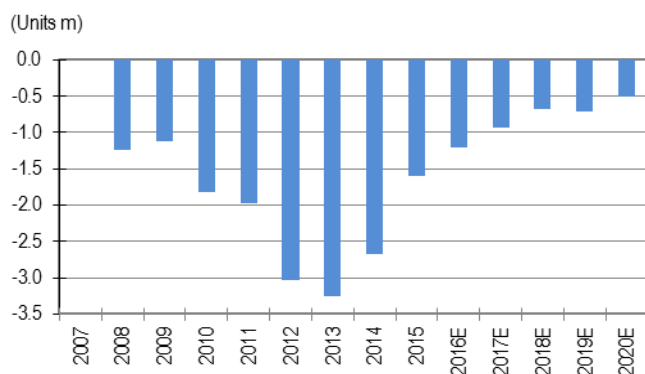
(1) SAAR according to calculations by LMC Automotive. Source: ACEA, LMC Automotive, CGI calculations

Source: LMC Automotive and CGI estimates

**W Europe – pc registrations (1961-2020E)****W Europe – real GDP and priv. consumption (2007-18E)**

Source: ACEA, LMC Automotive and CGI estimates

Source: Oxford Economics and CGI estimates

**W Europe – depth of recession – 2008-20E volume decline vs. 2007****W Europe – current recession in historic context**

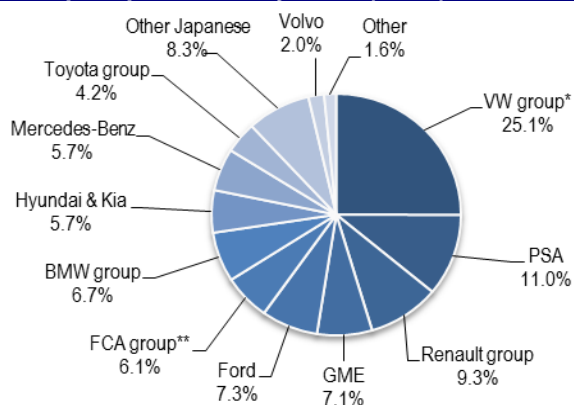
	Depth <sup>1</sup> (Units m)	(%)	Duration (years)	Trend growth rate (%)
1970 - oil shock	-1.15	-12.4	< 3	5
Early 1980s recession	-0.75	-7.0	~ 6	3-4
1993 recession	-2.26	-16.8	~ 5	2-3
Current crisis (E)	-3.24	-21.9	>~14	1-2

Source: LMC Automotive and CGI estimates

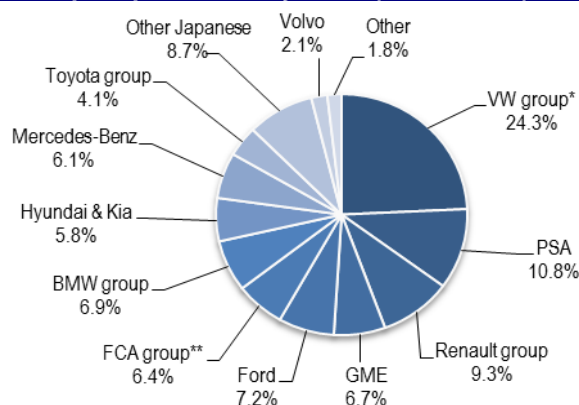
Source: LMC Automotive and CGI estimates



## W Europe – pc market by OEM (FY14)



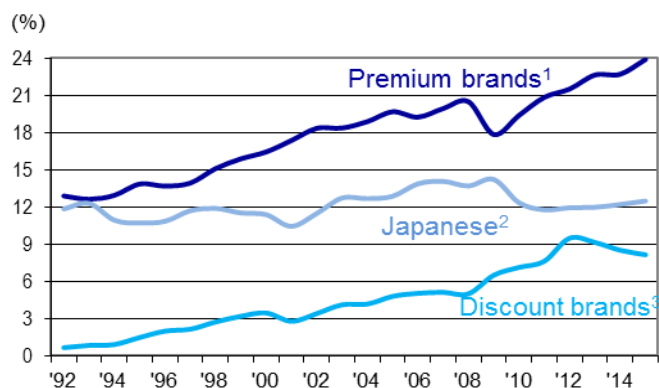
## W Europe – pc market by OEM (Jan-Dec'15)



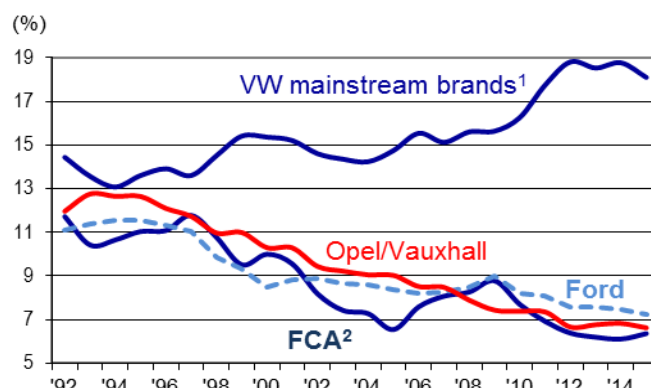
(\*) VW group incl. Porsche. (\*\*) Fiat group incl. Chrysler and Jeep. Source: Association Auxiliaire de l'Automobile, ACEA and CGI calculations

(\*) VW group incl. Porsche. (\*\*) Fiat group incl. Chrysler and Jeep. Source: ACEA and CGI calculations

## Premium brands, Japanese and discount brands – WE market share ('92-'15\*)



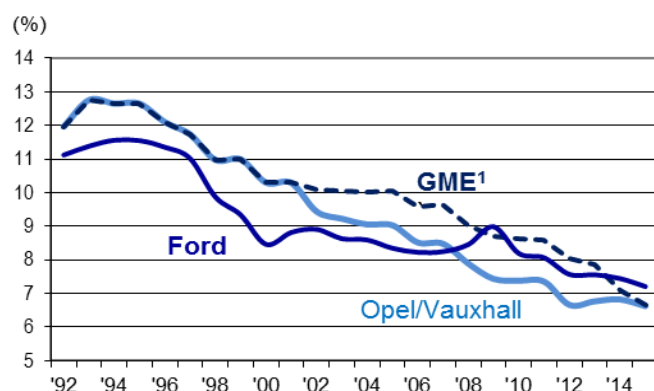
## Mainstream brands: VW group excl. Audi, Opel/Vauxhall, Ford, FGA – WE share ('92-'15\*)



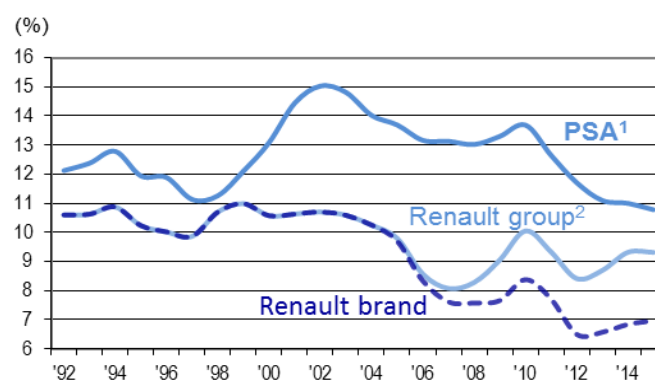
(1) Premium brands: BMW, Mini, Mercedes-Benz, Smart, Audi, Lexus, Porsche, Jaguar, Land Rover, Volvo, SAAB, DS and super-premium brands. (2) Discount brands: Kia, Hyundai, GM's Chevrolet, and Renault's Dacia. (3) Exl. Lexus (\*) YTD=Jan-Dec. Source: Association Auxiliaire de l'Automobile, ACEA, CGI calcs

(1) VW mainstream brands: VW, Seat, Skoda. (2) FCA: Fiat, Lancia & Alfa Romeo. Since 2012 also Chrysler & Jeep. (\*) YTD=Jan-Dec. Source: Association Auxiliaire de l'Automobile, ACEA, CGI calculations

## Ford and GME – WE share ('92-'15\*)



## PSA and Renault group – WE share ('92-'15\*)



(1) GM Europe: Opel, Vauxhall, Chevrolet and other US GM brands; does NOT incl. SAAB. (\*) YTD= Jan-Dec. Source: Association Auxiliaire de l'Automobile, ACEA, CGI calculations

(1) PSA: Peugeot, Citroën & DS brands; (2) Renault group: Renault and Dacia brands. (\*) YTD= Jan-Dec. Source: Association Auxiliaire de l'Automobile, ACEA, CGI calculations

## Germany

**+7.7% in December**

**+5.6% in FY15**

**Retail share continues to decline**

**VW's aggressive discounting since the scandal broke**

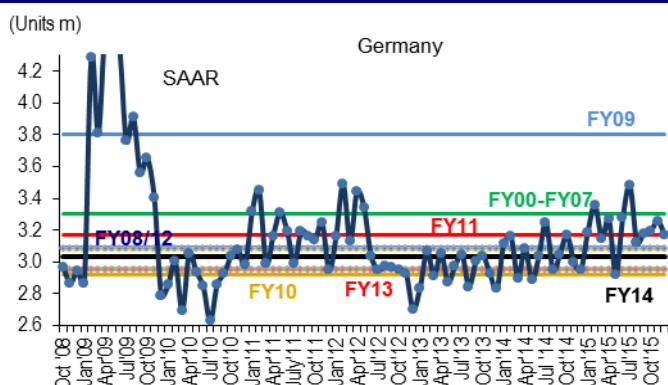
**+0.7% in 2016E**

In December, the German pc market grew 7.7% to 247.4k units, after 8.9% in November and 1.1% in October, resulting in a 5.6% increase to 3.21m in FY15. This follows a 2.9% recovery to 3.04m units in FY14, after two years of decline. In December, underlying demand weakened again to a SAAR of 3.17m, down 2.8% mom/from November's 3.26m and remained 9.0% below July's 3.48m that had been the strongest month since February 2012's 3.49m. Although, at 3.21m units, FY15 was 5.6% better than FY14's 3.04m, it remained 2.9% below the 2000-07 LT pre-crisis level of 3.3m.

We understand that despite the solid recovery in the German market, even until end of September when the VW emission scandal hit the news, the pricing improvement had been only moderate with discounts reportedly above 10%. In addition, the quality of the market has continued to deteriorate with fleet/business and pre-registrations driving sales; the retail share fell to 32.1% in December and 34.2% in FY15, from 36.2% in FY14. About one fifth of car registrations are pre-registered by dealers and then sold as 'used' cars at considerable discounts. We understand that VW has used aggressive discounting, in particular for the VW brand's smaller core models to limit loss in market share and is thus exacerbating the competitive environment.

