

INDEPENDENT RESEARCH

25th September 2017

# Carmakers

When innovation rhymes with obligation

## Car Makers

BMW	NEUTRAL	FV EUR89
Initiation of coverage		
Bloomberg	BMW3:GR Reuters	BMWG.DE
Price	EUR84.46 High/Low	90.83/73.18
Market cap.	EUR55,499m Enterprise Val	EUR33,822m
PE (2017e)	7.8x EV/EBIT (2017e)	3.5x
<b>DAIMLER</b>	<b>BUY</b>	<b>FV EUR87</b>
Initiation of coverage		
Bloomberg	DAIG GR Reuters	DAIGn.DE
Price	EUR66.58 High/Low	72.83/59.29
Market Cap.	EUR71,230m Enterprise Val	EUR49,491m
PE (2017e)	7.1x EV/EBIT (2017e)	3.3x
<b>PEUGEOT</b>	<b>SELL</b>	<b>FV EUR19</b>
Initiation of coverage		
Bloomberg	UG FP Reuters	PEUP.PA
Price	EUR19.265 High/Low	19.71/12.88
Market Cap.	EUR17,432m Enterprise Val	EUR13,174m
PE (2017e)	9.1x EV/EBIT (2017e)	4.2x
<b>RENAULT</b>	<b>BUY</b>	<b>FV EUR99</b>
Initiation of coverage		
Bloomberg	RNO FP Reuters	RENA.PA
Price	EUR81.46 High/Low	90.18/70.74
Market Cap.	EUR24,090m Enterprise Val	EUR3,631m
PE (2017e)	5.3x EV/EBIT (2017e)	0.9x

A year after our report on car components manufacturers, we are extending our auto sector coverage to include carmakers with the aim of better understanding the industry's value chain, and above all, to better assess how the race for differentiation from the latter is at the root of the commercial outperformance boasted by the former. Innovation is clearly a key subject for carmakers even though the pass-through effect to customers is more complicated.

- **Product positioning is vital for outperforming the market and creating value:** carmakers are now responsible for only **20% of value added** in a vehicle compared with **30% a few years ago**. Only a coherent and controlled product/price positioning enables them to outperform the market and above all, generate higher margins. For this, carmakers need to position themselves either in the premium segment or in the entry-range segment, given that the mid-range segment is the one that takes the most knocks.
- **An essential need for investment:** In order to respect increasingly restrictive environmental standards and stand out as far as possible from direct rivals to win market share, carmakers have no other choice but to invest massively. However, contrary to parts suppliers who negotiate prices directly with their customers via calls for tender and medium/long-term contracts, carmakers are exposed to recurring price changes depending on the commercial policies put in place by rival groups and their stock levels. On our estimates, **Renault, Peugeot, BMW and Daimler** are set to spend around **EUR125bn** on R&D and capex over 2018-20 compared with **EUR100bn** over the previous three years, whereas we expect a decline in global growth implying pressure on the FCF to sales ratio of around **50bp minimum over the medium term**.



- **We favour Renault & Daimler relative to Peugeot & BMW:** In this report, we initiate coverage of **Renault** (FV of EUR99) and **Daimler** (FV of EUR87) at **Buy**, **BMW** at **Neutral** (FV of EUR89) and **Peugeot** at **Sell** (FV of EUR19).

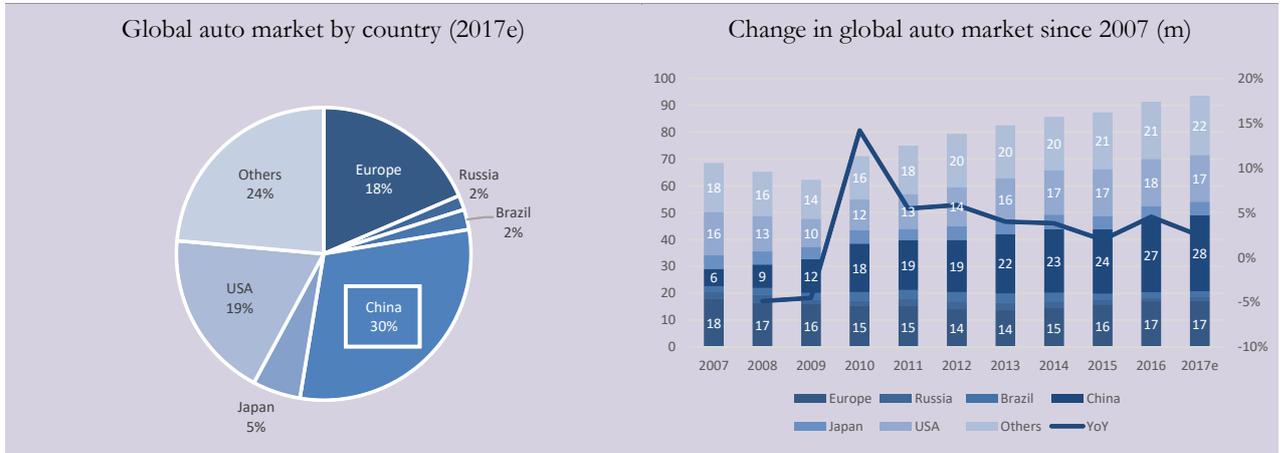
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## Table of contents

1. Investment case in six charts .....	3
2. When innovation rhymes with obligation .....	4
3. A sector still growing but under increasing pressure.....	5
3.1. No growth in the US market.....	5
3.2. ...whereas the Chinese market is becoming increasingly volatile.....	6
3.3. We are forecasting growth in the global market of 2.4% in 2017 and 1.9% in 2018.....	8
4. Product/price positioning is key for outperforming the market.....	9
5. ... and to create value.....	14
5.1. Renault and frugal innovation.....	15
5.1.1. The Renault Twingo .....	15
5.1.2. The Dacia Logan .....	16
5.1.3. The Renault Kwid .....	17
5.2. Tesla and disruptive technological innovation.....	18
5.2.1. Space X and design to cost.....	18
5.2.2. Lower cost technology at Tesla .....	18
6. A major need for capex.....	19
6.1. In vehicle electrification .....	20
6.1.1. Lower CO <sub>2</sub> emissions.....	20
6.1.2. And lower NOx particles.....	20
6.1.3. Electrification: the only solution for carmakers.....	21
6.2. In new mobility services.....	24
6.3. In semi-autonomous & autonomous vehicles .....	26
7. We prefer Renault & Daimler to Peugeot & BMW .....	29
7.1. Renault vs. Peugeot.....	29
7.2. Daimler vs. BMW.....	32
7.3. And where does Tesla fit in? .....	34
8. For the very long term, we favour parts makers rather than carmakers .....	35
8.1. Carmakers: between a rock and a hard place .....	35
8.2. Components suppliers: sharing the cake with tech groups.....	36
8.3. The valuation difference between the two confirms that the market is increasingly aware .....	37
<b>BMW</b> Fair Value EUR89 NEUTRAL Coverage initiated .....	39
Running out of fuel mid-race.....	39
<b>Daimler</b> Fair Value EUR87 BUY Coverage initiated .....	81
Back in the shoes of a no. 1 player.....	81
<b>Peugeot</b> Fair Value EUR19 SELL Coverage initiated .....	115
Harder time ahead.....	115
<b>Renault</b> Fair Value EUR99 BUY Coverage initiated.....	155
The best is still to come .....	155
<b>Tesla</b> Inc. NOT RATED .....	193
Now Elon MusT deliver the goods .....	193
Bryan Garnier stock rating system.....	211

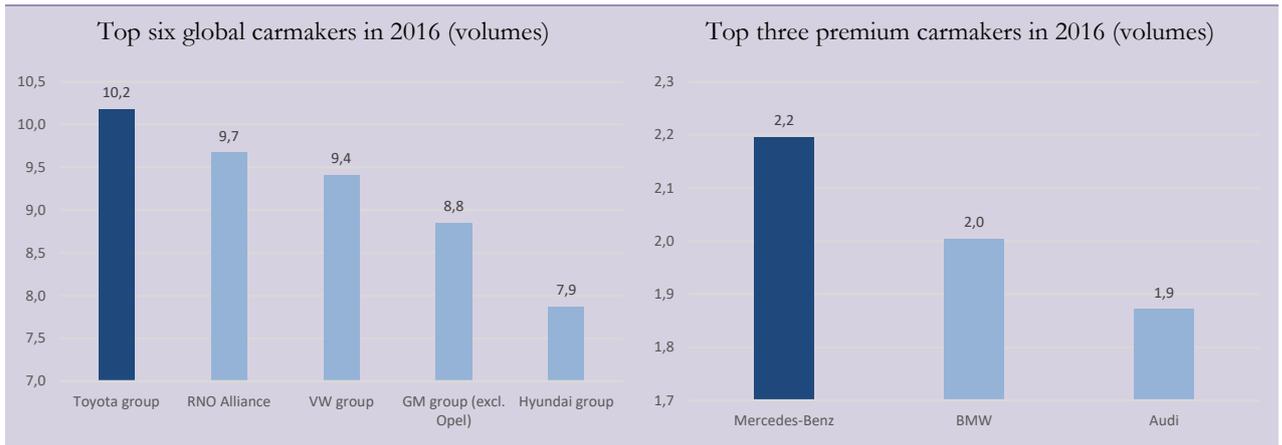
# 1. Investment case in six charts

**Fig. 1: The market is still growing, but more slowly**



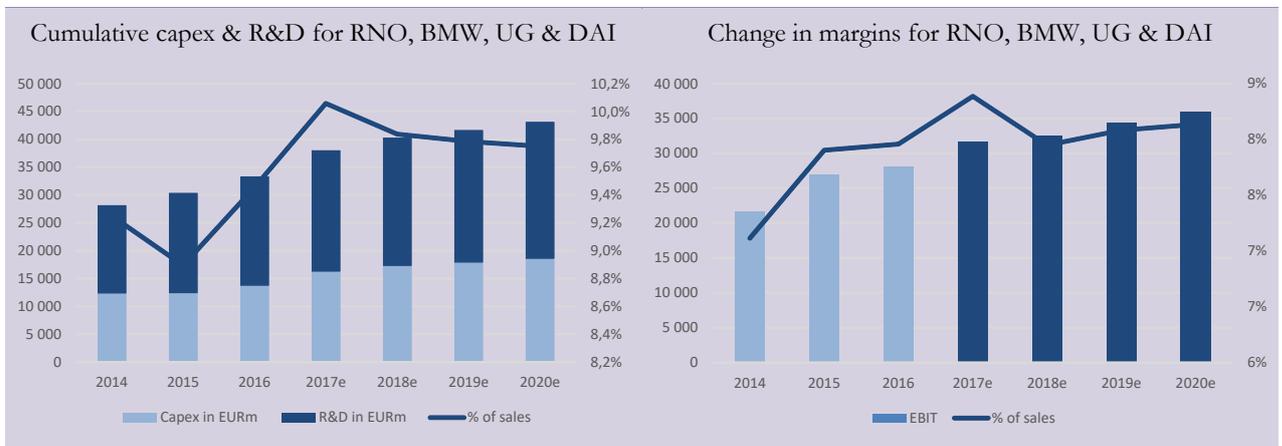
Source: Renault; Bryan, Garnier & Co ests.

**Fig. 2: Renault and Mercedes now almost leaders in their respective segments**



Source: Company data; Bryan, Garnier & Co ests.

**Fig. 3: More investment is needed, to the detriment of margin/FCF growth**



Source: Reuters; Bryan, Garnier & Co ests.

## 2. When innovation rhymes with obligation

A year after our report on car components manufacturers (Faurecia, Hella, Plastic Omnium and Valeo), we are strengthening our sector coverage to include car manufacturers with the aim of better understanding the auto industry value chain and better assessing the race for differentiation that underpins the commercial outperformances boasted by the leaders.

In our report on components suppliers, we discussed how the **various transformations in the sector** (connected, electric and autonomous vehicles) were beneficial to them thanks to their increasing contribution to the value chain in auto production. The need for innovation stemming from carmakers has resulted in orders for numerous parts makers such as **Valeo, Continental, Hella, Faurecia** and **Plastic Omnium**. Whereas this innovation implies short-term outperformance and potentially an improvement in profitability for these groups, for carmakers it implies additional pressure on margins and FCF given that it is difficult to pass on a sizeable share of additional production costs to end customers, especially costs concerning electrification and depollution.

Just as global demand is about to slow, especially in the US, Europe and China, the three leading auto markets, we expect a narrowing in margins at the main carmakers to the detriment of EPS growth, whereas uncertainty surrounding diesel engines is obliging them to invest massively in electric vehicles.

On our estimates, **Renault, Peugeot, BMW** and **Daimler** are set to spend around **EUR125bn** on R&D and capex over 2018/20 vs **EUR100bn** over the three previous years, implying pressure on the FCF to sales ratio of around **50bp minimum over the medium term**. Only Renault ought to improve its margin over the short term in our view on the back of a beneficial mix effect for its Renault brand and thanks to its positioning in the entry-range segment, whereas Peugeot is likely to continue suffering from lost momentum in its Chinese joint ventures while entering the process to integrate Opel, which is likely to remain dilutive until 2025/26. We also expect pressure on margins at premium carmakers and especially at Daimler given the extent of Mercedes-Benz's ambitions in electric vehicles. In all, in the short term, BMW should come off better than its direct rival, but its market share is likely to pay the price. **Renault and Daimler are well positioned to manage the future upheaval expected in the sector better than their rivals.**

In this report, we are initiating coverage of four traditional carmakers, **two generalist groups** (Renault and Peugeot) and **two premium carmakers** (BMW and Daimler) and discuss Tesla's business model (no estimates or recommendation), the new disruptive player in the sector, thereby bringing our auto industry coverage to **10 stocks** (four parts makers, two tyre markets and four carmakers).

We initiate coverage of **Renault** (FV of EUR99) and **Daimler** (FV of EUR87) at **Buy**, **BMW** at **Neutral** (FV of EUR89) and **Peugeot** at **Sell** (FV of EUR19).

### 3. A sector still growing but under increasing pressure

When we initiated coverage of the auto sector in September 2016 with our report on **four car components suppliers** (Faurecia, Hella, Plastic Omnium and Valeo), we already highlighted the risk of a slowdown in the automotive cycle relative to the last growth cycle over 2010/16. The US and European markets no longer benefit from the catching up effect noted in recent years, whereas China only offers short-term growth of 2-5% a year **compared with 5-10% previously**. At the time, we were forecasting growth of **1.4%** for 2017 and a CAGR of **1.9%** for 2018/20, estimates that we have revised upwards slightly this year, especially following the healthy first half for the European market.

#### 3.1. No growth in the US market

The US market is the second-largest auto market after China, and for several months has clearly shown signs of a slowdown after the impressive rebound enjoyed since its low-point in 2009 (+68%). After stagnating at the beginning of the year, monthly demand has gradually deteriorated, suffering especially from an **increasingly disadvantageous base effect**, but above all from the **rise in interest rates** and the **stability in oil prices**. Since the beginning of the year, the US market has lost **2.6%** slightly below our forecast for the year of **-1%**.

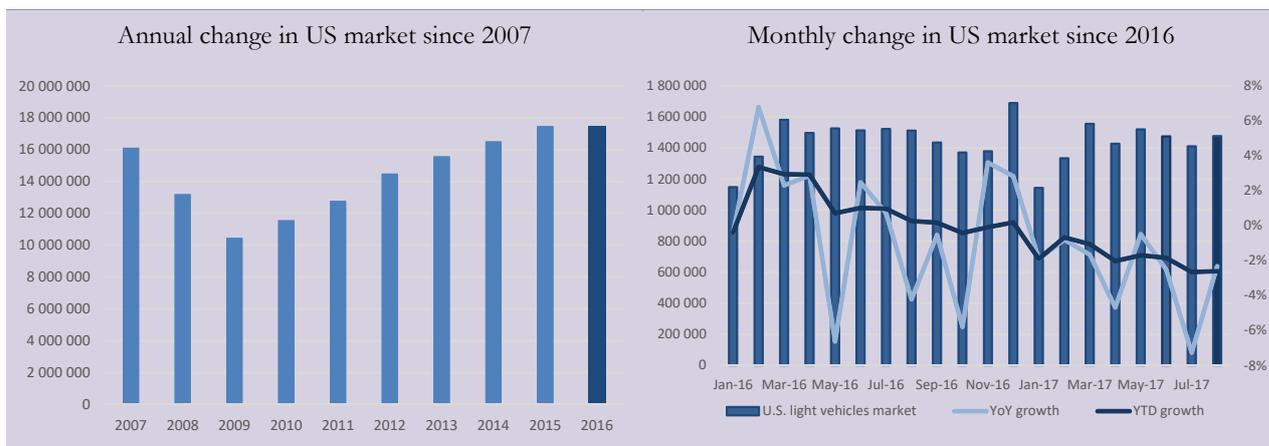
As usual, this plunge in demand has gone hand in hand with a gradual decline in prices, with carmakers having no other choice to attract customers than offering significant discounts to limit the risk of an increase in stocks. For the moment, carmakers do not seem to have given in to the temptation of an excessive price war to try and maintain their volumes or conquer market share, thereby limiting the negative impact on margins. **The average amount of discounts remains limited for the moment at EUR3,000-3,500 per vehicle.**

Note interestingly that US carmakers have suffered more than others from the plunge in demand, primarily due to their poor product positioning. Indeed, foreign brands have won market share mostly on the back of their positioning in the very dynamic **segment of SUVs in the C category**, whereas US brands are more focused on pick-ups and very large SUVs. In all, among the main brands, since the start of the year only **Audi** (+5.5%) and **Infiniti** (+18%) posted positive sales growth.

The risk of a rise in interest rates, albeit unlikely in the short term, could have a negative impact on new demand, especially in 2018. **If necessary, carmakers would probably choose to extend the duration of their loans rather than increase their nominal cost.**

Note that among the car components makers covered by Bryan Garnier, **Michelin** and **Faurecia** are the most exposed (35% and 30% of sales). In the carmakers segment, BMW and Daimler are the most exposed (excluding Tesla). In 2017 at least, US auto production should remain higher than demand given the reallocation of certain programmes from Mexico to the US. We expect a **1%** decline in the market over 2017 and stability over 2018.

**Fig. 4: US market under pressure, at a peak since 2016**



Source: GoodCarBadCar; Bryan, Garnier & Co ests.

### 3.2. ...whereas the Chinese market is becoming increasingly volatile

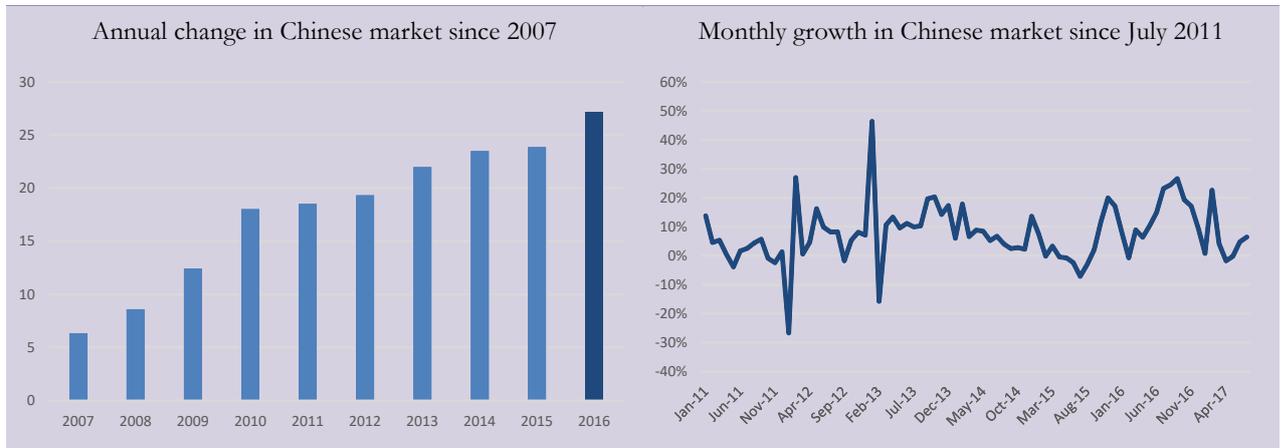
**In China, the party's over!** This market previously accounted for three-quarters of annual growth in global demand by itself, but now only contributes **40-45%**. The increase in consumer purchasing power is no longer enough to generate as much growth in demand although every year, around **15m** new Chinese consumers have access to the budget necessary to purchase a car.

Today, demand is primarily driven by **tier 4-6** cities (compared with tier 1-3 cities during the previous cycle), which have **lower purchasing power and where the appeal for Chinese brands is stronger**. Foreign carmakers with a low number of concessions outside major cities therefore have more difficulty in protecting their market share, contrary to local Chinese brands. These now account for **40-45%** of new car registrations vs. less than **30%** just a few years ago, to the detriment of foreign generalist carmakers that are closer to their positioning than premium foreign brands.

Note that among the car components makers we cover, **Valeo** and **Faurecia** are the most exposed (16% and 13% of sales) to this market. In the carmakers segment, **BMW** and **Daimler** are the most exposed (respectively 7.5% and 8% of attributable net profit).

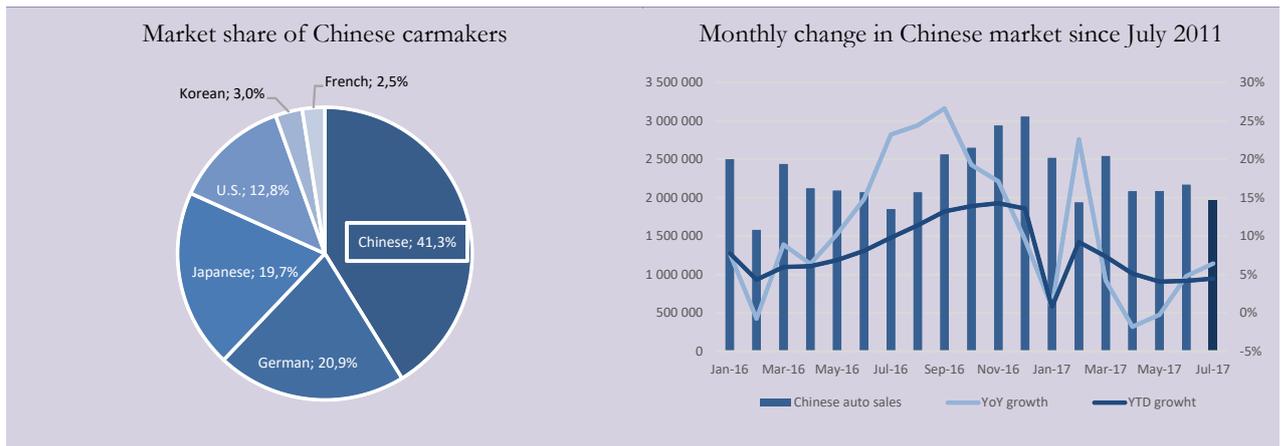
We forecast a rise in demand of around **4%** in 2017 and **2.5%** in 2018, implying growth of around **1m vehicles a year**, or half of the French automotive market.

**Fig. 5: Chinese market still growing but more volatile**



Source: CAAM; Bryan, Garnier & Co ests.

**Fig. 6: Increasingly controlled by Chinese carmakers**



Source: CAAM; Bryan, Garnier & Co ests.

### 3.3. We are forecasting growth in the global market of 2.4% in 2017 and 1.9% in 2018

We are forecasting global volume growth of around **2.4%** for 2017 and **1.9%** for 2018. Growth is primarily set to stem from emerging markets (Russia, Brazil and India), China and southern European countries.

Whereas our panel of auto parts makers (BG coverage) should be capable of easily outperforming this low demand (>6.5% lfl growth estimated on average) thanks to **high value-added innovation**, but also in view of the **higher value of vehicle components prompted by the gradual electrification of car models and the development of ADAS technologies in new vehicles**, our panel of carmakers is likely to have more difficulty in bettering market growth (4% lfl growth estimates on average).

**Product positioning and innovation are the only key factors that could help them outperform the market.**

**Fig. 7: Global auto demand –BG estimates (thousands of vehicles)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017e	YoY	2018e	YoY
<b>Total Europe</b>	<b>16 574</b>	<b>15 998</b>	<b>15 305</b>	<b>15 247</b>	<b>14 102</b>	<b>13 737</b>	<b>14 544</b>	<b>15 936</b>	<b>16 625</b>	<b>17 308</b>	<b>1,5%</b>	<b>17 568</b>	<b>1,5%</b>
o/w Germany	3 320	3 982	3 119	3 413	3 170	3 271	3 271	3 449	3 604	3 687	2,0%	3 724	1,5%
o/w UK	2 431	2 190	2 262	2 208	2 544	2 806	2 086	3 014	3 120	2 983	-3,0%	3 013	1,0%
o/w France	2 510	2 644	2 652	2 633	2 282	2 155	2 168	2 296	2 433	2 473	2,0%	2 498	1,0%
<b>Total Eurasia/Euromed</b>	<b>5 041</b>	<b>2 908</b>	<b>3 504</b>	<b>4 522</b>	<b>5 836</b>	<b>6 478</b>	<b>5 885</b>	<b>6 094</b>	<b>4 692</b>	<b>6 099</b>	<b>2,7%</b>	<b>6 205</b>	<b>1,9%</b>
o/w Russia	2 896	1 585	1 898	2 678	2 905	2 763	2 471	1 601	1 413	1 499	5,0%	1 559	4,0%
o/w Turkey	494	452	765	862	780	853	769	968	920	1 003	2,0%	1 013	2,0%
<b>Total Americas</b>	<b>5 484</b>	<b>5 128</b>	<b>5 524</b>	<b>6 503</b>	<b>6 993</b>	<b>6 478</b>	<b>6 495</b>	<b>5 681</b>	<b>5 072</b>	<b>5 644</b>	<b>3,5%</b>	<b>5 826</b>	<b>2,9%</b>
o/w Brazil	2 661	2 702	3 329	3 424	3 589	3 576	3 341	2 478	1 859	2 086	5,0%	2 170	3,0%
o/w Mexico	1 025	758	820	906	968	1 070	1 135	1 350	1 487	1 683	5,0%	1 767	5,0%
o/w Argentina	574	519	634	818	819	917	656	626	638	697	2,0%	710	2,0%
<b>Total Asia/Africa</b>	<b>23 079</b>	<b>27 180</b>	<b>33 087</b>	<b>36 444</b>	<b>38 477</b>	<b>38 094</b>	<b>39 173</b>	<b>40 236</b>	<b>41 780</b>	<b>45 102</b>	<b>2,0%</b>	<b>46 266</b>	<b>2,6%</b>
o/w China	8 614	9 433	14 062	16 700	18 209	20 586	22 395	23 866	26 565	28 286	4,0%	28 993	2,5%
o/w Japan	4 849	4 574	4 907	4 130	5 138	5 272	5 490	4 943	4 695	4 921	1,5%	4 970	1,0%
o/w South Korea	1 214	1 366	1 554	1 577	1 522	1 528	1 636	1 801	1 869	1 831	2,0%	1 867	2,0%
o/w India	1 710	1 968	2 649	2 879	2 995	2 960	2 931	3 124	3 258	3 429	2,5%	3 514	2,5%
<b>Total North America</b>	<b>14 826</b>	<b>11 863</b>	<b>13 056</b>	<b>14 374</b>	<b>16 147</b>	<b>17 361</b>	<b>18 373</b>	<b>19 367</b>	<b>19 834</b>	<b>19 361</b>	<b>2,0%</b>	<b>19 391</b>	<b>1,1%</b>
o/w Canada	1 613	1 404	1 480	1 596	1 650	1 779	1 850	1 898	2 016	1 990	2,5%	2 020	1,5%
o/w USA	13 213	10 460	11 576	12 778	14 497	15 582	16 524	17 469	17 818	17 371	5,0%	17 371	1,0%
<b>Total PC &amp; LCV market</b>	<b>65 140</b>	<b>62 208</b>	<b>71 025</b>	<b>74 903</b>	<b>79 287</b>	<b>82 472</b>	<b>85 633</b>	<b>87 316</b>	<b>91 295</b>	<b>93 515</b>	<b>-</b>	<b>95 257</b>	<b>-</b>
YoY growth	-4,9%	-4,5%	14,2%	5,5%	5,9%	4,0%	2,8%	1,7%	2,4%	2,4%		1,9%	

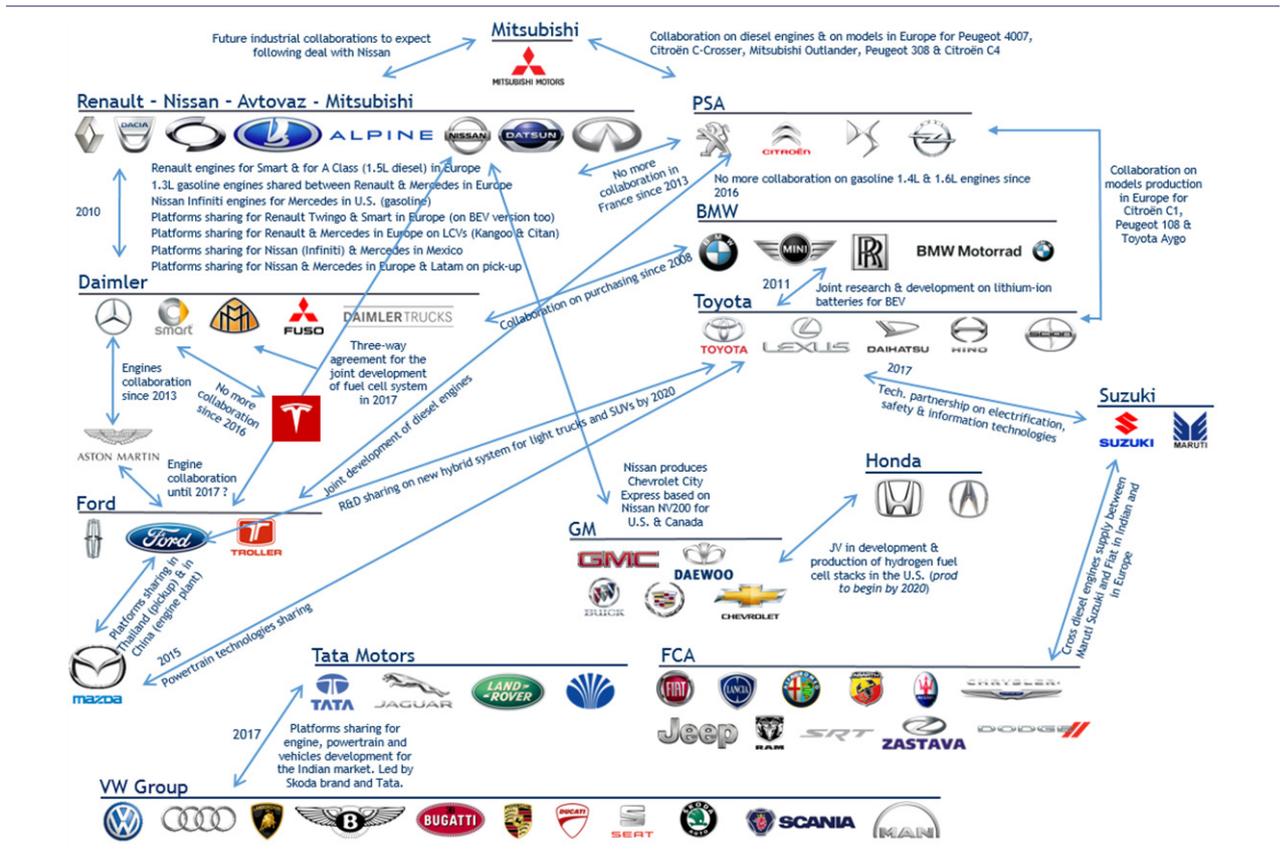
Source: Renault; Bryan, Garnier & Co ests.

## 4. Product/price positioning is key for outperforming the market...

As indicated in our sector report on car parts manufacturers published in September 2016 ([Car parts manufacturers: Innovation the only way to stand out!](#)), car manufacturers are now only responsible for **20% of the value added** in a vehicle, vs **30% just a few years ago**. We estimate that carmakers now only intervene at **five levels** of the car production and sales value chain, whereas previously they were behind the development and production of the lion's share of parts integrated in a vehicle. **Innovation is clearly a differentiating factor**, especially in terms of engine (lower emissions and fuel consumption, downsizing etc.) and components, but **engine innovations are the only ones still in the hands of carmakers**, whereas all other innovations are now provided by parts makers.

- **Group positioning/product positioning:** A group's historical positioning clearly determines its future positioning as well as its brand image. Given the importance of a car purchase for a household (second largest purchase after the home), it is vital that carmakers give customers the impression that they are getting their money's worth, while word of mouth and the loyalty rate are extremely important for the sector. We see further on that an **entry-range or premium positioning** helps car manufacturers gain market share more easily (in volume terms) than a **mid-range positioning**.
- **Design:** once the product positioning is clearly defined, the auto designer's role is vital for making the product as attractive as possible in the eyes of the customers targeted. In our view, having good designers is essential for the carmaker since they provide the **brand's visual identity** and generate the emotions that the group aims to pass onto future drivers.
- **Engines:** for the moment, the design and production of **internal combustion engines** remains in the hands of carmakers alone given the importance of this for vehicle purchases. Numerous industrial partnerships exist between carmakers in order to share their expertise in certain engine types, but above all to increase production volumes and hence better absorb development costs and fixed costs. Note that further out, this positioning is set to change in line with the development of electric vehicles. Electric engines require less differentiation than thermal engines such that we expect a gradual transfer of their production to car components makers.
- **Assembly:** Vehicle assembly remains in the hands of carmakers. The vehicle bodies are built (primarily from steel sheets) directly by the carmaker whereas the majority of components integrated into the vehicles are delivered directly to the plants by components makers and other specialised suppliers in the auto industry. A carmaker's value added lies in its expertise in terms of logistics but also in terms of the assembly chain. Platform sharing between different models, but also between different carmakers, as with engine production, helps amortise fixed costs at the assembly plant by increasing its utilisation rate. Productivity in the assembly plants is vital for carmakers to generate respectable margins, obliging them to always produce more and hence, more quickly. Accessing a certain critical mass remains an obsession among generalist carmakers and also explains the latest merger operations undertaken by **Renault** (Mitsubishi) and **Peugeot** (Opel).

**Fig. 8: Mapping of main industrial sharing between carmakers in terms of engines and assembly**



Source: Company Data; Bryan, Garnier & Co ests.

■ **Marketing and pricing:** Via group marketing expenses and directly-operated retail or franchise networks, each carmaker decides to allocate more or less marketing spend per vehicle, and also decides on the **price positioning** and **potential discounts** that it can offer customers once the negotiating process has started. The **pricing strategy** is vital for carmakers to protect their margins given that a one euro increase or decrease in the car price directly impacts the carmaker's margin (100% leverage) contrary to just 15-30% leverage for one point of volume.

Below we set out the various strategies/positionings adopted by the five carmakers for which we are initiating coverage in this report (except Tesla).

**Fig. 9: Carmakers with very different positions**

	BMW	Daimler	Renault	Peugeot	Tesla
<b>Group/product positioning</b>	Premium, SUVs	Premium, SUVs	Entry-range (Dacia), mid-range (Renault)	Mid-range (Peugeot, Citroën, Opel), premium (DS)	Premium
<b>Design</b>	No change in design	More sporty design started with new A-Class in 2012	Change started with arrival of L. Van Den Acker in 2009 and with new Twingo in 2011	No real change in design	Sporty and sober design
<b>Engines</b>	No sharing	Engine sharing with Mercedes, Nissan & Mitsubishi and Aston Martin	Engine sharing with Mercedes, Nissan & Mitsubishi	Engine sharing with Mitsubishi	No sharing
<b>Assembly</b>	No sharing	Sharing of assembly sites with Mercedes, Nissan	Sharing of assembly sites with Mercedes, Nissan & Mitsubishi	Sharing of assembly sites with Mitsubishi	No sharing
<b>Marketing/price positioning*</b>	BMW: EUR70,500; Mini: EUR27,500	Mercedes: EUR82,300; Smart: EUR18,500	Dacia: EUR12,256; Renault: EUR25,190 / No price cuts for Dacia, fairly aggressive pricing at Renault	Aim to maintain prices since C. Tavearez arrived in 2014 Peugeot: EUR26,100; Citroën: EUR21,500; Opel: EUR23,182; DS: EUR37,390	Tesla: EUR121,700

\* average entry price and price with options on new models on sale in France in September 2017, incl. VAT

Source: Company Data; Bryan, Garnier & Co ests.

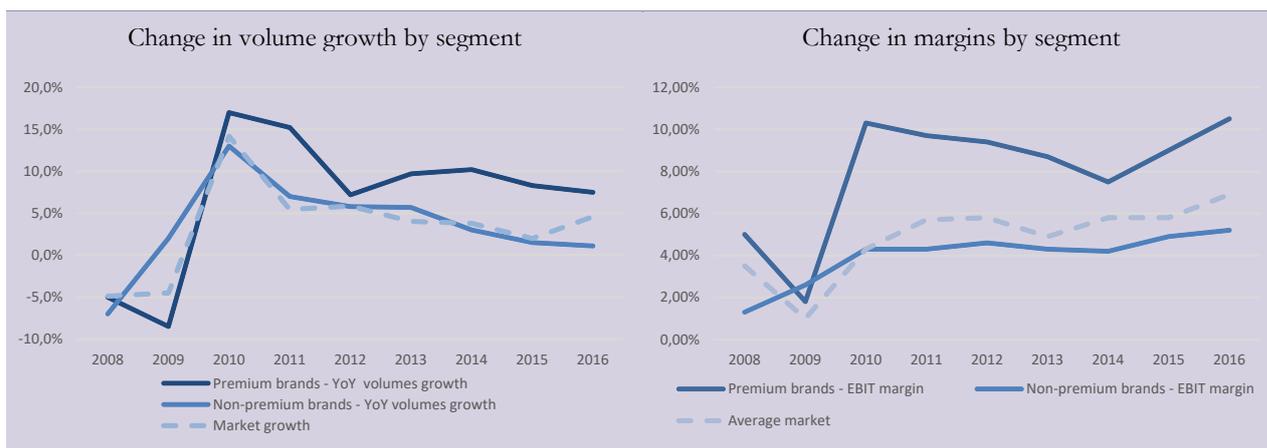
### The mid-range: ideal for taking knocks

Interestingly, only the premium and entry-range segments have gained market share over the past decade, to the detriment of the mid-range, confirming the fact that a new car purchase is increasingly made for needs that are either **strictly rational** or associated with **pleasure and social status**. Although contradictory, these two needs have moved in parallel with each other for the past 10 or so years, to the great dismay of players positioned in the mid-range and which offer models that are considered expensive but with no real social value.

In Europe, which still accounts for around **19%** of the global auto market, we count **11 premium brands and just one entry-level brand**, representing respectively **23%** and **3%** of the market (in volume terms) in 2016. The other 25 or so brands are all positioned in the sluggish part of the market, where **competition between carmakers is the toughest**.

**In the sector, only these categories at either end of the scale allow groups to generate high margins and outperform global auto market growth.**

**Fig. 10: The premium segment is a means of outperforming the market and generating wider margins**



Source: Bryan, Garnier & Co ests.

The brands generating the highest margins among the premium/luxury carmakers are **Ferrari** (20%) and **Porsche** (17%), while in the generalist/low-cost segment, the **Skoda** (9%) and **Toyota** (8-9%) brands stand out. The Dacia brand, which does not publish its accounts, generates EBIT margin of more than 10% on our estimates.

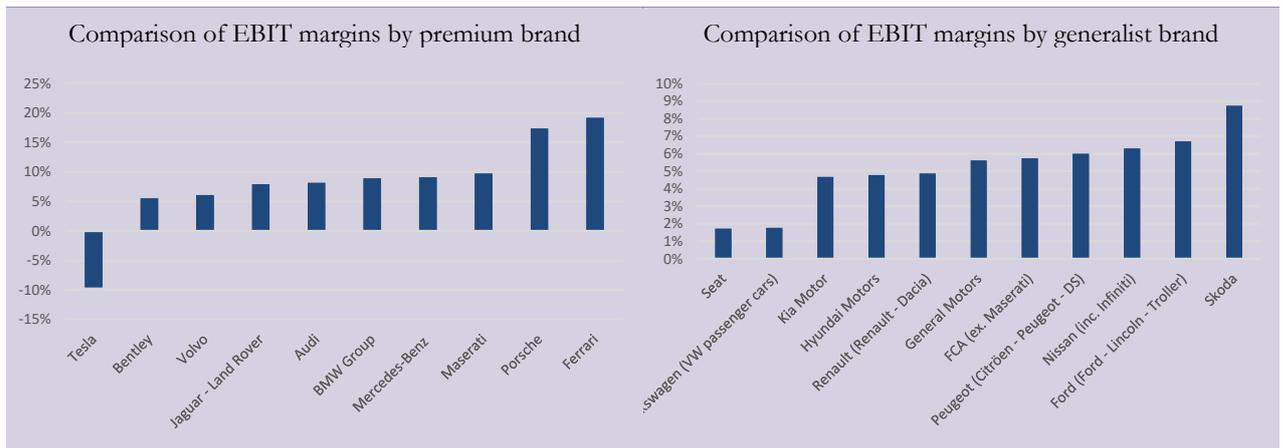
**As such, in order to be very profitable in the sector, groups need to have either a higher product/price positioning, at the risk of selling few cars (Ferrari only sells 8,000 cars a year and Porsche less than 250,000), or a very low price/product positioning enabling them to amortise production facilities and R&D costs as far as possible.**

**The intermediary positioning of German premium carmakers (Audi, BMW and Daimler) already helps generate high margins of between 8 and 10%.**

Please see the section headed "Important information" on the back page of this report.

It is interesting to note that today one of the most profitable brands in the VW universe is Skoda (9% vs. 2% for VW in 2016 and 8% for Audi). Indeed, this brand shares a number of products with other VW brands (VW and Seat) while offering a lower price, thereby implying a significant commercial success (R&D expenses are amortised on other brands).

**Fig. 11: The premium segment helps outperform the market and generate higher margins**



Source: Bryan, Garnier & Co ests.

## 5. ... and to create value

In our view, carmakers can create value in various ways:

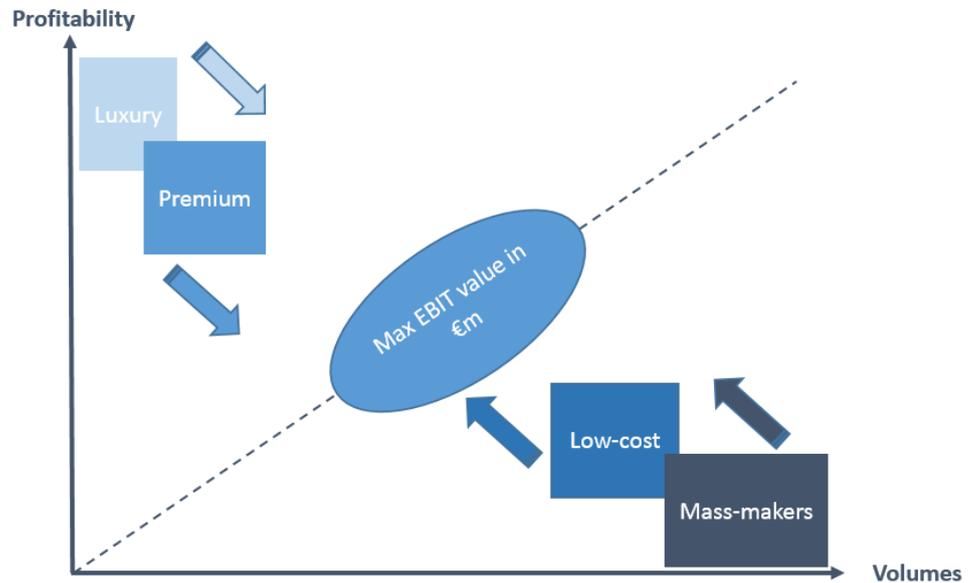
- By developing a **new more profitable brand** (lower cost base or higher pricing power), or one that **generates more growth** than the group's existing brands: Renault's strategy with the Dacia brand.
- By developing and marketing a **new model** in order to address a new market or a new customer profile and at the same time address a segment with higher margins: SUVs at generalist brands and premium/luxury brands.
- By **changing brand image** in favour of higher pricing power, at the risk of losing market share: PSA's strategy since the arrival of Carlos Tavares.
- By **opening a new country** where growth helps outperform the global market: Renault-Nissan's strategy in Russia with Avtovaz.
- **Optimising the fixed and variable cost base** via platform sharing between different brands or different carmakers: VW's strategy with its Modularer Querbaukasten (MQB) platform used between the group's various brands.

Carmakers therefore need to constantly find innovative solutions in order to protect margins and market share

Although very different, all these strategic choices are necessary for creating value and imply innovation not only in terms of technology and services but also for management and production methods. **As such, carmakers need to constantly find innovative solutions to protect their margins and market share. While choosing the right positioning is vital, being profitable in it requires innovation.**

Below we analyse in further detail two strategies that are very different from a technological viewpoint (Renault and Tesla) but which nevertheless both stem from the same need to **make more out of less, with the ultimate goal of having a lot of very profitable volumes.**

**Fig. 12: Looking for the holy grail**



Source: Bryan, Garnier & Co ests.

## 5.1. Renault and frugal innovation

### 5.1.1. The Renault Twingo

Presented for the first time at the Paris motor show in 1992, the Renault Twingo radically changed the auto landscape at the time not only with its innovative style but above all with its original positioning. When it was first marketed in 1993, the car was sold with one engine, one type of material, and one colour for interior plastics and accessories, all for the one price of **EUR8,232**, defying all competition at the time.

#### Renault Twingo 1



With the **Twingo** project, Renault implemented a "design to cost" approach for the very first time. The aim was to improve the project's profitability in order to adapt it to user requirements. Significant internal productivity efforts had already paid off and the implication of the project's design to cost was above all focused on outsourcers. The group therefore tested the new method on six car components: headlights, dashboard, heating, seats, wipers-washers and the speedometer, enabling the group to generate a gain of more than **15%** relative to management's cost price estimate.

In developing this model, which was a commercial success prior to the gradual arrival of new entrants, the group was therefore able to try a new industrial method while reinventing technical solutions to optimise the price/quality ratio.

**Without aiming to or realising it, the group was also taking a first step into an entry-range positioning that would then become key for the group.**

### 5.1.2. The Dacia Logan

The new **Logan** was launched commercially as of **2004** following Renault's acquisition of **Dacia** in 1999 under **Louis Schweitzer**. This ushered in a new episode in the group's history that it was alone in starting with the sale of low-range vehicles fitted with technologies already amortised by models in the historical brand, firstly in emerging markets and then in mature markets.

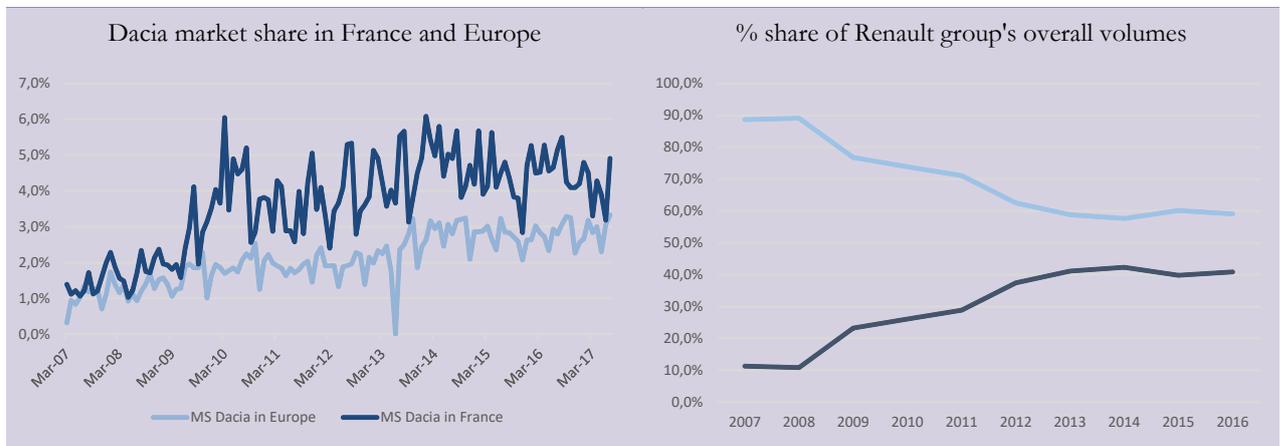
At the time, Renault's decision caused much mistrust among investors given the **obsolescence of the plant it bought** (Pitesti plant), **Dacia's low brand image in western Europe as well as the amount of investments needed to modernise the brand**. The project was nevertheless a success as of 2004 thanks to a price positioning beating all competition, attracting second-hand car purchasers looking for a simple and efficient vehicle. As of 2005, the plant was running at full capacity with the brand generating its first profit under Renault (EUR45m). Marketing of the Logan therefore started in other countries while a new plant was opened in Tangiers in 2012 in order to extend the range of the former Romanian brand.

Dacia Logan



Dacia now has five different models: **the Logan, the Sandero, the Duster, the Lodgy and the Dokker** and ranks in the **no. 5 position** in France behind the three French brands Renault, Peugeot, Citroën and the German brand VW with market share **up 4%**. In just over 10 years, Renault has succeeded in making a household name out of a brand that was on the point of failure, by **creating a new market for customers who simply needed to buy a car to get around and who were previously obliged to buy second-hand**.

**Fig. 13: A largescale brand in Europe representing more than 30% of Renault's volumes in the world**



Source: CCFA; ACEA; Renault; Bryan, Garnier & Co ests.

Renault now sells these entry-range models in many emerging markets, enabling it to boost its profitability in recent years since gross margin on the Dacia models is by far higher than that of the Renault brand models. On our estimates for 2012/16, this range helped generate EBIT margin of around **EUR4bn** overall, whereas the carmaker reported a total of less than **EUR2bn** in EBIT margin in its auto segment.

### 5.1.3. The Renault Kwid

Strengthened by its experience in frugal innovation via the development of the Twingo and the overhaul of the Dacia brand, in 2010 and under the impetus of Carlos Ghosn, the group launched a new project initially dedicated only to the Indian micro-car market: the **Kwid**. Except that whereas 15 years earlier, Louis Schweitzer was aiming to create one car (the Logan) using tried-and-tested components, Carlos Ghosn aimed to create two models (the Renault Kwid and the Datsun Redi-GO) based on a totally original **platform, engine and gear box**. The current chairman's idea was to address the Indian car market with a vehicle entirely adapted to customer needs, unlike strategies by other foreign carmakers present in India.

#### Renault Kwid

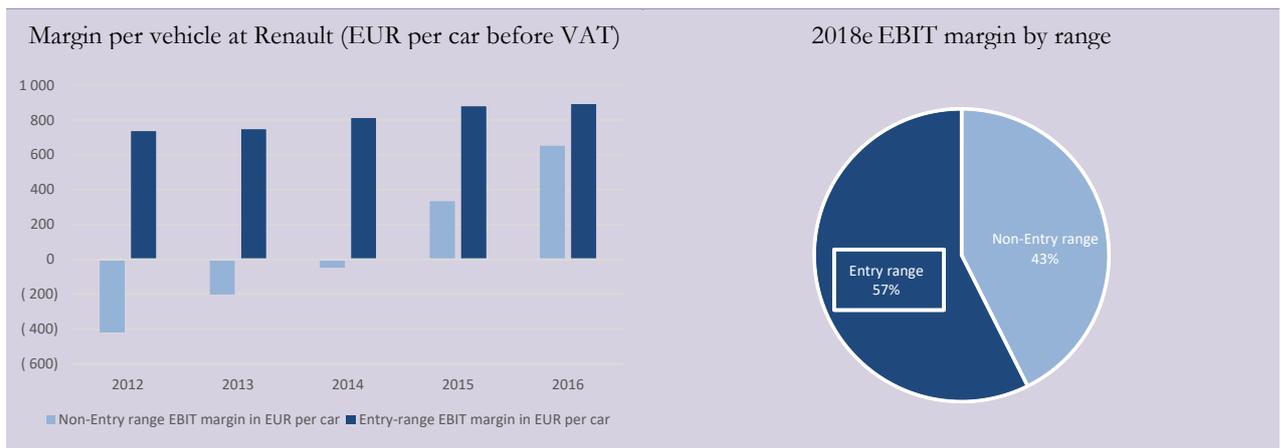


Two major restrictions will have to be respected to develop this new vehicle: **the four-meter rule** (beyond this size the purchase tax becomes prohibitive) and **the four lakhs rule** (around EUR5,500, the average price for 70% of sales in India). In all, thanks to a lot of pragmatism and frugal innovation efforts enabling the group to reduce the number of components needed to manufacture the car and therefore to reduce production costs (without deteriorating the vehicle's usage value), against all odds, Renault managed to develop a car that cost half the amount to produce as the Dacia Sandero, which was itself reputed as costing half the amount of the Renault Pulse, the smallest and most economic model in the Renault range.

Since its launch in India in 2015, unit sales of the Renault Kwid have totalled more than 129,000 units thanks to its success in the country, which should be repeated in Brazil where a model adapted to this market was launched in August 2017.

**Thanks to the frugal innovation implemented internally at Renault, the group has succeeded in expanding in a market considered as complicated by the majority of carmakers (Russia and India) in favour of a clear outperformance relative to the market and above all in favour of better profitability levels per vehicle (%).**

**Fig. 14: An entry-range segment contributing strongly to group EBIT margin**



Source: Bryan, Garnier & Co ests.

## 5.2. Tesla and disruptive technological innovation

### 5.2.1. Space X and design to cost

As well as founding the premium 100% electric carmaker **Tesla Motors**, **Elon Musk** also created and owns **Space X**, a private services provider specialised in the production and sale of rocket launchers and engines. Long considered as non-credible outsider in the very closed US space segment, Space X has gradually won contracts with the US government in view of the drastic reduction in launch costs and the development of reusable launchers.

To reach his aim Mr Musk asked his engineers to work **not on reducing the cost of the launchers but on reducing launch costs**. The teams therefore started from the ground up in trying to rethink a large part of generally agreed conventions, overturning the traditional business model in the industry. In early 2017, the group pulled off a huge feat in the space industry by launching a rocket that had already been used. Once it has become sustainable, the solution should enable Space X to **reduce launch costs by 30%**.

### 5.2.2. Lower cost technology at Tesla

This "made in Musk" working method can obviously be found at Tesla Motors as well in terms of development and production of the **Model S**, **Model X** and now the **Model 3 cars**. Starting from scratch in car manufacturing in 2008 with the launch of the **Roadster Tesla**, an entirely electric sports car built on the basis of the **Lotus Elise**, Tesla was not particularly successful to start with but has gradually acquired expertise in a field that was still badly controlled by traditional carmakers.

To achieve his goal to become a pioneer in electric cars, Elon Musk obliges himself to reason in terms of the *First Principles theory*. In physics, this method helps resolve problems by restarting laws or basic truths. In Mr Musk's own words "**it is a physics way of looking at the world by obliging ourselves not to reason by analogy, and not to refer to the past to analyse challenges of today**". In developing his Model S, Tesla reinvented the car by optimising each component in order to reduce the total production cost. The group's advantage relative to other carmakers was that it had no liabilities behind it to amortise or shoulder (thermal engine plants, workers specialised in thermal vehicle assembly, investments in depolluting systems etc.).

In all, the car is easier to produce than a traditional ICE vehicle and hence takes a shorter amount of time to produce, thereby reducing the direct cost of manual labour by around **20-30%** and boosting unit margins.

## 6. A major need for capex

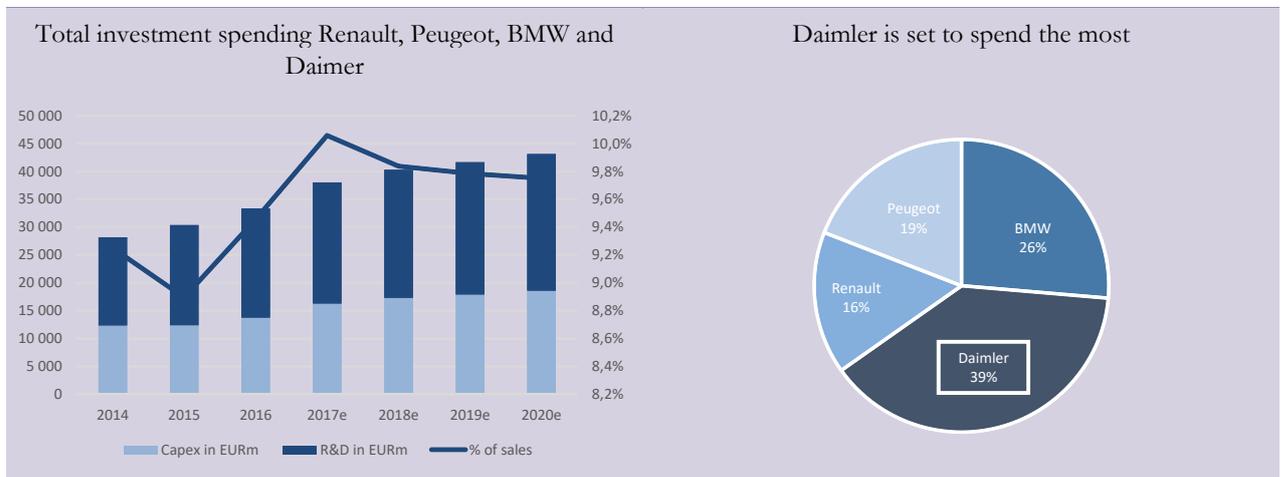
Auto manufacturers therefore have no other choice but to invest in order to respect increasingly restrictive environmental standards and stand out as far as possible from direct rivals in order to win market share. However, contrary to car components makers who negotiate prices directly with their customers via calls for tender and medium/long-term contracts, carmakers are exposed to recurring price variations depending on the sales policies put in place by rival groups and stock levels.

The price effect is therefore very volatile, remains closely correlated to market volumes and is above all **dependent on the carmaker's product offer**. Innovation helps sector players to better defend market share and hence margins. However, it is fairly difficult to pass on the price of this innovation to end-customers, especially for groups that are positioned in the mid-range segment.

This huge need for investment over the medium/long-terms is therefore set to take a toll on margins at certain carmakers and also their ROI ratios, since the profitability of electric cars for traditional carmakers is far lower than margins currently generated on internal combustion engines (up to half less for the first low-volume models).

On our estimates, **Renault, Peugeot, BMW and Daimler** are set to spend around **EUR125bn** on R&D and capex over 2018-20 vs. **EUR100bn** spent over the previous three years, whereas we expect a decline in global growth, implying pressure on the FCF to sales ratio of around **50bp at least over the medium term**.

**Fig. 15: Carmakers forced to invest**



Source: Bryan, Garnier & Co ests.

## 6.1. In vehicle electrification

### 6.1.1. Lower CO<sub>2</sub> emissions

The need to reduce fuel consumption has become a priority for carmakers as the **European Union, Japan and the US** have gradually imposed restrictive standards concerning emissions of CO<sub>2</sub>/km. Since the transport sector represents around **a third of global CO<sub>2</sub> emissions**, regulations in mature countries have rapidly been implemented in order to reduce its impact on the environment as well as on people's health.

The EU has set a target of 95kg/km of CO<sub>2</sub> for each carmaker producing and selling new vehicles in the zone

In Europe for example, the European Union has set a target of **95g/km of CO<sub>2</sub>** in 2020 as an average for each carmaker that produces and sells new vehicles in the zone.

Since this target is a group-wide average, carmakers that want to continue producing large cylinder vehicles will have to compensate for this by also selling models that emit far lower CO<sub>2</sub> levels, either via very small cylinders, or hybrids and electrics. As well as being an average level, the target is also set to increase to **95%** of new cars sold on the market by carmakers by 2020. The restriction is then set to extend to **100%** of cars by the end of 2020. In order to reach a balance of **95g/km in CO<sub>2</sub>** in 2020, carmakers will nevertheless be able to use a calculation system that advantageously weights vehicles emitting less than **50g/km of CO<sub>2</sub>**. As such, whereas one low-emission car represented **3.5 cars in 2013** it should now count for **two in 2020 and then one as of 2023** for cars issuing less than **35g/km of CO<sub>2</sub>**.

Similar regulatory restrictions exist in other mature countries such as the **US and Japan** and China has also recently entered the battle against greenhouse gas emissions obliging carmakers to change the way they design cars or find themselves either banned from selling them or obliged to buy credits from carmakers that are more advanced in the field.

### 6.1.2. And lower NO<sub>x</sub> particles

Auto manufacturers must also respect increasingly strict regulatory standards concerning **fine particle and nitric oxide (NO<sub>x</sub>)** fumes, especially concerning diesel engines (a diesel engine emits more toxic fumes than a petrol engine given the higher compression rate).

Contrary to **Switzerland** and the **US**, **European countries** have been extremely slow in implementing coercive legislation, especially due to their overexposure to diesel engines. As an indicator, **the catalytic converter** (anti-pollution system added to the exhaust system) was made obligatory in the state of California in 1975. It became common practice in Switzerland in 1985 and gradually appeared in Europe for large engine vehicles at the end of the 1980s, but was only obligatory for all new cars as of January 1993 with the **Euro 1** standard, 18 years after California. Today the latest standard prevailing since September 2014 for new vehicle certifications and since September 2015 for new registrations is the **Euro 6 standard**.

Since **1st September 2015**, all new passenger cars stemming from EU member states are therefore governed by the **Euro 6 standard**. This sets new emissions ceilings for nitrogen oxide from diesel vehicles at **80mg/km**, or a reduction of more than **50%** relative to the previous standard, the **Euro 5**, and more than **80%** relative to the **Euro 3 standard**. It is nevertheless important to note that these emissions ceilings are ceilings for tests carried out on vehicles during the official certification cycle and not during tests in **real-driving conditions**.

**Fig. 16: European standards for diesel/petrol engines for air pollutants**

g/km		Carbon monoxide (CO)	Hydrocarbons (HC)	Non-methanic hydrocarbons (NMHC)	Nitrogen oxide (NOx)	HC+Nox	Particles
Euro 1	Essence	2.72				0.97	
	Diesel	2.72				0.97	0.140
Euro 2	Essence	2.20				0.50	
	Diesel	1.00				0.70	0.080
Euro 3	Essence	2.20	0.20		0.15		
	Diesel	0.64			0.50	0.56	0.050
Euro 4	Essence	1.00	0.10		0.08		
	Diesel	0.50			0.25	0.30	0.025
Euro 5	Essence	1.00	0.10	0.068	0.06		0.005
	Diesel	0.50			0.18	0.23	0.005
Euro 6	Essence	1.00	0.10	0.068	0.06		0.005
	Diesel	0.50			0.08	0.17	0.005

Source: Company Data; Bryan, Garnier & Co ests.

Following the scandals at VW, Daimler and potentially Peugeot, as well as the various revelations concerning the existence of significant differences between real emission levels and those noted during certification tests, the European Commission has endorsed the roll-out of tests in a real driving environment (RDE) but has left carmakers the time necessary to conform with its new tests. As such, the gap between theoretical and real emissions (established via the RDE test) must not exceed more than **110% in 2017** (or a conformity factor of 2.1 maximum) and then not exceed **50% in 2020**. This new measure implying a **70% reduction decline in NOx emissions** over the period should offer significant opportunities for parts makers present in the emissions control market (Faurecia, Plastic Omnium, MGI Coutier) but remains very restrictive for carmakers that have no other choice but to equip their new models with more efficient depolluting systems (SCR) and hence more expensive (+EUR190 in additional costs relative to a Euro 5 depollution system).

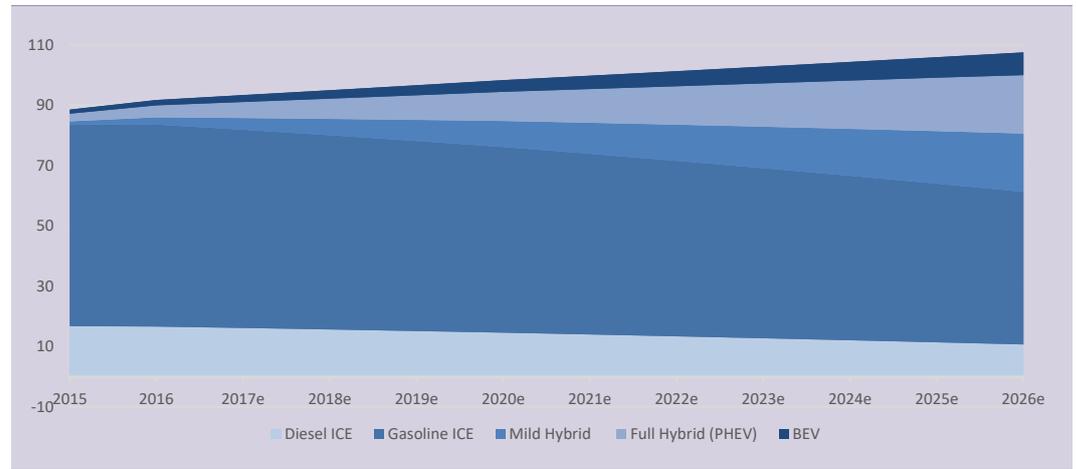
**Note that this diesel engine technology was initially developed by carmakers following the implementation of more restrictive measures on CO2 emissions in Europe, with diesel enabling lower consumption of around 20% relative to a petrol engine.**

### 6.1.3. Electrification: the only solution for carmakers

Since the diesel technology is destined to be gradually eliminated (we estimate diesel market share is set to fall from 19% at end-2016 to 10% at end-2025), in the few markets that still favour it (mainly Europe & India), carmakers have no other choice but to immediately launch development of internal combustion vehicles equipped with hybrid technologies (12V, 48V and PHEV) and 100% electric vehicles. This strategic shift is set to dent margins and ROI levels at the majority of players in the sector. In our view, **this is the price that has to be paid in order to remain in the game after 2025.**

In our view, this technology could represent around **7%** of new global car registrations by 2025/26, or around **8m** vehicles, vs. less than **2m** in 2016. Hybrid vehicles (mild hybrid 12V and 48V and PHEV) should represent more than **35% of the market.**

**Fig. 17: Change in technological mix in global auto demand over 2015/26**



Source: Valeo; IHS; Bryan Garnier & Co.

Whereas **Renault**, **Toyota** and **BMW** had fairly high exposure in electrification (more than 2% of their volumes sold in electric), the various announcements made in recent months by the main carmakers are likely to rapidly change the landscape even if the first impact on sales is not set to be felt before 2020/22.

In the table below, we set out the targets of the main carmakers present in Europe in this field:

**Fig. 18: Daimler seems to be the most ambitious in the premium market**

Carmakers	Target	Date	Capex
Daimler	Smart brand to be fully electric by 2020	2020	EUR10bn
	Electric version of all models (BEV+hybrid) - 50 models	2022	
PSA	80% of models to have an electric version (BEV+hybrid)	2023	
VW	80 new electric vehicles (BEV) - >3m target	2025	EUR20bn
	All group vehicles (300 models) fully electric	2030	
BMW	12 new fully electric vehicles	2025	
	25 electrified vehicles (BEV+hybrid)	2025	
Ford	13 electrified models (BEV+hybrid)	2022	USD4.5bn
Renault Alliance	12 new fully electric vehicles	2022	

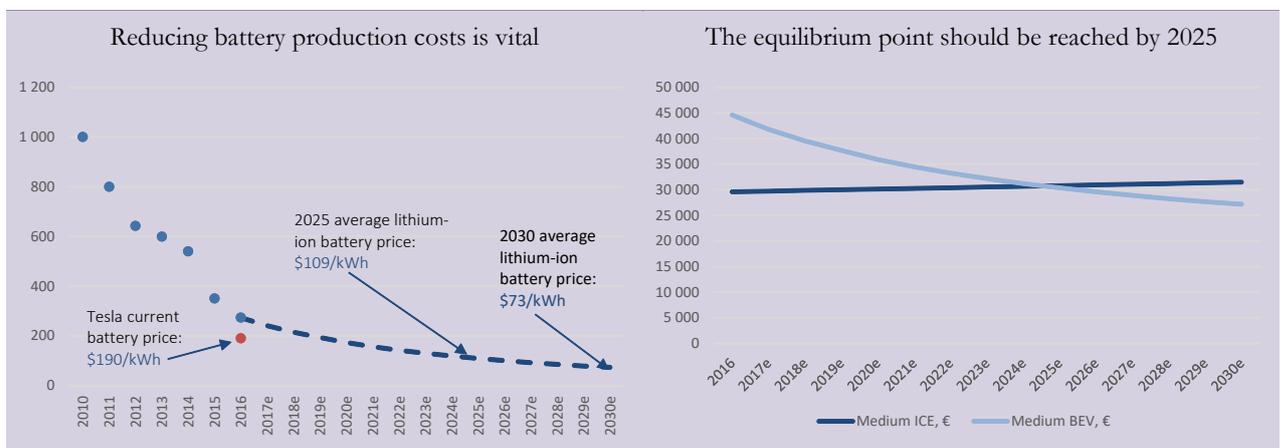
Source: Company Data; Bryan, Garnier & Co ests.

A number of carmakers have started to communicate to investors that EBIT margin per vehicle could be negatively affected by the ramp-up of electric vehicles in their future mix. Daimler's CEO also indicated the group was continuing to target EBIT margin of 10% for the automotive division over the medium term but pointed out that this could fall to 8-10% over the period, since the margin on components specific to the electric vehicle is lower than that for the engine and other specific parts for thermal engines.

Today a 100% electric vehicle costs an average of 65% more than an ICE vehicle primarily due to the cost of the battery, which at current production costs (USD200-300kWh), represents up to 50% of the vehicle price.

On our estimates, the cost of the battery needs to be halved (close to USD100-110/kwh) for the price of an electric car to become competitive with a petrol or diesel vehicle in the same category, without the help of subsidies. Assuming a learning rate of 20% corresponding to a CAGR in the decline of the battery cost noted since 2010, this implies a balance in production costs between the two technology types in 2025/26 and not before.

**Fig. 19: A technology not yet competitive**



Source: Bryan, Garnier & Co ests.

Please see the section headed "Important information" on the back page of this report.

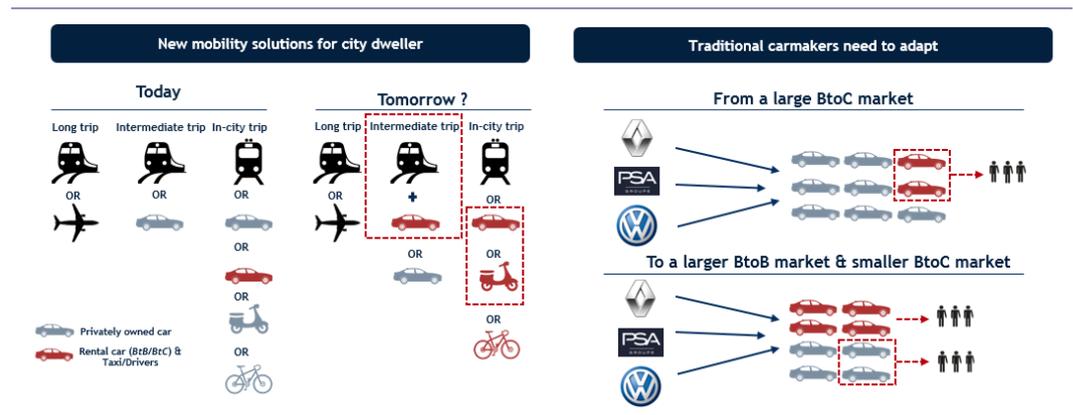
In the short term, margins at BMW and Daimler, the two most ambitious carmakers in this field out to 2022/25, are set to come under pressure, unlike Renault, which should benefit from synergies with Nissan Mitsubishi. Meanwhile Peugeot, is set to see its margin plummet but primarily due to the integration of Opel.

## 6.2. In new mobility services

One of the major future transformations in the auto market lies in the way consumers approach mobility and their relationship with vehicle ownership. The younger generations (Y and Z) no longer feel the need to own a car and prefer to use one only when they need to. **McKinsey estimates that by 2030, 10% of vehicles sold could be destined for rental usage.**

Faced with this trend, carmakers need to adapt and exceed their traditional car sales model and offer other uses such as ride-sharing or car-sharing. With no expertise in this fairly new segment, **carmakers have no choice but to set up partnerships with players in the sector and collaborate with parts makers to get a foothold.** Beyond the potential impact on new vehicle demand for carmakers, this change in business model could also have an impact on their margins, with their customers becoming fleet managers and no longer individuals.

**Fig. 20: Heading from a BtC model to a BtB model?**



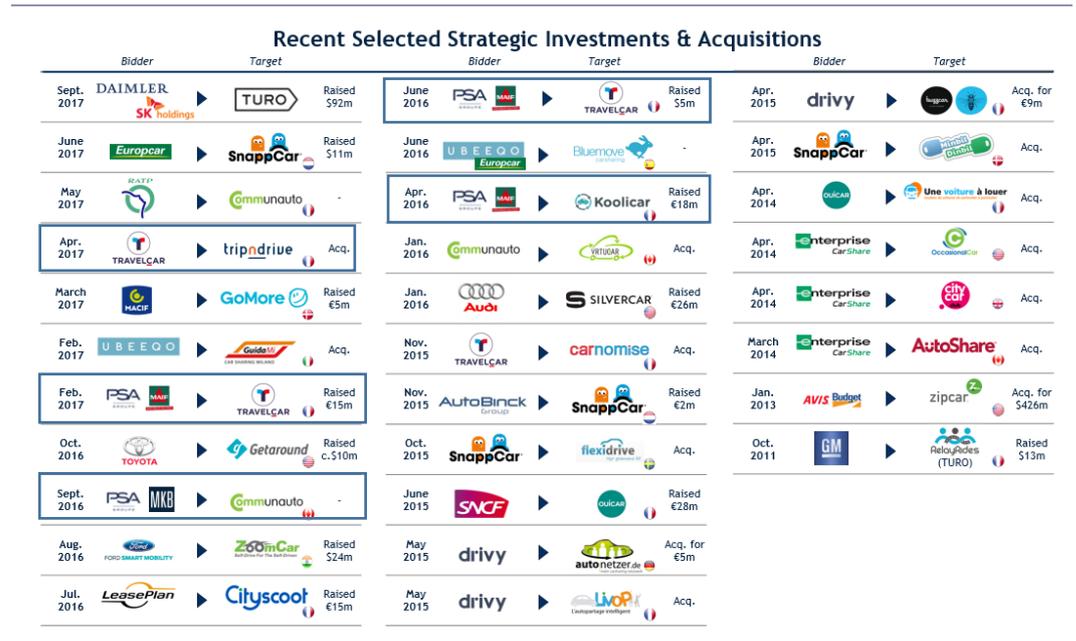
Source: Bryan, Garnier & Co ests.

Capex in this field is smaller in value terms than for autonomous and/or electric vehicles given that it is only the relationship with the car that is changing and not the car itself. Investments are primarily set to concern acquisitions of start-up companies via venture capital funds specifically dedicated to new mobility, funds managed by carmakers themselves. **Carmakers are mainly looking for start-ups that have developed applications offering new mobility solutions.**

In our carmaker coverage, **PSA seems to be the most advanced in this field.** Indeed, in 2016, PSA created a brand dedicated to this market transformation: **Free2Move**. This aims to house all of the new mobility activities such as **fleet management, car-sharing, connected services and new financing methods**, which are destined to represent a significant source of fresh growth in coming years. This has gone hand in hand with the creation of a **EUR100m** investment fund, which sets up strategic partnerships and takes stakes in start-up companies mostly positioned in ride sharing and vehicle rental.

The two German carmakers **BMW** and **Daimler** are also present in this field, especially in car sharing via their respective **DriveNow/ReachNow** and **Car2Go** brands and seem to be on the verge of merging their services in order to fight against the rising momentum of **Uber** and **Lyft**. Operations of this type between players that already exist but which operate in different markets are likely to emerge in the short term in our view. Since **Uber's** main advantage is that it has an international brand and presence, the various local players in ride-sharing or car-sharing will have no other choice but to expand and join forces in order to resist better.

**Fig. 21: PSA very active in the field**



Source: Bryan, Garnier & Co ests.

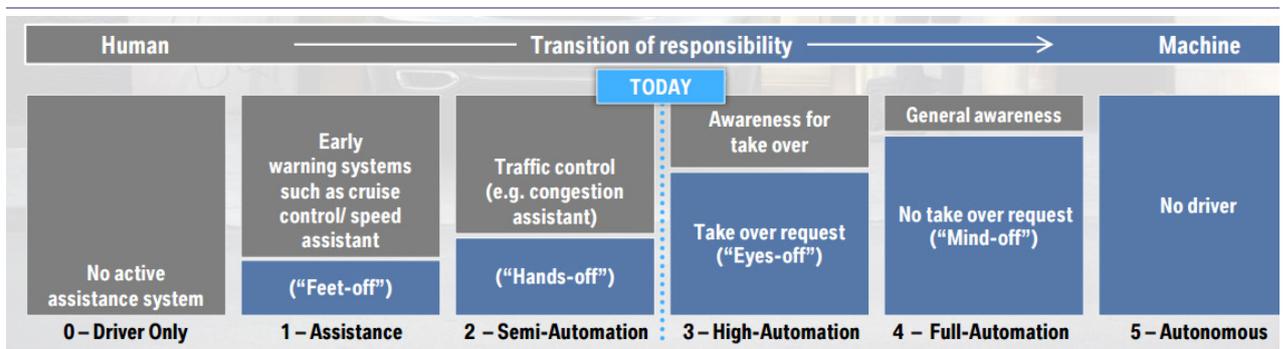
### 6.3. In semi-autonomous & autonomous vehicles

Note that automated driving is gradually emerging in new vehicles in **three major stages**:

- **Assisted driving:** this system manages either longitudinal control or lateral control of the car on the road (ACC Automatic Cruise Control, Lane Keeping as well as Traffic Jam Assist). With these technologies, the driver still needs to hold the steering wheel.
- **Automatic or automated driving:** this system manages both longitudinal and lateral control without obliging the driver to action the steering wheel (letting go of the steering wheel is permitted) or the foot pedals. However, the driver must continue to supervise the system in real-time and should not do other tasks than those associated with driving.
- **The fully autonomous vehicle:** in this driving method, the driver is no longer required to supervise the system, at least during certain phases, and can temporarily do other things not associated with driving.

A more official nomenclature provides a perfect description of **the five different levels of autonomy** that the various carmakers and other companies are aiming to reach over the medium term.

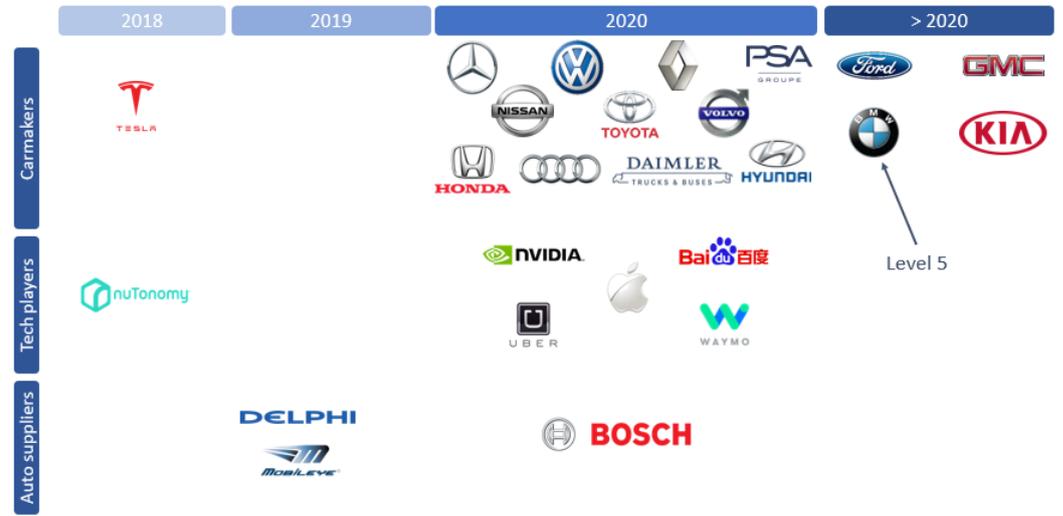
**Fig. 22: Autonomous vehicle – from Level 0 to level 5 – a question of responsibility**



Source: BMW; Bryan, Garnier & Co ests.

All carmakers are investing massively in this field with the aim of becoming the main benchmark player that governments would like to talk to in order to establish the various rules inherent in using this type of vehicle.

**Fig. 23: BMW is one of the most ambitious groups in the field**



Source: Company Data; Bryan, Garnier & Co ests.