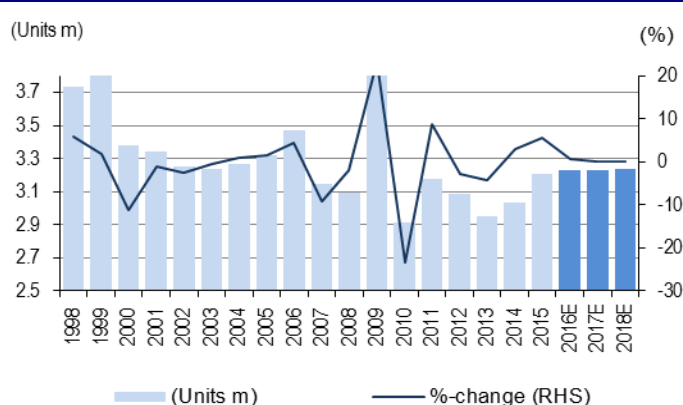
The medium-term outlook for the German car market is stability. In 2016E, the market is expected to grow 0.7% to 3.23m in FY16E and 0.2% to 3.23m in 2017. In FY15P, GDP growth accelerated slightly to 1.7% from FY14's 1.6%, driven by strong domestic demand. Private consumption accelerated from 1.0% in FY14 to 1.9% in FY15P. The combination of a tight labour market, rising wages and disposable income have propelled consumer confidence to a 13-year high and should ensure that consumption will remain the main driver behind a likely acceleration in GDP in 2016E-17E.

### Germany – monthly SAAR<sup>1</sup> vs. trend (Oct'08-Dec'15)



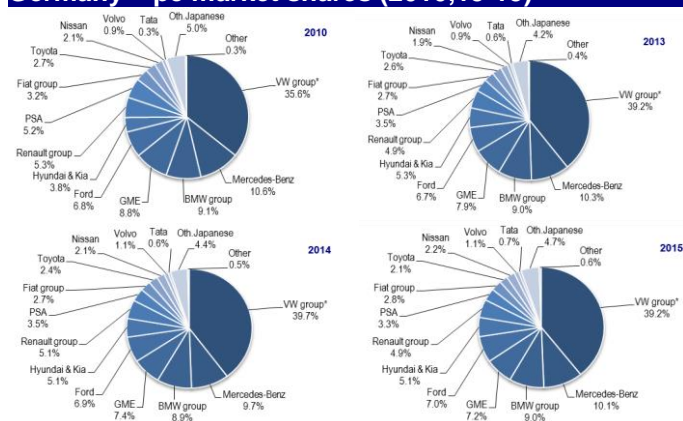
(1) SAAR according to LMC Automotive. Source: KFBA, LMC Automotive and CGI calculations

### Germany – pc registrations (1998-2018E)



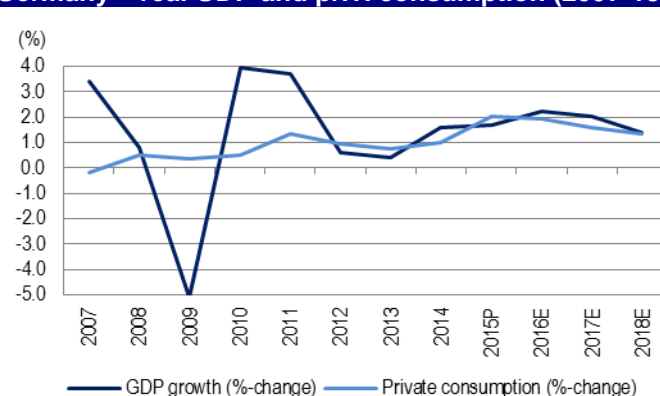
Source: KFBA, LMC Automotive and CGI estimates

### Germany – pc market shares (2010,13-15)



(\*) VW group incl. Porsche. Source: KFBA and CGI calculations

### Germany – real GDP and priv. consumption (2007-18E)



Source: Oxford Economics and CGI estimates

## France

**+12.5% in December**

**+6.8% in FY15**

**+3.1% in FY16E**

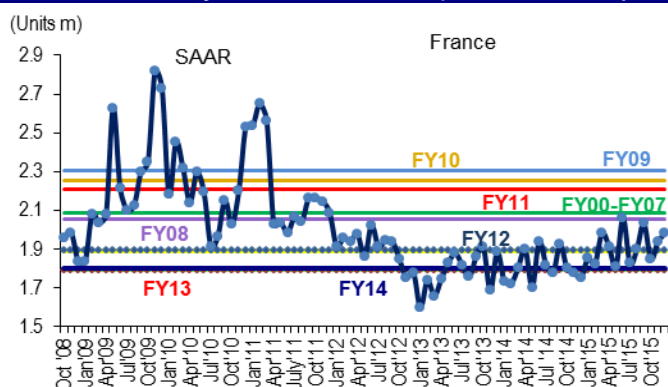
**+2.2% in 2017E**

In December, French car registrations increased 12.5% to 183.7k units, after 11.3% in November and 0.6% in October, resulting in a 6.8% increase to 1.92m in FY15. However, adjusted for the number of working days, the yoy increase was 5.7% in November, after 5.1% in October. This follows a flat FY14 market, up 0.3% at 1.80m, and four years of decline.

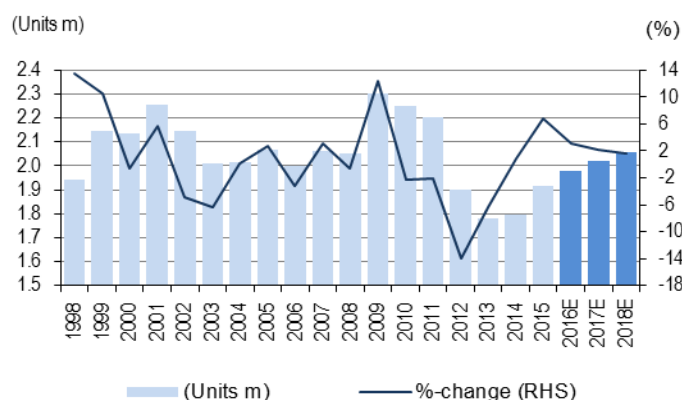
In December, underlying demand continued to strengthen, to a SAAR of 1.98m, up 2.3% mom/from November's 1.94m, and remained 3.8% below June's 2.06m that had been the strongest month since December 2011 (2.09m). FY15's market of 1.92m, though up 6.4% from FY14's 1.80m, remained 8.1% below the pre-crisis 2000-07 level of 2.09m. With a medium-term outlook for the French market of 2.1-2.2m, we expect the French market to grow 3.1% to 1.98m units in FY16E and 2.2% to 2.02m in 2017E.

France's macro-economic credentials have remained mixed; in 3Q15, thanks to a pick-up in domestic demand, GDP accelerated again to 0.3%, after stagnation in 2Q15 and 0.7% growth in 1Q15, the latter being the fastest quarter since 2Q13. Low inflation is boosting disposable income and thus private consumption, all of which should accelerate GDP growth to 1.2% in FY15E, from just 0.2% in FY14. However, since mid-2014 and against EU trend, unemployment has increased again, thus remaining stubbornly above 10%.

**France – monthly SAAR<sup>(1)</sup> vs. trend (Oct'08-Dec'15)**

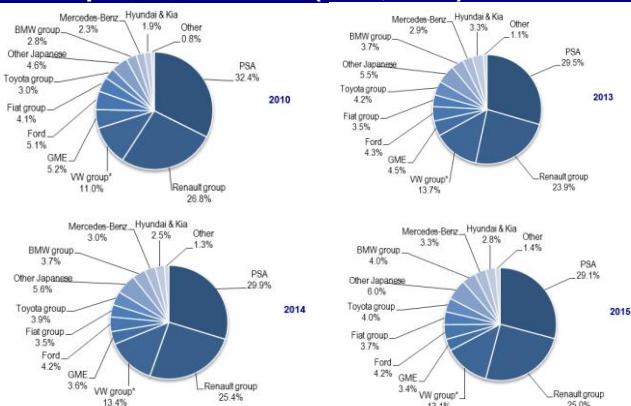


**France – pc registrations (1998-2018E)**

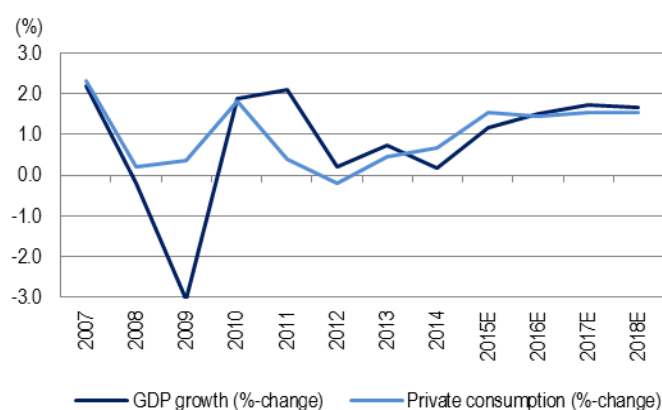


(1) SAAR according to calculations by LMC Automotive. Source: CCFA, LMC Automotive and Source: CCFA, LMC Automotive and CGI estimates  
CGI calculations

**France – pc market shares (2010,13-15)**



**France – real GDP and priv. consumption (2007-18E)**



(\*) VW group incl. Porsche. Source: CCFA and CGI calculations

Source: Oxford Economics, IMF and CGI estimates

## Italy

**+18.7% in December**

**+15.8% in FY15**

### Things are looking up

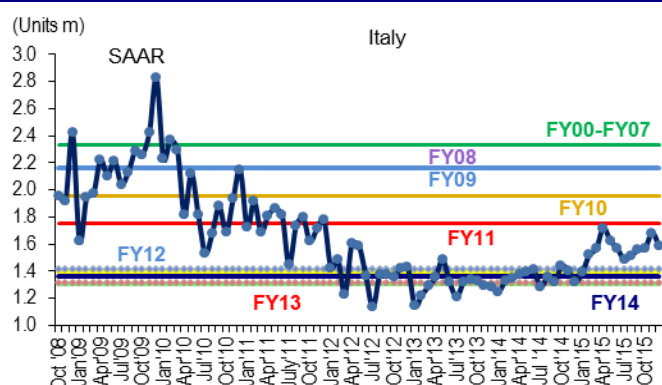
**+10.3% in FY16E**

In December, Italian car registrations grew 18.7% yoy to 109.4k units, after 23.5% in November and 8.6% in October, resulting in a 15.8% increase to 1.57m in FY15. In December, underlying demand weakened again, to a SAAR of 1.58m, down 5.9% mom/from November's SAAR of 1.68m, and was only 7.9% below April's 1.72m that had been the strongest month since December 2011 (1.99m). Although FY15's market of 1.57m was up 15.8% from FY14's 1.36m, it remained 33% below the 2.34m pre-crisis trend.