In the list of carmakers initiated in this report, **BMW** has a certain lead in the autonomous vehicle technology but remains threatened by its premium German and US rivals. Audi is due to launch its **A8 model** (at the end of 2017), announced as a **Level 3 automation**, and will become the first carmaker to market a series car with this level of autonomy, outstripping **Tesla** and its **Model S**. This model is also set to be the only one in the series to be fitted with a lidar system, a laser-radar system considered as vital for measuring distances between the car and surrounding objects.

The **Daimler** group, which recently announced it had signed a partnership with Bosch (2017) as well as with Uber (2017), seems to have taken time to decide to share its skills with other players, whereas Audi only works in this field primarily with Nvidia.

**Tesla**, which was a pioneer in the field with the rapid commercialisation of its Autopilot 2.0 system in the Model S and Model X cars, has started to be caught up by its German rivals. For the moment, the Tesla models are only fitted with **Level 2 automation and not Level 3**, even though an update of the latest software should help improve the vehicle's assisted driving capacity, with the latest Model S and Model X versions embedding enough sensors such that further out they could become slightly more autonomous vehicles. To succeed in this, Tesla has now integrated **eight cameras** around the vehicle (the previous models only had one), including three at the front, providing it a 360° field of vision. In addition to this, the group has added around **12 ultrasonic sensors** enabling the car to "see" through solid obstacles (other vehicles for example). These ultrasonic sensors now have a reach double that of previous models. Finally, a radar is fitted at the front of the car that can detect obstacles through rain or fog.

**Fig. 24: Despite BMW's presence in the Intel-Mobileye-Delphi alliance, Audi, has launched the first Level 3 model**

Model	Launch date	Name of the system	Provided by	Level of autonomy	Sensors	Details	Price (€)
<b>Audi A8</b>	Q4-17	Audi AI traffic Jam Pilot	Nvidia	3	13 (5 cameras; 4 ultrasonic sensors; 3 radars; <b>1 Lidar</b> )	Enabled up to 60km/h	90 600
<b>BMW 7 Series</b>	Q4-15		Intel/Mobileye	2	Stereo camera & 5 radars		86 500
<b>Mercedes E Class</b>	Q2-16	Drive Pilot	Nvidia	2	Cameras & radars		49 200
<b>Mercedes S Class</b>	Q2-17	Drive Pilot	Nvidia	2	24 (12 ultrasonic sensors; 4 short-range radars, 4 wide-angle cameras, 1 far-infrared camera, 1 near-infrared camera, 1 stereo camera, 1 multi-mode radar)		94 900
<b>Tesla Model S</b>	Q2-13	Auto Pilot	Mobileye 2014-2016 Nvidia since 2016	2	21 (12 ultrasound sensors; 8 cameras; 1 radar)		75 000

Source: Company Data; Bryan, Garnier & Co ests.

In all, the various investments in this field are set to take a toll on carmakers accounts in the medium term, with spending on R&D (and research more precisely), thereby limiting EBIT margin growth.

## 7. We prefer Renault & Daimler to Peugeot & BMW

In this report, we are initiating coverage of four traditional carmakers while reviewing Tesla's business model (no estimates or recommendation), the new disruptive player in the sector, bringing our coverage of the auto industry to **10 stocks** (four components makers, two tyre makers and four carmakers).

**Fig. 25: Bryan Garnier auto sector coverage**

Stock	Init. date	Price @ init.	Last price	Perf.	Rating	FV	Upside
BMW	25/09/2017	84,7	84,7	0,0%	Neutral	89	5,1%
Continental	08/02/2017	189,2	208,9	10,4%	Sell	178	-14,8%
Daimler	25/09/2017	66,5	66,6	0,1%	Buy	87	30,7%
Faurecia	15/09/2016	36,2	57,6	59,2%	Buy	57	-1,1%
Hella	15/09/2016	36,9	52,6	42,5%	Buy	46	-12,5%
Michelin	08/02/2017	102,2	121,2	18,6%	Buy	138	13,9%
Plastic Omnium	15/09/2016	29,5	35,0	18,6%	Neutral	38	8,6%
Peugeot	25/09/2017	19,3	19,3	0,0%	Sell	19	-1,4%
Renault	25/09/2017	81,5	81,5	0,0%	Buy	99	21,5%
Valeo	15/09/2016	48,7	60,6	24,4%	Sell	57	-5,9%

Source: Company Data; Bryan, Garnier & Co ests.

Please refer to the specific notes on all four companies for more details on valuation.

### 7.1. Renault vs. Peugeot

In this segment of generalist carmakers, we favour **Renault** to French rival **Peugeot** for **four reasons**:

- Its better balanced geographical positioning **relative to emerging markets** (Russia, India and Latin America): Peugeot derives more than > 75% of its sales from Europe (post GM) vs less than 70% for Renault.
- **EBIT margin in the auto segment that should continue to grow** in coming years, contrary to that at Peugeot which is set to suffer in the short-term from the dilutive integration of Opel as of 2018. In our Peugeot model, we are forecasting an average margin in the auto segment of less than 5% over 2018-20 vs. >5.5% expected at Renault. Renault is also set to benefit from the ramp-up of the Kwid in Brazil, as well as the positive impact of new SUVs on margins.
- **The group's recognised expertise in electric vehicles has been tried-and-tested** on the market by consumers unlike Peugeot, which needs to rapidly build up know-how having hesitated over hybrid-diesel engines.

- Higher leverage to valuations at Renault than at Peugeot especially if Renault continues to increase synergies with Nissan and now with Mitsubishi.
- Uncertainty is also high for Peugeot in the short-term with the integration of Opel and the optimisation of its industrial facilities as well as the diesel scandal.

We are initiating coverage of **Renault** with a **Buy recommendation** and a **FV of EUR99** and coverage of **Peugeot** with a **Sell recommendation** and a **FV of EUR19**.

**Fig. 26: FV & upside comparison Renault vs. Peugeot**

	Peugeot	Renault
<b>Rating</b>	<b>Sell</b>	<b>Buy</b>
<b>FV</b>	<b>19</b>	<b>99</b>
Price	19	81
Up/Downside	-1,4%	21,5%

Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 27: Sales comparison Renault vs. Peugeot**

	Peugeot	Renault
<b>Sales growth - LfL (Auto)</b>		
Sales growth % 2017e	3,6%	13,9%
Sales growth % 2018e	3,5%	4,1%
Sales growth % 2019e	3,4%	4,6%
<b>Average 17-19</b>	<b>3,5%</b>	<b>7,5%</b>
<b>Gross investments ( R&amp;D + Capex+R&amp;D capitalized)</b>		
2017e	10,1%	10,2%
2018e	10,4%	10,4%
2019e	10,3%	10,2%
<b>Average 17-19</b>	<b>10,3%</b>	<b>10,3%</b>
<b>Efficiency growth ratio (LfL sales growth/growth investments)</b>		
2017e	36%	136%
2018e	33%	39%
2019e	33%	45%
<b>Average 17-19</b>	<b>34%</b>	<b>74%</b>
<b>Sales geo split % 2017e</b>		
Europe	72%	73%
North America	8%	0%
Asia	7%	12%
RoW	13%	15%

Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 28: Margin & EPS growth – FCF margin comparison Renault vs. Peugeot**

Margin, earnings growth & FCF	Peugeot	Renault
<b>Margin (with restructuring and excluding assoc.) % of sales &amp; Net margin</b>		
EBIT % 2017e	5,6%	6,5%
EBIT % 2018e	4,4%	6,4%
EBIT % 2019e	4,9%	6,6%
<b>Average 17-19</b>	<b>5,0%</b>	<b>6,5%</b>
Net margin % 2017e	3,4%	7,2%
Net margin % 2018e	2,6%	7,2%
Net margin % 2019e	3,0%	7,4%
<b>Average 17-19</b>	<b>3,0%</b>	<b>7,2%</b>
<b>EBIT- growth (with restructuring and excluding assoc.) &amp; EPS growth</b>		
EBIT growth 2017e	26,2%	15,5%
EBIT growth 2018e	4,8%	3,8%
EBIT growth 2019e	14,8%	6,7%
<b>Average 17-19</b>	<b>15,3%</b>	<b>8,7%</b>
EPS growth 2017e	12,2%	22,9%
EPS growth 2018e	4,0%	4,5%
EPS growth 2019e	22,0%	7,7%
<b>Average 17-19</b>	<b>12,7%</b>	<b>11,7%</b>
<b>CAGR 16-19</b>	<b>12,5%</b>	<b>11,4%</b>
<b>FCF margin (industrial)</b>		
FCF margin 2017e	2,0%	5,1%
FCF margin 2018e	-1,5%	3,2%
FCF margin 2019e	0,5%	3,5%
<b>Average 17-19</b>	<b>0,3%</b>	<b>4,0%</b>

Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 29: Valuation comparison Renault vs. Peugeot**

Valuation	Peugeot	Renault
P/E 2017e	7,1x	5,3x
P/E 2018e	8,7x	5,1x
P/E 2019e	7,1x	4,7x
<b>Average 17-19</b>	<b>7,7x</b>	<b>5,0x</b>
PEG 2017e	0,6x	0,5x
PEG 2018e	0,7x	0,4x
PEG 2019e	0,6x	0,4x
<b>Average 17-19</b>	<b>0,6x</b>	<b>0,4x</b>

Source: Company Data; Bryan, Garnier & Co ests.

## 7.2. Daimler vs. BMW

In the premium carmakers segment, we favour **Daimler** to its German rival **BMW** for **four reasons**:

- After being the longstanding pioneer in both the **premium SUV segment** and the **premium electric segment**, BMW is gradually set to see Mercedes-Benz steal the top spot following the various announcements made concerning vehicle electrification. In the SUV segment, Mercedes is already no. 1 ahead of BMW. In electric vehicles Daimler is aiming to have **25%** of its sales coming from full electric vehicles by 2025.
- In **China**, the ramp-up at Mercedes-Benz should continue to benefit its market share in the leading global market. The huge success of its Maybach range and the very luxurious models in this market should boost the group's margin in this market.
- Daimler is set to benefit from higher value creation than BMW following the roll-out of a strategic plan to sell off or spin-off of assets considered non-core by the board (trucks, vans & financial services). **Our SOTP for Daimler implies 45% upside potential vs just 20% for BMW, with Daimler suffering from a holding company discount but not BMW.**
- **Daimler's 2018-19 PEG multiples are half those of BMW.**

**Fig. 30: FV & upside comparison Daimler vs. BMW**

	BMW	Daimler
Rating	Neutral	Buy
FV	89	87
Price	85	67
Up/Downside	5,1%	30,7%

Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 31: Sales comparison Daimler vs. BMW**

	BMW	Daimler
<b>Sales growth - LfL (Auto)</b>		
Sales growth % 2017e	6,5%	6,5%
Sales growth % 2018e	4,5%	3,7%
Sales growth % 2019e	4,6%	3,7%
<b>Average 17-19</b>	<b>5,2%</b>	<b>4,6%</b>
<b>Gross investments ( R&amp;D + Capex+R&amp;D capitalized)</b>		
2017e	10,2%	9,4%
2018e	10,1%	9,3%
2019e	10,0%	9,2%
<b>Average 17-19</b>	<b>10,1%</b>	<b>9,3%</b>
<b>Efficiency growth ratio (LfL sales growth/growth investments)</b>		
2017e	64%	69%
2018e	64%	40%
2019e	45%	40%
<b>Average 17-19</b>	<b>58%</b>	<b>50%</b>
<b>Sales geo split % 2017e</b>		
Europe	47%	41%
North America	21%	29%
Asia	29%	23%
RoW	3%	6%

Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 32: Margin & EPS growth – FCF margin comparison Daimler vs. BMW**

Margin, earnings growth & FCF	BMW	Daimler
<b>Margin (with restructuring and excluding assoc.) % of sales &amp; Net margin</b>		
EBIT % 2017e	9,6%	8,3%
EBIT % 2018e	9,6%	8,3%
EBIT % 2019e	9,6%	8,3%
<b>Average 17-19</b>	<b>9,6%</b>	<b>8,3%</b>
Net margin % 2017e	7,1%	6,1%
Net margin % 2018e	6,9%	6,0%
Net margin % 2019e	6,9%	6,0%
<b>Average 17-19</b>	<b>7,0%</b>	<b>6,0%</b>
<b>EBIT- growth (with restructuring and excluding assoc.) &amp; EPS growth</b>		
EBIT growth 2017e	-0,8%	16,3%
EBIT growth 2018e	9,7%	0,6%
EBIT growth 2019e	2,2%	4,3%
<b>Average 17-19</b>	<b>3,7%</b>	<b>7,1%</b>

Please see the section headed "Important information" on the back page of this report.

Car Makers

EPS growth	BMW	Daimler
EPS growth 2017e	4,1%	17,2%
EPS growth 2018e	1,2%	1,1%
EPS growth 2019e	4,9%	5,0%
<b>Average 17-19</b>	<b>3,4%</b>	<b>7,7%</b>
<b>CAGR 16-19</b>	<b>3,4%</b>	<b>7,5%</b>
<b>FCF margin (industrial)</b>		
FCF margin 2017e	6,2%	3,4%
FCF margin 2018e	4,3%	3,6%
FCF margin 2019e	4,1%	4,0%
<b>Average 17-19</b>	<b>4,9%</b>	<b>3,7%</b>

Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 33: Valuation comparison Daimler vs. BMW**

Valuation	BMW	Daimler
P/E 2017e	7,8x	7,1x
P/E 2018e	7,7x	7,1x
P/E 2019e	7,3x	6,7x
<b>Average 17-19</b>	<b>7,6x</b>	<b>7,0x</b>
PEG 2017e	2,3x	0,9x
PEG 2018e	2,3x	0,9x
PEG 2019e	2,2x	0,9x
<b>Average 17-19</b>	<b>2,3x</b>	<b>0,9x</b>

Source: Company Data; Bryan, Garnier & Co ests.

### 7.3. And where does Tesla fit in?

Tesla remains a disruptive player in the auto industry, selling less than 100,000 cars a year, but staking claims to a future top ranking in the electric and semi-autonomous premium car segment. The group is currently valued on the Nasdaq at **more than USD60bn** for prospective sales of more than **USD35bn** by 2020 on consensus figures, and EBIT margin of more than **EUR4.2bn**, implying a margin of **12%** or **200-400bp** higher than a premium carmaker's margin but half that of Ferrari.

We have no estimates or FV for the company, but a reverse simplified DCF based on the latest share price implies investors are broadly in line with Elon Musk short to middle term targets.

**Delivery of more than 400,000 Model 3 cars in Europe and the US is a vital target in the short/medium-term, making the group's switch from a start-up to an industrial carmaker feasible even though this transformation is likely to dent valuation multiples.**

## 8. For the very long term, we favour parts makers rather than carmakers

### 8.1. Carmakers: between a rock and a hard place

Over the very long term (>2030/35), when Level 5 self-driving vehicles start to really invade our roads at the expense of traditional cars (5-8% of new global car registrations by 2035 according to BG), the **importance of carmakers in the sector value chain is gradually set to wane in favour of new players.**

As indicated previously in section 4, carmakers are now only involved in **five levels** of the car production and sales value chain, whereas previously they were also at the root of the development and production of a large share of the parts included in the vehicle:

- **Group/product positioning**
- **Design**
- **Engines**
- **Assembly**
- **Marketing/price positioning**

Further out, we estimate that a group's positioning and its product positioning are set to become less strategic than before, given that the **main role of the vehicle is due to change radically.** In our view, the car as an object and a brand-name will account for nothing relative to its travel function, and this function will have to be as cheap as possible in order to reduce transport costs and maximise service margins.

With driving no longer possible, drivers are set to become mere users with no action involved in their mobility and **all driving certifications options offered by carmakers** (automatic gear box, ADAS systems up to Level 4 etc.) **will disappear to the detriment of their margins.** In contrast, comfort certification options (seats, HMI, infotainment etc.) are set to gain more value. Design should still play an important role, especially for premium carmakers who are likely to position themselves in increasingly luxurious segments for a wealthy or professional customer base that itself has a wealthy customer base (hotels, private chauffeur companies etc.).

The expertise boasted by carmakers in engines and motors will also become useless further out given that **1/the pleasure aspect of driving is doomed to totally disappear** (no need to choose a powerful car or one with coupling) and **2/self-driving vehicles will respect the highway code to the very last letter.** In addition, the engine (even ICE) will have to consume as little as possible.

If cars are electric (which is highly likely given the momentum in this technology over the medium term), we estimate that the carmaker will have fully delegated this part of the production chain to a parts maker (Bosch, Valeo, Siemens?). The impact on carmakers' sales and margins is set to be substantial given that a large share of their business is generated by selling engines to other carmakers.

**Assembly** should remain in the hands of car producers, since their expertise is vital for managing car production. Industrial sites already exist, whereas manual labour is already highly qualified. We expect new mergers between carmakers in order to continue maximising production tools.

Depending on changes in the individual/professional customer mix in coming years, pricing is set to change **negatively or very negatively** relative to the current situation. In our view, the share of professional customers (mainly fleet management companies) is set to rise sharply and take a toll on margins (high orders, purchasing platforms), while the equipment rate for households is set to fall at the same time. **The combination of a negative price effect and fewer options in vehicle selling prices is likely to take a harsh toll on carmakers' margins.**

Over the very long term, car manufacturers are therefore likely to suffer the most from changes in mobility usage prompted by the development of self-driving cars. **The dominance of carmakers at the time when they still owned components makers is clearly a thing of the past and they are now set to find themselves between a rock (parts makers) and a hard place (service providers).**

## 8.2. Components suppliers: sharing the cake with tech groups

Since software is becoming increasingly important for semi-autonomous or totally autonomous vehicles, traditional car components manufacturers will have to face increasing competition from technological players specialised in algorithms, artificial intelligence and deep learning.

However, unlike car manufacturers that are gradually seeing their traditional business models disappear (product positioning, differentiation via engines or options), we do not expect such significant transformations for parts markets, since a large share of the technological value (hardware) associated with self-driving cars is precisely in their hands. Since the value of the vehicle is likely to more than double (BG estimates), especially following the installation of **ADAS Level 5 equipment**, the various players will have to share a market that did not exist before, a market that we estimate at **EUR80bn** for Level 5 vehicles alone, by 2035, more than half of which should be addressed directly by car parts makers and less than **10%** by semi-conductor manufacturers.

In our car components universe, the groups most exposed to this transformation are **Valeo** and **Continental**.

### 8.3. The valuation difference between the two confirms that the market is increasingly aware

Based on **12m forward P/E multiples** we note a historical premium of 20% in favour of parts makers relative to carmakers, primarily in view of their higher growth levels and also their margin improvement in recent years.

**Fig. 34: The premium between parts makers and carmakers has risen constantly since 2009**



Source: Company Data; Bryan, Garnier & Co ests.

This rise in the premium (+200bp) seems justified for the reason mentioned above. In mid-September 2017, the premium stood at more than **40%** or double that of the historical level noted since 2000

In the short term, this relative difference seems too high especially since the cycle is about to slow, thereby questioning long-term growth targets at certain parts makers.

**As such, we would not be surprised to see a rebound in carmakers relative to equipment makers in the short term. We favour Renault and Daimler to play this segment.**



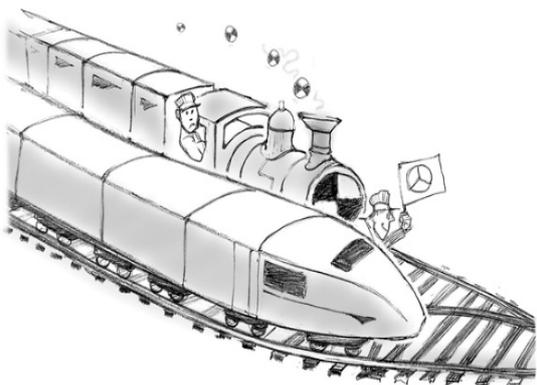
INDEPENDENT RESEARCH

25th September 2017

Automotive

Bloomberg	BMW3:GR
Reuters	BMWG.DE
12-month High / Low (EUR)	91 / 73
Market capitalisation (EURm)	55,624
Enterprise Value (BG estimates EURm)	33,947
Avg. 6m daily volume ('000 shares)	1 728
Free Float	45.2%
3y EPS CAGR	3.4%
Gearing (12/16)	-41%
Dividend yields (12/17e)	4.49%

YE December	12/16	12/17e	12/18e	12/19e
Revenue (EURm)	94,163	100,260	104,780	109,572
EBIT(EURm)	9,386	9,591	10,012	10,471
Basic EPS (EUR)	10.44	10.87	11.00	11.54
Diluted EPS (EUR)	10.44	10.87	11.00	11.54
EV/Sales	0.41x	0.34x	0.31x	0.27x
EV/EBITDA	2.7x	2.3x	2.1x	1.8x
EV/EBIT	4.1x	3.5x	3.2x	2.8x
P/E	8.1x	7.8x	7.7x	7.3x
ROCE	8.9	8.9	9.1	9.4



BMW

Running out of fuel mid-race

Fair Value EUR89 (price EUR84.65)

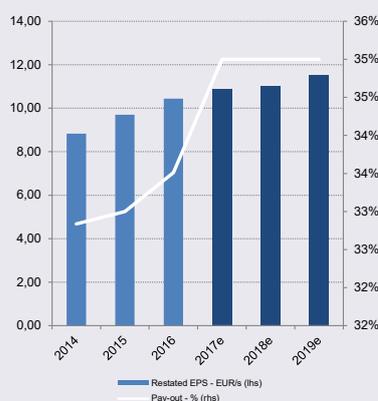
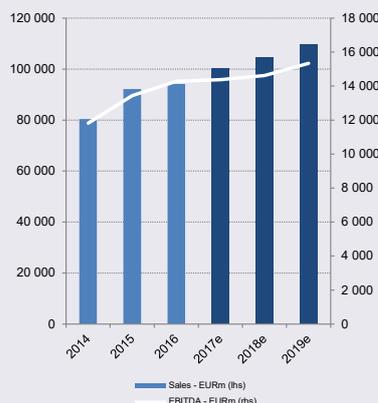
**NEUTRAL**  
Coverage initiated

After pioneering in the upscale electric vehicle segment in 2013 with the launch of the BMWi3, the BMW group could now rapidly lose its lead as competition ramps up with the electric market finally taking off. Only the group's expertise in the automated driving field could help it restore its no. 1 position in the premium market reconquered by Mercedes in 2016. Unfortunately, the short-term margin could suffer. We are initiating coverage with a Neutral recommendation and a FV at EUR89.

- **The group has lost its no. 1 position:** Having long been the leader in the premium vehicle segment ahead of Mercedes and Audi, in 2016 BMW found itself stripped of the title by Mercedes due to a poor performance in the US, its second-largest market after China. Growth should remain high in this latter market in the short term thanks to new model launches (X3), although Mercedes is continuing to extend its local presence as well. **In the short term, the group is set to remain in the no. 2 spot.**
- **But still winning in the automated driving segment:** BMW was rapidly open to cooperation with specialised technology groups in areas of expertise that it had little knowledge of, and alongside Intel, Mobileye and Delphi, is part of the most advanced alliance in the field of automated driving. Whereas many carmakers are hesitating to join forces with parts makers, tech start-ups or rivals, BMW was one of the first groups to have understood that a partnership was vital in order to progress rapidly and well. While the group's aim to have an entirely autonomous vehicle by 2021 seems ambitious, it is among the most advanced in the field for the moment.
- **And losing ground in electric vehicles:** With the BMWi3, the group positioned itself rapidly in the electric market unlike its German rivals. Strengthened by this success, BMW remains the no. 3 player in the segment behind Tesla & Renault-Nissan, although the small size of its upcoming model portfolio (eMini, eX5 and i5) relative to new rival models is likely to knock it down the rankings.
- **We are initiating coverage of the stock with a Neutral rating.** Pressure on volumes in the US as well as on the automotive margin is likely to weigh on the group's momentum in the short-term. We prefer to play the premium segment via Daimler. We are initiating coverage with a **Neutral (EUR89)**.

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## Bmw



### Simplified Profit & Loss Account (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Revenues	80,401	92,175	94,163	100,260	104,780	109,572	114,659
Change (%)	5.7%	14.6%	2.2%	6.5%	4.5%	4.6%	4.6%
Adjusted EBITDA	13,441	14,279	14,384	14,624	15,340	16,196	17,481
EBIT	9,118	9,593	9,386	9,591	10,012	10,471	10,958
Change (%)	14.2%	5.2%	-2.2%	2.2%	4.4%	4.6%	4.7%
Financial results	(1,066)	(887)	(162)	(282)	(272)	(259)	(242)
Pre-Tax profits	8,707	9,224	9,665	9,890	10,299	10,799	11,333
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax	(2,890)	(2,828)	(2,755)	(2,699)	(3,019)	(3,166)	(3,322)
Profits from associates	655	518	441	582	559	587	616
Minority interests	(19.0)	(27.0)	(47.0)	(48.9)	(50.8)	(52.9)	(55.0)
Net profit	5,798	6,369	6,863	7,142	7,229	7,581	7,956
Restated net profit	5,798	6,369	6,863	7,142	7,229	7,581	7,956
Change (%)	9.1%	9.8%	7.8%	4.1%	1.2%	4.9%	4.9%

### Cash Flow Statement (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Operating cash flows	2,779	840	3,189	11,256	11,509	12,455	13,579
Change in working capital	(551)	(293)	(104)	(592)	(509)	(283)	(301)
Capex, net	(4,600)	(3,825)	(3,731)	(4,512)	(4,715)	(4,931)	(5,160)
Financial investments, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dividends	(1,715)	(1,917)	(2,121)	(2,300)	(2,500)	(2,530)	(2,653)
Other	3,553	3,480	4,555	(2,087)	(2,203)	(2,303)	(2,410)
Net debt	(14,223)	(16,911)	(19,520)	(21,877)	(23,969)	(26,660)	(30,016)
Free Cash flow	3,481	5,404	5,792	4,338	4,279	4,893	5,665

### Balance Sheet (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	17,182	17,759	17,960	18,790	19,653	20,457	20,911
Intangibles assets	6,499	7,372	8,157	9,011	9,840	10,653	11,358
Cash & equivalents	7,454	6,122	7,880	10,237	12,329	15,020	18,376
current assets	122,589	133,849	148,926	151,947	154,983	158,419	162,566
Other assets	32,214	38,325	39,609	41,239	43,121	44,939	46,312
Total assets	154,803	172,174	188,535	193,186	198,104	203,358	208,878
L & ST Debt	80,646	91,683	65,603	65,603	65,603	65,603	65,603
Others liabilities	36,720	37,727	75,569	75,642	76,077	76,539	77,029
Shareholders' funds	37,437	42,764	47,363	51,872	56,303	61,040	66,013
Total Liabilities	117,366	129,410	141,172	141,245	141,680	142,142	142,632
Capital employed	127,540	138,826	98,897	102,675	106,139	109,917	114,029

### Ratios

	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	11.34	10.41	9.97	9.57	9.56	9.56	9.56
Tax rate	35.89	32.48	29.87	29.00	31.00	31.00	31.00
Net margin	7.21	6.91	7.29	7.12	6.90	6.92	6.94
ROE (after tax)	5.63	4.71	4.39	4.40	4.70	5.00	5.30
ROCE (after tax)	8.26	7.48	8.93	8.94	9.14	9.38	9.68
Gearing	(37.99)	(39.54)	(41.21)	(42.18)	(42.57)	(43.68)	(45.47)
Pay-out ratio	32.84	33.00	33.51	35.00	35.00	35.00	35.00
Number of shares, diluted	656	657	657	657	657	657	657

### Data per Share (EUR)

	2014	2015	2016	2017e	2018e	2019e	2020e
EPS	8.83	9.70	10.44	10.87	11.00	11.54	12.11
Restated EPS	8.83	9.70	10.44	10.87	11.00	11.54	12.11
% change	9.1%	9.8%	7.7%	4.1%	1.2%	4.9%	4.9%
EPS bef. GDW	8.83	9.70	10.44	10.87	11.00	11.54	12.11
BVPS	56.70	64.75	71.69	78.48	85.14	92.27	99.76
Operating cash flows	4.23	1.28	4.85	17.13	17.52	18.95	20.66
FCF	5.30	8.23	8.81	6.60	6.51	7.45	8.62
Net dividend	2.90	3.20	3.50	3.80	3.85	4.04	4.24

Source: Company Data; Bryan, Garnier & Co ests.

## Table of contents

1. Investment Case.....	42
2. BMW in six charts .....	43
3. Running out of fuel mid-race .....	44
4. Group now no. 2 in its market.....	45
4.1. Fewer SUVs but smaller vehicles than Mercedes and Audi .....	45
4.1.1. Quickly caught up by the competition in the SUV segment .....	45
4.1.2. Rising exposure to B/C segments .....	49
4.2. To the detriment of market share in two of its leading markets .....	50
4.3. To the detriment of sales and margin? .....	52
4.4. Soon the bottom of the class in China? .....	53
4.4.1. New models to the rescue... ..	53
4.4.2. ...enough to counter Mercedes' catch-up? .....	54
5. A lead in electric vehicles, but not for much longer.....	55
5.1. One of the leaders in Europe with the BMW i3 .....	55
5.2. The future looks less certain however.....	57
6. Part of the "dream team" to develop autonomous vehicles .....	59
6.1. A group for which partnership is an obvious choice .....	59
6.2. Overly-ambitious targets? .....	61
7. Margin under pressure in the short term.....	63
7.1. Ever more R&D!.....	63
7.2. US margin expected to narrow? .....	64
7.3. One-off expenses likely in the short term?.....	65
7.4. Potential synergies with BMW Motorrad?.....	66
7.4.1. In electric/hybrid models.....	66
7.4.2. Vehicle automation field .....	67
8. BMW – Our estimates .....	68
9. BMW – Valuation.....	70
9.1. SOTP valuation (€99).....	70
9.2. Valuation based on multiples (€76).....	71
9.3. DCF valuation (€122).....	72
10. BMW – SWOT .....	74
11. BMW in short.....	75
11.1. BMW Automobile – 72% of sales – 80% of EBIT .....	77
11.2. BMW Bank – 26% of revenue – 18% of EBIT .....	78
11.3. BMW Motorcycle – 2% of sales – 2% of EBIT .....	79
Bryan Garnier stock rating system.....	81

# 1. Investment Case

*Why the interest now?*



## The reason for writing now

Under the framework of our carmakers report, we are initiating coverage of German premium carmaker **BMW**, formerly the world no. 1 in the segment ahead of Mercedes and Audi, but **no. 2 since last year**. Ahead of the competition in the autonomous vehicle field, in our view, the group clearly lacks foresight in the race for the electric vehicle after having been a pioneer in the premium sector.

*Cheap or Expensive?*



## Valuation

As for other carmakers, we value **BMW** using an SOTP valuation in addition to a DCF calculation and peer multiples. This method helps better assess potential valuation differences between the group's various businesses (automotive, motorcycles, group bank). We have a **FV of EUR89** and are initiating coverage of BMW with a **Neutral** rating.

*When will I start making money?*



## Catalysts

We see no short-term catalysts for the share price apart from new model launches in 2018 (X2, X7 and 8 Series). The group has no particular M&A ambitions despite its fairly small size and has planned no investor day in the near future.

*What's the value added?*



## Difference from consensus

We are slightly above the consensus for 2017-19 (2% on average) in terms of sales, EBIT and attributable net profit.

*Could I lose money?*

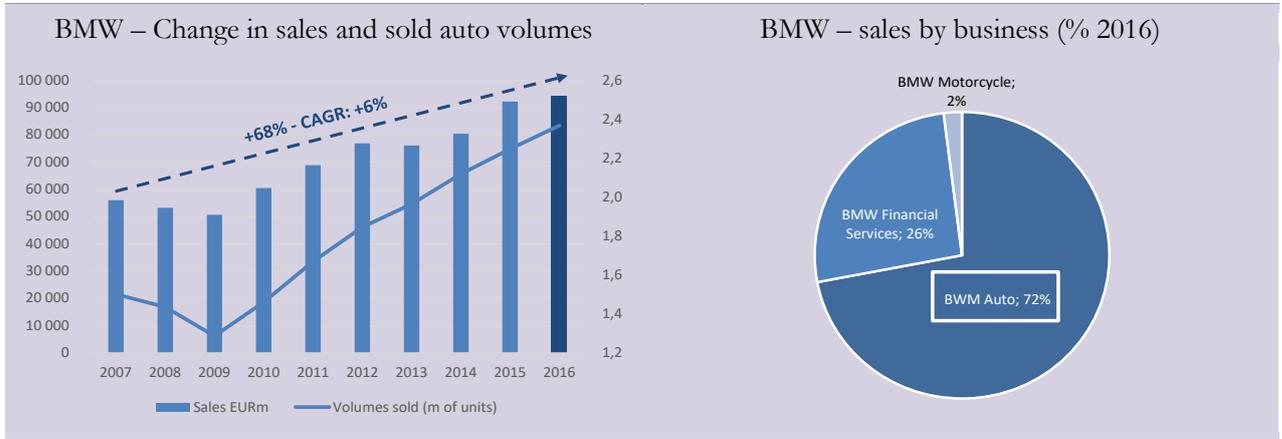


## Risks to our investment case

An unexpected success of the group's new models could shake up BMW's sales performances in the US and have a positive price impact on margins. If investment targets were to be reviewed in favour of margins and dividends we would consider raising our short-term estimates. Pressure on margin due to the rise of electric models within group's portfolio could also alter negatively our estimates. The potential scandal linked to a cartel with other German carmakers could impact negatively group's share price.

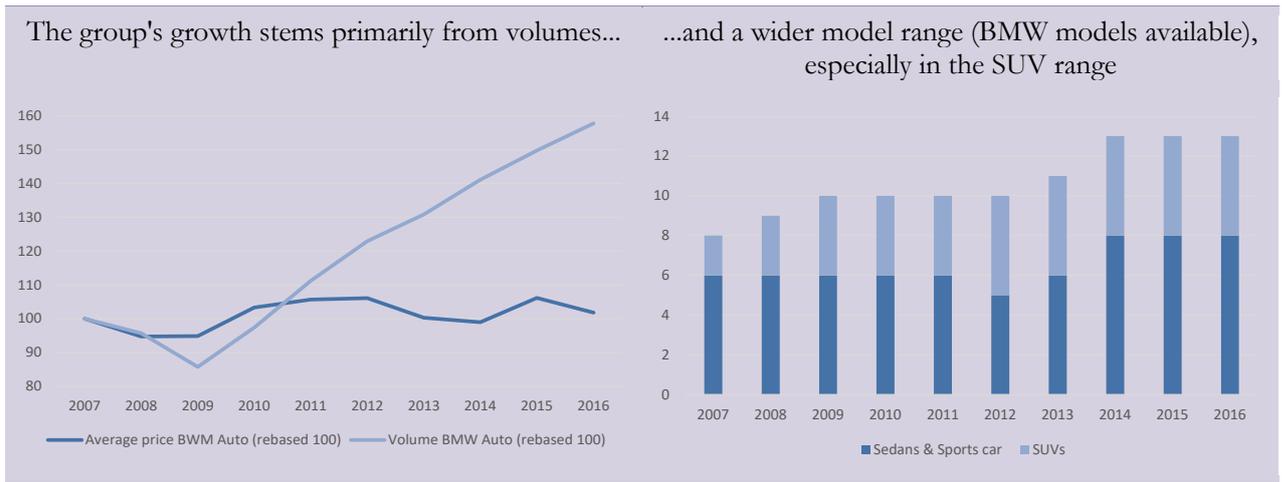
## 2. BMW in six charts

**Fig. 1: A healthy performance since 2009, enabling a +40bp market share gain**



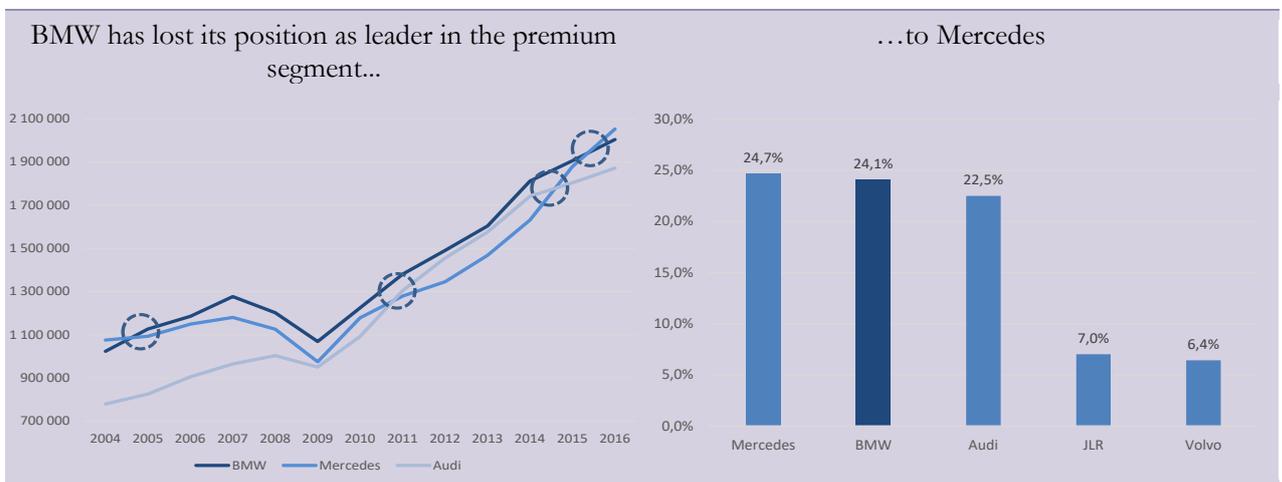
Source: BMW; Bryan, Garnier & Co ests.

**Fig. 2: ...driven primarily by a more comprehensive product offer**



Source: BMW; Bryan, Garnier & Co ests.

**Fig. 3: This healthy performance was not enough to maintain the no. 1 slot**



Source: BMW; Bryan, Garnier & Co ests.

Please see the section headed "Important information" on the back page of this report.

### 3. Running out of fuel mid-race

Under the framework of our sector note on auto manufacturers, we are initiating coverage of premium German carmaker **BMW, the no. 2 global carmaker** in terms of volumes with a **2.7%** market share, and now the no. 2 global premium carmaker behind **Daimler group** (3.1% market share), that ousted the group from the no. 1 spot last year.

A pioneer in many fields (six-cylinder in-line car engine, flat twin engines for motorcycles, electric car etc.) BMW rapidly positioned itself as a high-end carmaker despite its start in the generalist segment during the post-war period. Boasting mechanical and technological know-how recognised by experts and a clearly defined "product" positioning, the group was nevertheless on the verge of disappearing in 1950 before being bought in **1959** by the **Quandt family**, one of the most powerful German industrial families (which still owns 46% of BMW). In order to grow in an increasingly competitive and capital intensive market, on several occasions BMW tried to buy out its rivals (Range Rover) or merge with complementary brands (Peugeot), without succeeding.

With more than **2m** vehicles sold in the world via its three brands (BMW, Mini and Rolls-Royce) the German carmaker is now one of the most innovative players in the sector. It was at the root of the creation of the premium SUV market with its **X5** model in 2000 and compact premium SUV segment with the **X3** in 2004 and is a pioneer in the premium electric segment with the **i3** model marketed in 2013. Boasting this success, the group rapidly became leader in the premium market, thereby exceeding Mercedes in 2005.

Unfortunately, the group rapidly lost its sheen once the new models were launched, leaving time for rivals **Audi** and **Mercedes** to return to the race in **SUVs**, the race for **commercial deployment in China**, and now the race for **electrification**. BMW's lead in the development of automated vehicles following the creation of a partnership with Intel, Mobileye and Delphi could enable the group to restore its world no. 1 position over the medium term. However, this technological race will have consequences on its margin in the short term with the group having no other choice but to continue to increase its R&D budget which is logically weighing more heavily on its accounts than those of rivals given that it is the only one not to benefit from significant economies of scale (Mercedes with Renault-Nissan, Audi with VW).

The share is currently trading on a **10%** premium to rival Daimler, whereas Daimler is set to continue posting better commercial performances than BMW, especially in China, its leading market. In our view, the share is unlikely to benefit from a positive catalyst in the short term.

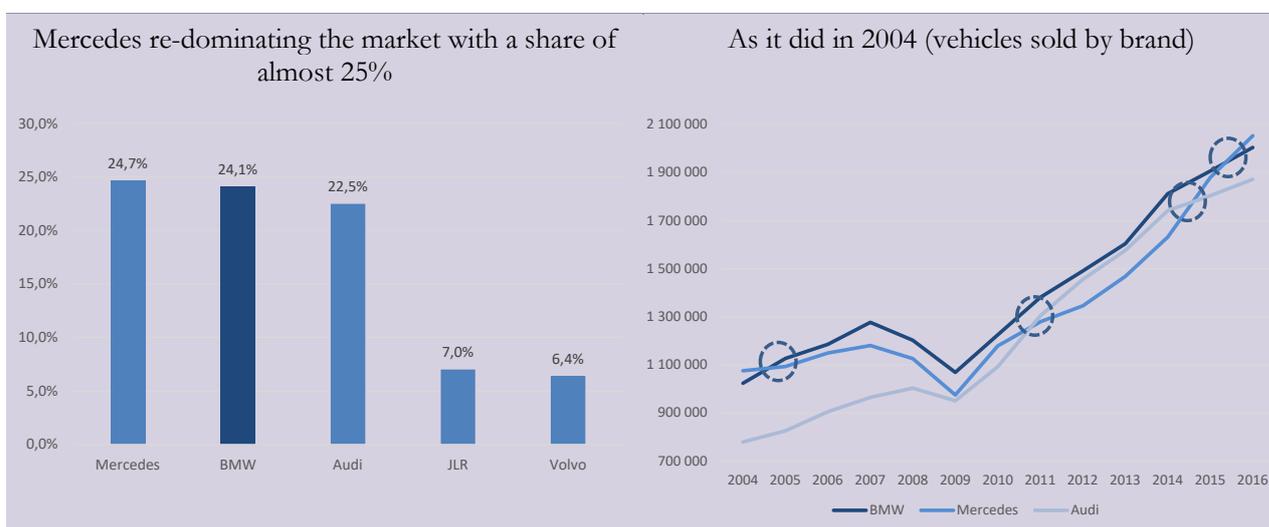
**We are initiating coverage of the BMW share with a Neutral recommendation and a FV of EUR89.**

## 4. Group now no. 2 in its market

Having long boasted the no. 1 spot in the premium vehicle segment ahead of **Mercedes** and **Audi** with market share of more than **24%**, **BMW** found itself overtaken by Mercedes last year following a poor commercial performance in the **US**, its second-largest market after China.

Whereas the group posted a fairly solid CAGR in volumes of around **6-7%** over 2010-15, thanks especially to very sharp growth in sales in China (multiplied by 2.7 vs. a market that only grew by 30% over the period), but also thanks to two new model launches (X and 2 Series) over 2016 and 2017, the group's performance deteriorated (+5%) to the benefit of Mercedes. Only Audi fared less well than BMW over the period, whereas **Volvo** and **JLR** (Jaguar Land Rover), following their respective takeovers by foreign carmakers (Chinese and Indian), also won back market share like Mercedes.

**Fig. 4: BMW now no. 2 in the premium market, behind Mercedes**



Source: Company Data; Bryan, Garnier & Co ests.

### 4.1. Fewer SUVs but smaller vehicles than Mercedes and Audi

#### 4.1.1. Quickly caught up by the competition in the SUV segment

Despite BMW's earlier presence in the SUV segment compared with its two direct rivals Mercedes and Audi, BMW did not manage to establish itself lastingly as the leader in the market, which now represents more than **35%** of premium volumes.

In spring 2000, BMW launched its first SUV/4x4 model, the **X5**, in Europe, benefiting from the skills and know-how of the **Land Rover** brand that it acquired in 1994 (and sold on to Ford in 2000). At the time, the model also shared a number of features with the Range Rover L322 launched in 2002.

The new model was hugely successful, enabling the German group to rapidly position itself as a credible challenger to Mercedes and its ML (1997). The group then quickly adapted the X line to

its **3 Series** by launching the **X3** in 2004, thereby becoming a pioneer in the premium compact SUV segment.

Mercedes and Audi only positioned themselves in the segment in 2008, launching respectively the **GLK** (then renamed the GLC) and the **Q5**. Between 2004 and 2008, BMW was therefore the only group in the segment and hence the benchmark for the category. As of 2008 however, the impact of the new competition was quickly felt on X3 sales as sales of Mercedes' and Audi' SUV models gradually took off. In the same year, BMW increased its exposure to this segment by launching the **X6**, the first coupé SUV model based on the X5.

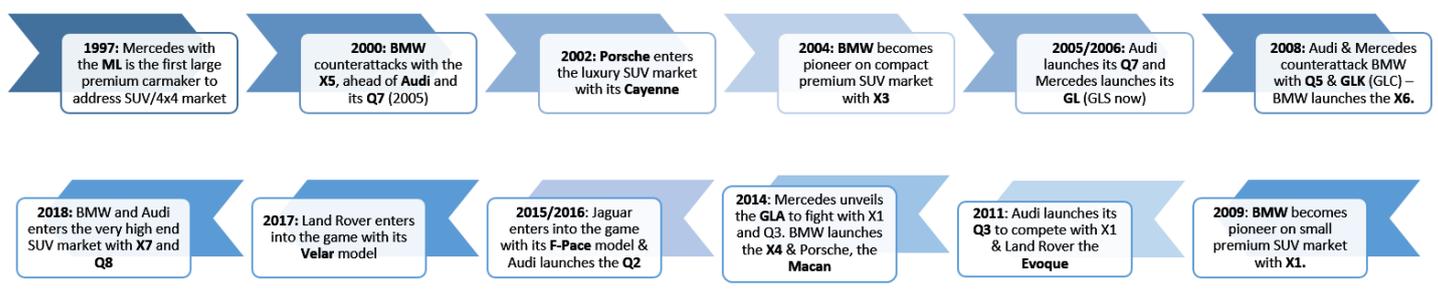
As of 2009, the group positioned itself far upstream from the competition in the very compact SUV segment with the **X1**, a smaller and more accessible SUV than the X3, destined for a younger customer base.

In 2010, BMW sold **45%** more SUVs than Mercedes and **55%** more than Audi and became the official leader in the segment.

Whereas the group's two rivals only entered the **very compact SUV** segment much later (2011 for Audi with its Q3 and 2014 for Mercedes with its GLA), BMW maintained its lead by marketing a coupé version of its X3, the **X4**, as of 2014 following the success of the X6. At end-2014, the carmaker therefore had **five SUV models in its range**, accounting for more than **27%** of its volumes. The number of models offered by the group in this category is not set to change over the next three years.

In the meantime, Audi also rounded out its catalogue of SUV models (Q2) in order to better address this very buoyant market, thereby denting BMW's market share in the very compact SUV range. In the premium SUV market, other carmakers gradually made their entry, stemming more from the luxury segment than from the high-end/premium segment, with Porsche launching the **Macan** in 2014, Jaguar the **F-Pace** and Range Rover the **Velar**.

**Fig. 5: An increasingly competitive premium SUV market to the detriment of the BMW brand that was a pioneer in the segment**



Source: Company Data; Bryan, Garnier & Co ests.

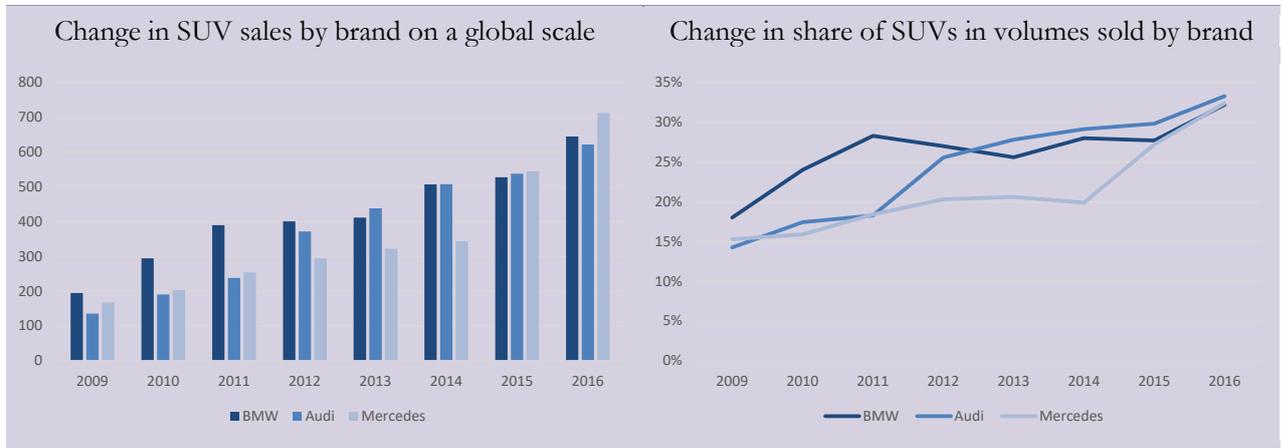
**Fig. 6: A very segmented premium SUV market – models available in France**

Type of SUV	Model name	Launch date	Latest version	Entry price	Average entry price (with VAT)
<b>SUV XS &lt; 4m30</b> Urban	Audi Q2	2016	2016	€25 420	€27 340
	Mini Countryman	2010	2017	€26 900	
	Mercedes GLA*	2014	2014	€29 700	
4m30 < <b>SUV S</b> < 4m60	Audi Q3	2011	2011	€30 960	€37 178
	BMW X1	2009	2015	€32 950	
	Jaguar E-Pace	2017	2017	NA	
	Range Rover Evoque	2011	2011	€55 100	
	Mercedes GLA	2014	2014	€29 700	
	Volvo XC40	2018	2018	NA	
<b>SUV S Coupé</b>	BMW X2	2018	2018	NA	NA
	GLA Coupé	2021	2021	NA	
4m60 < <b>SUV M</b> < 4m80	Audi Q5	2008	2016	€48 750	€50 528
	BMW X3	2004	2010	€43 300	
	Jaguar F-Pace	2016	2016	€52 060	
	Range Rover Velar	2017	2017	€57 500	
	Mercedes GLC (ex-GLK)	2008	2016	€45 050	
	Porsche Macan	2014	2014	€58 835	
	Volvo XC60	2008	2017	€48 200	
<b>SUV M Coupé</b>	Audi Q4	2020	2020	NA	€56 225
	BMW X4	2014	2014	€58 850	
	Mercedes GLC Coupé	2016	2016	€53 600	
4,80m < <b>SUV L</b> < 5m	Audi Q7	2005	2015	€62 000	€63 873
	BMW X5	2000	2013	€71 950	
	Land Rover Discovery	1989	2017	€50 900	
	Range Rover Sport	2005	2013	€63 300	
	Mercedes GLE (ex-ML)	1997	2015	€63 350	
	Porsche Cayenne	2002	2010	€73 610	
<b>SUV L Coupé</b>	Volvo XC90	2002	2015	€62 000	€73 500
	BMW X6	2008	2014	€75 700	
<b>SUV XL &gt; 5m</b>	GLE coupé	2015	2015	€71 300	€88 000
	Audi Q8	2018	2018	NA	
	BMW X7	2018	2018	NA	
	Mercedes GLS (ex-GL)	2006	2016	€88 000	

Source: Company Data; Bryan, Garnier & Co ests.

In the premium SUV market, the group is now no. 2 behind Mercedes with slightly more than 35% market share vs. around 47% in 2009.

**Fig. 7: In the SUV segment, the BMW brand is also no. 2**

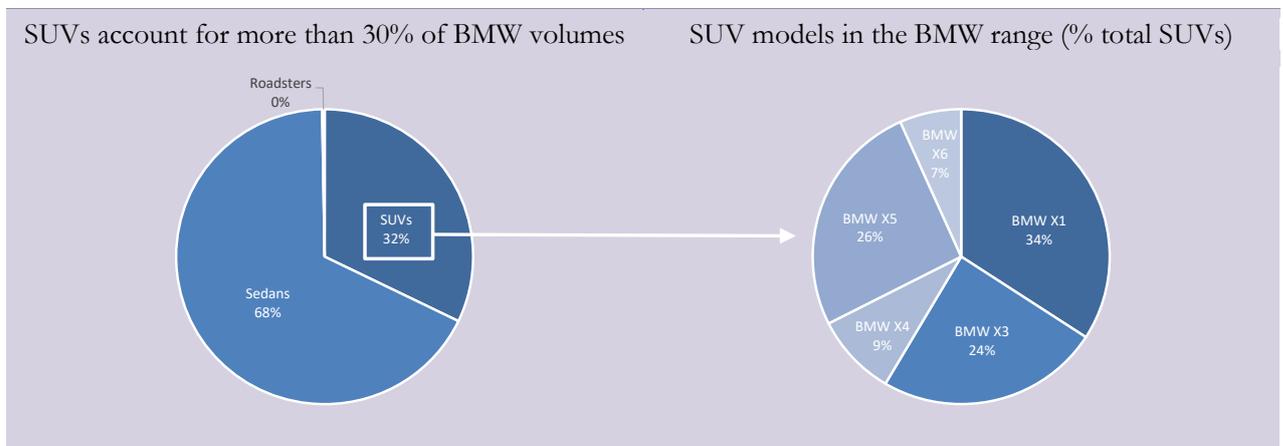


Source: Company Data; Bryan, Garnier & Co ests.

The future launches in 2018 of the **X2**, destined to address the currently non-existent compact coupé SUV market (no competition before 2021 and the launch of the GLA coupé at Mercedes), and the **X7** in the very high-end SUV market (Q8, GLS and Escalade), could underpin growth in the group's volumes over the medium term.

In the very short term however, the BMW brand could be penalised by its absence from the SUV XS segment (city SUV) as well as its relatively old range compared with the competition (>2014 for Audi, >2015 for Mercedes and 2013 for BMW on average) especially in segments where the X3 and X5 models are present. The versions of these two models are currently the oldest in the BMW range and account for more than 15% of the brand's volumes. **They are due to be renewed at end-2017 and during 2018 respectively.**

**Fig. 8: Now highly dependent on the small X1 and X3 SUVs**



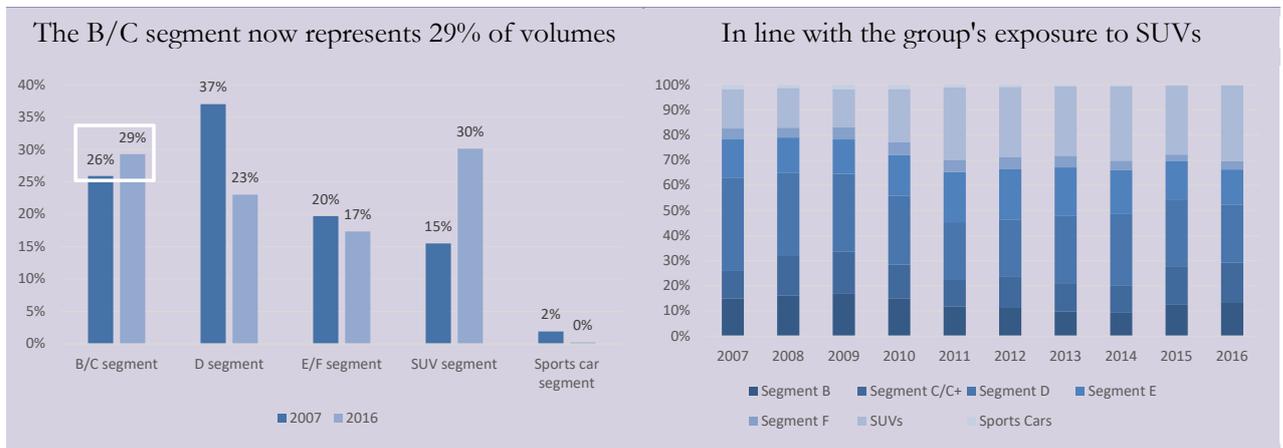
Source: BMW; Bryan, Garnier & Co ests.

### 4.1.2. Rising exposure to B/C segments

Market share gains in recent years in the premium segment relative to the global automotive market have been driven partly by the wider model offer stemming from premium carmakers in the B and C segments that were previously exclusively addressed by generalist carmakers. In Europe, this effect is far more obvious than elsewhere, with the rising momentum of leasing and LDD/LOA rentals, which help a less well-off segment of the population to access premium vehicles as well.

The BMW group, like other carmakers in the segment, has therefore naturally extended its direct exposure to vehicle categories, with the marketing of the **1** and **2 Series**, as well as the launch of the **X1** and **X2** models. The extension of the range has logically enabled the group to increase its sales in recent years, in particular via its Mini brand, which now represents >15% of volumes. As such, whereas the B and C segments only accounted for 26% of the group's sales in 2007, they now contribute 29%, enabling the group to hold onto its leadership position in this segment.

**Fig. 9: More vehicles in the B/C segments and fewer in the D/E/F categories**



Source: BMW; Bryan, Garnier & Co ests.

However, as indicated previously, over the same period, BMW has lost its no. 1 position in the SUV segment, which has increased the most in recent years (CAGR of >17% over 2007-16 vs +7-8% for the premium market and 6-7% for the premium B/C segment).

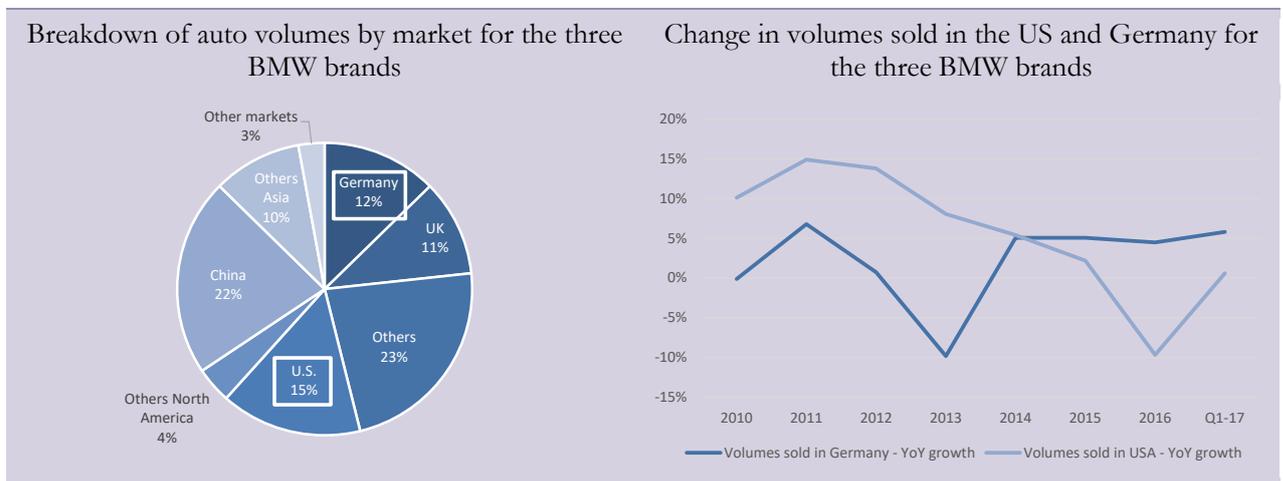
In all, this strategic choice helped the group strengthen its market share in a number of European countries such as France, Spain and Italy, where the penetration rate for the B/C segment is naturally high, contrary to countries such as China, the US and Germany.

## 4.2. To the detriment of market share in two of its leading markets

Mercedes' strategic review with the overhaul of its product nomenclature and the acceleration in China, combined with the arrival of new competitors in the premium SUV market, explain the majority of the slowdown in BMW's volume growth in recent years. The lack of originality shown by BMW designers during model re-styling phases, restricted especially by a high loyalty rate (51% vs. 44% for Mercedes) has also limited new customer potential. The slowdown has been the most noticeable in the **US** and in **Germany**, especially over the past four years.

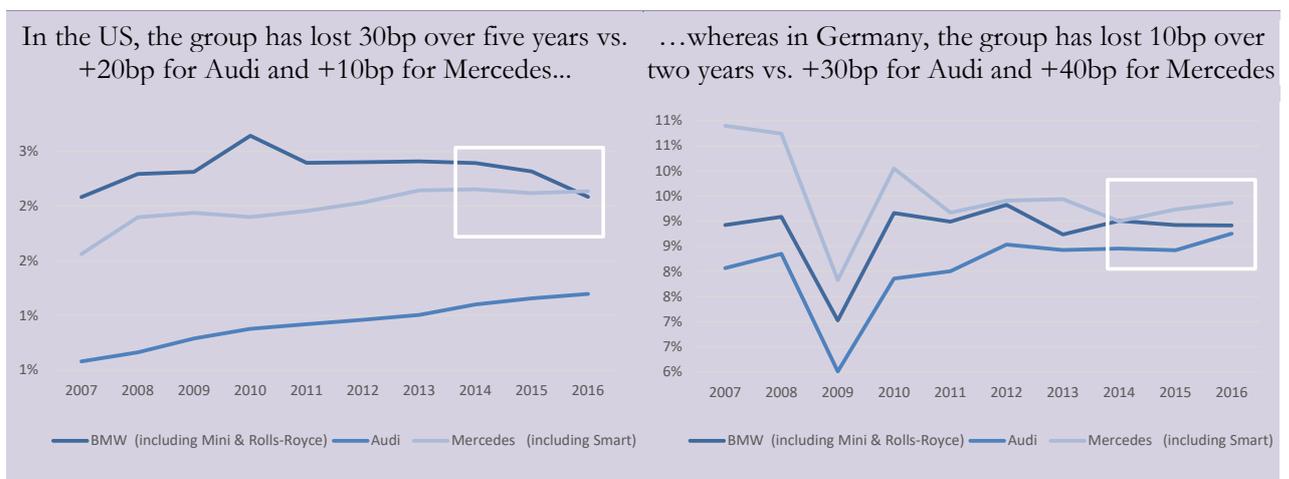
Note that these two markets represent **21%** and **3.9%** of the global automotive market respectively, but **15.5%** and **12.6%** of volumes sold by the group. Alongside China, the US and Germany are the largest outlets for the BMW group brands, namely **BMW, Mini and Rolls-Royce**.

**Fig. 10: The US and Germany, major markets for BMW ...**



Source: BMW; Bryan, Garnier & Co ests.

**Fig. 11: ...even though the group has been losing ground in recent years**



Source: Company Data; VDA; Bryan, Garnier & Co ests.

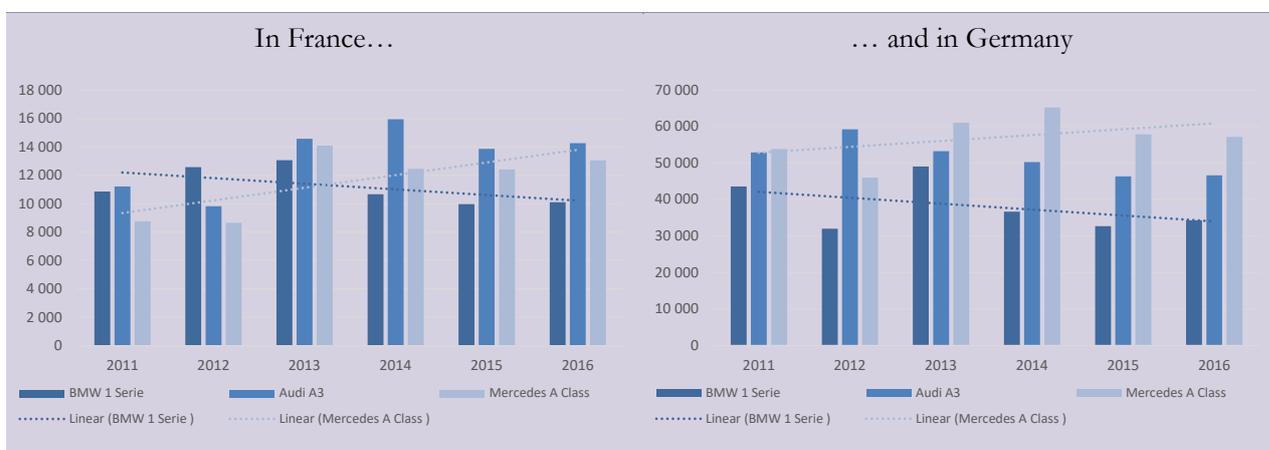
In these two markets, we have clearly noted a decline in the BMW group's market share, mainly to the benefit of Audi.

Please see the section headed "Important information" on the back page of this report.

In the German market, the premium brand of carmaker VW is even on the verge of exceeding BMW, despite its volumes including those of the Mini as well. In recent years, Mercedes with Smart has also managed to make the most of the launch of more dynamic models enabling it to attract a younger customer base.

The 2013 launch of the new **A Class**, replacing the monospace type MPV body with a hatchback body more in line with its direct rivals the Audi A3 and the BMW 1 Series, therefore had a significant impact on BMW sales, especially in Europe where the segment is more favoured. In France for example where the BMW group has a market share of **3.6%** (vs. 3.8% for Mercedes and 2.8% for Audi), Mercedes clearly gained market share as of 2013-14 to the detriment of BMW in the B segment.

**Fig. 12: The new A Class clearly contributed to BMW's decline in market share in the B segment in Europe**



Source: Company Data; VDA; CCFA; Bryan, Garnier & Co ests.

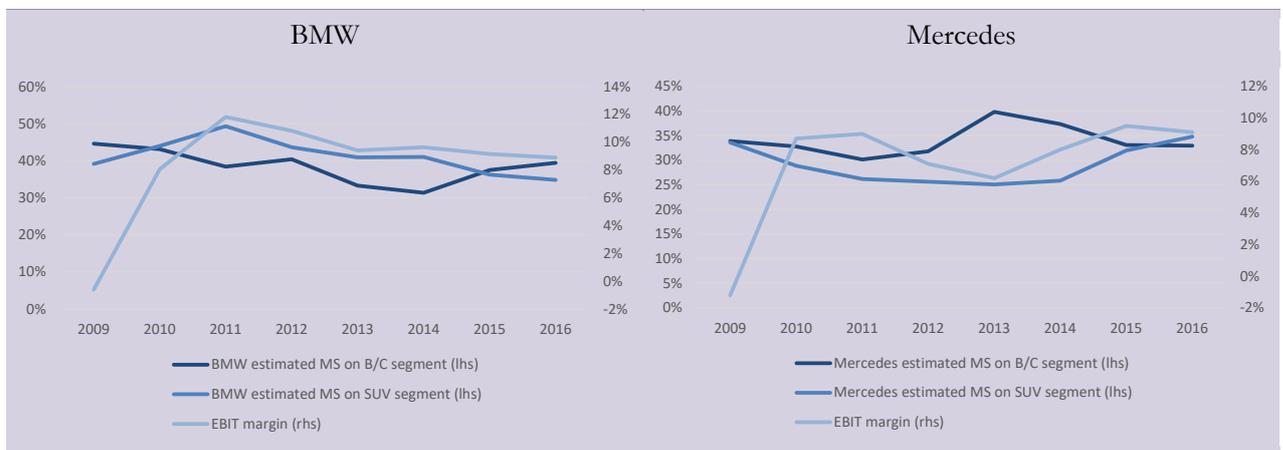
After being a pioneer in the segmentation of the premium market by developing the compact SUV (X5) and the SUV coupé (X6) enabling it to rapidly become the leader in the global upscale segment, BMW did not manage to really adapt to a new younger and more dynamic customer profile, unlike Mercedes. The various "product" renewals expected in the short/medium-terms should enable the German group to benefit from more positive momentum (X2, X7 and 8 series in 2018) than in recent years, even if we expect no significant rebound in the group's market share in Europe and the US.

### 4.3. To the detriment of sales and margin?

The product-mix that we have just analysed clearly had an impact on the group's sales growth, as well as on its margin, given that this is traditionally higher for SUVs and for models in the D and E segments than in smaller segments (A, B, C).

Note that while the group benefited from the ramp-up in SUVs in its range, boosting sales and margins, it also suffered from pressure on average selling prices and on the same margin with the rise in volumes in the B and C segments. In all, over the period, only BMW and Mercedes managed to increase average sales per vehicle thanks to a beneficial mix effect, while maintaining EBIT margins in the automotive segment very close to the upper threshold in the sector (8-9%). Daimler, via Mercedes, was the best performing carmaker, thanks especially to considerable market share gains in the SUV segment and to a reduction in its exposure to the B/C segment, contrary to BMW.

**Fig. 13: More SUVs and less B/C segments for wider margins?**



Source: Company Data; VDA; CCFA; Bryan, Garnier & Co ests.

The 2018 launches of the X2 and X8 SUVs should logically have a positive impact on the group's market share in the US and in China, while having a beneficial medium-term impact on its EBIT margin. We are quite positive on the success of these two new models, but have doubts over the group's ability to lastingly approach the 10% level like Mercedes.

**In our model, we forecast average EBIT margin in the auto segment of 8.7% vs. 9.5% for Mercedes over 2017-2026.**

## 4.4. Soon the bottom of the class in China?

With more than **517,000 vehicles** sold last year, China is the group's leading market, accounting for **22%** of global volumes vs. just **7%** in 2009. BMW has even recently invested more than EUR1bn in the country alongside Chinese partner Brilliance in order to increase production capacity in its main plant at Dadong, to more than **450,000 vehicles a year** (capacity spread over two sites: Dadong opened in 2004 and Tiexi in 2012).

Since the Chinese authorities oblige foreign carmakers that would like to manufacture in China to sign industrial partnerships with local carmakers (50/50 joint ventures), like its competitors, BMW is only exposed financially to China via the consolidation of **50.5%** of attributable net profit from its JV with Brilliance and via the dividends paid out each year (Brilliance has 40% and the Shenyang municipality 9.5%).

Whereas in 2010, China only accounted for **3%** of BMW's net profit, it now represents **8-9%**. This compares with **9-10%** for Audi and **7-8%** for the Daimler group.

The ramp-up at Mercedes as the group catches up its lag relative to the two other German carmakers (Audi has been present in China via VW since 1996, BMW with Brilliance since 2003, whereas Mercedes and BAIC have only been present since 2006) following a strategic review in the country, could clearly weigh on growth potential at BMW over the medium term. The contribution from BMW-Brilliance to the carmaker's earnings could potentially suffer in the medium term.

### 4.4.1. New models to the rescue...

In addition to the increase in capacity, works at the plant have helped adapt the site to production of electric vehicles. BMW nevertheless pointed out that it was still too early to decide if electric vehicles specifically designed for the Chinese market would be produced. For the moment, electrification of the range in China is going ahead gradually and above all via the dedicated brand **Zinoro**, which was created in partnership with Brilliance. So far, only one 100%-electric model exists (on sale since 2014), the **Zinoro E1**, a copie of the BMW X1, but in an electric version (electric engine taken from the BMW i3). Sales volumes remain very low so far, with the group's initial target being to make Chinese consumers aware of the premium electric segment, whereas they have so far been used to entry-level electric models (the price of the E1 is more than double the price of a Chinese-brand entry-level electric SUV).

Since the launch of the **E1 model**, BMW-Brilliance has unveiled and started to sell two hybrid vehicles under the BMW brand and the Zinoro brand. The BMW **Series 530 PHEV** was launched in January 2015 whereas the **Zinoro 60H PHEV** was launched in Mars 2017. Sales are still low for the moment, with Chinese consumers still favouring local brands offering low-cost cars to the detriment of foreign imported models or models produced by joint ventures. For 2016, the BMW Series 530 PHEV was only sold to 433 customers (no. 37 in the ranking of electric/PHEV models sold in China) vs. more than 31,400 for the top model in the ranking. Government restrictions to develop this type of vehicle could potentially favour local demand over the medium/long-term, but in the short term are set to penalise carmakers that are not very present in these new segments. BMW's strategy therefore seems to be headed in this direction even though it seems timid in view of the lead the group has in the electric vehicle field. We find it difficult to understand why the BMW i3 is still not available in China (imported with 2% tax as for Tesla and the S and X models).

In addition to trying to develop expertise in China in the electric and hybrid vehicles via its partnership with Brilliance, BMW is currently producing the 1 Series, the 2 Series Active Tourer and the 3 and 5 Series, or **25%** of its current product portfolio (16 models). As of 2018, it is set to add production of the next **X3** at the Dadong 1 site in addition to the Spartanburg plant in South Carolina and the Rosslyn plant in South Africa where the SUV is already manufactured. The new **X7** is probably set to be imported directly from the US.

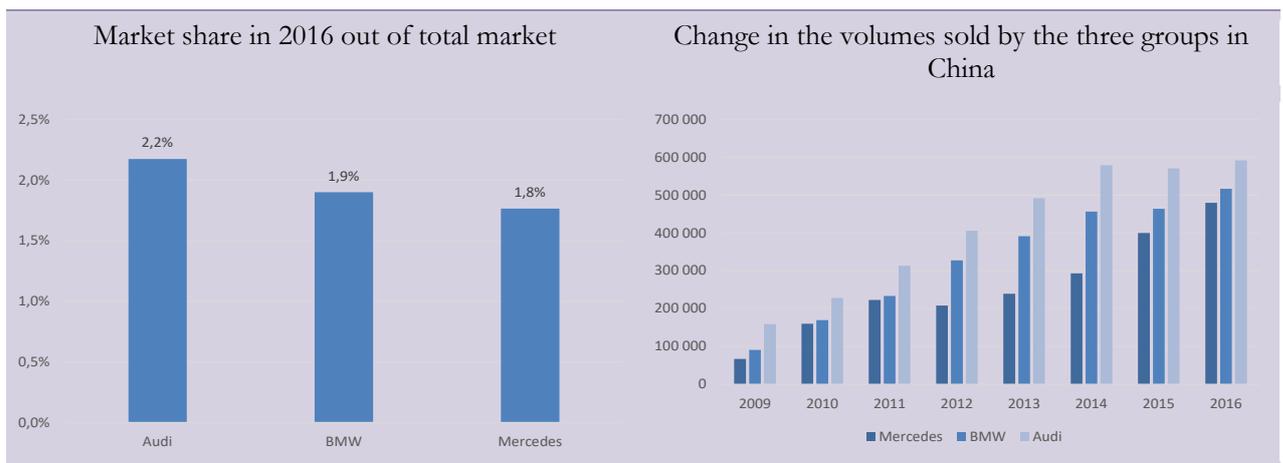
Thanks to this adaption of its main production site, BMW should therefore strengthen its position in the buoyant SUV segment in China, while providing itself the possibility further out of exporting some of its production to Europe and the US, as rival Volvo already does following its takeover by Chinese carmaker Geely. In May 2017, the German carmaker also received permission from the Chinese authorities to export some of the production undertaken with Brilliance outside China.

In our view, reducing production of smaller models on the UKL1 platform in Europe and the US (2 Series Active Tourer, X1, 1 Series etc.) in favour of Chinese production sites that are more profitable in this vehicle category, could help BMW widen its net margin by **50bp**. In the short term however, BMW is not set to import Chinese models into these two historical markets, with local production being absorbed by robust Chinese demand. Only further capacity increases could help the group address several markets at the same time from its base in China.

#### 4.4.2. ...enough to counter Mercedes' catch-up?

Mercedes seems to be gradually closing its delay in China, with the group publishing volume growth two to three times higher than that of Audi and BMW for several quarters now, whereas growth in the premium market in China in recent years has slowed considerably. This ramp-up by the no. 3 player has stemmed primarily from the overhaul of its strategy in the country and the opening of a large number of new dealerships. The group can now count on strong local presence: from **166** dealerships in 2010, the network had more than **500** in 2016, thereby exceeding that of the no. 1 group Audi, which has been present in the market since 1989.

**Fig. 14: Mercedes is on the point of exceeding BMW in China as well**



Source: Company Data; VDA; CCFA; Bryan, Garnier & Co ests.

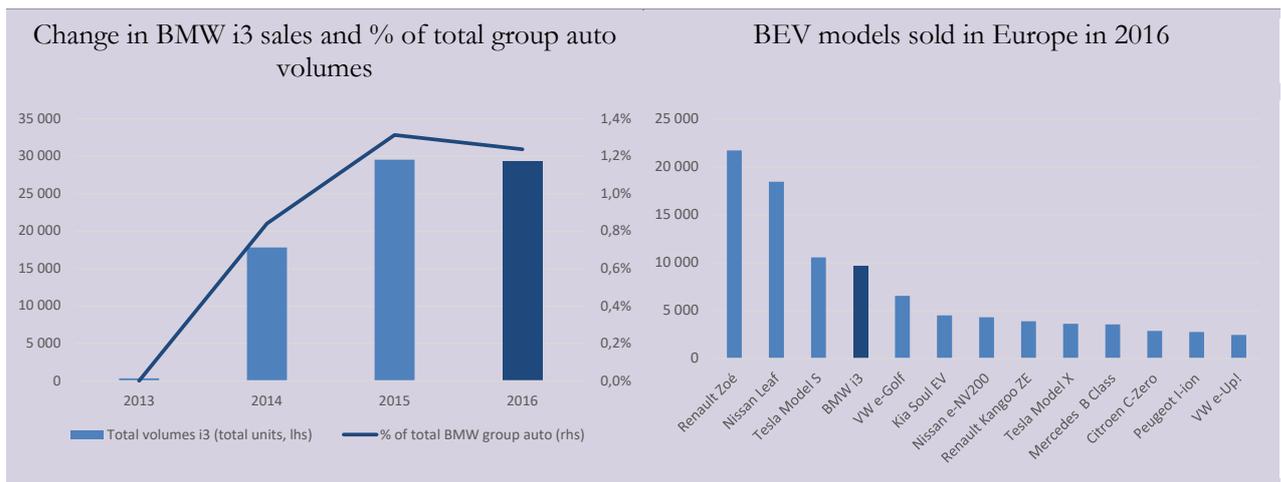
Mercedes' strategy to develop local electric vehicles with BYD and BAIC should clearly help the group exceed BMW in this market further out, despite the various model launches programmed by BMW.

## 5. A lead in electric vehicles, but not for much longer

### 5.1. One of the leaders in Europe with the BMW i3

Last year, BMW sold slightly more than **29,200 BMW i3** models, representing **1.4%** of total sold volumes under the BMW brand and **1.2%** of total volumes sold by the group under its three brands (BMW, Mini and Rolls-Royce). Although this volume seems low at first glance, the share sold by BMW in Europe (around one third) made it the fourth best seller with **10% market share**, behind the **Renault Zoé**, the **Nissan Leaf** and the **Tesla Model S** but ahead of the **e-Golf** by **VW** and the **Kia Soul EV**. For the moment, **Mercedes** remains well behind with the electric version of its B Class. The carmaker also recently indicated that it would take the model off the market as of Q3 2017 despite rising demand in recent years. Audi does not yet have a fully-electric vehicle on sale. On a global scale and in cumulated terms since 2011, the i3 even ranks in third place with **60,000 vehicles sold**, ahead of the Zoé.

**Fig. 15: With its i3 model, BMW remains in the race in Europe, contrary to Mercedes and Audi, but this lead could be of short duration**



Source: Company Data; Bryan, Garnier & Co ests.

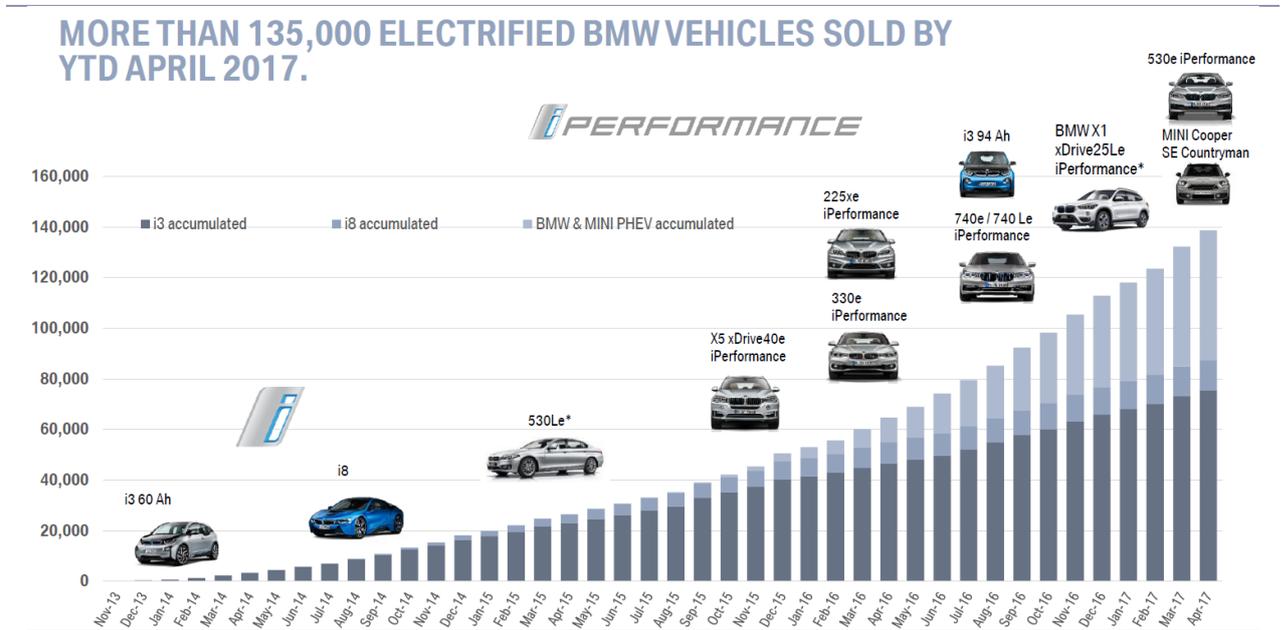
#### BMW i3 2017



Even though today the electric vehicle market remains very limited by its size in volume and value terms (less than 1% of new registrations and less than 0.2% of the global number of cars in circulation) it seems clear in view of regulatory changes and the decline expected in the cost of batteries (-50% by 2021/22) that the market should be buoyant in coming years. The group's lead in the market relative to its premium rivals stems primarily from the launch in 2013 of the **BMW i3**, the first **100% electric car in the "i" range** for the BMW brand but also for the BMW group. The model was designed specifically for the electric market and required more than **EUR600m in investments** on the group's part since it benefits from a specific platform at the **Leipzig** site (BMW 1/2/i3/i8 series), and since it includes components in plastic materials reinforced with carbon fibre. The group's choice, like Tesla, to create a **100% electric model from scratch** notably helped reduce production time by **50%** relative to the **3 Series** model, while reducing the number of components necessary by more than **30%**. This industrial success was also a commercial success since the model has been nominated best electric vehicle in the world on several occasions.