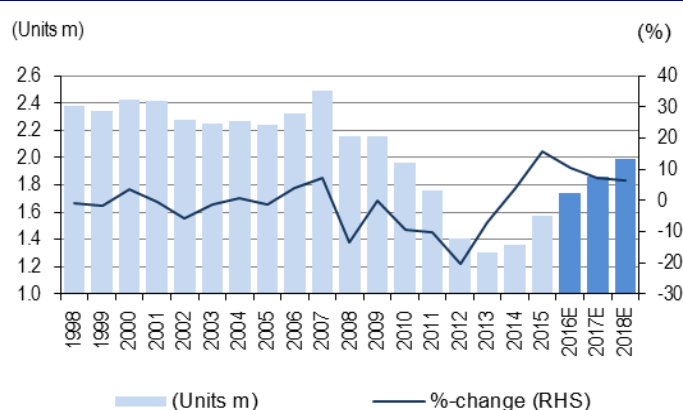
Italy's recovery from a three-year, triple-dip recession has continued and broadened as the economy has now grown for three consecutive quarters. However, GDP growth decelerated to 0.2% qoq in 3Q15, from upgraded growth rates of 0.3% and 0.4% in 2Q15 and 1Q15 respectively, making them the strongest quarters in four years that included 13 quarters of contraction or stagnation at best. The driving force has been domestic demand that benefited greatly from lower energy prices and deflation, with consumer confidence jumping to levels not seen since 2002. After having shrunk by almost 5% in 2012-14, real GDP is set to recover, albeit slowly in 2015E-16E, by some 0.7% and 1.3% respectively. Although we expect that the government's efforts in restructuring will have eventually some positive effect, there remain considerable challenges such as a vicious circle of austerity and, despite recent improvements, high unemployment that only recently has fallen to close to 11%.

In view of the macro-economic improvement, a large car parc and considerable pent-up demand, the Italian car market is set to continue to recover strongly. We expect that the market will grow 10.3% to 1.74m units in FY16E and 7.3% to 1.86m in 2017E.

**Italy – monthly SAAR<sup>1</sup> vs. trend (Oct'08-Dec'15)**

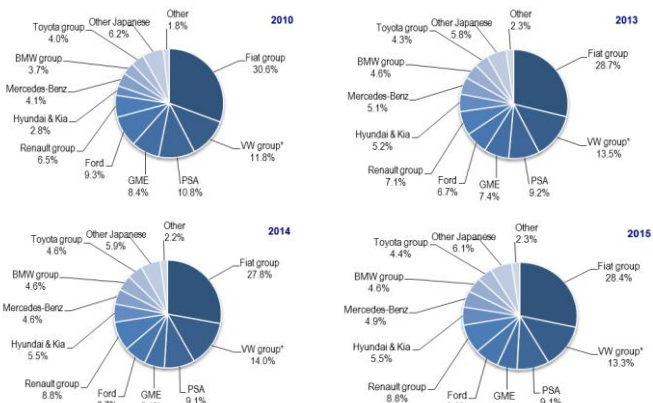


**Italy – pc registrations (1998-2018E)**

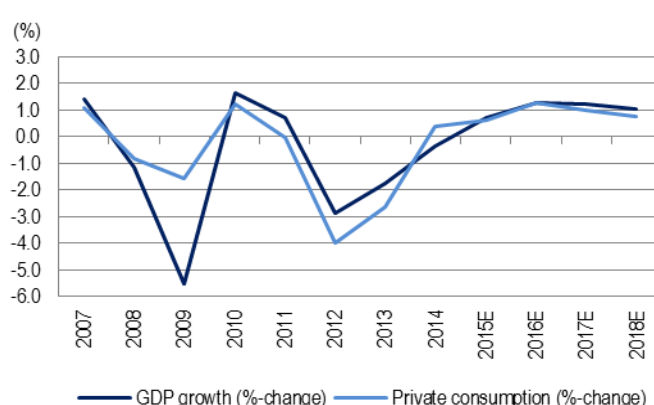


(1) SAAR according to calculations by LMC Automotive. Source: ANFIA, UNRAE, LMC Automotive and CGI calculations

**Italy – pc market shares (2010,13-15)**



**Italy – real GDP and priv. consumption (2007-18E)**



(\*)VW group incl. Porsche. Source: Anfia and CGI calculations

Source: Oxford Economics and CGI estimates



## Spain

**+20.7% in December**

**+20.9 % in FY15**

### Government incentive scheme

**+10.1% in FY16E**

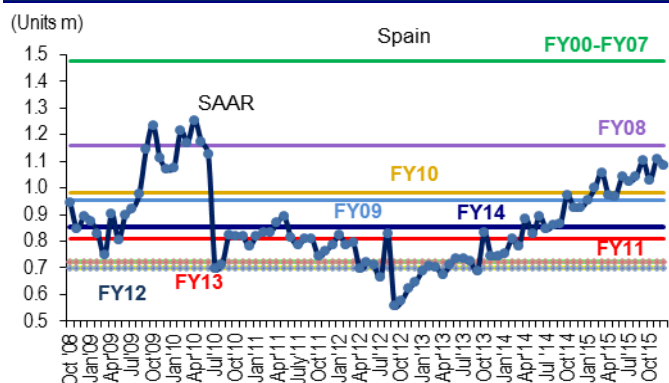
**+6.3% in 2017E**

In December, Spanish car registrations grew 20.7% yoy to 88.6k units, after 25.4% in November and 5.2% in October. As a result, in FY15, the Spanish pc market accelerated to 20.9% from 18.4% in FY14. At 1.03m units, the market exceeded the 1.0m mark for the first time since 2008, though remained 30% below the 2000-07 level of 1.48m units. In December, the SAAR weakened again to 1.09m, down 2.0% mom/from November's 1.11m that had been the strongest month since June 2010 (1.13m). At 1.03m, FY15 was 20.9% better than FY14's 0.72m,

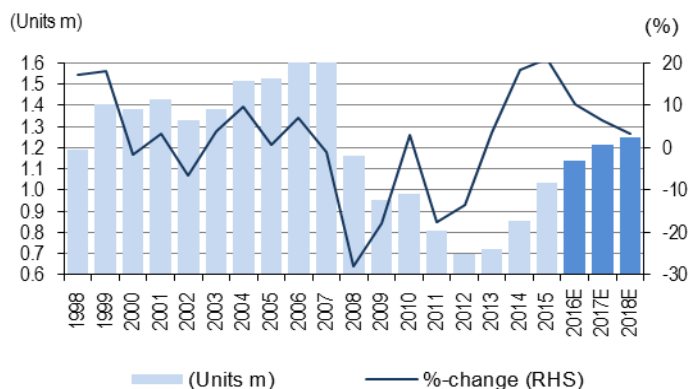
The relative strength of the Spanish car market since 4Q12 was initially primarily due to the PIVE scrappage scheme that was first announced and introduced in October 2012. It has been topped up and is now in its eighth incarnation that is scheduled to run until July 2016. However, increasingly important drivers of the car market have been the recovery in the Spanish economy, greatly exceeding that of the Eurozone, improving consumer confidence and replacement demand.

Spain, one of the fastest growing economies in the Eurozone, saw GDP continue to grow strongly, 0.8% qoq in 3Q15, after 1.0% in 2Q15, the highest growth rate in a decade. In FY15E, GDP is expected to grow 3.1%, after 1.4% in FY14. The recovery has steadily broadened into services and the domestic sector, the latter benefiting from the 2012 labour market reforms; consumer confidence has recovered greatly since mid-2012, to the highest level in over a decade. However, unemployment that has eased only recently and being close to 21% overall should remain a drag for years to come. We understand that the Spanish government plans to keep extending the PIVE scheme in some form until underlying demand stabilises. On this basis, the Spanish pc market is set to grow 10.1% to 1.14m in FY16E and 6.3% to 1.21m in 2017E.

**Spain – monthly SAAR<sup>1</sup> vs. trend (Oct'08-Dec'15)**



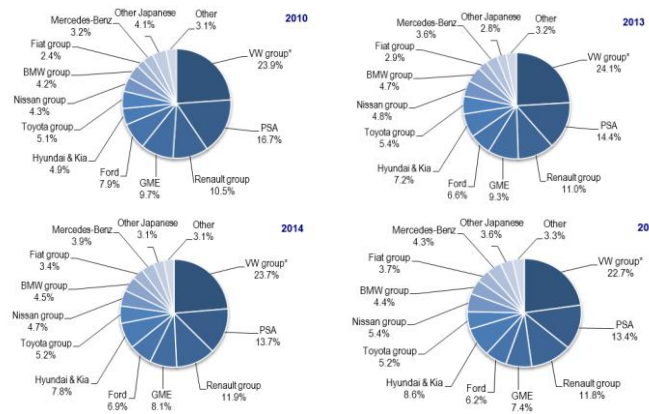
**Spain – pc registrations (1998-2018E)**



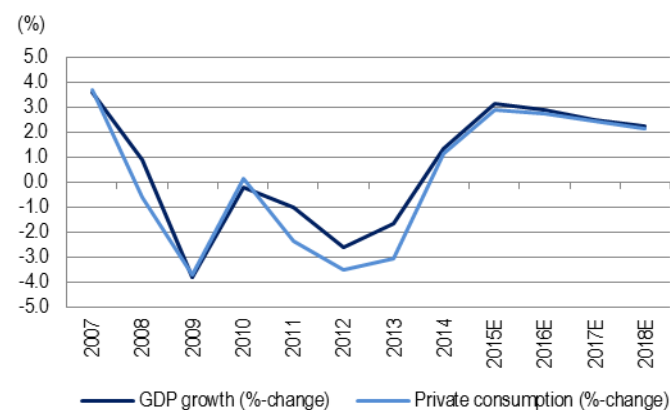
(1) SAAR according to calculations by LMC Automotive. Source: ANFAC, LMC Automotive and CGI calculations

Source: ANFAC, LMC Automotive and CGI estimates

**Spain – pc market by OEM (2010,13-15)**



**Spain – real GDP and priv. consumption (2007-18E)**



(\*) VW group incl. Porsche. Source: ANFAC and CGI calculations

Source: Oxford Economics and CGI estimates

## UK

**+8.4% in December****+6.3% in FY15**

In December, UK car registrations increased 8.4% yoy to 180.1k units after a 3.8% increase in November and a 1.1% decline in October, the latter being the first yoy decline after 43 consecutive months of growth, resulting in a 6.3% increase to 2.63m in FY15. The FY15 result was the best ever for the UK market, exceeding the pre-crisis LT trend level of 2.45m by 7.6%.