In all, since its launch, the group has sold **more than 75,000 BMW i3 models** enabling it to rank among the Top 3 best-selling electric vehicles.

**Fig. 16: BMW has been successful in electrifying some of its range since 2013**



Source: Company Data; Bryan, Garnier & Co ests.

The new 2017 version fitted with **33kWh** batteries instead of 22kWh should help the group maintain its market share over 2017 and potentially over 2018 despite a still-high price (EUR37,300 before government incentives in France). A version fitted with a thermic generator (REX extender) enabling an **additional 70-80km in autonomy** thanks to a **nine-litre tank** fuelling a small two-cylinder petrol engine (that is used to feed the battery and not directly move the car) is now also available for an extra **EUR4,500**, even though the engine is not very powerful (25kW vs. 125kW delivered by the electric engine). The BMW car is therefore perfect for daily trips in town centres in a market that should logically continue to expand in coming years given the rise in regulatory restrictions for driving in cities with polluting or diesel engines.

The group's presence in this segment before its rivals also enabled BMW to attract new customers to dealerships thanks to its avant-garde and innovative image. Indeed, more than **80% of those purchasing a BMW i3** had never bought a BMW before.

## 5.2. The future looks less certain however

Mini BEV 2019



BMW X3 BEV 2020



BMW iNext 2021



Whereas the group still has a dominant position in the electric market (especially in the premium segment) and although its presence in China remains very small despite the market now being the leading global market, **the group's lack of strong ambition over the medium term on this subject seems problematic to us.** The gradual ramp-up of Tesla with the launch of the **Model 3**, combined with the strategic shift at VW via its VW and Audi brands especially, implying the wide-scale deployment of electric cars between now and **2020-22**, is likely to gradually weigh on BMW's market share in the electric segment in Europe and the US. With many carmakers aiming to sell dozens of electric vehicle models as soon as by 2020-22, in comparison BMW is currently only intending to slightly increase its product offer in the field, on short term, with the transformation of a **Mini model** and a **BMW X3 SUV** currently available with thermal engines, into 100% electric cars by 2019 and 2020 respectively, before launching the **iNext** in 2021. The iNext is a fully electric car midway between the **i3** and the hybrid **i8** model in size terms and is fitted with very advanced driving assistance options. Among these three models, only the **iNext** is to be built from scratch as for the **i3** implying a clear reduction in production costs relative to other group models.

For 2025, the group aims to have **25 electrified models** in its products portfolio, with around 50% in PHEV version and **12 vehicles** totally electrified (BEVs). Yet Daimler targets to have by 2022, three years ahead of BMW, **10 BEVs** thanks to the creation and the commercialisation of a new brand dedicated to this segment (EQ). BMW should then lose market share on the electric B segment, a segment dominated previously by its **i3 model**. The group aims also to launch PHEV vehicles to more easily respect CO2 emissions.

However, BMW (which like Renault has preferred to focus on electric cars in recent years), does not boast the same level of progress in rechargeable hybrid cars as it does in electric cars relative to its direct rivals **Audi, Mercedes** and **Volvo**. Only Audi is lagging in this segment whereas Mercedes has a comprehensive and superior product offering compared with BMW.

**Fig. 17: No. of BEV and PHEV models currently available Tesla, Mercedes, BMW, Volvo and Audi dealerships**

	BEV	PHEV	Total	Total models	% BEV	% PHEV	% Clean
Tesla	2	0	2	2	100,0%	0,0%	100,0%
Mercedes	1	6	7	16	6,3%	37,5%	43,8%
<b>BMW</b>	<b>2</b>	<b>5</b>	<b>7</b>	<b>17</b>	<b>11,8%</b>	<b>29,4%</b>	<b>41,2%</b>
Volvo	0	2	2	11	0,0%	18,2%	18,2%
Audi	0	2	2	13	0,0%	15,4%	15,4%

Source: Company Data; Bryan, Garnier & Co ests.

**In our view, BMW's dominant position in vehicle electrification is likely to be hampered by Mercedes in the hybrid and electric segments in coming years following the strategic about-turn started recently by Mercedes.**

Given its lag relative to BMW in the process of electrifying its product range and under pressure to respect anti-pollution standards (having not managed to reduce its average CO2 emissions since 2015), Mercedes has brought forward its target for electric vehicle development by three years.

At the end of 2016, the Daimler group was aiming to sell **10 100% electric vehicles** (including eight under the Mercedes brand and two under the Smart brand) and to generate **20-25%** of its 2025 sales in electric vehicles, or **50%** including hybrid vehicles. However, at the start of 2017, Daimler brought forward its target date to launch 10 new models by three years to **2022** (while making no change to its targets), making it the most ambitious premium carmaker in this field.

The first model is likely to come on the market as of 2019 and should resemble the **EQC SUV** concept car unveiled by the group in September 2016 at the Paris motor show. This model is set to compete directly with **Tesla's X Model**, the **Audi e-tron Quattro** (PHEV) and the **Jaguar I-Pace**, and will be the brand's first electric car based on a new architecture, contrary to the B Class 250 e from 2014 which was based on the B Class architecture and was fitted with an electric engine manufactured by Tesla. Mercedes also unveiled in September 2017 in Frankfurt its new **EQA concept car**, the version of the A Class. Like BMW with its i3 model, Mercedes is now working on the EQ segment, the new electric brand, by starting from scratch, the only difference being that the EQ models are to be produced directly on the platform dedicated to the electric vehicle (named EVA for Electric Vehicle Architecture) whereas BMW is currently working on the marketing of an electric Mini and a BMW X3, two cars produced on the basis of their thermal version.

**Fig. 18: Competition in electric SUVs is set to be tough in coming years**

Mercedes EQC concept-car



Jaguar I-Pace concept-car



Source: Company Data; Bryan, Garnier & Co ests.

## 6. Part of the "dream team" to develop autonomous vehicles

**In the automotive industry, what makes a player stand out from the crowd and adds value in the eyes of customers cannot be shared. For the remaining factors that the customer does not see, sharing and partnerships make sense (R&D, engine or gear box production etc.).** In the field of automated cars, the list of carmakers prepared to work together with components manufacturers and technological groups is as long as the list of carmakers that persist in wanting to create their own expertise internally.

### 6.1. A group for which partnership is an obvious choice

**BMW** belongs to the first set of players and even has an edge over its direct rivals since it was one of the first to have understood that to gain expertise and become the first carmaker to launch an advanced high-tech vehicle, it was necessary to join forces with other players with greater skills in their respective fields of expertise.

In July 2016, BMW announced it had created a partnership with **Intel** and **Mobileye** to deploy a joint partnership model in autonomous vehicles in order to provide and adapt solutions to all carmakers. This partnership is therefore based on a non-exclusive platform model implying that the alliance remains open to other partners. Intel is responsible for communication with data servers and road infrastructure, as well as the development of artificial intelligence, whereas Mobileye provides the software solutions and develops the algorithms that enable analysis and interpretation of all the data sent by the car's sensors: **cameras, radars, Lidar, etc.**

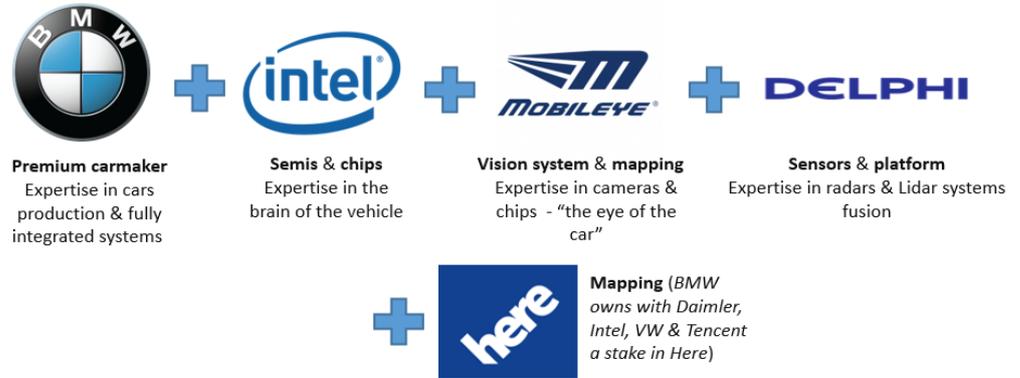
In May 2017, **Delphi** joined the alliance to provide its expertise in electronic components. Note that the US parts maker was already a partner to Intel and Mobileye in this field. One of its key roles will be to integrate the solutions provided by the three other partners into the vehicle architectures of other carmakers, who are future potential customers for the four players. Delphi could also provide the necessary components such as sensors and customisation solutions as well as specific applications to enable a company to stand out from its competitors.

Cartography company **Here** (formerly owned by Nokia), is now specialised in the auto industry and since 2015 has been owned among others by **Daimler, BMW, VW** and **Intel**. It also belongs to the alliance, enabling BMW to compete directly with Google and Apple, which already have their own cartography services. Note that these two groups are very active in the race for the autonomous vehicle, especially in the development of software and platforms allowing cars to become more intelligent.

**Via this alliance, BMW seems to be the premium carmaker the best positioned to build expertise in this field.**

The **Daimler** group recently announced it had signed a partnership with components maker **Bosch** (2017) as well as with **Uber** (2017) and seems to have taken time to decide to share its skills with other players, while Audi works in this field mainly with **Nvidia**.

**Fig. 19: The dream-team in the automated vehicle field?**



Source: Company Data; Bryan, Garnier & Co ests.

Under the framework of this alliance, in H2 2017 the group is aiming to roll out **40 BMW 7 Series prototypes**, all fitted with highly advanced semi-autonomous driving systems for wide-scale test purposes in Europe and the US. The car will be equipped with the new **Intel Go** solution designed for the auto industry and MobilEye's **EyeQ5** computer vision system, enabling the creation of a 360 degree detection system for the surrounding environment thanks to cameras, radars and Lidar sensors.

**Fig. 20: The BMW 7 Series is the group's reference model in this field**

BMW 7 Series – Prototype at CES 2017

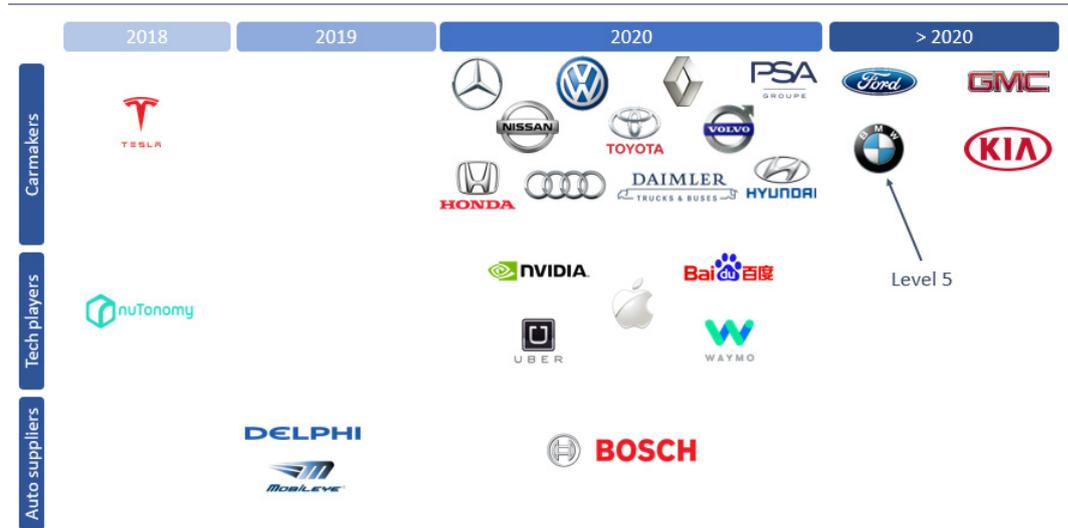


Source: BMW; Bryan, Garnier & Co ests.

## 6.2. Overly-ambitious targets?

BMW's official target for 2021 (and not that of the BMW-Intel-Mobileye-Delphi-Here alliance) is to produce cars in series that are **capable of driving totally autonomously** (level 5 in the official nomenclature) whereas the majority of other carmakers are targeting a **level 3-4** autonomous vehicles by 2020. Communication from the various carmakers/tech players and auto parts suppliers remains fairly evasive at this stage, such that it seems complicated to precisely list company by company who is planning to launch what type of car and when. Only a few major groups such as BMW have announced their aim to market a model as advanced as the level 5 by 2021.

**Fig. 21: A group more optimistic than its rivals**



Source: Company Data; Bryan, Garnier & Co ests.

### BMW iNext 2021



In addition to the engineers and experts dedicated to research work within the alliance, BMW can currently rely on its **600 internal employees** who work exclusively in this field (around 5% of BMW's R&D headcount). For the short-term, the group is aiming to recruit 1,400 more engineers while building a brand-new campus in Munich in order to attract the highest number of talents possible.

BMW's aim is clear: by **2021**, it intends to launch the **iNext** model and become a pioneer in electric mobility and autonomous mobility. To achieve this, BMW should be able to use the results of the real-conditions experience encountered by the 40 **7 Series** deployed at the end of 2017, and from its latest 5 and 7 Series for the latest technological progress made by BMW in the assisted driving field.

As such, the group boasts a certain lead in the technology for autonomous vehicles but remains under threat from its German and US premium rivals. **Audi** is due to launch its **A8** model at the end of 2017 and has announced **level 3 automation**, thereby making it the first carmaker to sell a series vehicle with autonomy of this extent, outstripping Tesla and its S model. This model will also be the only one in the series to be fitted with a Lidar system, a laser radar widely considered as vital for measuring distances with surrounding objects.

**Fig. 22: Despite BMW's presence in the alliance, Audi is set to launch the first level-3 automation model**

Model	Launch date	Name of the system	Provided by	Level of autonomy	Sensors	Details	Price (€)
<b>Audi A8</b>	Q4-17	Audi AI traffic Jam Pilot	Nvidia	3	13 (5 cameras; 4 ultrasonic sensors; 3 radars; <b>1 Lidar</b> )	Enabled up to 60km/h	90 600
<b>BMW 7 Series</b>	Q4-15		Intel/Mobileye	2	Stereo camera & 5 radars		86 500
<b>Mercedes E Class</b>	Q2-16	Drive Pilot	Nvidia	2	Cameras & radars		49 200
<b>Mercedes S Class</b>	Q2-17	Drive Pilot	Nvidia	2	24 (12 ultrasonic sensors; 4 short-range radars, 4 wide-angle cameras, 1 far-infrared camera, 1 near-infrared camera, 1 stereo camera, 1 multi-mode radar)		94 900
<b>Tesla Model S</b>	Q2-13	Auto Pilot	Mobileye 2014-2016 Nvidia since 2016	2	21 (12 ultrasound sensors; 8 cameras; 1 radar)		75 000

Source: Company Data; Bryan, Garnier & Co ests.

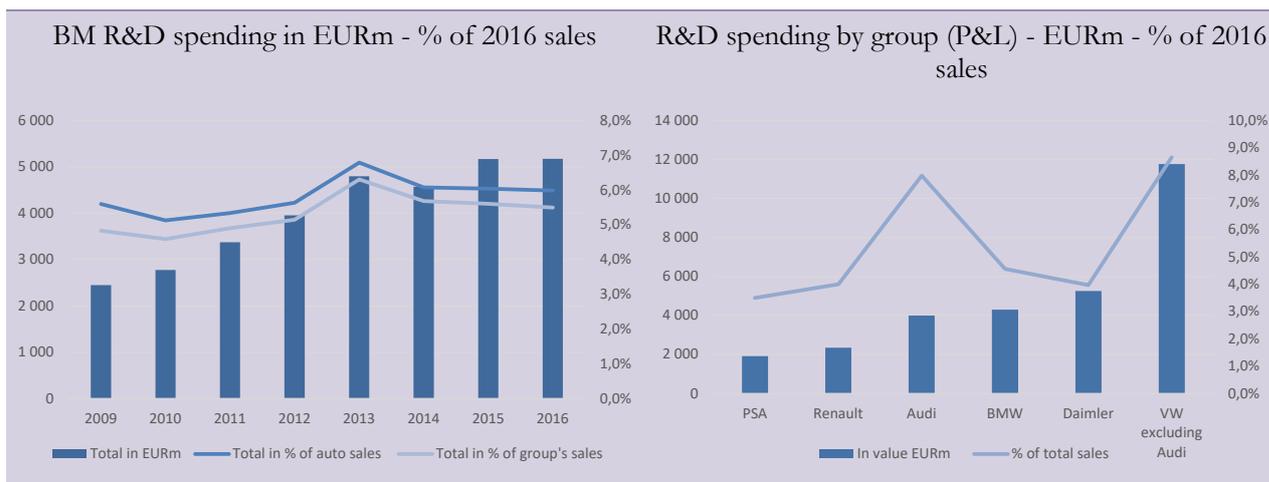
## 7. Margin under pressure in the short term

### 7.1. Ever more R&D!

Whereas BMW has historically spent an average of 5 to 5.5% of its revenue on R&D, at the H1 2017 publication it indicated that over the medium term i.e. over 2017-19, this ratio would now be closer to 5.5-6%. This slight increase comes as no surprise to us since the carmaker needs to simultaneously invest in electric vehicles, automated vehicles and cleaner diesel engines in line with future regulations.

Although the group is planning to share a high level of R&D spending with **Intel**, **Mobileye** and **Delphi** in coming years, the strong internal need for fresh innovation in order to stand out from the crowd is likely to penalise margin improvement. The **EUR5.1bn** in total R&D expenses engaged by the group in this field (like Daimler, but more than 15% higher than Audi) is gradually set to move towards **EUR6bn**, making the group the European carmaker that spends the most on R&D after VW.

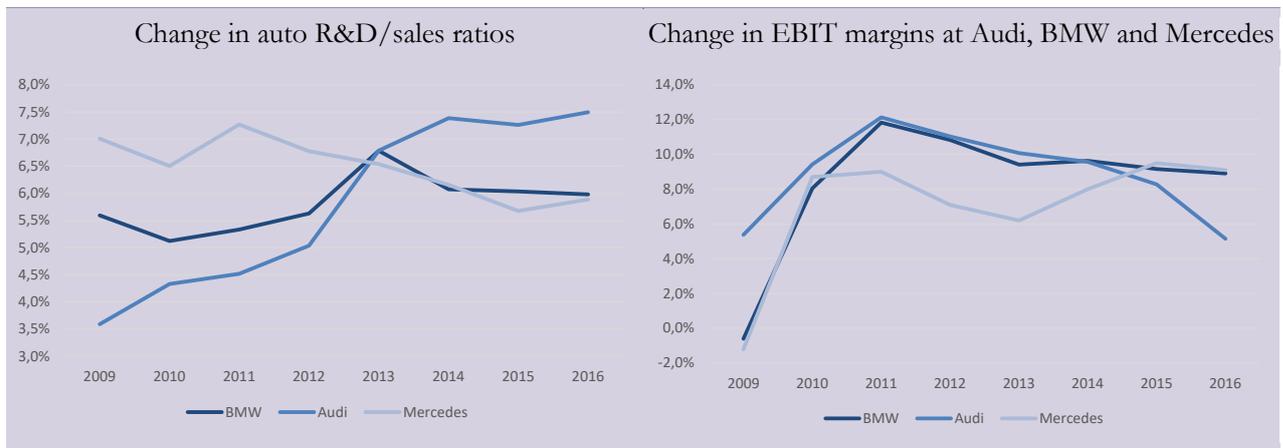
**Fig. 23: The entire sector needs to increase R&D spending to prepare for the future**



Source: Company Data; Bryan, Garnier & Co ests.

Audi, which is on the verge of marketing its A8 model at the end of the year, now seems to want to better control R&D spending in order to boost its EBIT margin. Whereas in 2008-09, the group was lagging behind Mercedes and BMW in terms of the ratio of R&D to auto sales, as of 2012, following a massive drive to recruit engineers, the group's R&D spending rapidly rocketed making it one of the **carmakers in the premium sector that spent the most on R&D as a percentage of revenue**. This strategy notably enabled the group to develop internal skills in the automated vehicle field, but also weighed on margin growth. Over 2017-18, Audi nevertheless aims to reduce its ratio from 7.5% in 2016 to 6-6.5%. On our estimates, this should help the group improve EBIT by around 19-29%, and to restore the margin gradually to around 7-8%. **Note that in 2011-12, Audi had EBIT margin of 11-12%.**

**Fig. 24: Audi's margin could widen in the short term, unlike BMW's**



Source: Company Data; Bryan, Garnier & Co ests.

Whereas Mercedes is currently managing to maintain its ratio of R&D expenses to auto sales at 5-6% while generating margins close to 10%, and Audi aims to reduce its ratio in order to boost margins to more respectable levels, BMW is planning the opposite so that it can better capture future growth in the market. In the short term, this direction could be penalising, especially in terms of valuation.

## 7.2. US margin expected to narrow?

Since BMW does not communicate the breakdown of its margins by region, it is difficult for us to assess the profitability of the group's US activities and its growth in recent years. However, in view of the group's commercial performances in recent years, partly due to the slowdown in the US auto market, but also due to the group's aging model range, we consider that the margin could be suffering.

In 2016, the group sold **367k** vehicles in the US, or **15%** of total volumes vs. **406k** in 2015 (18% of volumes) prompting a narrowing in the auto segment margin of around 30bp. Since the market has genuinely entered a slowdown phase in the past few months, taking a toll on all carmakers whether premium or generalist, BMW should continue to suffer more than the others. In Q2, its volumes even plummeted by 8% after a stable performance in Q1.

BMW could also suffer at its financial services subsidiary if the US market collapses more harshly than expected over 2017-18. Note that the US represents **30%** of financing contracts at BMW Financial Services. The slowdown in new demand is currently obliging carmakers to reduce their new car prices to the detriment of the second-hand market, which has also seen its average prices decline, thereby also placing pressure on the residual value of vehicles in the accounts of fleet management companies and carmakers.

BMW Financial Services also recently indicated that it had provisioned for the risk of a decline in residual value in 2017 due to the plunge in second-hand market prices in Europe and North America (no decline noted in Asia for the moment).

The profits made on leasing contracts are likely to suffer in 2017, particularly those generated with models equipped with diesel engines. We estimate that profitability in the business is likely to shrink in 2017 taking a toll on RoE (21.2% in 2016 and 20.2% in 2015).

Please see the section headed "Important information" on the back page of this report.

### 7.3. One-off expenses likely in the short term?

#### Recall costs and discounts on the cards?

In August 2017, like other German carmakers, BMW pledged to recall its vehicles that did not comply with Euro6 regulations in a bid to rescue diesel engines and avoid the implementation of measures to ban these vehicles in city centres. Although the recall concerned 5.3m vehicles for a total cost of **EUR500m**, the group should not suffer too much since only 300,000 of its vehicles are concerned (vs. 900,000 pour Daimler) for a total cost of **EUR28.3m**.

Furthermore, BMW is obliged to offer a premium of up to EUR2,000 for the purchase of a new vehicle as a replacement for one of its models not respecting Euro6 criteria. In all, if 100% of the car owners affected decided to renew their car at the same time, this could clearly imply additional volumes for the group (positive), but also a negative price effect of around **5-6%**, since the average price of a BMW model before VAT is close to **EUR37,000**.

Note that among the three premium German carmakers, BMW is the least exposed to the crisis affecting diesel technology since the group derives less than **45%** of its sales from diesel vs. more than **60%** for Mercedes and **>69%** for Audi.

#### Default issues in the US?

Last February, BMW agreed to pay **EUR400m** to close a joint action aimed at compensating 318,000 BMW 5 Series owners that had suffered water leakages that caused electrical malfunctions (or a cost of USD1,500 per car). Since the group has not yet indicated how this cost would be affected to its accounts, we have not factored it into our model for the moment. For prospective 2017 group EBIT of **EUR10bn**, this represents an impact of **4%**.

## 7.4. Potential synergies with BMW Motorrad?

### 7.4.1. In electric/hybrid models

Although the BMW Motorrad segment now only accounts for 2% of the group's EBIT given the surge in automotive business in recent years, it plays an **important role in the German group's DNA** given that it was at the root of the transition between the group's main pre-war business (production of aircraft engines) and the business that we know today.

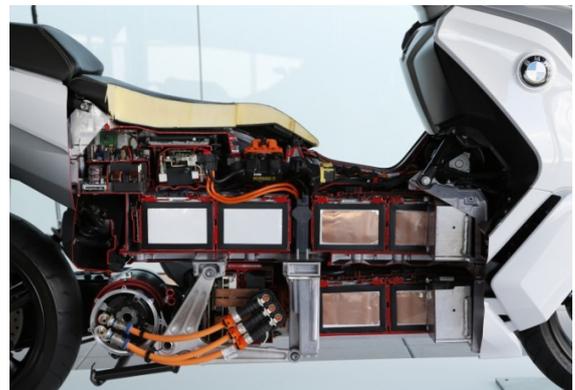
BMW entered the electrical motorcycle market in 2014 with the launch of the electric **BMW C Evolution** maxi-scooter, the electric version of the two twin-cylinder **C 600 Sport** and **C 650 GT** maxi-scooters launched in 2012. The scooter has an electric engine developing maximum power of **35 kW**, fuelled by lithium-ion batteries with capacity of 8 kWh. Continuous power stands at **11 kW** (15 ch), which is the equivalent to that of a **125 cm<sup>3</sup>** motorbike. As such, it is accessible to **A1** driving licence holders in France despite acceleration capacity similar to a traditional more powerful motorbike requiring an A licence. The electric engine means that acceleration is linear and not gradual as for a scooter/motorbike with a thermal engine, which is limited by the engine coupling and a high latency time.

**Fig. 25: An electric scooter sharing the same technology as the BMW i3**

BMW Maxi-scooter C Evolution



C Evolution battery pack



Source: Company Data; Bryan, Garnier & Co ests.

A new better-performing version in terms of autonomy and speed was also launched in Q1 2017 in addition to the existing **125 cm<sup>3</sup>** model, the **C-Evolution Long Range**, which is more powerful and faster and is reserved for A2 and A licence holders for **EUR15,500** instead of **EUR15,000** for the **125 cm<sup>3</sup>**. For this model, the group was able to share know-how and equipment with the **BMW Auto** division. The new version of the C-Evolution was possible thanks to the use of new battery cells with a capacity of **94 Ah** instead of **60 Ah**, taken from the latest development integrated in the **BMW i3**. This **12.5kWh battery** (compared with 33kWh for the i3) enables real autonomy of **160km** vs **100km** with the A1 version.

Very little official information is available concerning volumes of the C-Evolution sold by BMW on a global scale, making analysis of the success (or not) of this model very complicated. However, in France alone, the third-largest market for BMW Motorrad after Germany and the US representing 40-45% of

the model's sales on our estimates, BMW is the clear leader in the electric motorcycle market with **500/600 units sold a year**.

This implies market share of just **0.4%** in the motorcycle/scooter segment but more than **>50%** in the electric motorcycle market.

As such, we estimate that the group sells an average annual amount of **1,500/1,700 C-Evolution scooters**, or slightly more than **1%** of total motorcycle volumes sold by BMW Motorrad in the world. This compares with **29,280 BMW i3s** sold by the group in 2016, or **1.5%** of total volumes sold under the BMW brand and **1.2%** of total BMW group sales (BMW, Mini, Rolls-Royce).

**We consider that this skill-sharing in the electric field between the two BMW entities should gain momentum in the short term, especially if the boosted version of the C-Evolution enjoys genuine success.** The utilisation rate at the battery pack assembly plant at **Dingolfing** in Germany could therefore be positively impacted in favour of a decline in over production costs. Note that the battery production cost per kWh needs to fall by more than **60%** to around **USD90-100** for the electric vehicle to become competitive relative to a traditional ICE vehicle on purchase (towards 2025-30).

#### 7.4.2. Vehicle automation field

The two units could also benefit from their respective expertise in the development of **semi-autonomous** and **autonomous vehicles**, since both teams are currently working on this technology internally after the group unveiled four futuristic prototypes at the group's 100th anniversary celebrations in 2016 (BMW Auto, BMW Motorrad, Mini and Rolls-Royce). Whereas the **Vision Next 100** prototype presented under the BMW brand clearly resembled the **BMW iNext** while focusing on the vehicle's full autonomy (no dashboard), the group also unveiled a **Vision Next 100** for the Motorrad division.

Described as the "motorbike of the future", this prototype has advanced autonomy functionalities and a self-balancing system based on gyroscopes, such as those used on Segway style gyropods and other self-stabilising skate-boards. Thanks to a multitude of sensors developed for autonomous vehicles (camera, sonar, radar etc.), this motorbike is destined to achieve a safety level so high that riders would no longer require a helmet or protective clothing (boots, trousers and gloves). BMW nevertheless cautiously warned that this Motorrad Vision 100 is only a very futuristic concept whose possible **manufacturing would not take place before 2030**. It nevertheless seems logical to think that synergies between the two entities would also be possible in coming years even if in our view, the pleasure component associated with driving a motorbike, especially a BMW (see Motorrad sector), **limits potential in this market**.

**BMW Next Vision 100  
Motorrad**



## 8. BMW – Our estimates

**Fig. 26: BMW – Income statement – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Revenues</b>	<b>76 059</b>	<b>80 401</b>	<b>92 175</b>	<b>94 163</b>	<b>100 260</b>	<b>104 780</b>	<b>109 572</b>	<b>114 659</b>
Change (%)	-1,0%	5,7%	14,6%	2,2%	6,5%	4,5%	4,6%	4,6%
EBITDA	11 816	13 441	14 279	14 384	14 624	15 340	16 196	17 481
% of sales	15,5%	16,7%	15,5%	15,3%	14,6%	14,6%	14,8%	15,2%
<b>Operating margin with restructuring</b>	<b>7 986</b>	<b>9 118</b>	<b>9 593</b>	<b>9 386</b>	<b>9 591</b>	<b>10 012</b>	<b>10 471</b>	<b>10 958</b>
% of sales	10,5%	11,3%	10,4%	10,0%	9,6%	9,6%	9,6%	9,6%
Change (%)	-3,5%	14,2%	5,2%	-2,2%	2,2%	4,4%	4,6%	4,7%
Operating margin* with ass. Excl. rest.	8 384	9 773	10 111	9 827	10 173	10 571	11 058	11 574
% of sales	11,0%	12,2%	11,0%	10,4%	10,1%	10,1%	10,1%	10,1%
Financial results	(471)	(1 066)	(887)	(162)	(282)	(272)	(259)	(242)
Tax	(2 573)	(2 890)	(2 828)	(2 755)	(2 699)	(3 019)	(3 166)	(3 322)
Tax rate	34,2%	35,9%	32,5%	29,9%	29,0%	31,0%	31,0%	31,0%
Profits from associates	398	655	518	441	582	559	587	616
Minority interests	(26)	(19)	(27)	(47)	(49)	(51)	(53)	(55)
<b>Net profit</b>	<b>5 314</b>	<b>5 798</b>	<b>6 369</b>	<b>6 863</b>	<b>7 142</b>	<b>7 229</b>	<b>7 581</b>	<b>7 956</b>

Source: BMW; Bryan, Garnier & Co ests.

**Fig. 27: BMW – Cash flow statement – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Operating cash flows</b>	<b>3 366</b>	<b>2 779</b>	<b>840</b>	<b>3 189</b>	<b>11 256</b>	<b>11 509</b>	<b>12 455</b>	<b>13 579</b>
Change in working capital	983	(551)	(293)	(104)	(592)	(509)	(283)	(301)
<b>Capex, net</b>	<b>(4 925)</b>	<b>(4 600)</b>	<b>(3 825)</b>	<b>(3 731)</b>	<b>(4 512)</b>	<b>(4 715)</b>	<b>(4 931)</b>	<b>(5 160)</b>
Financial investments, net	0	0	0	0	0	0	0	0
Dividends	(1 653)	(1 715)	(1 917)	(2 121)	(2 300)	(2 500)	(2 530)	(2 653)
Other	2 380	3 553	3 480	4 555	(2 087)	(2 203)	(2 303)	(2 410)
Net debt	(12 085)	(14 223)	(16 911)	(19 520)	(21 877)	(23 969)	(26 660)	(30 016)
<b>Free Cash flow</b>	<b>3 003</b>	<b>3 481</b>	<b>5 404</b>	<b>5 792</b>	<b>4 338</b>	<b>4 279</b>	<b>4 893</b>	<b>5 665</b>

Source: BMW; Bryan, Garnier & Co ests.

Bmw

**Fig. 28: BMW – Balance sheet – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	15 113	17 182	17 759	17 960	18 790	19 653	20 457	20 911
Intangibles assets	6 179	6 499	7 372	8 157	9 011	9 840	10 653	11 358
Cash & equivalents	7 664	7 454	6 122	7 880	10 237	12 329	15 020	18 376
current assets	110 539	122 589	133 849	148 926	151 947	154 983	158 419	162 566
Other assets	27 829	32 214	38 325	39 609	41 239	43 121	44 939	46 312
<b>Total assets</b>	<b>138 368</b>	<b>154 803</b>	<b>172 174</b>	<b>188 535</b>	<b>193 186</b>	<b>198 104</b>	<b>203 358</b>	<b>208 878</b>
L & ST Debt	70 304	80 646	91 683	65 603	65 603	65 603	65 603	65 603
Others liabilities	32 421	36 720	37 727	75 569	75 642	76 077	76 539	77 029
Shareholders' funds	35 643	37 437	42 764	47 363	51 872	56 303	61 040	66 013
<b>Total Liabilities</b>	<b>102 725</b>	<b>117 366</b>	<b>129 410</b>	<b>141 172</b>	<b>141 245</b>	<b>141 680</b>	<b>142 142</b>	<b>142 632</b>
<b>Capital employed</b>	<b>114 766</b>	<b>127 540</b>	<b>138 826</b>	<b>98 897</b>	<b>102 675</b>	<b>106 139</b>	<b>109 917</b>	<b>114 029</b>

Source: BMW; Bryan, Garnier &amp; Co ests.

**Fig. 29: BMW – Ratios - %**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	10,5%	11,3%	10,4%	10,0%	9,6%	9,6%	9,6%	9,6%
Tax rate	34,2%	35,9%	32,5%	29,9%	29,0%	31,0%	31,0%	31,0%
Net margin	7,0%	7,2%	6,9%	7,3%	7,1%	6,9%	6,9%	6,9%
ROE (after tax)	5,8%	5,6%	4,7%	4,4%	4,4%	4,7%	5,0%	5,3%
<b>ROCE (after tax)</b>	<b>8,1%</b>	<b>8,3%</b>	<b>7,5%</b>	<b>8,9%</b>	<b>8,9%</b>	<b>9,1%</b>	<b>9,4%</b>	<b>9,7%</b>
Gearing	-33,9%	-38,0%	-39,5%	-41,2%	-42,2%	-42,6%	-43,7%	-45,5%
Pay-out ratio	32,1%	32,8%	33,0%	33,5%	35,0%	35,0%	35,0%	35,0%
<b>Number of shares, diluted</b>	<b>656</b>	<b>656</b>	<b>657</b>	<b>657</b>	<b>657</b>	<b>657</b>	<b>657</b>	<b>657</b>

Source: BMW; Bryan, Garnier &amp; Co ests.

**Fig. 30: BMW – Per share data - EUR**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>EPS</b>	<b>8,10</b>	<b>8,83</b>	<b>9,70</b>	<b>10,44</b>	<b>10,87</b>	<b>11,00</b>	<b>11,54</b>	<b>12,11</b>
Restated EPS	8,10	8,83	9,70	10,44	10,87	11,00	11,54	12,11
% change	4,5%	9,1%	9,8%	7,7%	4,1%	1,2%	4,9%	4,9%
EPS bef. GDW	8,10	8,83	9,70	10,44	10,87	11,00	11,54	12,11
BVPS	54,03	56,70	64,75	71,69	78,48	85,14	92,27	99,76
Operating cash flows	5,13	4,23	1,28	4,85	17,13	17,52	18,95	20,66
FCF	4,58	5,30	8,23	8,81	6,60	6,51	7,45	8,62
<b>Net dividend</b>	<b>2,60</b>	<b>2,90</b>	<b>3,20</b>	<b>3,50</b>	<b>3,80</b>	<b>3,85</b>	<b>4,04</b>	<b>4,24</b>

Source: BMW; Bryan, Garnier &amp; Co ests.

## 9. BMW – Valuation

The different businesses included in the group oblige us to value BMW via an **SOTP** as well as a **DCF calculation** and **multiples** as we already do for other stocks in the sector. **We value BMW at EUR89.**

**Fig. 31: Overview of valuation methods (EUR/action)**

	<b>FV</b>
SOTP	99
EV/Sales	77
EV/EBIT	80
P/E	70
DCF	122
<b>Implied FV</b>	<b>89</b>
Latest share price	85
<b>Upside</b>	<b>4.7%</b>

Source: Bryan, Garnier & Co ests.

### 9.1. SOTP valuation (€99)

We also value **BMW** through a SOTP. We value the group at **EUR99/share**, without taking any discount. This implies **6%** potential upside on latest share price.

Fig. 32: BMW SOTP

	Multiple	Stake	Method	2017 EURm	Value	Value per share
<b>Automotive - BMW &amp; Mini</b>						
Revenues BMW Automotive	45,0%	100%	EV/Sales	91 297	41 084	62,5
EBIT BMW Automotive	5,00x	100%	EV/EBIT	7 812	39 062	59,4
EPS BMW Automotive	9,00x	100%	P/E	9,7	87	87,1
<b>Automotive - BMW &amp; Mini (average)</b>	-	-	-	-	<b>45 795</b>	<b>69,7</b>
<b>Motorcycle</b>						
Revenues BMW Motorrad	180,0%	100%	EV/Sales	2 278	4 100	6,2
EBIT BMW Motorrad	9,50x	100%	EV/EBIT	234	2 219	3,4
EPS BMW Motorrad	12,00x	100%	P/E	0,3	3	3,1
<b>Motorcycle BMW (average)</b>	-	-	-	-	<b>2 780</b>	<b>4,2</b>
<b>Other activities</b>						
BMW Financial Services (@ latest Book value)	1,00x	100%	Book value	10 236	10 236	15,6
<b>Other activities (average)</b>	-	-	-	-	<b>10 236</b>	<b>15,6</b>
<b>Elimination</b>						
Revenues Elimination	55,0%	100%	EV/Sales	(21 307)	(11 719)	(17,8)
<b>Sum of the parts</b>					<b>47 092</b>	<b>71,7</b>
- Net industrial debt/cash 2017e					21 877	33,3
- Minority Interest value - Market value EURm					(304)	(0,5)
- Pensions EURm					(4 587)	(7,0)
+ Associates - Market Value EURm					4 768	7,3
- Risks linked to antitrust on cars in Europe - EURm					(3 509)	(5,3)
<b>Total liabilities</b>					<b>18 245</b>	<b>28</b>
<b>BMW implied Equity value</b>					<b>65 337</b>	<b>99</b>
Shares outstanding					657	
Upside						17,4%

Source: Company Data; Bryan, Garnier & Co ests.

## 9.2. Valuation based on multiples (€76)

As for other stocks in the automotive sector initiated at Bryan Garnier, we use the group's historical **EV/EBIT** and **P/E** multiples to value **BMW**. Our three FVs are calculated over the period from 2017-2026 (discounted by WACC each year) and stand at respectively **EUR77**, **EUR80** and **EUR70**. We value **BMW** on multiples of **45% of sales**, **5.5x EBIT** and **P/E of 9x**, in line with premium European, US and Asian peers.

### 9.3. DCF valuation (€122)

We also value **BMW** using a DCF model based on the following estimates:

- **WACC** of **10.8%** which corresponds to a cost of capital, since the group has negative net debt. We assume a **beta** of **1.25**, a **risk premium** of **7%** and a **risk-free rate** of **1.6%**.
- A **growth rate to infinity** of **2.5%**, implying a slight outperformance by **BMW** relative to the auto market (+1.9%) yet a slight underperformance compared with Daimler (+3%).
- **EBIT margin** (with restructuring and without the JVs) of **9.6%** on average and a margin to infinity of **8.5%**.

**Fig. 33: BMW – Estimations DCF - €m**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Revenues - Core business</b>	<b>100 260</b>	<b>104 780</b>	<b>109 572</b>	<b>114 659</b>	<b>120 064</b>	<b>125 810</b>	<b>131 927</b>	<b>138 444</b>	<b>145 395</b>	<b>152 817</b>
Revenue Growth Rate	-	5%	5%	5%	5%	5%	5%	5%	5%	5%
Operating Margin	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
<b>EBIT (excluding JVs &amp; Associates, with restr. Charges)</b>	<b>9 591</b>	<b>10 012</b>	<b>10 471</b>	<b>10 958</b>	<b>11 476</b>	<b>12 027</b>	<b>12 614</b>	<b>13 240</b>	<b>13 907</b>	<b>14 621</b>
Adjustment for provisions	0	0	0	0	0	0	0	0	0	0
(-) Taxes on EBIT	(2 781)	(3 104)	(3 246)	(3 397)	(3 558)	(3 728)	(3 910)	(4 104)	(4 311)	(4 533)
(+/-) Movements in working capital	(592)	(509)	(283)	(301)	(569)	(351)	(374)	(398)	(425)	(454)
(+) Depreciation and amortization	5 033	5 328	5 725	6 522	6 741	7 102	7 486	7 886	8 310	8 626
(-) Capital Expenditures	(4 512)	(4 715)	(4 931)	(5 160)	(5 403)	(5 661)	(5 937)	(6 230)	(6 543)	(6 877)
(-) Intangibles	(2 206)	(2 305)	(2 411)	(2 523)	(2 641)	(2 768)	(2 902)	(3 046)	(3 199)	(3 362)
Free Cash Flow	4 534	4 708	5 325	6 101	6 046	6 620	6 976	7 347	7 739	8 022
<b>Present Value of Free Cash Flow</b>	<b>4 196</b>	<b>3 933</b>	<b>4 018</b>	<b>4 156</b>	<b>3 719</b>	<b>3 677</b>	<b>3 499</b>	<b>3 327</b>	<b>3 164</b>	<b>2 962</b>

Source: Bryan, Garnier & Co ests.

**Fig. 34: BMW – DCF @ EUR122**

PV of Free Cash Flows	36 650
PV of Terminal Value	27 627
<b>EV implied - EURm</b>	<b>64 276</b>
- Net industrial debt EURm N-1	(19 520)
- Minority Interest value -Market value EURm	304
+ Financial assets - Market value EURm	4 768
- Pensions - EURm	4 587
- Risks linked to antitrust on cars in Europe EURm	3 509
<b>BMW implied Equity value</b>	<b>80 165</b>
Shares outstanding	657
<b>Implied Target Price - EUR</b>	<b>122</b>

Source: Bryan, Garnier & Co ests.

In all our FV calculated for BMW, we take **EUR3.5bn** of provisions linked to accusations from European Commission on German carmakers on a potential cartel on prices for exhaust systems.

**We are initiating coverage of BMW with a Fair Value of EUR89, implying upside of 5%.**

# 10. BMW – SWOT

**Fig. 35: BMW – SWOT analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• A dominant position in the premium market (world no. 2 behind Mercedes)</li> <li>• A very <b>premium positioning</b> (+15-20% vs. mid-range brand) enabling the group to have a <b>9-10% margin</b>, ahead of the sector average (5-6%)</li> <li>• Lead over the competition in <b>electric vehicles</b> (i3)</li> <li>• One of the carmakers the best positioned in the autonomous vehicle thanks to its partnership with <b>Mobileye, Intel and Delphi</b></li> <li>• A positioning both upscale and in luxury with <b>Rolls-Royce</b></li> <li>• <b>40 launches</b> of new or face-lifted models over 2017-18 including the <b>Series 8</b> and the <b>X7</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Margin under pressure</b> in the short term due to investments in electric and autonomous vehicles</li> <li>• A fairly small-sized carmaker (less than 2.5m cars sold each year) with <b>few industrial partnerships</b> relative to Audi (VW group) and Mercedes (Renault-Nissan)</li> <li>• Low exposure to <b>emerging markets</b> (Brazil, India and Russia) which should benefit from a catching up effect in the short term</li> <li>• Lagging in the <b>hybrid segment</b></li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• High growth potential in the <b>electric vehicle field</b>, in which the group has genuine technical expertise (i3)</li> <li>• Growth potential prompted by the <b>change in mobility</b>, with the group present in various buoyant markets (ChargeNow, DriveNow, ParkNow, ReachNow)</li> <li>• An increase in the <b>premium share</b> of the global auto market, to beyond <b>10%</b> (9.3% in 2016)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>A slowdown in the Chinese auto market</b>, which is now the group's leading market in volume terms (22% of total volumes and around 8-9% of attributable net profit)</li> <li>• <b>Catching up of Audi</b> relative to BMW in the electric vehicle field thanks to impetus from, and <b>Mercedes</b></li> <li>• An increase in <b>commodities prices</b> in the short term penalising the group's profitability</li> <li>• <b>Increase in default rate for US BMW customers</b> denting margin in the financial services business</li> </ul>

Source: Bryan, Garnier & Co ests.

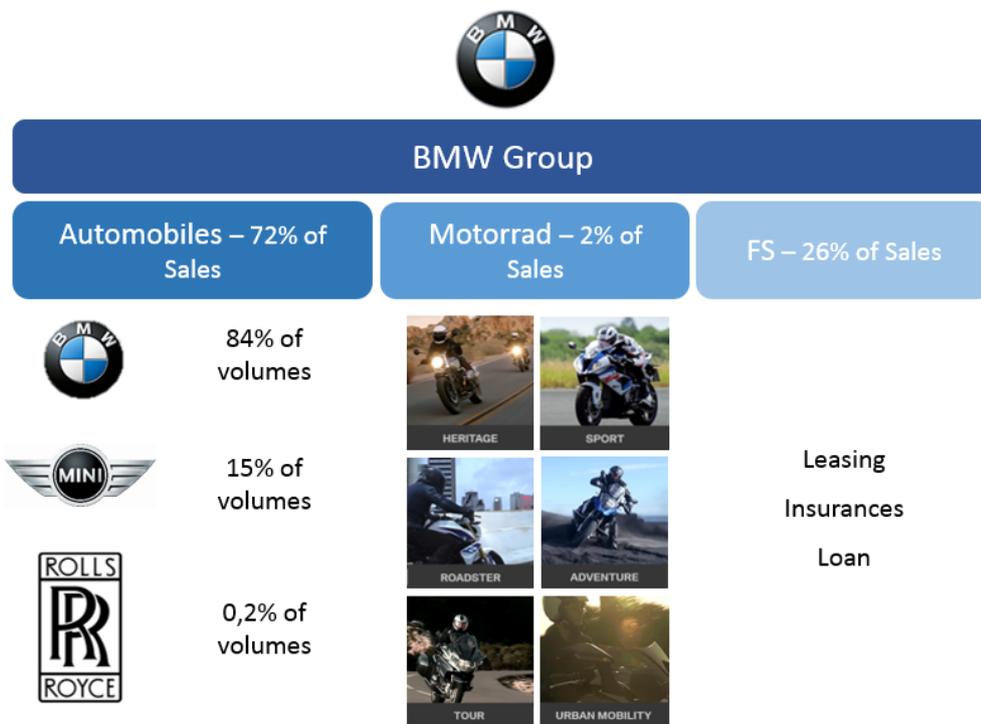
## 11. BMW in short

Created in 1916 in **Munich, Bavaria** by **Gustav Otto** and **Karl Friedrich Rapp**, the German car manufacturer **BMW** (Bayerische Motoren Werke Aktiengesellschaft) is now the **world's 12th largest carmaker** in volume terms with a market share of **2.7%**, as well as the no. 2 premium carmaker behind **Daimler** (3.1% market share). The group started out in the aeronautics industry producing aircraft engines (the business was sold off in 1918 at the end of World War 1, although production started again in 1930 firstly with the manufacturing under licence of US engines Pratt & Whitney and then with the star engine). However, today 100% of the group's business is focused on engine production for cars and for motorcycles (motorbikes and scooters).

At the start, the group's strategy was focused on more affordable models more suited to demand (in a Germany ruined by the war). However, the excellent performances of BWM motorbikes and cars in sporting events gradually enabled the brand to move upscale and carve itself a position in the high-end auto market. In 1994, the group tried to increase its production capacities while entering the UK market by taking over **Rover Group** (manufacturer of Land Rover, Mini and MG at the time) which was in a difficult financial position, before selling it on six years later for a symbolic price of GBP10 to four industrialists. The **Land Rover** brand was sold to **Ford**, while **Mini** remained at **BMW** before being relaunched in 2001 with an entirely new 100% BMW version. In the meantime, in 1998, the group also bought luxury carmaker **Rolls-Royce**, whose first model under the BMW brand (Rolls-Royce Phantom) was launched in 2003.

At end-2001, the German group was present in three different yet complementary automotive segments: the entry-level segment with **Mini** (before BMW gradually moved upscale with the brand), the premium segment with its historical brand and the luxury segment with **Rolls Royce**.

Fig. 36: BMW – present in the car and motorcycle segments



Source: Company Data; Bryan, Garnier & Co ests.

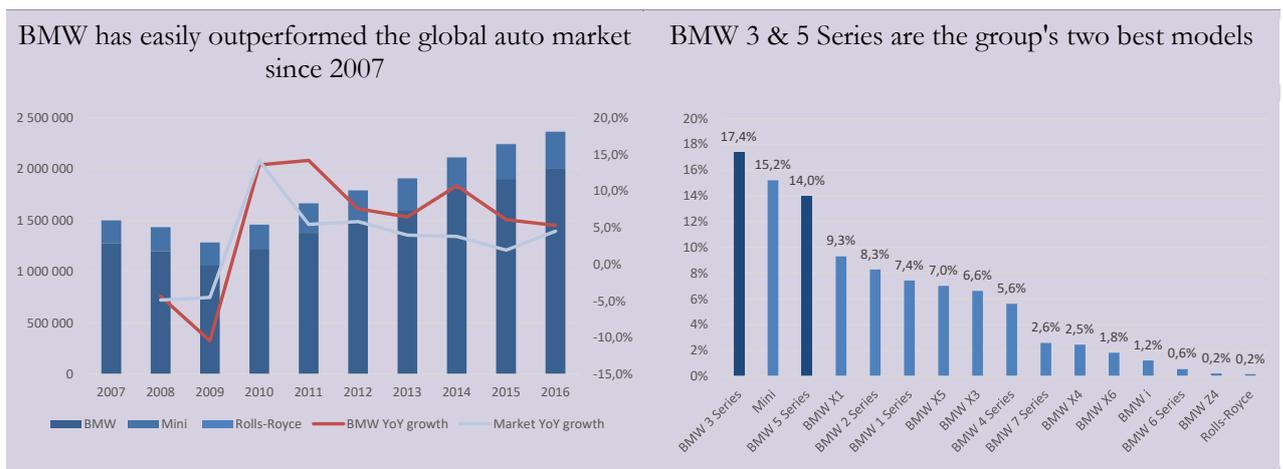
In early 2017, the group's product portfolio was identical to that of 2001 even though the Mini brand can now be considered as an upscale brand. The number of models offer is now higher (14 BMW models available in 2016 vs. just six in 2006), perfectly reflecting the strategy of brands such as **BMW**, **Mercedes-Benz** and **Audi** to increase their market share by attacking smaller segments (A and B segments).

At end-2016, 100 years after the group was created, BMW had sales of **EUR94bn**, EBIT of **EUR9.4bn** (10%) and net profit of **EUR6.9bn** (7.3%). During the year, **2.37m** cars were sold as well as **145,555 motorcycles**, beating the previous record in 2015.

## 11.1. BMW Automobile – 72% of sales – 80% of EBIT

Representing more than **70%** of sales, **80%** of EBIT and pre-tax profit, the vehicle production and sales business is clearly the German group's main business. Boasting significant industrial presence thanks to **31 production** and assembly sites spread over **14 countries**, the group distributes its three brands (BMW, Mini and Rolls-Royce) in more than **140 pays** enabling it to rank among the leading groups in the premium auto market (no. 1 in 2015 ahead of Mercedes and then no. 2 in 2016) with **2.4m** cars sold. Historically positioned in this high-end segment via cars in the D and E categories, via the BMW brand the group has gradually increased its presence in smaller categories and also in the SUV segment, much favoured by European, US and also Chinese consumers. The **BMW** range is now very comprehensive with more than **14 different models available** compared with just **eight in 2007**, with **the 3 and 5 Series** remaining the top selling models in the world for the group (20% and 16.5% of BMW volumes sales respectively). Over 2007-2016, the group multiplied volumes by **1.6x** while increasing its **sales by 60%**, implying that **1/**the extension of the BMW range from **eight to 15 models** did not come at the expense of the group's pricing power, and that **2/**the group outperformed growth in the auto market by an average of **2pp** between 2007-16 and **4pp** between 2010 and 2016. In the premium segment, the group carved itself a market share of around **24%** in 2016.

**Fig. 37: BMW gained 40bp in market share over 9 years thanks to a wider positioning more suited to demand**



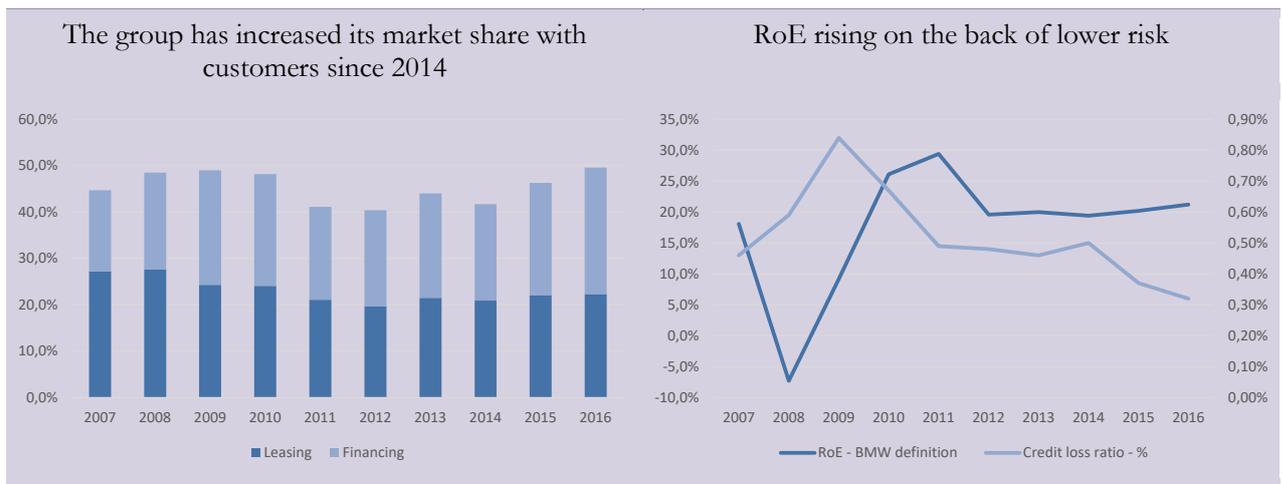
Source: Company Data; Bryan, Garnier & Co ests.

With more than **500,000 vehicles sold in 2016**, **China** is the group's leading market ahead of the **US** and **Germany** (respectively 367,000 and 300,000 vehicles) despite the weaker market share in the upscale segment than in the two other countries (7% vs. 11% for the US and more than 15% for Germany), reflecting robust growth leverage from the country in coming years.

## 11.2. BMW Bank – 26% of revenue – 18% of EBIT

Like all of the main carmakers with significant international scope, BMW can accompany its customers in the purchase of a new or second-hand BMW model via its financing and insurance division. At end-2016, the group had a portfolio of more than **5.1m** financing contracts, up **8.4%** relative to 2015 despite sharp volatility in the auto financing market. The group now finances slightly less than half of new BMW purchases (except Rolls-Royce) via leasing or loans vs. just 40% in 2012 with more than half of the new contracts signed under the framework of a financing plan.

**Fig. 38: The group is increasingly financing its customers by reducing risk**



Source: Company Data; Bryan, Garnier & Co ests.

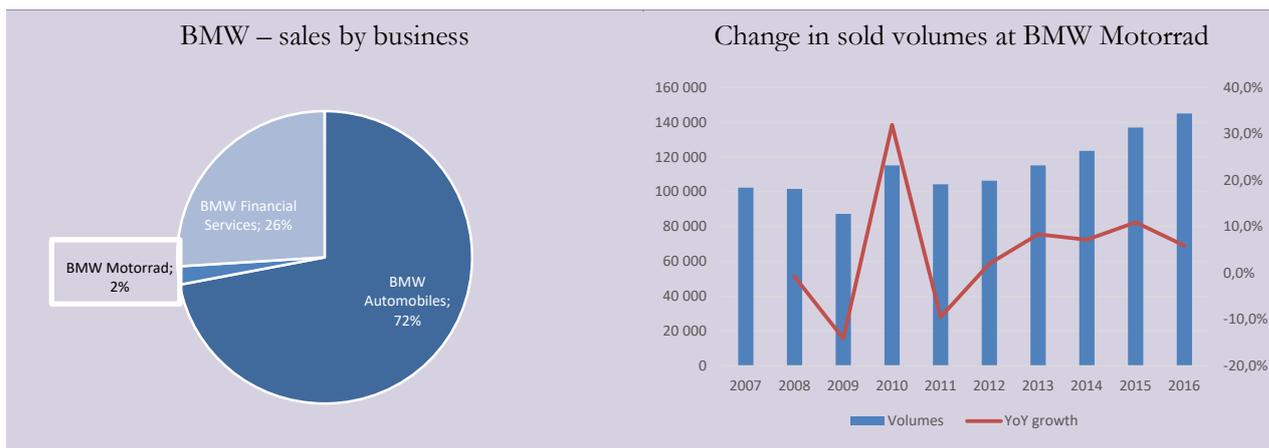
Despite this high growth in BMW's market share in the choice of financing for individuals as well as professionals, the loan loss ratio has fallen constantly, from **0.48%** in 2012 to a new record of **0.32%** in 2016. As such, the group's market share gains have not been made to the detriment of customer profile quality.

In our BMW model, we expect a slight deterioration in the profitability of the financing business in 2017 relative to 2016. Note that the financing business represents **27%** of the group's revenue and **22%** of pre-tax profit (before intra-group adjustments). The division's balance sheet accounts for **70%** of the group's overall balance sheet.

### 11.3. BMW Motorcycle – 2% of sales – 2% of EBIT

Although this segment now only accounts for 2% of the group's EBIT given the robust growth in the auto business in recent years, it plays an important part in BMW's DNA given that it was at the root of the transition between the group's main pre-war business (aircraft engines) and the business as it is today.

**Fig. 39: BMW Motorrad only represents 2% of sales but is important for the group's DNA**



Source: Company Data; Bryan, Garnier & Co ests.

#### BMW R32



The BMW subsidiary has manufactured motorcycles since **1923**, when BMW Motorrad produced the **R32**, equipped with a flat-twin boxer engine (an internal combustion engine in which the two pistons are flat and thereby move in phase with each other), a technology developed by the brand's engineers and which clearly sets it apart from rivals. The brand still uses this engine configuration in certain models but has also diversified its engines by offering motorcycles fitted with four and six cylinders in line.

In 2016, the group sold **145,032 motorcycles**, or **5.9%** more than in 2015 and **36%** more than in 2012 vs. respectively **+5.3%** and **+28%** for the auto segment over the same periods. Germany remains its leading market with more than **17%** of the brand's volumes sold in this market vs. **9.5%** in the US and **9.2%** in France although the group's strategy to increase its international presence should gradually reduce its dependence on its local market even if the core target for BMW Motorrad remains mature countries given its very premium product positioning (the average price of a BMW motorbike before VAT is EUR14,625). Via the **Heritage, Sport, Roadster, Tour, Adventure** and **Urban Mobility ranges**, the group currently offers **26 different models adapted to the various requirements of motorcycle riders**. The **R Series**, which covers motorbikes with shaft transmission twin boxer engines of 1,170 cm<sup>3</sup> (R1200GS, R1200R, R1200RT, BMW R1200RS, R1200S and R nineT) represented more than **53%** of volumes sold by the group last year with the R 1200 GS model as the first model sold (17% of sales).

**Fig. 40: A comprehensive range adapted to different customers**



*Source: Company Data; Bryan, Garnier & Co ests.*

The brand aims to double its 2010 volumes (98,047 motorbikes sold) by 2020 thanks to the launch of new models and the opening of new countries, implying a CAGR of 7.8% vs. 6.7% between 2010 and 2016. In 2017 alone, the group should launch 14 new models/facelifted models including the launch of the G 310 GS and the K 1600 B. The brand has also planned to extend its R nineT range.

In our view, the division's skills used to develop the electric C Evolution testify perfectly to the R&D and production cost synergies existing between BMW's motorcycle segment and the auto division.

**For 2017, we expect sales growth of more than 10% in this segment, as well as an improvement in EBIT margin to 9.8% (9% in 2016). Note that in this segment, BMW aims to generate a margin of 8-10% in the segment in 2017.**

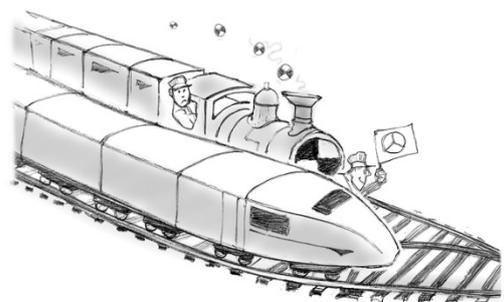
INDEPENDENT RESEARCH

25th September 2017

Automotive

Bloomberg	DAIG GR
Reuters	DAIGn.DE
12-month High / Low (EUR)	72.8 / 59.3
Market capitalisation (EURm)	71,230
Enterprise Value (BG estimates EURm)	49,491
Avg. 6m daily volume ('000 shares)	3,771
Free Float	81.9%
3y EPS CAGR	7.5%
Gearing (12/16)	-8%
Dividend yields (12/17e)	4.91%

YE December	12/16	12/17e	12/18e	12/19e
Revenue (EURm)	153,261	163,246	169,216	175,495
EBIT(EURm)	12,890	14,995	15,087	15,738
Basic EPS (EUR)	7.97	9.34	9.44	9.91
Diluted EPS (EUR)	7.97	9.34	9.44	9.91
EV/Sales	0.36x	0.30x	0.29x	0.26x
EV/EBITDA	3.0x	2.3x	2.3x	2.0x
EV/EBIT	4.2x	3.3x	3.3x	2.9x
P/E	8.4x	7.1x	7.1x	6.7x
ROCE	7.6	8.7	8.6	8.8



# Daimler

Back in the shoes of a no. 1 player

Fair Value EUR87 (price EUR66.58)

**BUY**  
Coverage initiated

After rejuvenating the Mercedes-Benz brand (MB) as of 2012 with the launch of the new A-Class, Daimler has restored its no. 1 position in the market, favouring an improvement in margins. The group is now ready to take on BMW and Tesla in electric vehicles even if this is set to dent growth in margins and FCF in the short term. We prefer Daimler to BMW to play the premium segment.

- **Back in the top spot in the premium market ahead of BMW:** Leader in the premium market until 2004 and then no. 2 behind its rival BMW until 2011 and even no. 3 behind Audi until 2014, via its MB brand, Daimler is now back in the no. 1 position after a total rejuvenation of its range in recent years, but also thanks to a spike in sales in China, which is now its top market.
- **The group is taking its destiny in hand:** after lagging far behind BMW in terms of electrifying its product range, Daimler recently unveiled very ambitious targets for 2022 (launch of 10 electric models) financed by a hefty investment plan (EUR10bn over 10 years, or 18% of spending over the period). A newly created brand (EQ) dedicated to the group's 100%-electric range should officially come on the market with the launch of the EQC SUV during 2019.
- **Management looking for value creation:** Daimler is the only auto manufacturer in our BG coverage to have significant exposure (30% of EPS) to a business other than cars via its "Trucks, Vans & Buses" business. Recent comments by management concerning a potential strategic review (separate entities) would automatically imply a re-rating in the share, closer to our SOTP-derived valuation of EUR101.
- **Buy, FV at EUR87:** Despite short/medium-term margin risk caused by higher R&D expenses (like BMW), combined with potential fines (cartels in Germany and diesel scandal) that could reduce the group's cash position, we are initiating coverage of Daimler with a Buy recommendation (EUR87). The group should continue to outperform its rivals, especially post-2020 once the EQ brand is fully deployed. In the shorter term, the group should continue to benefit from a healthy performance in China.



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## Daimler



### Company description

Daimler is an automotive company specialized in the conception and the manufacturing of cars, vans, trucks and buses. The group is number one in the worldwide premium market ahead of BMW thanks to a solid exposure in U.S. and in China. The group has strong ambition to develop BEVs over coming 10 years.

### Simplified Profit & Loss Account (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Revenues	129,872	149,467	153,261	163,246	169,216	175,495	182,058
Change (%)	10.1%	15.1%	2.5%	6.5%	3.7%	3.7%	3.7%
Adjusted EBITDA	15,742	18,560	18,368	21,417	21,723	23,349	24,537
EBIT	10,743	13,176	12,890	14,995	15,087	15,738	16,668
Change (%)	-0.6%	22.6%	-2.2%	16.3%	0.6%	4.3%	5.9%
Financial results	(570)	(432)	(316)	(423)	(394)	(355)	(312)
Pre-Tax profits	10,173	12,744	12,574	14,572	14,693	15,382	16,356
Exceptionals	1,057	1,532	1,327	2,104	2,104	2,104	2,104
Tax	(2,883)	(4,033)	(3,790)	(4,314)	(4,317)	(4,489)	(4,661)
Profits from associates	897	464	502	1,494	1,105	1,138	1,172
Minority interests	(328)	(287)	(258)	(268)	(279)	(290)	(302)
Net profit	6,962	8,424	8,526	9,989	10,097	10,603	11,392
Restated net profit	6,962	8,424	8,326	9,989	10,097	10,603	11,392
Change (%)	1.8%	21.0%	-1.2%	20.0%	1.1%	5.0%	7.4%

### Cash Flow Statement (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Operating cash flows	6,791	13,596	14,141	15,101	15,792	16,987	18,043
Change in working capital	(4,308)	(1,280)	149	(508)	(548)	(829)	(816)
Capex, net	(6,307)	(7,336)	(8,833)	(9,550)	(9,645)	(9,915)	(10,286)
Financial investments, net	8,461	10,117	13,544	268	279	290	302
Dividends	(2,565)	(2,895)	(3,678)	(3,477)	(3,496)	(3,534)	(3,711)
Other	299	161	(3,699)	0.0	0.0	0.0	0.0
Net debt	(11,534)	(17,980)	(19,699)	(22,042)	(24,971)	(28,799)	(33,146)
Free Cash flow	5,479	3,960	3,874	5,551	6,147	7,071	7,757

### Balance Sheet (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	23,182	24,322	26,381	27,141	27,697	27,544	27,413
Intangibles assets	9,367	10,069	12,098	14,465	16,919	19,376	21,924
Cash & equivalents	14,927	17,061	20,629	22,972	25,901	29,729	34,076
current assets	77,145	91,847	102,052	106,032	110,063	115,302	121,074
Other assets	79,941	90,928	102,457	102,668	102,817	102,974	103,138
Total assets	189,635	217,166	242,988	250,307	257,496	265,196	273,550
L & ST Debt	86,689	101,142	117,686	117,686	117,686	117,686	117,686
Others liabilities	59,281	62,463	67,352	69,084	70,270	71,517	72,825
Shareholders' funds	43,665	53,561	57,950	63,487	69,522	76,013	83,105
Total Liabilities	189,635	217,166	242,988	250,256	257,478	265,216	273,616
Capital employed	112,924	127,052	169,059	172,521	175,906	178,860	181,906

### Ratios

	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	8.27	8.82	8.41	9.19	8.92	8.97	9.16
Tax rate	28.34	31.65	30.14	29.61	29.38	29.19	28.50
Net margin	5.36	5.64	5.43	6.12	5.97	6.04	6.26
ROE (after tax)	39.45	36.54	32.54	35.82	35.39	35.16	35.06
ROCE (after tax)	8.46	8.72	7.62	8.69	8.58	8.80	9.16
Gearing	(6.65)	(8.28)	(8.11)	(8.81)	(9.70)	(10.86)	(12.11)
Pay out ratio	37.65	41.27	40.78	35.00	35.00	35.00	35.00
Number of shares, diluted	1,070	1,070	1,070	1,070	1,070	1,070	1,070

### Data per Share (EUR)

	2014	2015	2016	2017e	2018e	2019e	2020e
EPS	6.51	7.87	7.97	9.34	9.44	9.91	10.65
Restated EPS	6.51	7.87	7.97	9.34	9.44	9.91	10.65
% change	1.7%	21.0%	1.2%	17.2%	1.1%	5.0%	7.4%
EPS bef. GDW	6.51	7.87	7.97	9.34	9.44	9.91	10.65
BVPS	176	202	226	233	239	246	254
Operating cash flows	6.35	12.71	13.22	14.12	14.76	15.88	16.87
FCF	5.12	3.70	3.62	5.19	5.75	6.61	7.25
Net dividend	2.45	3.25	3.25	3.27	3.30	3.47	3.73

Source: Company Data; Bryan, Garnier & Co ests.

## Table of contents

1. Investment Case.....	84
2. Daimler in six charts .....	85
3. In the shoes of a no. 1 player .....	86
4. Back in the no. 1 slot in the premium segment.....	87
4.1. Daimler has managed to adopt a winning strategy to reach a new target profile..	87
4.2. The Chinese market remains a priority .....	90
5. The group is taking its destiny in hand.....	92
5.1. Late in electric vehicles, but not for much longer.....	92
5.1.1. An initial positioning in hydrogen.....	92
5.1.2. ... before betting definitively on BEV .....	93
5.1.3. Investments necessary to internalise battery production.....	94
5.1.4. Batteries used for other applications.....	94
5.2. A clear aim to position the group in autonomous vehicles .....	96
5.2.1. The need for partnerships to make up for lost time .....	96
5.2.2. More pro-active in the ride-sharing segment.....	96
5.2.3. An opportunity in the autonomous truck segment.....	97
6. Looking for value creation to get through the cycle better.....	99
6.1. Margins and FCF under pressure in the short/medium terms?.....	99
6.2. A strategic review to create value and raise funds?.....	101
7. Daimler – Our estimates .....	103
8. Daimler – Valuation.....	105
8.1. SOTP valuation (€101).....	105
8.2. Valuation based on multiples (€83).....	105
8.3. DCF valuation (€89).....	105
9. Daimler – SWOT.....	107
10. Daimler in short.....	108
10.1. Mercedes-Benz Cars – 58% of sales, 63% of EBIT .....	109
10.2. Daimler Trucks – 21% of sales, 14% of EBIT.....	111
10.3. Daimler – other industrial activities.....	112
10.4. Daimler Financial Services – 13% of sales, 13% of EBIT .....	112
Bryan Garnier stock rating system.....	115

# 1. Investment Case

*Why the interest now?*



## The reason for writing now

Under the framework of our report on carmakers, we are initiating coverage of Daimler, **the world leader in the premium segment**, which thanks to its **Mercedes** brand has **more than 23%** of the market. The ramp-up in this segment is likely to last in coming years, implying a further outperformance by Daimler relative to the sector. The group has been lagging in electric vehicles, especially relative to BMW, but is now one of the most ambitious carmakers with its **EUR10bn** investment plan for the next 10 years. The creation of a dedicated range (EQ) is a step in the right direction.

*Cheap or Expensive?*



## Valuation

As for other stocks in the sector, we value Daimler using several methods: sector **EV/sales**, **EV/EBIT** and **P/E** multiples and a **DCF** calculation. We value Daimler at **EUR87 a share**, pointing to **>30% upside**. We have also undertaken an **SOTP** valuation, putting the Daimler share price at **EUR101**, aimed at better assessing the group's various businesses (production and sale of trucks in addition to vehicle sales), with the group suffering from a fairly high conglomerate discount that management would like to reduce, especially by selling off certain assets.

*When will I start making money?*



## Catalysts

We see no genuine catalysts for the share price in the short term, apart from the implementation of a strategic review with the aim of creating value for shareholders and/or raising funds.

*What's the value added?*



## Difference from consensus

We are currently **5%** and **11%** higher than the market in terms of 2017/18 EPS estimates since our margin estimates are more optimistic.

*Could I lose money?*

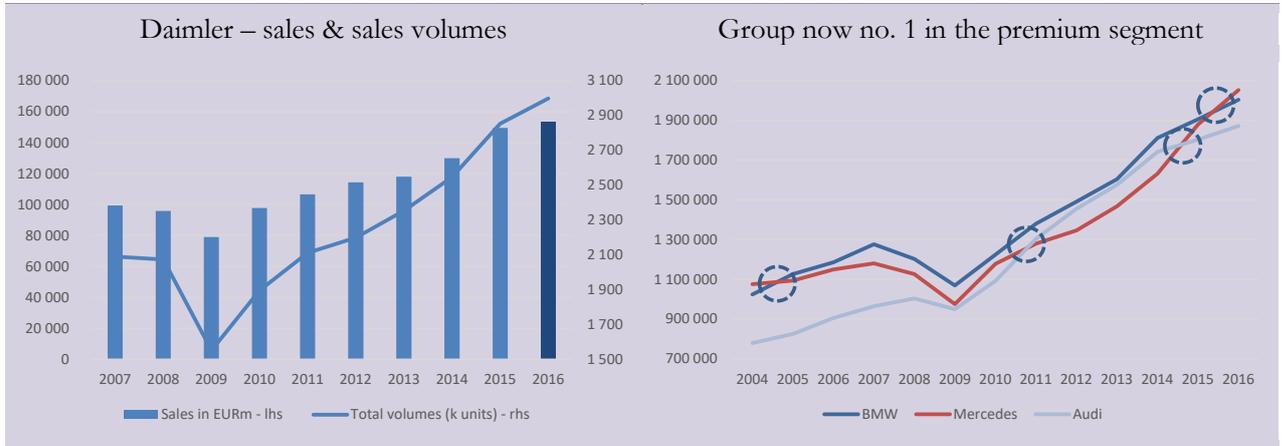


## Risks to our investment case

A slip-up in terms of Chinese demand could prove significant for the group given the importance of the market for the MB segment (22% of total sales). A sharp slowdown in the trucks market could also take a toll on the group's earnings given the high operating level and cyclical nature of the business.

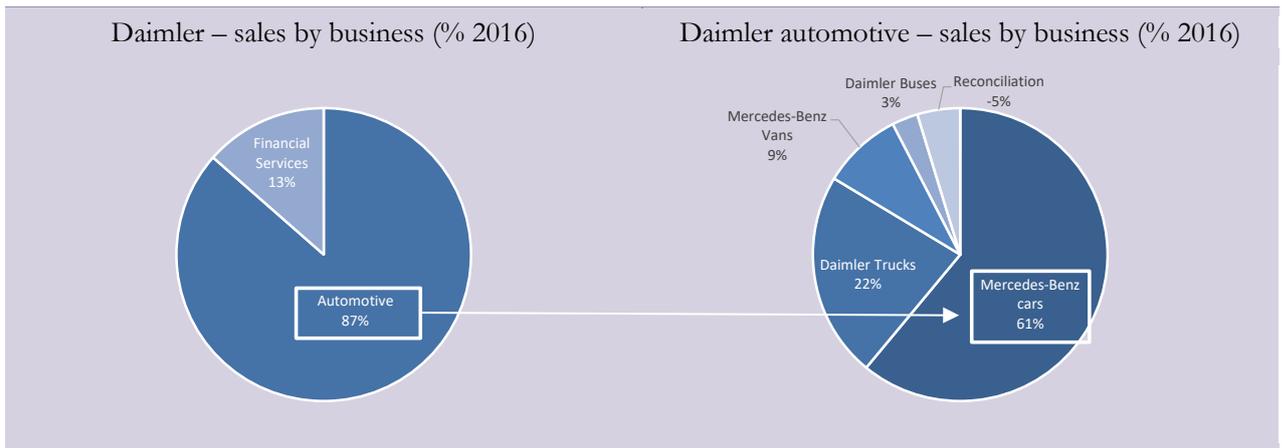
## 2. Daimler in six charts

**Fig. 1: Sharp growth in sales since 2009 explaining the group's no.1 position**



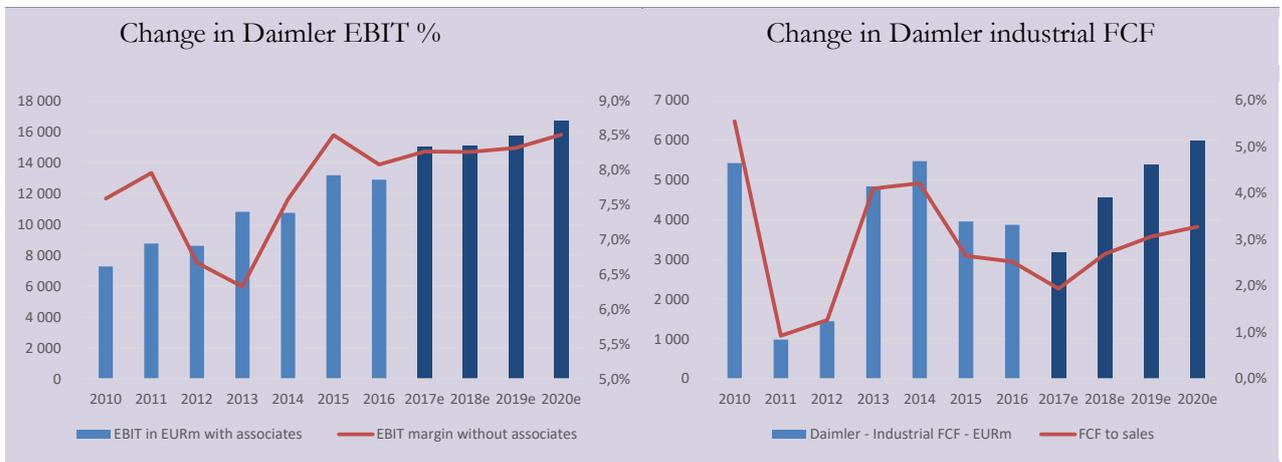
Source: Daimler; Bryan, Garnier & Co ests.

**Fig. 2: Group highly exposed to the auto segment**



Source: Daimler; Bryan, Garnier & Co ests.

**Fig. 3: A high margin that is likely to remain stable over the medium-term**



Source: Company Data; Bryan, Garnier & Co ests.

Please see the section headed "Important information" on the back page of this report.

### 3. In the shoes of a no. 1 player

Daimler was the longstanding leader in the premium segment ahead of **its eternal rival BMW** (until 2004) thanks to its very specific product positioning as an elitist brand favoured by older customers, and its strong historical presence in Germany. However, the group gradually suffered from the ramp-up in quality at Audi while allowing the Asian market to slip into the hands of BMW. The group was firstly caught up by **BMW** in 2004 before Audi snatched the no. 2 slot in 2010/11.

This loss of momentum obliged the group to review its positioning and its product offer in favour of younger models more adapted to new demand trends (SUV). Following the rejuvenation of the **Mercedes-Benz (MB)** brand as of 2012 with the launch of the new **A-Class**, Mercedes Benz gradually began to recover its leadership position, in favour of profitability (margin up 140bp over the period to 8.1%). The group now seems ready to take on **BMW** and **Tesla** in electric vehicles, thanks especially to the roll-out of a strategic plan to create expertise in this field. Daimler is now the most aggressive player in the segment and one of the most ambitious among the carmakers alongside VW. By 2022, **10 new electric models** should see the day, including seven for the Mercedes-Benz brand alone, whereas over the same period, BMW is only planning to launch three. The programme will come at a cost for the group in the short term although we consider this vital in the race for electrification, especially since Daimler, like the other German carmakers, VW and BMW, needs to restore its image with consumers following the diesel scandal.