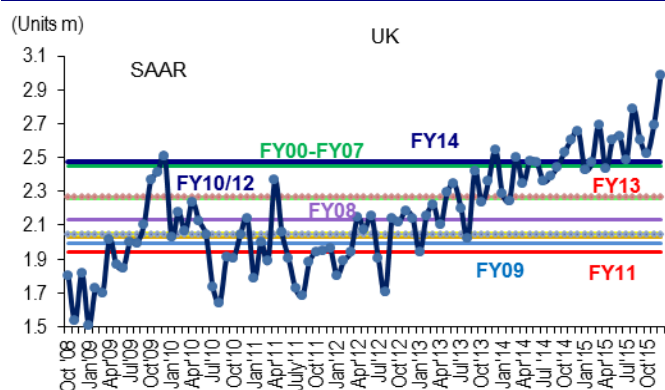
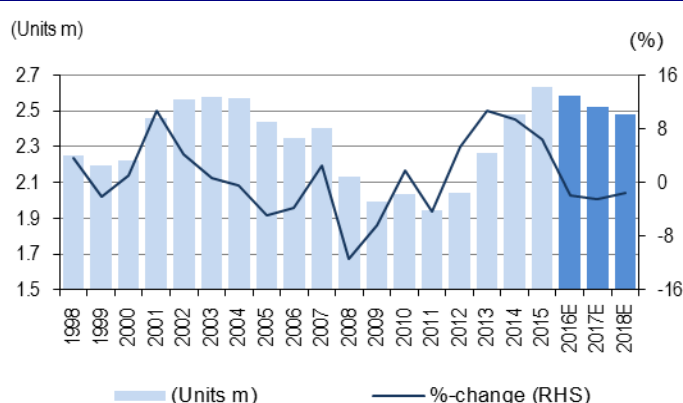
In December, underlying demand continued to strengthen strongly and spiked at an all-time record SAAR of 2.99m, up 10.9% mom/from November's 2.64m, topping September's 2.79m that had been a six-year high.

The UK market is approaching the end of longest period of growth on record that has/d been driven by pent-up demand, easy credit, aggressive marketing and a continuing economic recovery, with GDP growing 2.9% in 2014 and 2.5% in FY15E. Falling petrol prices, zero inflation and accelerating earnings growth have turbo-charged consumer confidence to record levels.

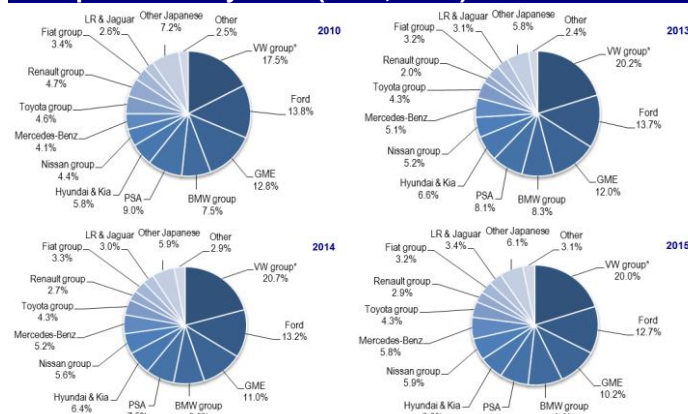
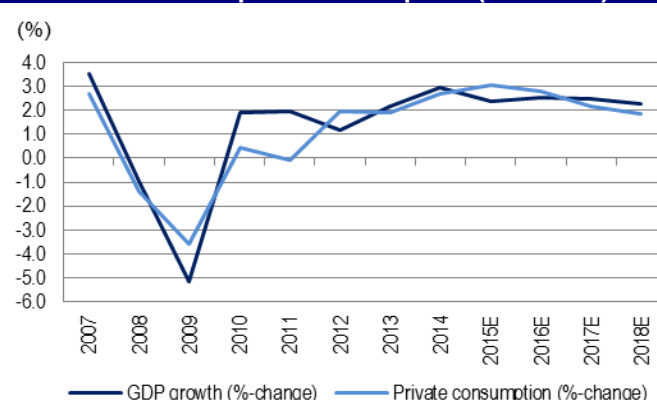
The slowdown in the UK market has been heralded throughout 2015 by the fact that fleet/business sales have taken over from retail as market driver: In FY15, private demand increased only 2.5%, reducing its share to 45.9%, after a 10.0% to 47.6% increase in FY14.

**-1.9% in FY16E****-2.5% in 2017E**

We expect that the UK car market, having reached and surpassed its medium term level, will decline -1.9% to 2.58m in FY16E and -2.5% to 2.52m in 2017E, while the economy is expected to decelerate moderately. Challenges include growing political uncertainty in view of the UK's relationship with Europe.

**UK – monthly SAAR<sup>1</sup> vs. trend (Oct'08-Dec'15)****UK – pc registrations (1998-2018E)**

(1) SAAR according to calculations by LMC Automotive. Source: SMMT, LMC Automotive and CGI Source: SMMT, LMC Automotive and CGI estimates calculations

**UK – pc market by OEM (2010,13-14)****UK – real GDP and priv. consumption (2007-18E)**

(\*) VW group incl. Porsche. Source: SMMT and CGI calculations

Source: IMF, Oxford Economics and CGI estimates



## Japan pc market

**-14.6% in December**

**-10.3% in FY15**

In December, vehicle sales declined -14.6% yoy to 0.31m pcs and -9.3% to 0.38m LVs, resulting in FY15 declines of 10.3% and 10.0% respectively. At 4.9m, the FY15 LV market was down 10.0% from FY14's strong 5.44m that had been boosted by the 1Q14 sales boom ahead of the increase in consumption tax from 5% to 8% on April 1st 2014. However, after a strong 1Q15 with a SAAR of more than 5m, thanks to some pre-buying in anticipation of increases for the annual mini car tax and tighter rules to qualify for the 'eco-car' tax, the SAAR deteriorated considerably, to a low of 4.89m in August and has recovered since to a solid 5.0m in 4Q15 and 5.1m in December.

**+1.9% in FY16E**

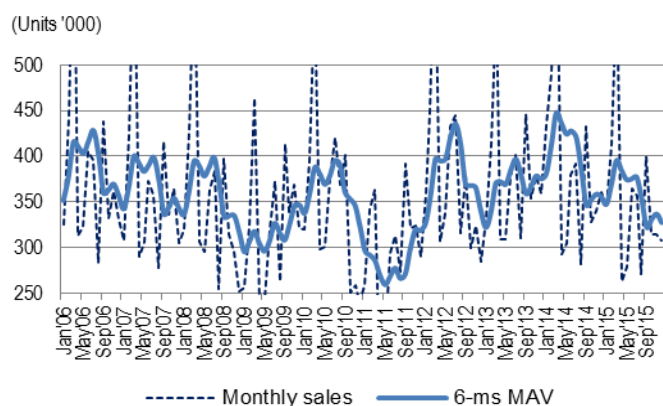
The Japanese pc market is expected to grow by less than 2.0% to 4.29m in FY16E and then decline by more than 5% p.a. in 2017E-18E, reflecting another hike in the consumer tax (to 10%) expected in April 2017 and a declining population.

**Weak private demand...**

Macro-economic indicators remained mixed and prone to huge revisions; indeed 3Q15 GDP was revised up to an annualised 1.0% increase from a preliminary -0.8% decline, after -0.5% in 2Q15 and +4.4% in 1Q15. According to revised figures, business investment contributed 0.3%-pts to GDP growth (instead of -0.7%-pts) and inventory reduction -0.8%-pts (instead of -2.1%-pts). However, private consumption contributed a lower 0.8%-pts (instead of preliminary +1.2%-pts). In FY15E, GDP growth is thus expected to have remained well below 1.0%, after a small contraction in FY14, while private consumption is expected to have continued to shrink. Indeed, weak private demand has remained Japan's main challenge, with savings surpluses at the domestic sector and in particular at corporates.

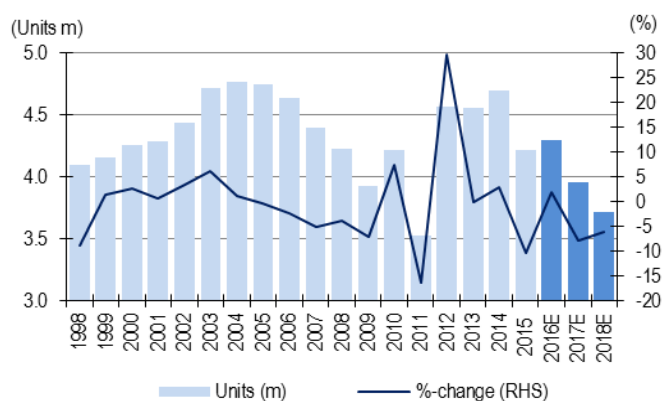
**...remains the greatest structural challenge**

**Japan – monthly pc registrations (Jan'06-Dec'15)**



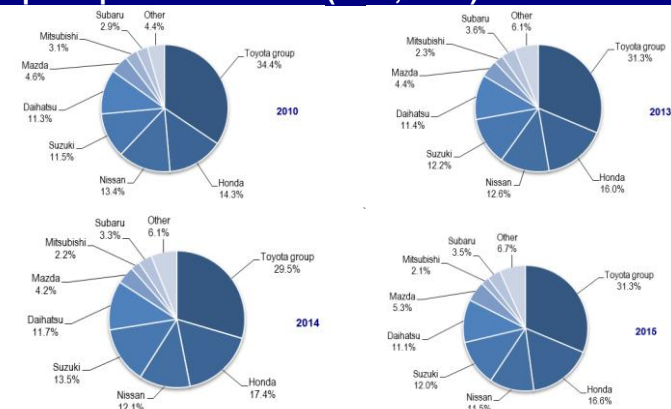
Source: JAMA and CGI calculations

**Japan – pc market (1998-2018E)**



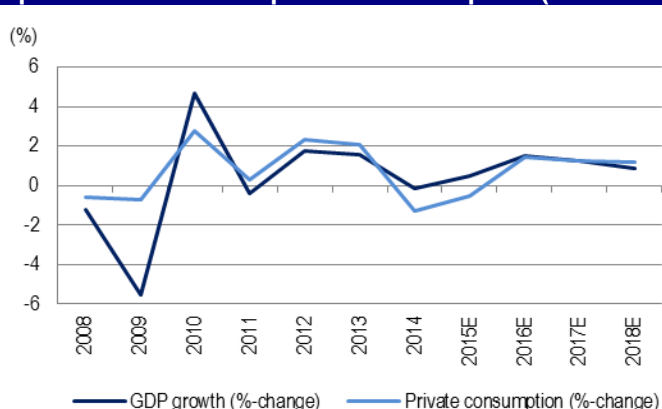
Source: JAMA, LMC Automotive and CGI estimates

**Japan – pc market shares (2010,12-14)**



Source: JAMA and CGI calculations

**Japan – real GDP and private consumption (2008-18E)**



Source: Oxford Economics and CGI estimates

## China LV market

**+16.2% in December**

**+5.3% in FY15**

In December, the recovery in China LV wholesales continued to accelerate to 16.2% and 2.80m, after 15.1% in November, resulting in a 5.3% increase to 24.89m in FY15. In December, the LV SAAR is estimated to have reached 29.3m, unchanged from November and considerably better than October's 25.6m and 3Q15's less than 22m.

**Strong 4Q15 recovery in PV sales....**

**...due to temporary tax cut...**

**...and after inventory adjustments**

The introduction of a temporary 50% cut in purchase tax for small cars (with engines of up to 1.6l) to 5% was the main driver of the sharp improvement in the dominant private vehicle (PV) segment to a SAAR of 25.6m in December, 25.0m in November and 23.1m in October, from lows of 19m on July/August and 19.65m in FY14. During the first eight months of 2015, the correction in the LV market was partly due to a falling consumer confidence (reflecting a deteriorating economy and the stock market crash) and was exacerbated by a necessary reduction in dealer inventories and pay-back in Tier 1&2 cities (where the fear of introduction of purchasing restrictions had led to buying frenzy in late 2013 and early 2014).

**+7.5% in FY16E**

With the inventory reduction out of the way and the tax cut in place until YE16, PV sales are expected to continue to recover during this year. On this basis, after having expanded by a CAGR of 9.6% in 2011-15, PV sales are expected to grow another 7.9% to 22.4m in FY16E and 1.0% to 23.2m in 2017E. (Note: LCVs continued their decline of four years by another 9% in FY15, due to uncertainties over emission regulations and the slowdown in construction.) As a result, growth in the overall LV market is expected to remain resilient and accelerate slightly in FY16E to 7.5% and 26.75m, after 5.3% in FY15A and 8.0% in FY14. .

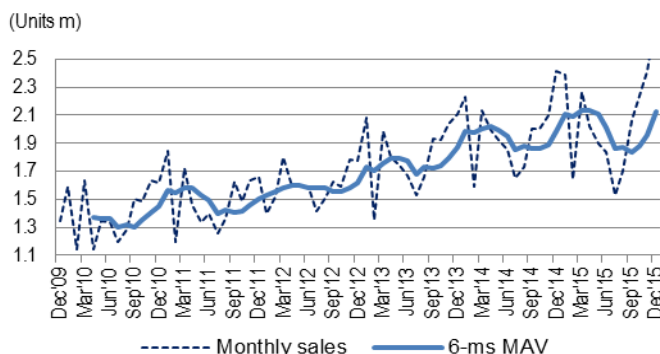
**'New normal'**

GDP growth continued to decelerate to 6.8% in 4Q15, after 6.9% in 3Q15 resulting in 6.9% growth rate in FY15, down from FY14's 7.3%. The government's FY15 target of 'around 7%' reflects the change of focus away from rapid growth towards employment and the environment. In the medium term, GDP growth should continue to decelerate considerably as domestic activity is curbed by a correction in the real estate market, high levels of debt and excess capacity in various industrial sectors. Although 'Likonomics' aims at weaning the economy off government-led FA investments and rebalancing it towards private consumption and services, we expect that the central and regional governments will continue to use mini-stimuli to stabilise the economy.

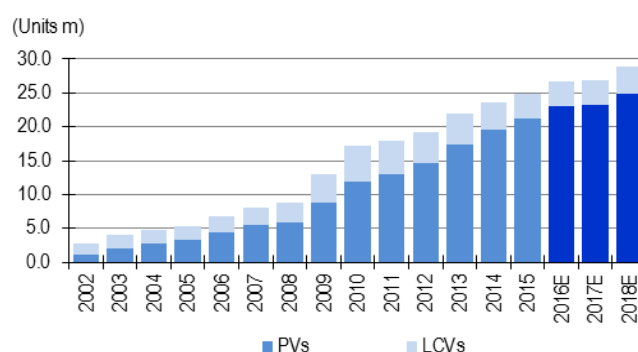
**Long-term trends weaker**

The Chinese LV market is expected to grow at a CAGR of 5.1% in 2014-2018E, the result of a flat LCV segment and a PV segment growing at a CAGR of 6.0%. During this period, the economy is also expected to develop private consumption as a growth engine. The expected long-term growth in the LV market should be supported by vehicle density growing in tandem with GDP/capita, rising urbanisation (from 52% in 2012) and a growing middle class. A growing customer base should be spreading demand inland from Tier 1 regions and the coastal areas. (See charts on p.16.)

**China – monthly LV sales (Dec'09-Dec15)**



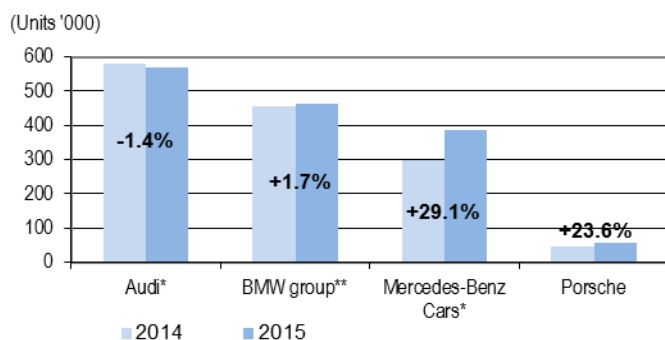
**China – LV sales (2002-18E)**



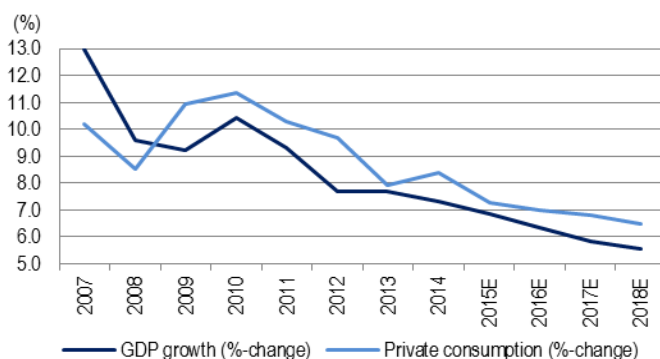
(1) incl. imports Source: LMC Automotive and CGI calculations

Source: LMC Automotive and CGI estimates

## German premium brands\* (Jan-Dec 2014 &amp; 2015)

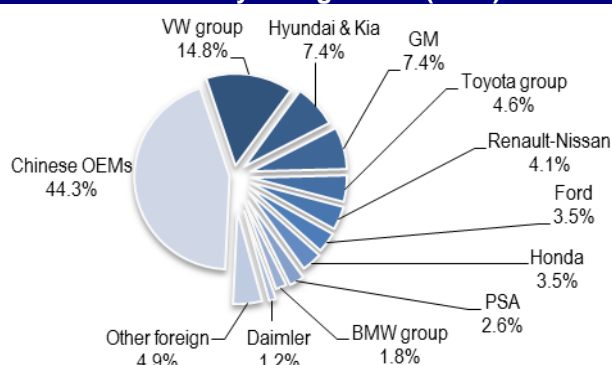


## China – real GDP and private consumption (2007-18E)

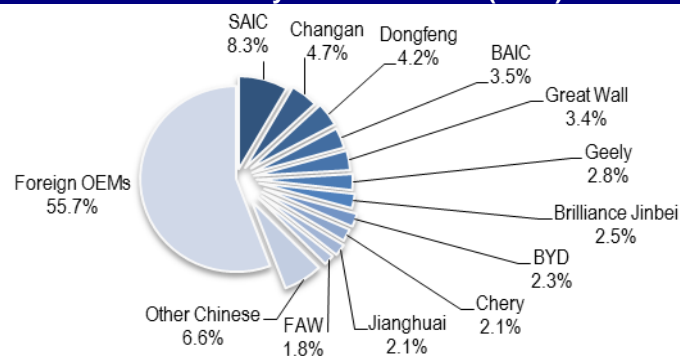


(x) Deliveries. (\*) Incl. Hong Kong. (\*\*) BMW and Mini only. Source: Company data and CGI. Source: Oxford Economics and CGI estimates

## China – LV market by foreign OEM (2013)



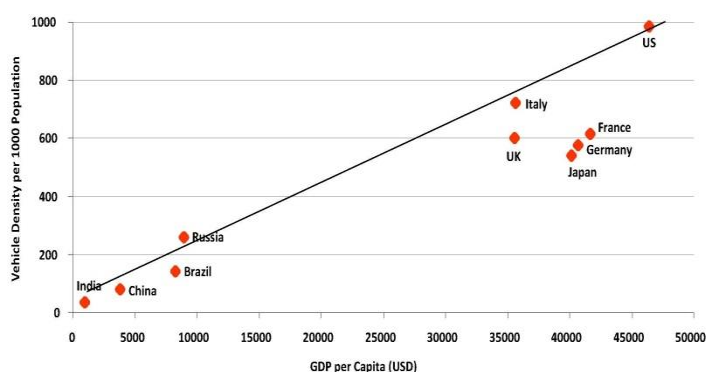
## China – LV market by domestic OEM (2013)



Source: LMC Automotive and CGI calculations

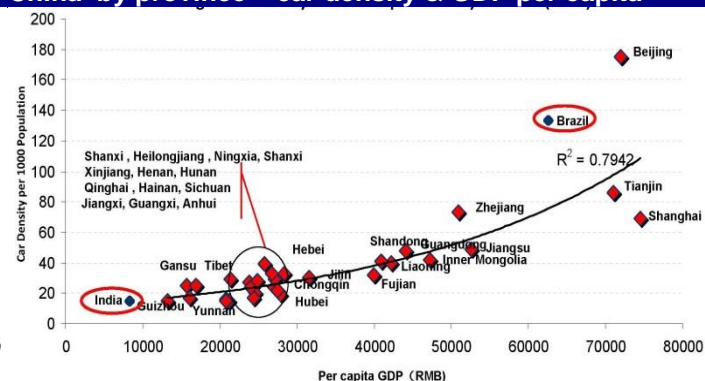
Source: LMC Automotive and CGI calculations