Despite a short/medium-term risk to margins given the increase in R&D spending (like BMW) combined with potential fines (cartels in Germany and diesel scandals) that could reduce the group's cash position, **we are initiating coverage of Daimler with a Buy recommendation (EUR85)**. Management's recent comments concerning a potential strategic review (IPO or spin-off) **would automatically imply a re-rating for the share**, closer to our **SOTP-derived FV (EUR101)**, with the group currently suffering from a conglomerate discount given its presence in Trucks, Vans & Buses, which account for more than 30% of its earnings.

In our view, the group should continue to outperform its rivals, especially after 2020 once the **EQ** brand is fully deployed. In the shorter term, the group should continue to benefit from healthy commercial performances in **China, its leading market**.

The share is currently trading on a discount of more than **32%** relative to historical multiples, vs. just **10%** for BMW, at **7x 2017e EPS** (7.7x for BMW).

**We prefer Daimler to BMW to play the premium car segment.**

## 4. Back in the no. 1 slot in the premium segment

Daimler has restored its leadership position in the highly competitive premium car market, which only represents around **8m vehicles a year** or **8.8%** of the global market, but **more than 50% of profits in the auto sector** (for carmakers). Before this, the group was exceeded by BMW in 2005 and by Audi in 2011 before becoming the no. 2 player in 2015. Daimler therefore restored its position as the world leader in the segment in 2016, ousting BMW from a near-10 year ruling after selling **2.05 million vehicles**, implying volume growth of **11.3%** relative to 2015 vs just 5.2% growth for the BMW brand (to 2m vehicles) and **+4.6%** for the global automotive market. **The market share gains were made on the back of the strategic about-turn implemented by the group in recent years.**

**Fig. 4: After losing its title in 2005, Mercedes was back in the no. 1 slot in 2016**



Source: Companies data; Bryan, Garnier & Co ests.

### 4.1. Daimler has managed to adopt a winning strategy to reach a new target profile

Whereas Mercedes was above all considered as a high-quality and prestigious brand favoured by consumers in an older age group, it has managed to adapt itself to suit a younger, more mobile and sporty driver profile, for which premium vehicle usage differs clearly from that of group's previous standard customer profile. Today, drivers choose their cars far more for the social status they provide rather than for the car itself, whereas previously the opposite was true, especially for Mercedes' buyers (the group's penetration was the highest for premium carmakers in the wealthiest and oldest social categories).

**As such, the car as a social status symbol has obliged the group to change its strategy or find itself considerably side-lined by BMW and Audi which managed to address these behavioural changes much earlier.**

The group has therefore changed its strategy by implementing a better product strategy and communication more suited to the new generation of customers thereby reaching out to younger people and young professionals.

Determined to make its brand image less conventional and less classic by targeting a new younger driver profile, Mercedes opted for a **more aggressive product strategy**

Firstly, the group simplified the nomenclature of its models in order to make them more readable for customers. As such, models whose positions were previously hard to define for customers such as **SUVs, roadsters and coupés** have now taken on the codes of saloon models and the five classes **A, B, C, E and S**. The first letter corresponds to the positioning in the Mercedes range in terms of level of luxury (A being the entry-range series, and S the most luxurious). The group also decided to clarify its engine appellations in order to help differentiate the vehicles between each oth. A simple letter corresponding to the initial of the engine (d for diesel, e for petrol and h for hybrid etc.) replaces the previous endings that were less clear such as BlueTEC and CDI to designate a diesel vehicle in particular. All the models (except the **B-Class**) now have a SUV version (GLA, GLC, GLE, GLS) and this has helped put the group in the no. 1 spot in the segment whereas the market was historically controlled by BMW, the pioneer in the premium SUV.

This clarification undertaken in recent years has gone hand in hand with a **strategy to rejuvenate the range of vehicles** following design changes on future models. The group also reinstated a technique already used in 1982 when the Baby Benz was launched, by renewing its compact **A-Class** model and rolling it out in several versions (coupé, saloon, SUV, estate etc.) The brand image is now younger and more dynamic, making the product more attractive in the eyes of customers. Various consumer surveys and statistics back the fact that the strategy operated has paid off, with the group boasting 80% of new customers in sales of its new A-Class. The model has helped **reduce the average customer age by around 10 years on average.**

**Fig. 5: Average age of new vehicle buyers by brand in 2014/15**



Source: NCBS; Bryan, Garnier & Co ests.

A survey undertaken by NCBS (New Car Buyer Survey) showed that the average age of buyers of a new Mercedes was **57** in 2014, far higher than at premium rivals BMW and Audi, with an average age of respectively **52 and 51**.

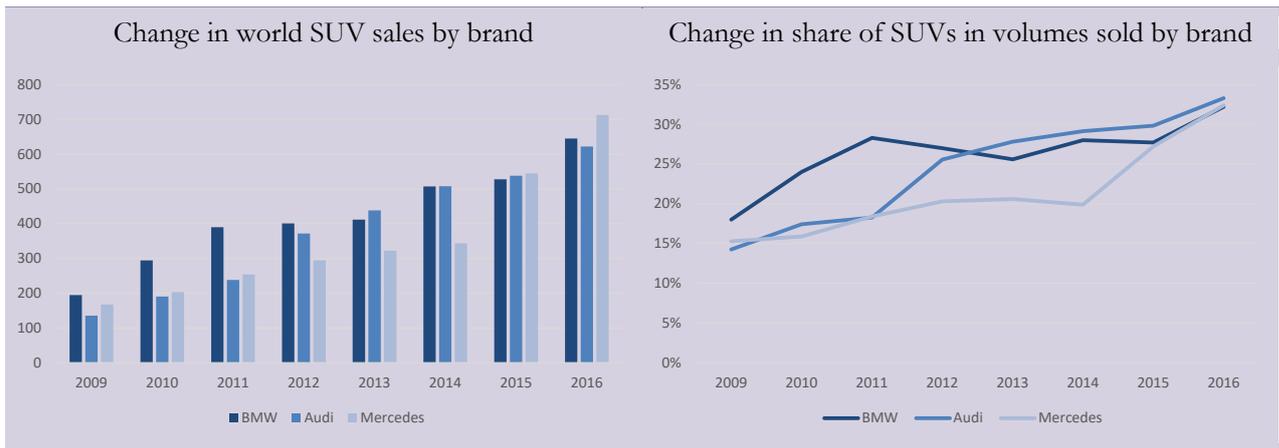
However, this average is tending to fall, thanks to the winning strategy described previously: the average age of an **A-Class driver is 51**, well below the group average and is now in line with rival levels.

**Fig. 6: The group has won back market share in Europe, especially thanks to the A-Class**



Source: Company Data; Bryan, Garnier & Co ests.

**Fig. 7: And now boasts the no. 1 spot in the SUV segment**



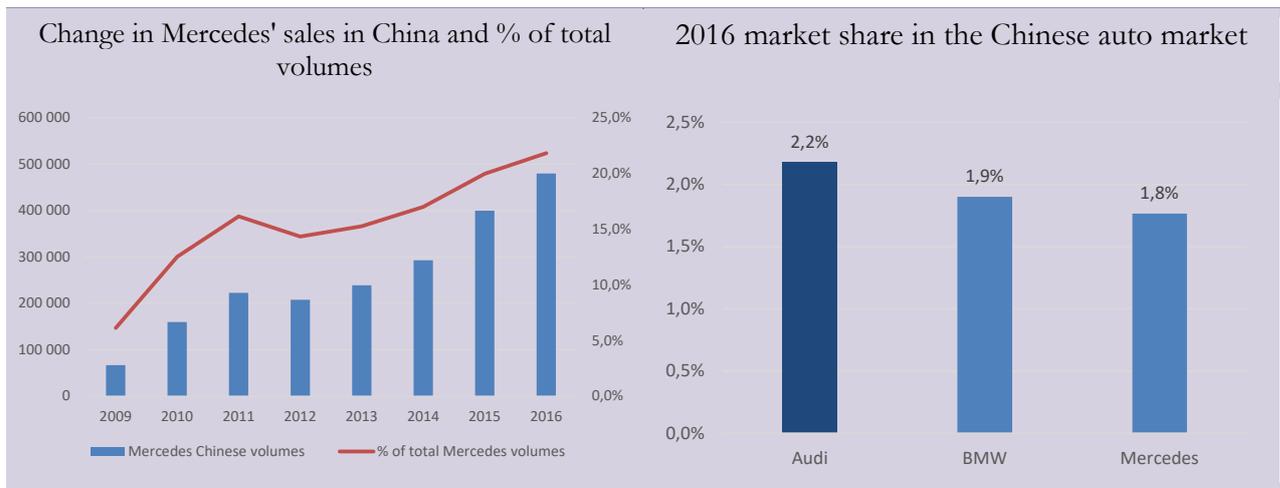
Source: Company Data; Bryan, Garnier & Co ests.

Mercedes is aiming to rejuvenate its historical customer base located in mature markets like Europe and the US. However, China, the world leading auto and premium car market, has not witnessed this trend since the average age for the purchase of a new vehicle is around 35. The emergence of a new wealthy class of consumers is beneficial to premium carmakers that have high growth potential and a high penetration rate in a market showing a still low equipment rate.

## 4.2. The Chinese market remains a priority

Daimler has enjoyed robust growth in China with **480,000 vehicles sold in 2016** and a market share of **2.1%** constantly rising since 2009 when the group only had **0.8%** of the market with **67,000 units**. The group is nevertheless still the no. 3 in the market behind **BMW** and **Audi** despite sharp growth in volumes in recent years. The group's catch-up effect relative to these two rivals and mainly Audi should continue in coming years, especially since Audi has not yet fully resolved its difficulties with a large share of its dealerships and this is set to penalise growth in the short term in our view.

**Fig. 8: China is the group's leading market, even though it stands behind Audi and BMW in volume terms**



Source: Company Data; Bryan, Garnier & Co ests.

This boom in sales, which have been **multiplied by six**, has been driven especially by a reorganisation of production and better distribution of vehicles with the deployment of models more in phase with local customer tastes. Daimler can now count on a strong local presence via its distribution network that is expanding rapidly: from more than **160 dealerships** in 2010, the network had more than **500** in 2016 thereby exceeding that of the no. 1 player Audi, which has been in the market since 1989.

The group's local presence has also been strengthened by its various partnerships with Chinese carmakers in the form of joint ventures. It has two main historical partners **BAIC** and **BYD**, with which it is focusing significantly on electric vehicles.

- In **2005**, Daimler approached the no. 5 Chinese carmaker **BAIC Group** and created **Beijing Benz** to help penetrate the Chinese market. This alliance has enabled it to allocate some of its engine production and some of its production and sales of flagship cars such as the C-Class, the E-Class, the GLA SUV and the mid-sized GLC SUV. More recently, the cooperation has been extended to electric vehicles, where China is already the world leading market, via a minority stake in **Beijing Electric Vehicle (BJEV)**, a subsidiary of BAIC specifically dedicated to electric vehicles and massive investments in the joint development of a production plant.
- The group then approached leading Chinese group **BYD** in **2010** to create the **Denza** brand via a joint venture destined to offer upscale electric vehicles. This joint venture has only produced one model so far, the **Denza 400 EV**, which suffers from its high price tag (EUR47,600 at the entry level) and a fairly weak brand image.

Denza 400 EV



Daimler's strategy to expand in China via an increased positioning in the NEV segments is coherent for several reasons: **1/**the group is aiming to increase its market share in the NEV segment in China, the leading global market that could represent almost 30% of total vehicles sold in the Chinese auto market, or more than **10.5m vehicles within a few years' time**, **2/**offering a sufficiently large range of zero-emission cars in order to comply with regulations seems to be the only solution. Indeed, the Chinese authorities are aiming to impose a quota for the percentage of electric vehicles (NEVs) in new vehicle sales that could reach **8% in 2018, 10% in 2019 and 12% in 2020** and which could lead to sanctions if not respected. Competition in the segment is nevertheless fierce with the rapid growth of Chinese carmakers (BYD, BAIC, Geely) that benefited from high government subsidies with a view to creating national champions via the "Made in China" 2025 plan.

Daimler also created a joint-venture with **Foton, FotonDaimler Automotive**, in 2011 in order to address the Chinese commercial and trucks markets that are also rapidly expanding thanks to the country's industrialisation.

China is now the group's leading market in terms of volumes (22% of total sales) and should continue to contribute to high growth at the Mercedes brand on a global level given the extent of the Chinese premium market. However, the contribution to the group's net profit remains limited so far at less than **5-6%** given that the group is only present in this market via 50-50 joint ventures. This compares with **8-9%** for BMW and **9-10%** for Audi.

In our view, the gap should gradually narrow between Daimler and the two other carmakers. It is also important to note that this gap is partly explained by the presence of Daimler in the Trucks, Vans and Buses segment (30% of EPS), which dilutes the percentage contribution to attributable net profit of the Chinese joint ventures in the auto segment.

## 5. The group is taking its destiny in hand

### 5.1. Late in electric vehicles, but not for much longer

#### 5.1.1. An initial positioning in hydrogen

Long focused on hydrogen technology, the group made hefty R&D investments in order to develop a good quality fuel cell. CEO **Dieter Zetsche** indeed thought that the hydrogen technology would enable far greater autonomy and require a lower recharge time than electric technology with batteries. However, Daimler was obliged to change its strategy given the lack of infrastructure dedicated to electric vehicles, the rapid improvement in performances of electric batteries and the positioning of Tesla, which rapidly overturned the electric market. Furthermore, whereas the cost of producing electric batteries has fallen rapidly, the hydrogen technology remains pretty expensive. Daimler nevertheless remains positioned in hydrogen since it boasts high-quality expertise and intends to launch a few models using the technology. The group's presence in the market is likely to remain low since only a small number of vehicles, destined for commercial use, are to be offered. Although these seem to be more test cars given the low number of them in circulation, Mercedes has offered fuel-cell versions for its traditional models such as the **A-Class** in 2004 and the **B-Class** in 2009. It intends to continue this trend by launching the **GLC F-Cell** in 2018, probably with a price tag of around EUR70,000, and only a small amount of vehicles (around 1,000 in 2018).

**Fig. 9: Mercedes GLC- F Cell**



Source: Company Data; Bryan, Garnier & Co ests.

The car has an embedded fuel cell produced by **Automotive Fuel Cell Corporation**, a JV established in 2008 between **Daimler** and **Ford** with the aim of working on the hydrogen technology in partnership with NuCellSys. Autonomy of **500km** announced for the NEDC cycle has also been strengthened by the addition of a 9kWh rechargeable lithium-ion electric battery to make up for the lack of hydrogen infrastructure. The model will be one of the only ones on the market and the disappointing sales seen for the Toyota Mirai show the lack of interest that consumers have in them.

### 5.1.2. ... before betting definitively on BEV

Tesla's positioning and increasingly strict standards concerning greenhouse gas emissions (Euro 6b since 2015 then 6c and 6d in 2018 and 2021) have obliged the group to invest in so-called alternative engines, namely hydrogen, hybrid, and electric. As seen previously, Daimler has left the fuel-cell technology to one side for large series vehicle production and is focusing on the other two technologies. The group is initially set to round out its range of hybrid vehicles, currently **seven** in all, to offer **10** by 2019 and cover all vehicle segments: the **family car with the C360E Class, the saloon with the E350E Class, the crossover with the GLC350E and the SUV with the GLE500E**. However, Daimler's challenge lies in mastering battery fuelled electric vehicles (BEV) since it is still lagging its rivals that have a slight edge, especially BMW with its i3 model.

The strategy implemented to reach this aim is aggressive. Almost **EUR10bn in investments are planned out to 2022**, especially for the launch of the **EQ brand** (Electric Intelligence) specifically dedicated to battery-run electric technology. This new brand should have 10 new 100% electric models including three under the Smart brand by 2022. However, the group's high aims in electric engines, targeting a level of **15-25%** of its vehicle range as fully electric vehicles by 2025 and **50%** including hybrid vehicles, are also motivated by the need to respect environmental standards put in place by state authorities. Regulations on gas emissions are indeed increasingly strict in the EU and the US, and have been amplified by various fraud scandals concerning pollution levels of diesel engines.

As a premium carmaker, Daimler stands out for its better performing engines, especially via its AMG brand, and even though it is still improving the quality of its engines (OM 654), they emit a higher amount of polluting gases than those of other generalist carmakers. In 2016, the Mercedes-Benz Cars division emitted an average of 123g CO<sub>2</sub>/km whereas the level at French group PSA was only 102.4g on average. Daimler is above all highly exposed to diesel, which accounts for around **60%** of the group's sales in Europe, and around 70% for the Mercedes-Benz brand. Note that with the aim of reducing CO<sub>2</sub> and NO<sub>x</sub> emissions, European and US authorities are imposing increasingly tough standards. In 2021, average CO<sub>2</sub> emissions for new cars sold must stand at 95g/km whereas standards concerning these standards are set to become stricter.

In order to slash its average level of emissions, Daimler has no other choice but to **1/use** depollution systems (such as SCR) for its new models vs. NO<sub>x</sub> trap systems, **2/gradually** withdraw from diesel engines (as in the US where it has decided not to request approval renewal), and **3/develop** hybrid/electric technologies.

**The German carmaker has therefore apparently chosen the third solution by unveiling a hefty investment programme for electric vehicles that is set to account for around 10% of the group's annual investments over the next 10 years.**

Note that Daimler, like other carmakers, is also facing accusations of fraud following the possible installation of a software enabling a reduction in air pollutant emissions in test conditions. The vehicles concerned (around one million in Europe and the US and fitted with OM 642 and OM 651 engines) could lead to hefty financial sanctions for the group.

We estimate that a fine could amount to around **USD200-300m** in the US alone, if the same scale as that used for VW is applied (USD7,000), whereas potential compensation (based on that paid by VW) could cost the group around **USD1.8bn** (see valuation section for further details).

### 5.1.3. Investments necessary to internalise battery production

Given the group's lack of expertise in the field of electrification, Daimler joined forces with Tesla in 2009 (by taking a 9% stake for EUR45m) for the supply of electric batteries and transmission chains. The electric engine in the **B-Class**, the main electric vehicle proposed by the group (that is due to be halted given its lack of success) was also supplied by Tesla. However, in this logic to invest in electric cars, the group is now adopting a strategy of independence relative to supply and assembly of electric batteries. To achieve this, the group would like to invest almost **EUR1bn**, or **10%** of the investments planned out to 2022 in electric cars, in assembly capacity. This investment will primarily be used to extend its production and assembly capacity, by extending its existing plant (EUR500m for the Kamenz plant) and by building a new plant in China with its Chinese joint ventures (around EUR320m assuming that investments in the JV are made 50/50). Like Tesla's Gigafactory, Daimler is aiming to reduce production costs via the economies of scale generated and aims to quadruple its current capacity as of mid-2018. We consider this strategy aggressive since it consists of rapidly increasing production (80,000 batteries since its creation) in a fairly short space of time in order to equip the one million battery-fuelled electric cars planned for 2020. Lower than expected demand for the EQ brand could therefore have a double impact on the group's accounts since in addition to not amortising development costs for the new vehicles the battery assembly sites would remain under-used.

**While the batteries are primarily destined to equip the group's future electric vehicles, Daimler is also hoping to use them for other applications.**

### 5.1.4. Batteries used for other applications

The group has similarities with Tesla, especially concerning its aim to extend its core business and offer an alternative use for its electric batteries, in order to reduce this risk for utilisation rates.

This strategy should provide the group a diversification and a way of better selling its battery stocks in favour of a decline in unit assembly costs. More generally, the company is applying a strategy already started by Tesla, of offering users an ecosystem enabling them to evolve in an environment where the energy produced by solar batteries helps recharge the electric vehicle, thereby reducing the vehicle utilisation cost further.

As such, it is logical that Mercedes-Benz Energy – like Tesla – has signed partnerships with companies specialised in the manufacturing and fitting of solar panels, such as **Vivint Solar** to help its entry into this market. Furthermore, the energy storage market remains a niche market that is not particularly competitive: it only represented **USD320m** last year in the US, but could rapidly occupy a larger place with **USD19bn** on a global level this year according to IHS Markit.

**Fig. 10: Technical comparison between MB's Energy Storage and Tesla's Powerwall**

	Mercedes-Benz's Energy Storage	Tesla's Powerwall 2.0
Partnership	Vivint Solar	Solar City
Cell technology	Lithium-on	Lithium-on
Number of cells	100	<b>896</b>
Storage capacity	2.5 kWh (up to 20 kWh)	<b>13.5kWh (DC version)</b>
Final price (incl. Installation)	~ EUR8,000/EUR9,000	<b>EUR6,850</b>

Source: Company Data; Bryan, Garnier & Co ests.

## Daimler

Comparison of the technical characteristics of the Mercedes-Benz batteries and the Tesla Powerwall show that the latter is more efficient. We believe that Tesla's superiority should lead to market share gains since the quality and autonomy of the batteries remains the no. 1 purchase criteria.

**Daimler's positioning in this field seems very complementary with other activities associated with electrification even though in this field of storage in the home, we do not see the group in a leadership position.**

## 5.2. A clear aim to position the group in autonomous vehicles

### 5.2.1. The need for partnerships to make up for lost time

The group has been developing the autonomous vehicle technology for a long time now. Already in 1995, Mercedes was developing an autonomous vehicle capable of accelerating and braking (a modified W140 S-Class), which was able to travel from Munich to Copenhagen virtually by itself under the framework of the **Eureka PROMETHEUS** project. Having often acted alone, the group recently understood the importance of partnerships with other companies, technologies and/or fleet managers in order to reduce its R&D costs, develop the technology more rapidly and obtain know-how that it does not have in other sectors (ride-sharing in particular).

Above all, the group does not want to be left behind by other carmakers and new players in this market that could represent between **EUR40bn** and **EUR60bn** in new market opportunities according to some studies. While Daimler is currently developing vehicles fitted with level two driving automation (like all other auto market players), primarily due to legal restrictions, it seems to be clearly lagging its premium rivals (BMW first and foremost). The group has therefore made efforts recently to rapidly gain in know-how and respect the time-frame set for automation of its vehicles (level four and five automation by 2020-2021) by undertaking investments and partnerships with start-up companies and other players with high technological value-added. We nevertheless estimate that the targets set by the group in terms of sales volumes and autonomy) **seem unfeasible for the moment, despite these recent efforts.**

### 5.2.2. More pro-active in the ride-sharing segment

One of the major changes in future transformations in the auto market lies in consumer mobility behaviour and how car ownership is viewed. Younger generations (Y and Z) no longer feel the need to own a car and prefer to use one only when they need too. **McKinsey estimates that by 2030, 10% of vehicles sold could be destined for rental usage.**

Faced with this trend, Daimler needs to adapt its offer and go beyond its traditional car sales business model to offer other uses such as ride-sharing. With no expertise in this fairly new segment, Daimler has no choice but to set up partnerships with players in the sector or join forces with car parts makers to gain a foothold in the segment. The partnership with **Uber** created in January 2017 is coherent in this respect since it enables the group to access a data base and a sizeable network of users (>40m) that would take a lot of time and money to build alone. The group has also signed a partnership deal with the global leader in auto parts **Bosch** to develop autonomous taxis by 2023 in order to share hefty investments in R&D, step up the development of the autonomous vehicle and position itself in other forms of mobility.

**The group's current strategy is not clearly defined however.** While Daimler is developing an alternative solution to current mobility via mobile applications (Car2go in particular) and more specifically in ride-sharing, it remains evasive in terms of its application with the autonomous vehicle.

Contrary to **BMW**, which clearly indicated that it would like to rival players directly in the market (Uber, Lyft), Daimler could simply rent its vehicles to the fleet managers mentioned previously, or compete with them directly by developing its own mobile application. We opt for this second assumption for several reasons: **1/Since its direct rival direct, BMW, would like to do this, it seems likely that Daimler**

would also want to compete directly in this segment, **2/** it already has the mobile application and its network of users is constantly rising (more than 2m), **3/** owning the vehicle that it rents to users could provide a degree of flexibility by adjusting the models available depending on the categories of users that it would like to target in particular and thereby avoid losing contact with customers.

Application of the autonomous vehicle technology to its cars seems crucial for Daimler, which aims to create expertise in this highly competitive market following the emergence of new external players in the auto industry such as technological companies. The group would like to remain independent in order not to become "the Foxcomm of Apple" in the words of CEO Dieter Zetsche.

**Less competitive, applied to the trucks segment this technology could provide the group significant advantages.**

### **5.2.3. An opportunity in the autonomous truck segment**

Daimler would like to extend the application range of the autonomous technology to other segments such as **trucks** and **buses**.

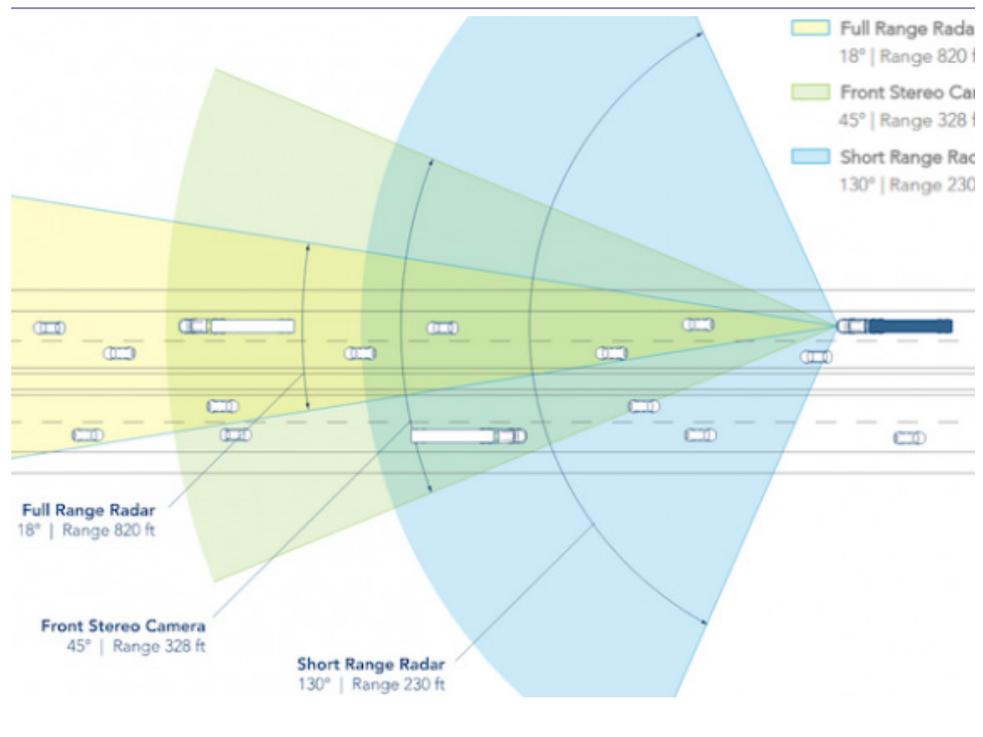
In our view, this idea makes sense for several reasons: **1/** autonomous technology applications are the most concrete and financially very advantageous for end customers (transport companies), **2/** the relative lack of competition and a lead in the autonomous truck segment could help Daimler benefit from a favourable situation.

Automated driving - even in part – allows better productivity and a reduction in costs. The driver has a different role and is able to undertake maintenance or logistical tasks instead of simply driving and can better allocate their time. Some studies (PWC) indicate gains at between **EUR17,000 and EUR32,400 a year** per truck (20-25% of annual operating cost of a truck) depending on the technological progress, primarily by eliminating manual labour costs and enabling better fuel cost management (which accounts for around 70% of the total cost).

Furthermore, even if its rivals in the truck segment are positioned in the autonomous vehicle technology (MAN, Volvo, DAF, Iveco and Scania), as is Uber (via Otto), competition in the segment remains fairly limited today. The group has already carried out tests on motorways in Germany and recently obtained approval from the state of Arizona to undertake real-condition tests.

In this respect, Daimler seems well positioned via its leading Freightliner brand to gain substantial market share in the US, where 70% of freight transport is undertaken by truck.

**Fig. 11: Autopilot for trucks in the near future?**



Source: Daimler; Bryan, Garnier & Co ests.

Daimler is developing a technology named Highway Pilot Connect allowing **V2I** and **V2V** communication by connecting trucks to each other so that they can follow each other in a platooning formation. This procedure helps obtain high returns on investment, such as reducing fuel consumption by **5-7%**, increasing safety and reducing by **50%** the space required for circulating on the motorway.

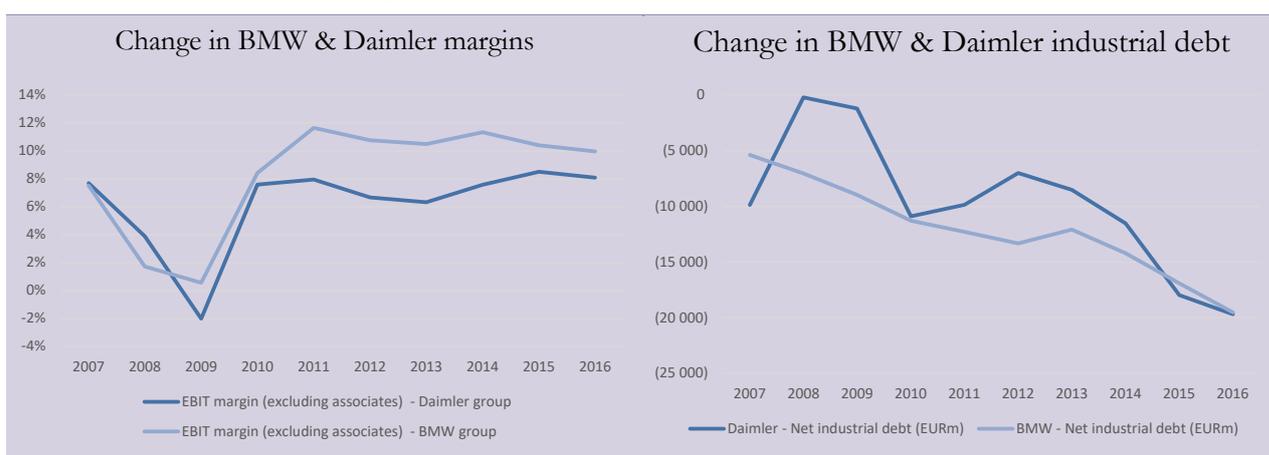
## 6. Looking for value creation to get through the cycle better

### 6.1. Margins and FCF under pressure in the short/medium terms?

Whereas for several years now the German industry has faced numerous accusations over fraudulent emissions levels (following VW's "dieselgate" in 2015), as well as potential anti-trust agreements (2017), premium carmakers need to continue investing massively in R&D in order to develop skills in electric and autonomous vehicles.

Although the financial health of the sector and more specifically of German carmakers is extremely good at present, the medium-term need for greater financial flexibility could rapidly change the landscape, especially if the automotive cycle slows in the short/medium terms, as we expect it could.

**Fig. 12: Carmakers in good health, but offering little potential to improve margins/FCF in the short term**



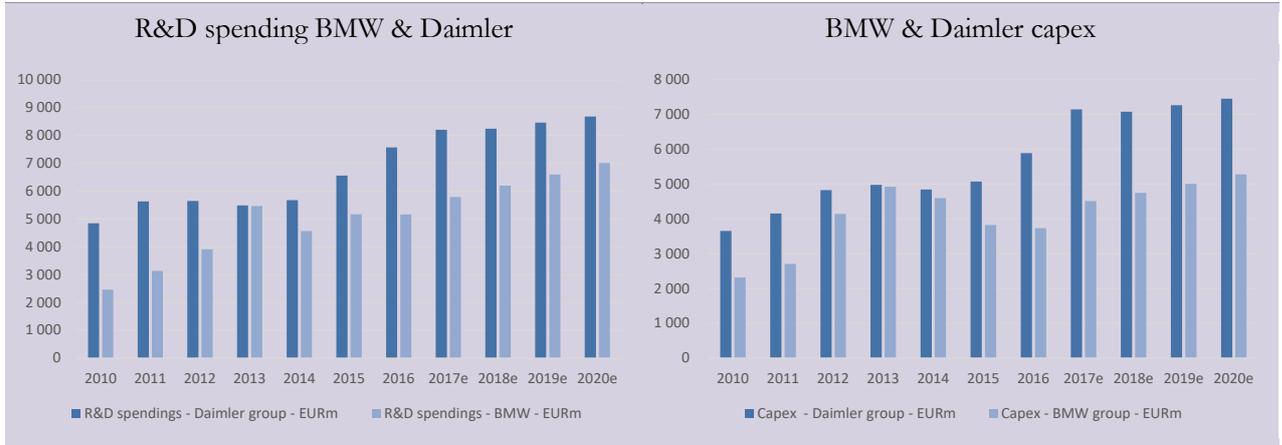
Source: Company Data; Bryan, Garnier & Co ests.

Daimler's ambitious targets for electric vehicles means it will have to drastically increase R&D and investments compared with the previous cycle, whereas we are forecasting a slowdown in both market growth and also the group's commercial performance.

For 2017/18, the group has indicated an increase in R&D spending of more than **EUR500m** a year relative to 2016 and **EUR1.5bn** a year relative to 2015, primarily in the Mercedes-Benz segment while investment spending is set to rise by **EUR1.1bn** a year relative to 2016 and **EUR2bn** a year relative to 2015.

In all, over the next two years, the group is planning to increase its overall spending by **EUR2.6bn** with the aim of financing its strategy in electric and autonomous cars, making Daimler the carmaker that is spending the most in the premium segment, ahead of BMW, in value terms.

**Fig. 13: Daimler still the premium carmaker that spends the most on R&D and capex**

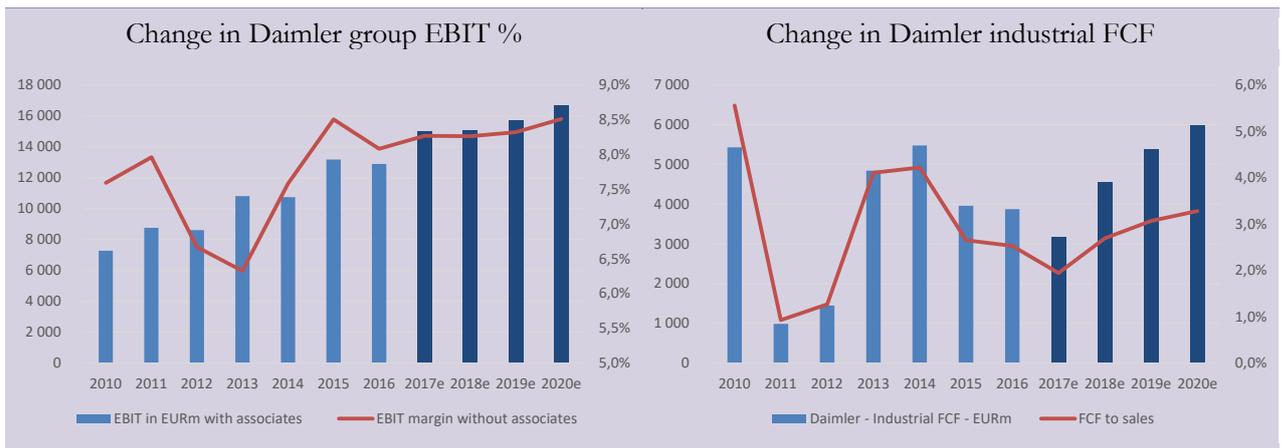


Source: Company Data; Bryan, Garnier & Co ests.

As indicated previously, this increase in spending is necessary for the group to develop the new EQ range and expand industrial capacities in the field of battery assembly. In the short term, pressure on margins and FCF generation is likely to be felt, especially since we expect a slight narrowing in the margin in the Mercedes-Benz Vans segment over 2017/2018 after reaching a record level in 2016. Comparison in 2018 relative to 2017 is also set to be demanding following the more than **EUR180m** re-rating in Daimler's stake in **Here** (identical for BMW), to the detriment of the Mercedes-Benz segment (MB).

In our Daimler model, we therefore expect a narrowing in EBIT margin over 2017/2018 (group margin), to slightly above **8%** vs. **8.5%** in 2016 with slight growth in the MB segment margin, up to 8.8% then 9%. This slight pressure on margins is likely to go hand-in-hand with pressure on industrial FCF, especially in 2017, following the hike in both investment spending and capitalised R&D expenses.

**Fig. 14: In the short-term, the group's margin is unlikely to increase**



Source: Company Data; Bryan, Garnier & Co ests.

## 6.2. A strategic review to create value and raise funds?

In this context, at the interim earnings publication on 26th July, Daimler's management indicated that it had launched a **strategic review** under the framework of a restructuring of its activities. Note that **Daimler** is the only carmaker in our coverage at BG to have significant exposure (30% of EPS) to a non-auto division, via its Trucks, Vans and Buses division. BMW is also exposed to another business via its motorcycle division (BMW Motorrad), but exposure at the EPS level remains limited at just 2%.

Daimler could therefore spin off some its activities into separate legal entities as part of a **restructuring programme**, enabling the group to create value as well as raise funds if some of its businesses were floated. This delicate exercise to spin off assets in the auto sector is a strategy already tested by FCA when it floated **Ferrari** on Wall Street in October 2015. Via this floatation, **Sergio Marchionne**, head of FCA and Ferrari managed to recover almost USD1bn (EUR925bn) to reduce FCA's debt and participate in the financing of its ambitious **EUR52bn investment plan for 2018**. After this success, Sergio Marchionne announced in August 2017 that it aimed to continue creating value for shareholders, either by ridding the group of its not strictly auto components, or by selling off or floating the most profitable brands on the stockmarket (Jeep, Maserati and potentially Alfa Romeo once the brand's positioning in the premium segment is better established).

This is the same logic that Daimler would like to follow, potentially with its Trucks, Vans & Buses business, which currently represents **30% of the group's sales, more than 30% of EBIT and around 30% of EPS**. Since the business offers few synergies with the group's traditional automotive activity (Mercedes-Benz and Smart brands), the Daimler share is penalised by a substantial conglomerate discount in an SOTP valuation of the group.

On our estimates, valuing the Trucks, Vans & Buses business with **Volvo's current multiples** (>65% of sales >10.5x EBIT and 13x EPS), Daimler's direct rival in the trucks business, EV works out to **EUR32.7bn** for the unit, or around 60% of Daimler's EV at the current share price. Assuming **EUR10bn** in provisions for diesel risks in the US and anti-trust issues in Europe, the current share price implies that the market values the Mercedes-Benz and Smart brands (including the group's financial services division at 1.0x BV) at **EUR25bn, or just EUR5bn more than FCA's** (above EUR22bn) whereas the US carmaker is less profitable than the German group, is not in the same segment and is also facing risks in diesel in the US.

Without taking into account the EUR10bn in provisions for diesel risks in the US, **EV works out to EUR15bn**, or EV of just **EUR3bn** ahead of PSA (EUR12bn).

In our view, this abnormal gap in valuation due especially to uncertainty in the diesel segment in Europe and the slowdown in the sector cycle could be reabsorbed by spinning off certain assets, obliging investors to better value the group (ending the conglomerate discount). German review "Manager Magazin" considers that the new organisation could be presented to the group's AGM by **5th April 2019** at the latest.

We value the Daimler group at **EUR101/share** using an SOTP valuation without taking into account a conglomerate discount, thereby implying more than **45%** upside to the current price.

This compares with respective premiums of **55%**, **28%** and **12%** to our SOTPs for **Renault, PSA** and **BMW**.