## China – vehicle density &amp; GDP per capita (2010)



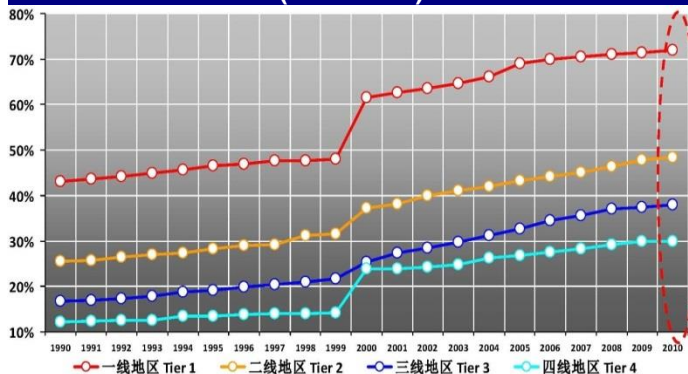
Source: LMC Automotive

## China by province – car density &amp; GDP per capita



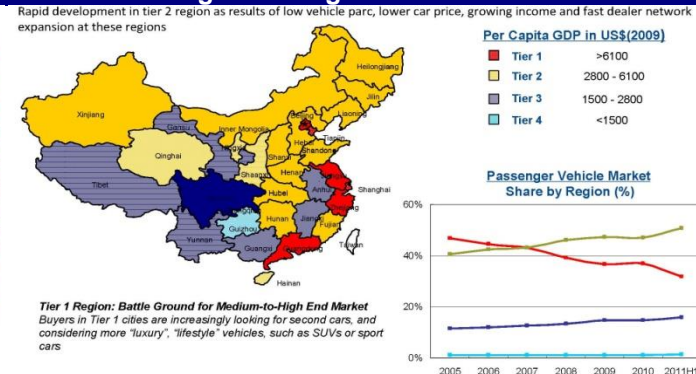
Source: LMC Automotive

## China – urbanisation (1990-2010)



Source: LMC Automotive

## China – inland growth engine



Source: LMC Automotive

## Brazil LV market

**-37.6% in December**

**-25.6% in FY15**

**Brazil descending into deepest recession since the 1930s**

**Consumer sector in meltdown**

**-7% in FY16E**

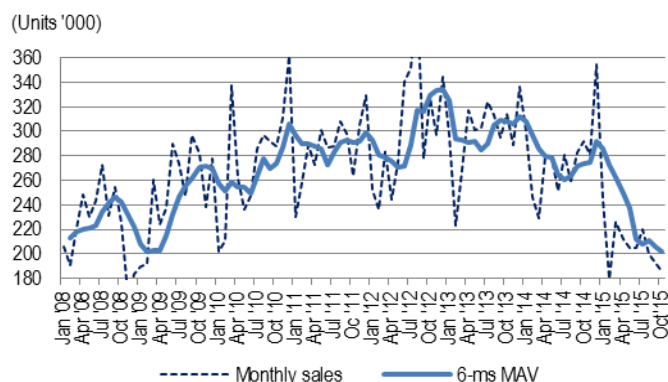
In December, Brazilian LV sales declined 37.6% yoy to 220.8k units, after -32.3% in November and -36.4% in October, resulting in a 25.6% decline to 2.48m in FY15. The downward trend in LV sales that started in mid-2012 has accelerated sharply during 2015. Indeed, after a spike in November/December 2014, when pre-buying ahead of the expiry of the second tranche of IPI tax cuts had boosted the SAAR to 3.3m and 3.7m, underlying demand has collapsed from 3.1m in January to less than 2.3m in 4Q15, the lowest levels since the financial crisis.

Brazil is further descending into a broad-based fiscal crisis and the deepest recession since at least the 1930s as the fall-out from declining exports (due to collapsing commodity prices and slower growth in China), rising inflation and interest rates is exacerbated by the economy's and country's structural problems. The deepening political crisis includes the resignation of the hawkish, internationally well respected Finance minister Joaquim Levy on December 18<sup>th</sup>.

Private consumption that, fuelled by subsidised credit, had been driving the economy in 2007-13, had slowed dramatically to 0.9% in FY14, and is expected to contract at least -3.5% in FY15E and -2.0% in 2016E. The need for deleveraging is now overwhelming and consumer confidence has collapsed to levels not seen since 2001. Inflation has surged to more than 10%, fuelled by a collapsing currency that has lost 70% vs. USD in the past 12 months alone. However, having raised interest rates by 700bpts between mid-2013 and July 19<sup>th</sup> 2015, the Bank of Brazil has kept the Selic rate unchanged for the past six months as the economy is believed to be on the brink of 'fiscal dominance'.

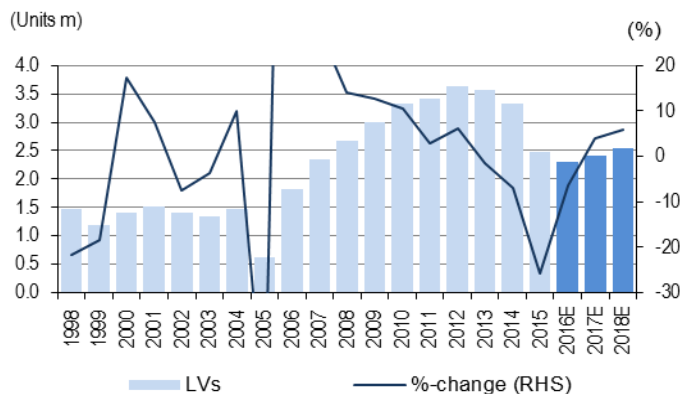
In view of the recent sharp downgrade by the IMF and the continuing and accelerating fall in commodity prices, there remains a considerable downside risk to the macro-economic forecast, in our view. However, in view of the -32% fall in annual LV sales between 2012 and 2015, we believe that the decline in FY16E will remain limited to some -7% to around 2.3m units, which is the current running rate.

**Brazil – monthly LV registrations (Jan'08-Dec'15)**



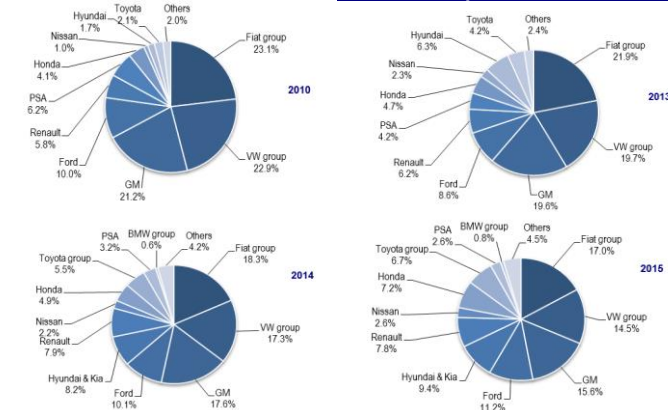
Source: ANFAVEA and CGI calculations

**Brazil – LV market (1998-2018E)**



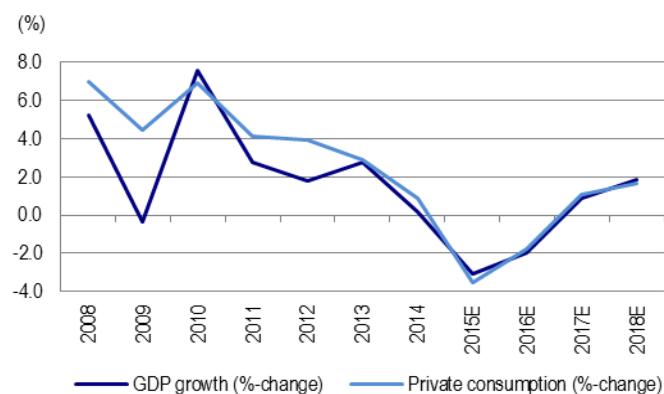
Source: ANFAVEA, LMC Automotive and CGI estimates

**Brazil – pc market shares (2010,13-15)**



Source: ANFAVEA and CGI calculations

**Brazil – real GDP and private consumption (2008-18E)**



Source: Oxford Economics and CGI estimates



## Russia LV market

**-45.7% in December**

**-35.7% in FY15**

**Russia in major recession...**

**...as oil price outlook deteriorates**

**-2.5% in FY16E**

In December, Russian LV sales declined 45.7% to 147.0k units, after -42.7% in November and -38.5% in October, resulting in a 35.7% decline to 1.60m in FY15, after -10% to 2.49m in FY14. Since April, the SAAR has hovered around the 1.5m mark, about 50% below the 2012 record of 2.94m and estimated to be the bottom of the current recession. The deeper yoy decline rates in 4Q15 reflect the relative strength of the market in 4Q14, following the introduction of a scrappage incentive scheme

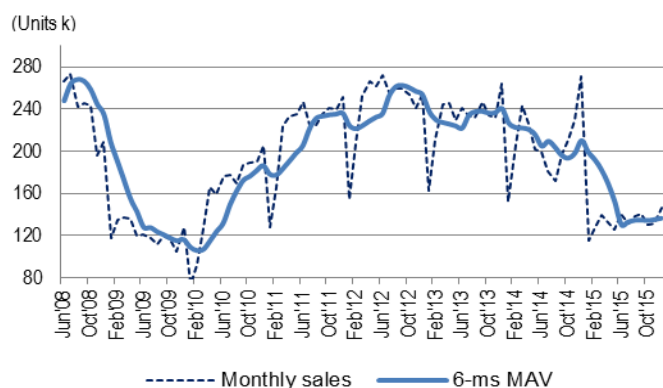
Over the past six months, Russia's economic malaise has worsened dramatically and the speed of decline has increased after a brief glimmer of hope in 2Q15. Besides international sanctions and geopolitical tensions, the sharp and accelerating decline in the oil price to currently below USD 30/bbl and the corresponding weakening of the rouble are the greatest challenges.

As a consequence the Bank of Russia is likely to further postpone the resumption of monetary easing. The benchmark interest rate has remained at 11.0% since July 31<sup>st</sup>, after having been cut by 6.0%-pts in the first seven months, only partially reversing last year's rate hike (of 11.5%-pts).

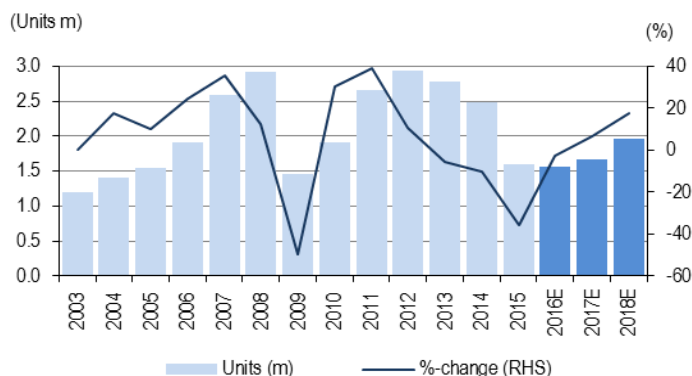
The recession is expected to continue well into FY16E and GDP to contract by 0.8% after -4.0% in FY15E and to be followed by an extremely subdued recovery from 2017E onwards. The consumer is being hit particularly badly as real wages are declining by an annual rate of 10%, resulting in private consumption contracting -10% and -0.9% in 2015E-16E.

In the Russian LV market is set for another year of decline in FY16E, by -2.5% to 1.56m, worst case scenario -16%. This takes into account multiple incentive schemes brought in by the government, including scrappage initiatives, discounted leasing support, and preferential loan interest subsidies. RUB50bn/RUB 20bn.

**Russia – monthly LV sales<sup>1</sup> (Jun'08-Dec'15)**



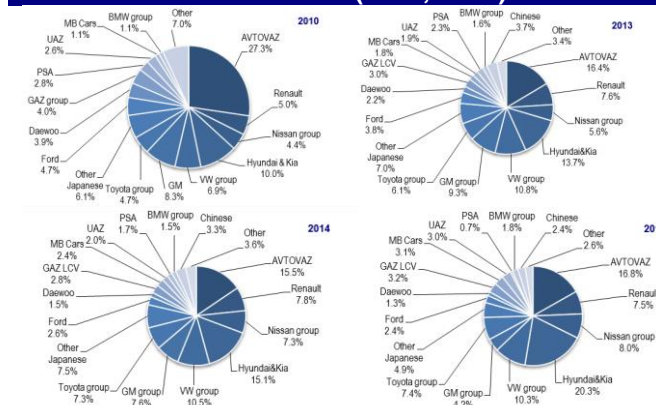
**Russia – LV sales (2003-18E)**



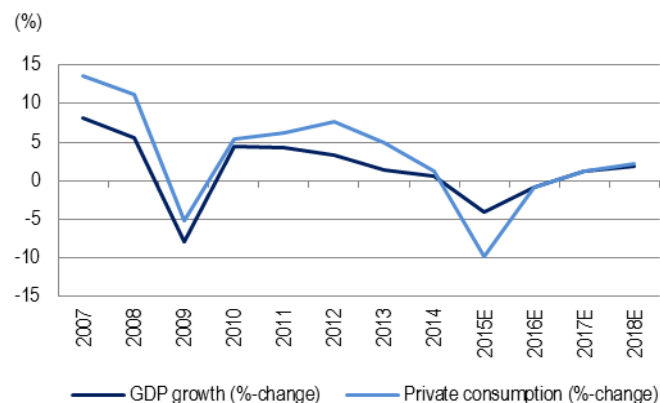
(1) LV sales = passenger cars and LCV. Source: AEB and CGI calculations

Source: AEB, LMC Automotive and CGI estimates

**Russia – LV market shares (2010,13-15)**



**Russia – real GDP and private consumption (2007-18E)**



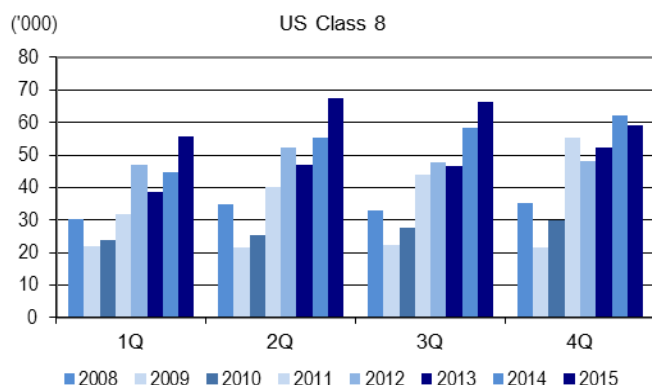
Source: AEB and CGI calculations

Source: Oxford Economics and CGI estimates

## Demand trends for trucks

## US medium &amp; heavy truck market

## US – Class 8 sales

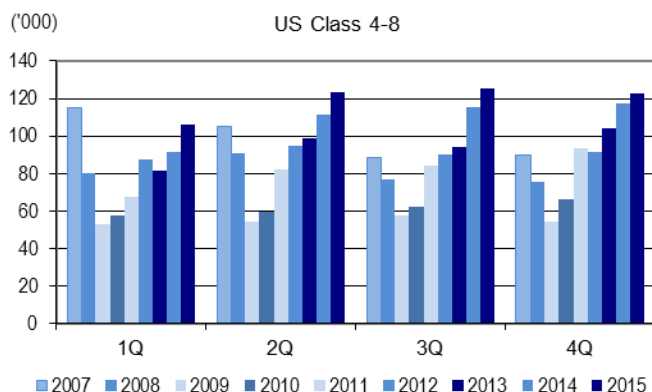


	1Q	2Q	3Q	4Q	FY
<b>Units</b>					
2010	23,839	25,418	27,825	30,070	107,152
2011	31,978	40,110	43,907	55,430	171,425
2012	46,845	52,401	47,585	48,192	195,023
2013	38,828	47,064	46,788	52,242	184,922
2014	44,566	55,279	58,526	62,146	220,517
<b>2015</b>	<b>55,839</b>	<b>67,395</b>	<b>66,378</b>	<b>59,278</b>	<b>248,890</b>
<b>% change</b>					
2011 yoy	34.1	57.8	57.8	84.3	60.0
2012 yoy	46.5	30.6	8.4	-13.1	13.8
2013 yoy	-17.1	-10.2	-1.7	8.4	-5.2
2014 yoy	14.8	17.5	25.1	19.0	19.2
<b>2015 yoy</b>	<b>25.3</b>	<b>21.9</b>	<b>13.4</b>	<b>-4.6</b>	<b>12.9</b>
2014 vs. 2007	-12.8	52.9	97.7	82.2	46.1
<b>2015 vs. 2007</b>	<b>9.2</b>	<b>86.4</b>	<b>124.4</b>	<b>73.8</b>	<b>64.9</b>

Source: Automotive News Data Center, CGI calculations

Source: Automotive News Data Center, CGI calculations

## US – Class 4-8 sales

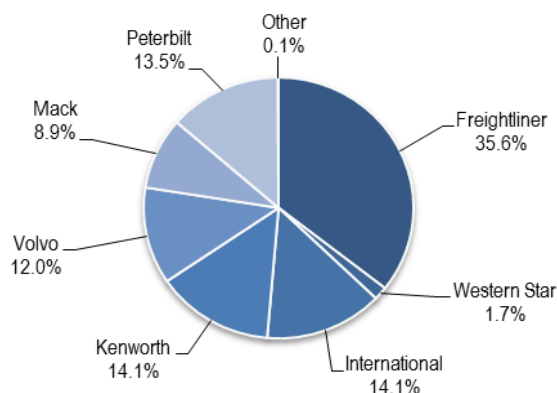


	1Q	2Q	3Q	4Q	FY
<b>Units</b>					
2010	57,781	59,533	62,231	66,399	245,944
2011	67,399	82,416	84,409	93,768	327,992
2012	87,763	94,962	89,898	91,752	364,375
2013	81,254	98,680	94,150	104,073	378,157
2014	91,432	111,169	115,103	117,095	434,799
<b>2015</b>	<b>106,075</b>	<b>123,685</b>	<b>125,193</b>	<b>122,475</b>	<b>477,428</b>
<b>% change</b>					
2011 yoy	16.6	38.4	35.6	41.2	33.4
2012 yoy	30.2	15.2	6.5	-2.1	11.1
2013 yoy	-7.4	3.9	4.7	13.4	3.8
2014 yoy	12.5	12.7	22.3	12.5	15.0
<b>2015 yoy</b>	<b>16.0</b>	<b>11.3</b>	<b>8.8</b>	<b>4.6</b>	<b>9.8</b>
2014 vs. 2007	-20.5	5.5	30.1	30.1	9.0
<b>2015 vs. 2007</b>	<b>-7.8</b>	<b>17.4</b>	<b>41.5</b>	<b>36.0</b>	<b>19.7</b>

Source: Automotive News Data Center, CGI calculations

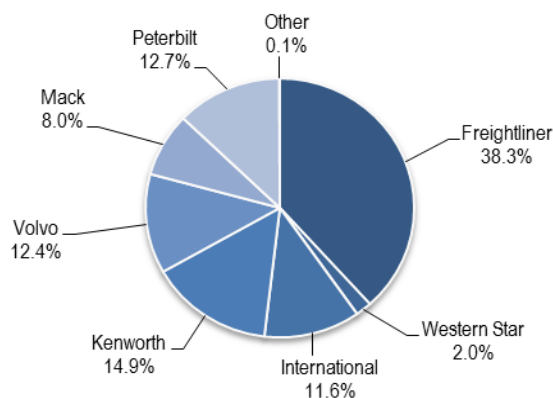
Source: Automotive News Data Center, CGI calculations

## US – Class 8 sales by manufacturer (FY14)



Source: Automotive News Data Center, CGI calculations

## US – Class 8 sales by manufacturer (Jan-Dec'15)

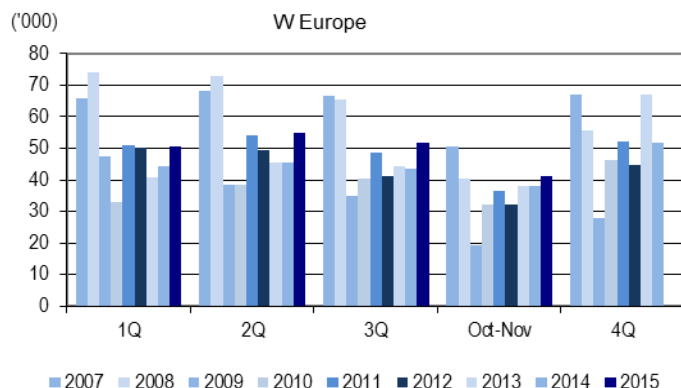


Source: Automotive News Data Center, CGI calculations



## Europe heavy truck markets

## W Europe – truck registrations (&gt;=16t)

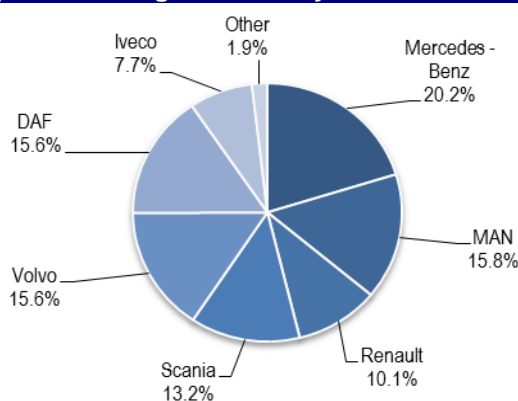


	1Q	2Q	3Q	Oct-Nov	4Q	FY
<b>Units</b>						
2010	32,828	38,461	40,483	32,161	46,174	157,946
2011	50,998	53,938	48,692	36,566	52,099	205,727
2012	50,162	49,411	41,293	32,128	44,674	185,540
2013	40,649	45,321	44,436	38,078	66,956	197,508
2014	44,355	45,298	43,638	<b>37,947</b>	51,662	185,397
<b>2015</b>	<b>50,716</b>	<b>54,712</b>	<b>51,593</b>	<b>41,091</b>	-	-
<b>% change</b>						
2011 yoy	55.3	40.2	20.3	13.7	12.8	30.3
2012 yoy	-1.6	-8.4	-15.2	-12.1	-14.3	-9.8
2013 yoy	-19.0	-8.3	7.6	18.5	49.7	6.5
2014 yoy	9.1	-0.1	-1.8	-0.3	-22.7	-6.0
<b>2015 yoy</b>	<b>14.3</b>	<b>20.8</b>	<b>18.2</b>	<b>8.3</b>	-	-
2014 vs. 2008	-40.0	-37.8	-33.2	<b>-6.2</b>	-7.1	-30.7
<b>2015 vs. 2008</b>	<b>-31.4</b>	<b>-24.9</b>	<b>-21.0</b>	<b>1.6</b>	-	-

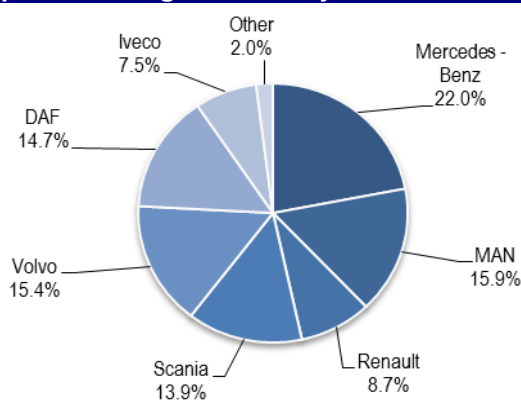
Source: ACEA, CGI calculations

Source: ACEA, CGI calculations

## W Europe – truck registrations by manufacturer (FY12) W Europe – truck registrations by manufacturer (FY13)

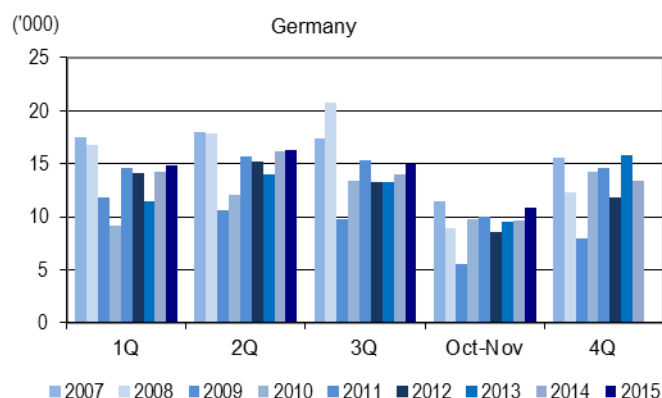


Source: Association Auxiliaire de l'Automobile, CGI calculations



Source: Association Auxiliaire de l'Automobile, CGI calculations

## Germany – truck registrations (&gt;=16t)

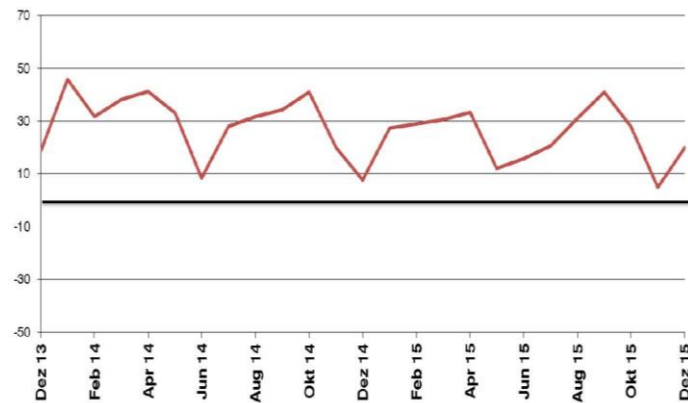


	1Q	2Q	3Q	Oct-Nov	4Q	FY
<b>Units</b>						
2010	9,145	12,064	13,388	9,724	14,220	48,817
2011	14,577	15,718	15,358	10,036	14,560	60,213
2012	14,148	15,226	13,211	8,562	11,859	54,444
2013	11,432	14,038	13,310	9,527	15,796	54,576
2014	14,287	16,133	14,016	9,660	13,450	57,886
<b>2015</b>	<b>14,842</b>	<b>16,255</b>	<b>14,935</b>	<b>10,836</b>	-	-
<b>% change</b>						
2011 yoy	59.4	30.3	14.7	3.2	2.4	23.3
2012 yoy	-2.9	-3.1	-14.0	-14.7	-18.6	-9.6
2013 yoy	-19.2	-7.8	0.7	11.3	33.2	0.2
2014 yoy	25.0	14.9	5.3	1.4	-14.9	6.1
<b>2015 yoy</b>	<b>3.9</b>	<b>0.8</b>	<b>6.6</b>	<b>12.2</b>	-	-
2014 vs. 2008	-14.9	-9.9	-32.3	7.6	8.9	-14.6
<b>2015 vs. 2008</b>	<b>-11.6</b>	<b>-9.2</b>	<b>-27.9</b>	<b>20.7</b>	-	-

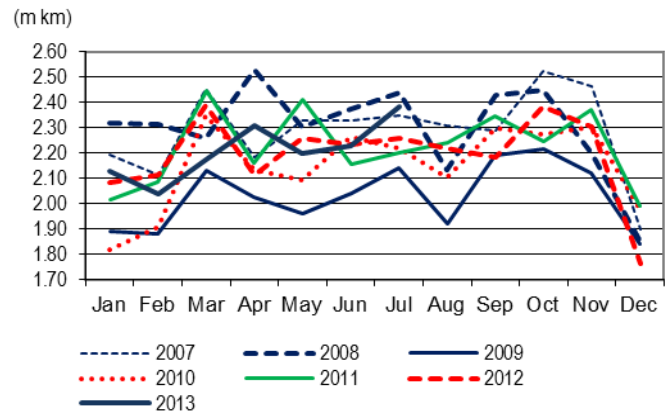
Source: ACEA, CGI calculations

Source: ACEA, CGI calculations

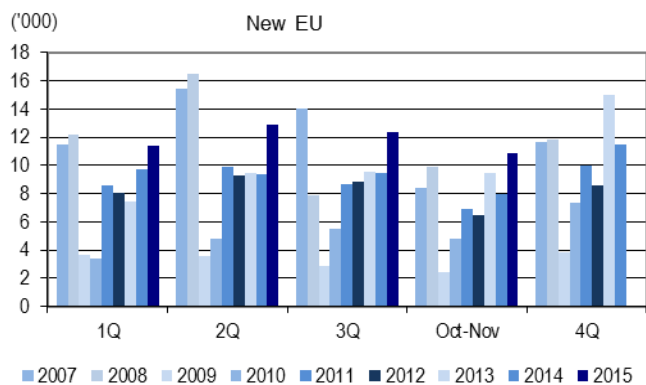
## SCI Logistics Barometer (Germany) (Dec'13-'15)



## Toll Collect – Driven kms on German motorways



Business confidence indicator – transport and logistics industries in Germany. Source: www.sci.de Source: Bundesamt für Güterverkehr

New EU<sup>1</sup> – truck registrations (>=16t)

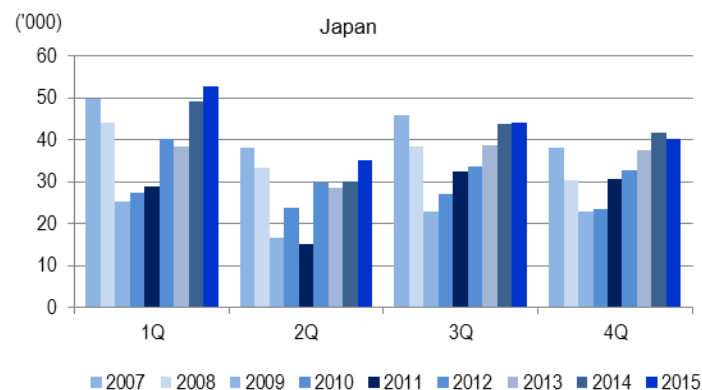
	1Q	2Q	3Q	Oct-Nov	4Q	FY
<b>Units</b>						
2010	3,384	4,779	5,509	4,775	7,351	21,023
2011	8,594	9,912	8,693	6,899	10,016	37,215
2012	8,020	9,333	8,811	6,451	8,585	34,749
2013	7,468	9,505	9,513	9,431	14,990	41,476
2014	9,737	9,365	9,430	7,949	11,500	40,013
<b>2015</b>	<b>11,430</b>	<b>12,912</b>	<b>12,374</b>	<b>10,916</b>		
<b>% change</b>						
2011 yoy	154.0	107.4	57.8	44.5	36.3	77.0
2012 yoy	-6.7	-5.8	1.4	-6.5	-14.3	-6.6
2013 yoy	-6.9	1.8	8.0	46.2	74.6	19.4
2014 yoy	30.4	-1.5	-0.9	-15.7	-23.3	-3.5
<b>2015 yoy</b>	<b>17.4</b>	<b>37.9</b>	<b>31.2</b>	<b>37.3</b>		
2014 vs. 2008	-20.3	-43.2	20.1	-19.7	-2.6	-17.3
<b>2015 vs. 2008</b>	<b>-6.5</b>	<b>-21.6</b>	<b>57.6</b>	<b>10.2</b>		

(1) New EU, mostly Central Europe and Baltic countries. Source: ACEA, CGI calculations

Source: ACEA, CGI calculations

## Japan medium &amp; heavy truck market

## Japan – medium &amp; heavy truck market (&gt;3.5t)



	1Q	2Q	3Q	4Q	FY
<b>Units</b>					
2010	27,512	23,701	27,029	23,455	101,697
2011	28,993	15,094	32,598	30,605	107,290
2012	40,273	29,714	33,645	32,727	136,359
2013	38,568	28,572	38,666	37,466	143,272
2014	49,245	30,085	43,732	41,753	164,815
<b>2015</b>	<b>52,737</b>	<b>35,252</b>	<b>44,149</b>	<b>40,364</b>	<b>172,502</b>
<b>% change</b>					
2011 yoy	5.4	-36.3	20.6	30.5	5.5
2012 yoy	38.9	96.9	3.2	6.9	27.1
2013 yoy	-4.2	-3.8	14.9	14.5	5.1
2014 yoy	27.7	5.3	13.1	11.4	15.0
<b>2015 yoy</b>	<b>7.1</b>	<b>17.2</b>	<b>1.0</b>	<b>-3.3</b>	<b>4.7</b>
2014 vs. 2008	11.3	-9.8	13.3	37.0	12.4
<b>2015 vs. 2008</b>	<b>19.1</b>	<b>5.6</b>	<b>14.4</b>	<b>32.5</b>	<b>17.6</b>

Source: JAMA, CGI calculations

Source: JAMA, CGI calculations

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