**Fig. 15: SOTP valuation pointing to substantial upside for Daimler**

Sum-of-the-parts method - 2017	Multiple/ price	Stake	Method	2017	Value	Value per share
<b>Automotive - Mercedes Benz</b>						
Revenues Mercedes Benz	50%	100%	EV/Sales	94 235	47 117	44
EBIT Mercedes Benz (excluding associates)	6.0x	100%	EV/EBIT	7 929	47 577	44
EPS Mercedes Benz (excluding associates)	10.0x	100%	P/E	4	39	39
<b>Automotive - Mercedes Benz (average)</b>	<b>-</b>	<b>0%</b>	<b>-</b>	<b>0</b>	<b>45 638</b>	<b>43</b>
<b>Automotive - Truck, Vans &amp; Buses</b>						
Revenues Daimler Trucks, Vans & Buses (net of eliminations)	65%	100%	EV/Sales	46 491	30 219	28
EBIT Daimler Trucks, Vans & Buses (net of eliminations - excluding associates)	10.5x	100%	EV/EBIT	3 992	41 918	39
EPS Daimler Trucks, Vans & Buses (net of eliminations - excluding associates)	13.0x	100%	P/E	2	29	29
<b>Automotive - Truck, Vans &amp; Buses (average)</b>	<b>-</b>	<b>0%</b>	<b>-</b>	<b>0</b>	<b>34 539</b>	<b>32</b>
<b>Other activities</b>						
Daimler Financial Services (@ latest Book value)	1.0x	100%	Book value	10 875	10 875	10
Stake in Renault group	81	3%	Share Price	273	689	1
<b>Other activities</b>					<b>11 564</b>	<b>11</b>
<b>Sum of the parts</b>					<b>91 890</b>	<b>86</b>
- Net industrial debt/cash					22 042	21
- Minority Interest value - Market Value EURm					(1 777)	(2)
+ Financial assets - Market value EURm - excluding stake in Renault group					9 065	8
- Pensions Liabilities (N-1) - EURm					(9 034)	(8)
- Risk linked to "dieselgate" & antitrust issues in cars in Europe					(5 000)	(5)
<b>Total liabilities</b>					<b>16 058</b>	<b>15</b>
<b>Daimler implied equity value</b>					<b>107 799</b>	<b>101</b>
Shares outstanding					1 070	
<b>Last price</b>						<b>69</b>
Upside/downside						45%

Source: Company Data; Bryan, Garnier & Co ests.

## 7. Daimler – Our estimates

**Fig. 16: Daimler – Income statement – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Revenues</b>	<b>117 982</b>	<b>129 872</b>	<b>149 467</b>	<b>153 261</b>	<b>163 246</b>	<b>169 216</b>	<b>175 495</b>	<b>182 058</b>
Change (%)	3,2%	10,1%	15,1%	2,5%	6,5%	3,7%	3,7%	3,7%
EBITDA	15 179	15 742	18 560	18 368	21 417	21 723	23 349	24 537
% of sales	12,9%	12,1%	12,4%	12,0%	13,1%	12,8%	13,3%	13,5%
<b>Operating margin with restructuring</b>	<b>10 811</b>	<b>10 743</b>	<b>13 176</b>	<b>12 890</b>	<b>14 995</b>	<b>15 087</b>	<b>15 738</b>	<b>16 668</b>
% of sales	9,2%	8,3%	8,8%	8,4%	9,2%	8,9%	9,0%	9,2%
Change (%)	25,5%	-0,6%	22,6%	-2,2%	16,3%	0,6%	4,3%	5,9%
Operating margin* with ass. Excl. rest.	10 029	9 686	11 644	11 563	12 891	12 983	13 634	14 564
% of sales	8,5%	7,5%	7,8%	7,5%	7,9%	7,7%	7,8%	8,0%
Financial results	(672)	(570)	(432)	(316)	(423)	(394)	(355)	(312)
Tax	(1 419)	(2 883)	(4 033)	(3 790)	(4 314)	(4 317)	(4 489)	(4 661)
Tax rate	14,0%	28,3%	31,6%	30,1%	29,6%	29,4%	29,2%	28,5%
Profits from associates	3 345	897	464	502	1 494	1 105	1 138	1 172
Minority interests	(1 878)	(328)	(287)	(258)	(268)	(279)	(290)	(302)
<b>Net profit</b>	<b>6 842</b>	<b>6 962</b>	<b>8 424</b>	<b>8 526</b>	<b>9 989</b>	<b>10 097</b>	<b>10 603</b>	<b>11 392</b>

Source: Daimler; Bryan, Garnier & Co ests.

**Fig. 17: Daimler – Cash flow statement – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Operating cash flows</b>	<b>8 619</b>	<b>6 791</b>	<b>13 596</b>	<b>14 141</b>	<b>15 101</b>	<b>15 792</b>	<b>16 987</b>	<b>18 043</b>
Change in working capital	(1 427)	(4 308)	(1 280)	149	(508)	(548)	(829)	(816)
<b>Capex, net</b>	<b>(6 907)</b>	<b>(6 307)</b>	<b>(7 336)</b>	<b>(8 833)</b>	<b>(9 550)</b>	<b>(9 645)</b>	<b>(9 915)</b>	<b>(10 286)</b>
Financial investments, net	6 510	8 461	10 117	13 544	268	279	290	302
Dividends	(2 618)	(2 565)	(2 895)	(3 678)	(3 477)	(3 496)	(3 534)	(3 711)
Other	(213)	299	161	(3 699)	0	0	0	0
<b>Net debt</b>	<b>(8 521)</b>	<b>(11 534)</b>	<b>(17 980)</b>	<b>(19 699)</b>	<b>(22 042)</b>	<b>(24 971)</b>	<b>(28 799)</b>	<b>(33 146)</b>
<b>Free Cash flow</b>	<b>4 842</b>	<b>5 479</b>	<b>3 960</b>	<b>3 874</b>	<b>5 551</b>	<b>6 147</b>	<b>7 071</b>	<b>7 757</b>

Source: Daimler; Bryan, Garnier & Co ests.

**Fig. 18: Daimler – Balance sheet – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	21 779	23 182	24 322	26 381	27 141	27 697	27 544	27 413
Intangibles assets	9 388	9 367	10 069	12 098	14 465	16 919	19 376	21 924
Cash & equivalents	16 453	14 927	17 061	20 629	22 972	25 901	29 729	34 076
current assets	70 441	77 145	91 847	102 052	106 032	110 063	115 302	121 074
Other assets	66 910	79 941	90 928	102 457	102 668	102 817	102 974	103 138
<b>Total assets</b>	<b>168 518</b>	<b>189 635</b>	<b>217 166</b>	<b>242 988</b>	<b>250 307</b>	<b>257 496</b>	<b>265 196</b>	<b>273 550</b>
L & ST Debt	77 738	86 689	101 142	117 686	117 686	117 686	117 686	117 686
Others liabilities	48 100	59 281	62 463	67 352	69 084	70 270	71 517	72 825
Shareholders' funds	42 680	43 665	53 561	57 950	63 487	69 522	76 013	83 105
<b>Total Liabilities</b>	<b>168 518</b>	<b>189 635</b>	<b>217 166</b>	<b>242 988</b>	<b>250 256</b>	<b>257 478</b>	<b>265 216</b>	<b>273 616</b>
<b>Capital employed</b>	<b>115 097</b>	<b>112 924</b>	<b>127 052</b>	<b>169 059</b>	<b>172 521</b>	<b>175 906</b>	<b>178 860</b>	<b>181 906</b>

Source: Daimler; Bryan, Garnier & Co ests.

Daimler

**Fig. 19: Daimler – Ratios - %**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	9,2%	8,3%	8,8%	8,4%	9,2%	8,9%	9,0%	9,2%
Tax rate	14,0%	28,3%	31,6%	30,1%	29,6%	29,4%	29,2%	28,5%
Net margin	5,8%	5,4%	5,6%	5,4%	6,1%	6,0%	6,0%	6,3%
ROE (after tax)	38,5%	39,5%	36,5%	32,5%	35,8%	35,4%	35,2%	35,1%
<b>ROCE (after tax)</b>	<b>9,6%</b>	<b>8,5%</b>	<b>8,7%</b>	<b>7,6%</b>	<b>8,7%</b>	<b>8,6%</b>	<b>8,8%</b>	<b>9,2%</b>
Gearing	-5,1%	-6,7%	-8,3%	-8,1%	-8,8%	-9,7%	-10,9%	-12,1%
Pay-out ratio	35,2%	37,6%	41,3%	40,8%	35,0%	35,0%	35,0%	35,0%
<b>Number of shares, diluted</b>	<b>1 069</b>	<b>1 070</b>						

Source: Daimler; Bryan, Garnier &amp; Co ests.

**Fig. 20: Daimler – Per share data – EUR**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>EPS</b>	<b>6,40</b>	<b>6,51</b>	<b>7,87</b>	<b>7,97</b>	<b>9,34</b>	<b>9,44</b>	<b>9,91</b>	<b>10,65</b>
Restated EPS	6,40	6,51	7,87	7,97	9,34	9,44	9,91	10,65
% change	12,1%	1,7%	21,0%	1,2%	17,2%	1,1%	5,0%	7,4%
EPS bef. GDW	6,40	6,51	7,87	7,97	9,34	9,44	9,91	10,65
BVPS	157,03	176,40	202,00	226,03	232,57	239,06	246,02	253,59
Operating cash flows	8,06	6,35	12,71	13,22	14,12	14,76	15,88	16,87
FCF	4,53	5,12	3,70	3,62	5,19	5,75	6,61	7,25
<b>Net dividend</b>	<b>2,25</b>	<b>2,45</b>	<b>3,25</b>	<b>3,25</b>	<b>3,27</b>	<b>3,30</b>	<b>3,47</b>	<b>3,73</b>

Source: Daimler; Bryan, Garnier &amp; Co ests.

## 8. Daimler – Valuation

The different businesses included in the group oblige us to value Daimler via an **SOTP** as well as a **DCF calculation** and **multiples** as we already do for other stocks in the sector. **We value Daimler at EUR87.**

**Fig. 21: Overview of valuation methods (EUR/action)**

	<b>FV</b>
SOTP	101
EV/Sales	66
EV/EBIT	68
P/E	115
DCF	89
<b>Implied FV</b>	<b>87</b>
Latest share price	66
<b>Upside</b>	<b>30%</b>

Source: Bryan, Garnier & Co ests.

### 8.1. SOTP valuation (€101)

As already mentioned earlier in the report (section 6.2) we value **Daimler** through a SOTP. We value the group at **EUR101/share**, without taking any holding discount. This implies **45%** potential upside on latest share price.

### 8.2. Valuation based on multiples (€83)

As for other stocks in the automotive sector initiated at Bryan Garnier, we use the group's historical **EV/EBIT** and **P/E** multiples to value **Daimler**. Our three FVs are calculated over the period from 2017-2026 (discounted by WACC each year) and stand at respectively **EUR66**, **EUR68** and **EUR115**. We value Daimler on multiples of **45% of sales**, **5.5x EBIT** and **P/E of 10x**, in line with premium European, US and Asian peers.

### 8.3. DCF valuation (€89)

We also value **Daimler** using a DCF model based on the following estimates:

- **WACC of 10.3%** which corresponds to a cost of capital, since the group has negative net debt. We assume a **beta of 1.20**, a **risk premium of 7%** and a **risk-free rate of 1.6%**.
- A **growth rate to infinity of 3%**, implying a slight outperformance by **Daimler** relative to the auto market (+1.9%).
- **EBIT margin** (with restructuring and without the JVs) of **8.5%** on average and a margin to infinity of **8.0%**.

**Fig. 22: Daimler – Estimations DCF - €m**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>Revenues - Core business</b>	<b>163 246</b>	<b>169 216</b>	<b>175 495</b>	<b>182 058</b>	<b>188 924</b>	<b>195 824</b>	<b>203 031</b>	<b>210 561</b>	<b>218 435</b>	<b>226 671</b>
Revenue Growth Rate	-	3,7%	3,7%	3,7%	3,8%	3,7%	3,7%	3,7%	3,7%	3,8%
Operating Margin	8,3%	8,3%	8,3%	8,5%	8,7%	8,7%	8,7%	8,7%	8,7%	8,6%
<b>EBIT (excluding JVs &amp; Associates, with restr. Charges)</b>	<b>13 501</b>	<b>13 982</b>	<b>14 600</b>	<b>15 495</b>	<b>16 457</b>	<b>17 025</b>	<b>17 621</b>	<b>18 247</b>	<b>18 906</b>	<b>19 599</b>
Adjustment for provisions	0	0	0	0	0	0	0	0	0	0
(-) Taxes on EBIT	(3 997)	(4 108)	(4 261)	(4 416)	(4 580)	(4 745)	(4 912)	(5 086)	(5 268)	(5 459)
(+/-) Movements in working capital	(508)	(548)	(829)	(816)	(1 248)	(1 363)	(1 435)	(1 511)	(1 592)	(1 678)
(+) Depreciation and amortization	6 423	6 636	7 611	7 869	8 138	8 418	8 710	9 014	9 332	9 664
(-) Capital Expenditures	(7 183)	(7 192)	(7 459)	(7 737)	(8 029)	(8 323)	(8 629)	(8 949)	(9 283)	(9 634)
(-) Intangibles	(2 367)	(2 454)	(2 457)	(2 549)	(2 645)	(2 742)	(2 842)	(2 948)	(3 058)	(3 173)
Free Cash Flow	5 869	6 317	7 205	7 846	8 093	8 271	8 513	8 768	9 036	9 320
<b>Present Value of Free Cash Flow</b>	<b>5 447</b>	<b>5 314</b>	<b>5 495</b>	<b>5 424</b>	<b>5 071</b>	<b>4 698</b>	<b>4 383</b>	<b>4 092</b>	<b>3 823</b>	<b>3 574</b>

Source: Bryan, Garnier & Co ests.

**Fig. 23: Daimler – DCF @ EUR89**

PV of Free Cash Flows	47 321
PV of Terminal Value	40 215
<b>EV implied - EURm</b>	<b>87 536</b>
- Net industrial debt/cash	(19 699)
- Minority Interest value - Market value EURm	2 035
+ Financial assets (Market Value EURm)	4 098
- Pensions Liabilities (N-1) - EURm	9 034
- Risk linked to dieselgate & to antitrust on cars in Europe	5 000
<b>Daimler implied Equity value</b>	<b>95 265</b>
Shares outstanding	1 070
<b>Implied Target Price - EUR</b>	<b>89</b>

Source: Bryan, Garnier & Co ests.

In all our FV calculated for Daimler, we take **EUR5bn** of provisions linked to diesel scandal the group is currently facing in U.S. and linked to accusations from European Commission on German carmakers on a potential cartel on prices for exhaust systems.

**We are initiating coverage of Daimler with a Fair Value of EUR87, implying upside of >30%.**

## 9. Daimler – SWOT

**Fig. 24: Daimler – SWOT analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• A dominant position in the premium market (world no. 1 since 2016)</li> <li>• A top management team working on a <b>potential strategic review to create value</b> by spinning off the group's businesses into several separate units</li> <li>• A premium positioning associated with the group's attractive brand image that is now considered as younger</li> <li>• A product positioning coherent with the price policy allowing the group to generate high margins (8-10%)</li> <li>• Direct presence in <b>new mobility services</b></li> </ul>	<ul style="list-style-type: none"> <li>• Massive investments in electric and autonomous technologies likely to place <b>sharp pressure on margins in the short/medium-terms.</b></li> <li>• Low exposure to emerging markets except for China.</li> <li>• <b>Operating leverage under pressure for several years</b>, with margins in the auto segment still stable despite a surge in volumes</li> <li>• The group's presence in the trucks segment makes it <b>more vulnerable</b> during the slowdown phases of economic cycles</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• An <b>expanding premium segment in emerging markets</b> (especially China), thanks to the increase in purchasing power</li> <li>• Growth potential in <b>electrical vehicles</b> in which the group now has <b>greater ambitions than BMW</b></li> <li>• Application of <b>autonomous technology in cars and trucks</b></li> </ul>	<ul style="list-style-type: none"> <li>• Regulations concerning greenhouse gas emissions mean the group is obliged to take rapid measures to offer electric vehicles.</li> <li>• Higher <b>commodities prices</b> (especially oil)</li> <li>• <b>Tesla's</b> ramp-up in the C segment with its <b>Model 3</b> whereas the group would like to expand in this segment with its new <b>EQC</b></li> </ul>

Source: Bryan, Garnier & Co ests.

## 10. Daimler in short

The **Daimler** group was created in **1926** out of the merger between **Daimler-Motoren-Gesellschaft** (DMG), founded in **1890** by **Gottlieb Daimler** and **Wilhelm Maybach**, and **Benz & Cie**. Benz & Cie was created by **Karl Benz** and was behind the creation of the world's first car in 1885, the **Motorwagen**.

In **1998**, Daimler merged with US carmaker **Chrysler** to create **DaimlerChrysler**. The merger enabled the German group to penetrate the US market, one of the largest in the sector at the time. However, internal governance problems and intense competition with Asian carmakers got the better of the merger and precipitated the sale of **80.1%** of Chrysler to investment fund **Cerberus Capital Management** for **EUR5.5bn** in **2007**. Daimler held on to the rest of the capital and was renamed Daimler. Daimler-Benz abandoned the rest of its shares in 2009 when Chrysler Group filed for Chapter 11 protection. The US group was then gradually bought out by Fiat in 2009 before becoming the sole owner on 1st January 2015 and then merging in August.

**Fig. 25: Time-line –Daimler group**

Benz & Company, 1883–1926

Daimler Motoren Gesellschaft AG, 1890–1926

Daimler-Benz AG, 1926–1998

DaimlerChrysler AG, 1998–2007

**Daimler AG, 2007–present**

Source: *Company Data; Bryan, Garnier & Co ests.*

Since its creation, Daimler has operated primarily in car manufacturing and sales, which still accounts for **58%** of sales and **63%** of underlying earnings, although the group has diversified into the truck segment (with the acquisition of Freightliner in 1981 and Fuso in 2005), as well as vans and buses in the past 20 years. Since 2007, it also offers financing and insurance solutions via **Daimler Financial Services**, which represents a small share of sales and earnings (13% each), but which remains vital for underpinning car purchases or leasing contracts for high-priced premium vehicles. Historically very present in Europe and especially in Germany, the group has almost 17 production and R&D sites in the country and its sales across all segments account for around **15%** of total sales. The group is the second-largest carmaker in terms of volumes in the German market, behind Volkswagen, but ranks no. 1 ahead of BMW and Audi in the premium segment.

Daimler is the world no. 14 carmaker in volume terms and restored its no. 1 position in the premium segment in 2016 with a **3.1%** market share ahead of BMW (2.7%). In 2016, it had sales of **EUR153bn** (+2.5%) for EBIT of **EUR12.9bn** (-2%) and net profit of **EUR8.7bn** (+0.8%). In all, in 2016, it nudged the symbolic threshold of three million in unit sales including 2.2 million cars, 415,000 trucks, 359,000 vans and 26,000 buses.

## 10.1. Mercedes-Benz Cars – 58% of sales, 63% of EBIT

The Cars division is the oldest and largest of the group's divisions in terms of contribution to sales and earnings, representing around **58%** of sales and **more than 60%** of net profit in 2016. It focuses on four strong brands: **Mercedes-Benz, Maybach, Smart and AMG** enabling the group to address a wide range of premium customers with differing needs.



- **Mercedes-Benz** is the group's historical brand and the one that generates the large majority of the group's car sales (around 88%). Initially positioned in the D and E segments, it has managed to adapt to consumer demands and successfully offer compact cars and SUV models. Even though the **Mercedes C-Class** is still the brand's flagship model, a sharp increase in sales of the A-Class has been noted in recent years, in line with the group's strategy to win market share in segments that were previously not addressed due to image concerns.

MAYBACH

- A former luxury car manufacturer, Daimler bought **Maybach** in **1960** in order to cover this segment internally (F segment). After disappointing sales of the **57** and **62** models in 1997, exceeded by Rolls Royce and Bentley, Daimler halted the brand in 2012 before **relaunching it in 2014**. **Mercedes-Maybach** now sells its vehicle under the **S-Class** brand but this remains reserved for wealthy customers in view of an entry-level price of **EUR95,000**. This type of model represents less than 4% of the group's overall sales.

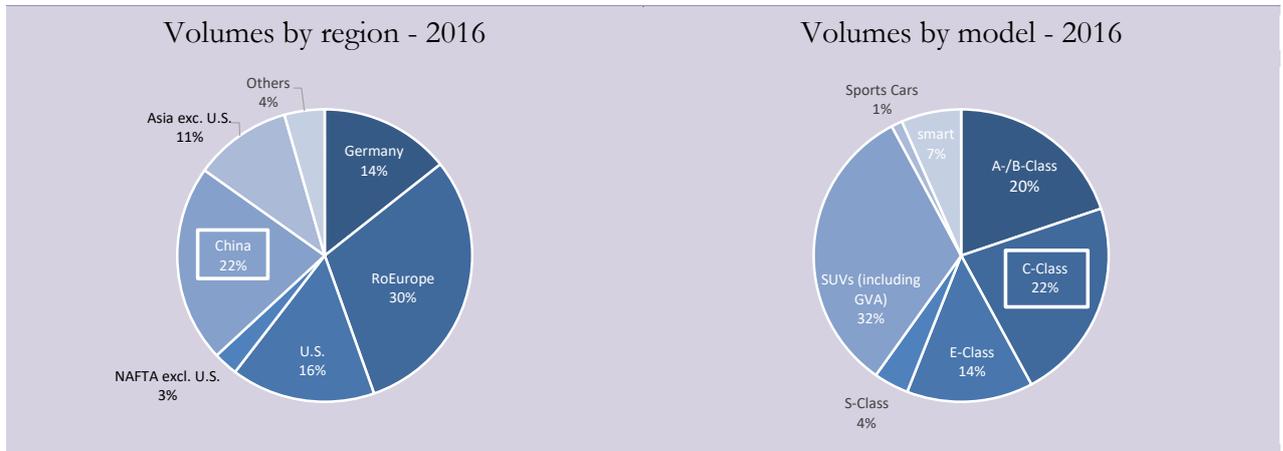


- The **Smart** brand was created in 1994 under the stimulus of Swiss watch manufacturer **Swatch** in partnership with Mercedes-Benz. It stands out for its fairly unusual positioning. Under the name of **Micro Compact Car AG (MCC)**, from 2002 to 2006 the company specialised in the manufacture of two-seater city cars operated under the name of **smart GmbH**, and was then entirely incorporated into the Mercedes-Benz division of German group Daimler AG. The flagship model, the Fortwo belongs to the B0 segment (less than 3m long) and is what sets the brand apart in its aim to addresses a young and city-based population. The range of vehicles offered is fairly small (just three in number), making its **positioning very specific**. Smart volumes represent around 7% of the division's total.



- Not accepting the withdrawal of Mercedes-Benz from automotive competition at the end of the 1960s, two German engineers **Aufrecht** and **Melcher** decided to create **AMG**. It has been the division's sporting branch since **1999**. Still today, the brand stands out for its high-performance models (the only carmaker with 15 models exceeding 500HP) in a niche market with around 27,000 vehicles sold last year. Even if this accounts for **less than 1% of the group's total sales**, the brand remains essential for the image it delivers.

**Fig. 26: A carmaker highly exposed to China and its C Class model**



Source: Company Data; Bryan, Garnier & Co ests.

In 2016, Daimler restored its no. 1 position in the premium car segment with almost **2.05m** vehicles sold thanks to the renewal of the group's flagship vehicles (including the new A-Class and E-Class) in a rejuvenation strategy enabling it to target a fresh customer segment. Furthermore, the group has gradually launched into other segments from which it has been historically absent, such as SUVs and city cars, in order to make the most of robust growth opportunities stemming from the Chinese and US markets in particular.

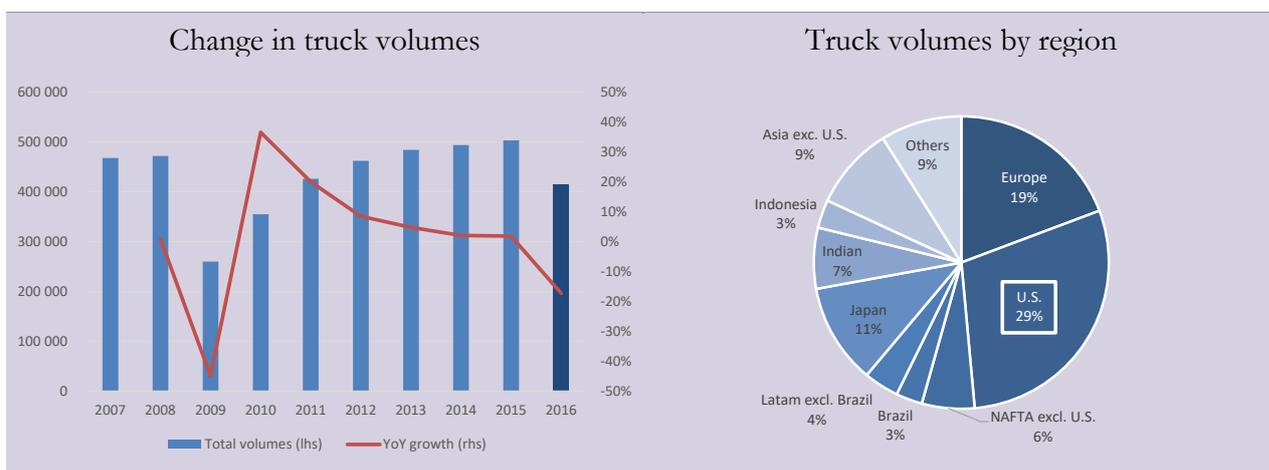
China was the group's leading market in 2016 with 480,000 vehicles sold ahead of the US and Germany (with respectively 347,000 and 314,000). The contribution from this market to the group's attributable net profit should continue to rise in coming years, with the premium market remaining buoyant whereas the group should continue to extend its distribution network. Even though Germany is only the group's third-largest market, it remains its historical core and remains its main market in Europe with around 14% of total sales, ranking no. 2 in market share terms behind Volkswagen.

## 10.2. Daimler Trucks – 21% of sales, 14% of EBIT

Daimler's truck division is made up of **five brands: Freightliner, Fuso, Western Star and BharatBenz**. It accounts for around **13%** of sales and **13%** of total group net profit and is an important business for the group even if its contribution as a percentage of attributable net profit has fallen constantly over the past 10 years, since the auto business generates far higher growth.

Over 2016, Daimler sold 415,108 trucks, down **17%** relative to 2015 but up **16%** relative to 2010 in a falling global market. The US is by far the group's largest market accounting for around **29%** of sales ahead of Japan (11%) and Germany (8%). Despite the increasing international expansion in sales prompted by the group's aim to address emerging markets (Brazil, Russia, India and China), Daimler Trucks is still very dependent on the European and US markets, since the road transport systems is better developed in these regions.

**Fig. 27: Still a very European and US-focused truck maker**



Source: Company Data; Bryan, Garnier & Co ests.

Daimler is the leader in **Europe**, especially in its main market of **Germany**, as well as in **Brazil** thanks to its Mercedes-Benz Trucks division positioned in medium/heavy-duty trucks. It is also present in the NAFTA market in which the US represents 83% of sales thanks to the success of the **Freightliner** (bought in 1981) and **Western Star** brands in the Class 6 and 8 models.

In all, Daimler is present in more than **15 countries** via **23 production and R&D sites** located above all in Europe (eight) and the US (seven), its two main markets. In order to penetrate the Russian and Chinese markets, the group has signed two partnerships in the form of joint ventures with local players.

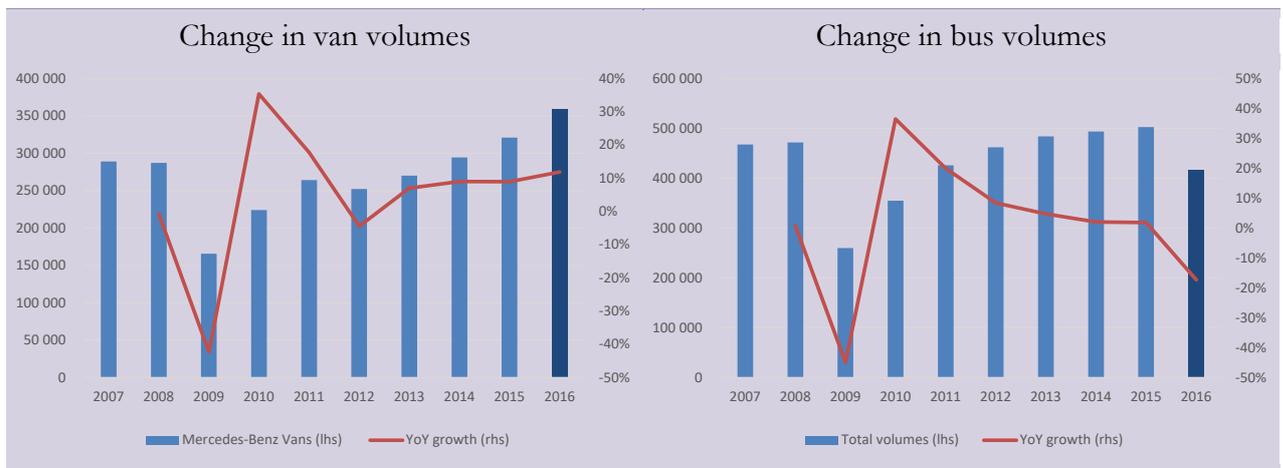
- Daimler has been in partnership with **KamAZ**, the leader in the Russian truck market since **2008**. The joint-venture created in 2015 under the **Daimler Kamaz RUS** banner produce four Mercedes-Benz models (Actros, Atego, Axor and Unimog) as well as the Canter model by the Fuso brand for the Russian market. This adds to the collaboration between the two groups for supply of engines and axles by Daimler to its Russian peer. Finally, the group also has a minority stake of **15%** in KamAZ.
- In China, the group has had a 50-50 joint venture with **Beiqi Fotor Motor** since **2011** under the name of **Beijing Foton Daimler Automotive (BFDA)**. This has allowed Daimler to penetrate the Chinese market with the launch in 2016 of a 43-tonne truck, the **Auman EST** (labelled

"Chinese truck of the year" in 2017), which also comes in a heavy-duty truck model the **Auman GTL**. The group supplies the OM 457 engines for both models.

### 10.3. Daimler – other industrial activities

Apart from the cars and trucks businesses, Daimler is also exposed to two other industrial segments, namely **buses and vans**, both of which offer few synergies whether in terms of investments or R&D spending. The two division contribute a combined total of **13%** of automotive sales and **11%** of the Daimler group's total sales.

**Fig. 28: Daimler is also known for its vans and buses**



Source: Company Data; Bryan, Garnier & Co ests.

In our view, these two activities could be sold off by the group as part of a restructuring logic to finance the many investments needed in the automotive division. On our estimates, the group could potentially recover some **EUR12-13bn** (EV) in financial flexibility (or two years of investments for the auto and trucks activities), while reducing its EBIT by **15%**. Certain vehicles in the light vans/pick-ups category could be transferred to the auto brand (X-Class for example).

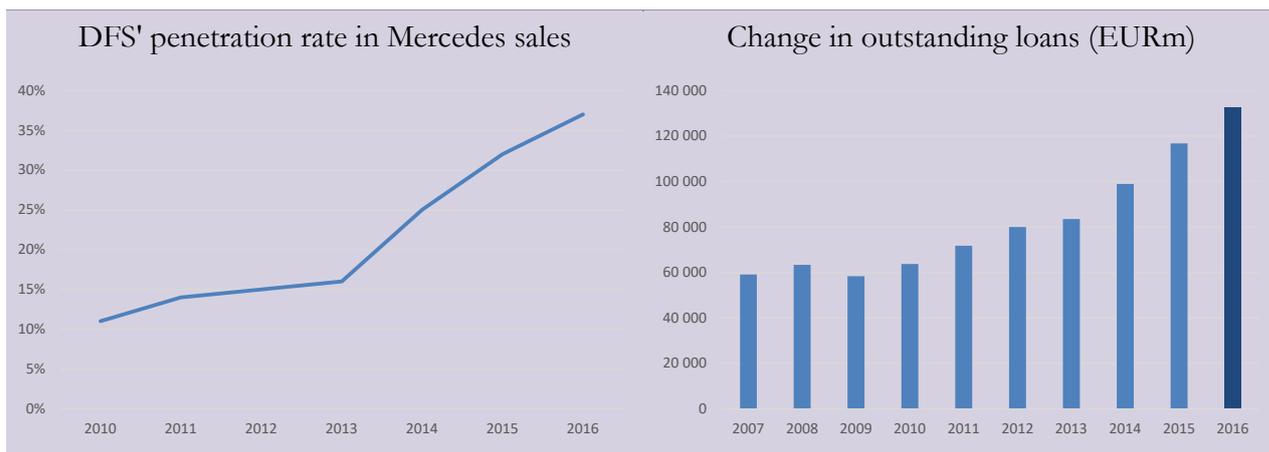
### 10.4. Daimler Financial Services – 13% of sales, 13% of EBIT

In 2007, Daimler developed the financial services division destined to provide financing, leasing and insurance solutions as well as new mobility and fleet management solutions via the roll-out of mobile applications.

In line with with the group's sales and its contribution to earnings, the car division represents the majority of contracts with around 68% for an amount of around **EUR90.1bn**. Even though the financial services division makes a low contribution to the group's net profit (13% and 14% of sales and net profit respectively), it is still essential for the group's strategy to expand into new customer profiles. Indeed, it helps facilitate access to upscale vehicles for customers that could be put off by fairly high prices, especially younger drivers who are the carmakers' new target.

Over 2007-2016, the division posted healthy growth with a 137% hike in sales and a 176% jump in pre-tax underlying profit to **EUR1.7bn**, enabling a tripling in net profit. The penetration rate climbed **26 points to 37%**, confirming a strong position in conquering new customers (although the group is still far from the penetration rate of **50%** boasted by BMW). The acquisition of **Athlon**, the European leader in long duration rentals, in December 2016 for **EUR1.1bn** helped strengthen the group's position in the fleet management market by increasing the size of its network of vehicles in circulation.

**Fig. 29: Daimler is also known for its vans and buses**



Source: Company Data; Bryan, Garnier & Co ests.

Excluding the acquisition of Athlon, the group remains primarily exposed to the US, which accounts for a third of the amount of contracts, followed by Germany (16%), where the leasing culture is strong.

**A worse than expected slowdown in demand in the US market could have a negative effect on the group's balance sheet and its solvency and profitability ratios, to the detriment of the loan loss ratio at DFS.**

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INDEPENDENT RESEARCH

25th September 2017

Automotive

Bloomberg	UG FP
Reuters	PEUP.PA
12-month High / Low (EUR)	20 / 13
Market capitalisation (EURm)	17,427
Enterprise Value (BG estimates EURm)	13,170
Avg. 6m daily volume ('000 shares)	2,926
Free Float	58.4%
3y EPS CAGR	12.1%
Gearing (12/16)	-41%
Dividend yields (12/17e)	2.75%

YE December	12/16	12/17e	12/18e	12/19e
Revenue (EURm)	54,030	55,984	74,951	77,500
EBIT(EURm)	2,505	3,161	3,313	3,803
Basic EPS (EUR)	1.89	2.12	2.20	2.69
Diluted EPS (EUR)	1.91	2.12	2.20	2.69
EV/Sales	0.21x	0.24x	0.18x	0.17x
EV/EBITDA	2.0x	2.2x	1.9x	1.7x
EV/EBIT	4.6x	4.2x	4.1x	3.5x
P/E	10.1x	9.1x	8.7x	7.2x
ROCE	24.9	22.7	19.8	20.4



# Peugeot

Harder time ahead

Fair Value EUR19 (price EUR19.26)

**SELL**  
Coverage initiated

Having long looked for a partner in order to grow in a volume-based and high fixed-cost industry (GM, Mitsubishi, BMW...), PSA finally acquired GM's loss-making European subsidiary Opel/Vauxhall. This non-disruptive operation should strengthen the group's positions in markets that it has tried to avoid for some years. We are initiating coverage of the stock with a Sell recommendation and a FV of EUR19.

**Protecting margins to the detriment of volumes:** The arrival of Carlos Tavares in 2014 has helped PSA turn around its longstanding lack of profitability caused by its small size and positioning, and shown that it is capable of protecting margins and pricing power, even though this has caused a decline in its global market share. The group now ranks among the most profitable generalist carmakers.

**An opportunist acquisition of Opel/Vauxhall:** The acquisition of Opel/Vauxhall for EUR2.3bn (with EUR1.8bn shouldered by PSA) was made official in March 2017 and has totally overturned the strategy initiated by the group's CEO three years ago. The initial aim was to grow the group on an international scale while continuing to improve its brand image. However, the CEO now finds himself at the helm of the most European and most generalist of carmakers, whereas global demand is about to slow. **In our view, this acquisition is more opportunist than strategic** and is likely to dilute growth and margins in coming years by **150-200bp**.

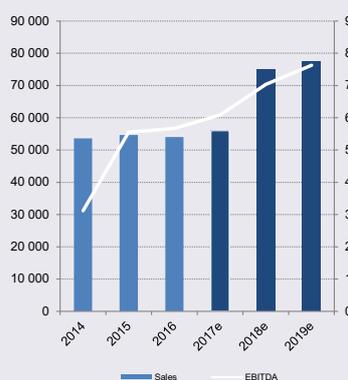
**The hard part is yet to come, we initiate coverage at Sell:** A lack of short-term visibility combined with no upside despite the fact that estimates and FV do not entirely reflect potential additional restructuring costs caused by the acquisition, prompt us to initiate coverage of Peugeot with a **Sell** recommendation (FV at EUR19). The share is trading on a **20% premium** to historical multiples despite a lack of visibility on future profitability levels at the new entity and a clear commercial underperformance likely in the short term.



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## Peugeot



### Simplified Profit & Loss Account (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Revenues	53,607	54,676	54,030	55,984	74,951	77,500	79,905
Change (%)	-0.9%	2.0%	-1.2%	3.6%	33.9%	3.4%	3.1%
Adjusted EBITDA	3,119	5,555	5,673	6,084	7,033	7,630	7,926
EBIT	223	1,911	2,505	3,161	3,313	3,803	3,698
Change (%)	-%	756%	31.1%	26.2%	4.8%	14.8%	-2.8%
Financial results	(763)	(642)	(268)	(253)	(336)	(328)	(322)
Pre-Tax profits	(258)	1,706	2,365	3,162	3,384	3,945	3,864
Exceptionals	(682)	(936)	(730)	(570)	(570)	(570)	(870)
Tax	(313)	(706)	(517)	(885)	(948)	(1,105)	(1,082)
Profits from associates	282	437	128	254	408	470	487
Minority interests	(151)	(303)	(419)	(386)	(471)	(528)	(569)
Net profit	(973)	834	1,624	1,890	1,966	2,312	2,213
Restated net profit	(973)	834	1,424	1,890	1,966	2,312	2,213
Change (%)	-54.1%	-%	70.9%	32.7%	4.0%	17.6%	-4.3%

### Cash Flow Statement (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Operating cash flows	4,642	6,328	5,931	4,804	3,825	5,423	5,539
Change in working capital	1,747	942	471	942	(622)	258	222
Capex, net	(2,428)	(2,968)	(3,574)	(3,695)	(4,947)	(5,037)	(5,194)
Financial investments, net	135	(107)	243	(1,130)	0.0	0.0	0.0
Dividends	173	3.0	(14.0)	(413)	(477)	(496)	(605)
Other	842	(1,498)	(1,653)	386	471	528	569
Net debt	(548)	(4,560)	(6,813)	(6,766)	(5,638)	(6,056)	(6,365)
Free Cash flow	2,141	2,811	2,058	1,109	(1,122)	385	345

### Balance Sheet (EURm)

	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	10,831	10,894	11,293	11,947	11,311	10,575	9,816
Intangibles assets	4,348	4,769	5,454	7,477	9,919	12,311	14,641
Cash & equivalents	9,959	10,896	12,208	12,161	11,033	11,451	11,760
current assets	22,031	19,424	21,188	20,707	20,919	21,628	22,234
Other assets	24,002	14,023	7,218	7,185	7,375	7,400	7,424
Total assets	61,212	49,110	45,153	47,316	49,523	51,914	54,115
L & ST Debt	2,814	7,482	6,187	6,187	6,187	6,187	6,187
Others liabilities	40,874	17,140	26,309	27,124	28,231	29,239	30,261
Shareholders' funds	17,524	14,487	12,657	14,005	15,105	16,488	17,667
Total Liabilities	61,212	39,109	45,153	47,316	49,523	51,914	54,115
Capital employed	10,169	9,452	10,172	11,858	14,110	15,443	16,732

### Ratios

	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	0.42	3.49	4.64	5.65	4.42	4.91	4.63
Tax rate	(121)	41.39	21.86	28.00	28.00	28.00	28.00
Net margin	(1.81)	1.52	2.64	3.38	2.62	2.98	2.77
ROE (after tax)	(5.21)	5.16	11.11	11.56	10.97	11.66	10.25
ROCE (after tax)	19.72	16.95	24.85	22.66	19.81	20.39	19.66
Gearing	(3.65)	(21.14)	(41.19)	(36.53)	(27.04)	(26.54)	(25.82)
Pay out ratio	0.0	0.0	25.15	25.00	25.00	25.00	25.00
Number of shares, diluted	806	832	860	900	900	900	900

### Data per Share (EUR)

	2014	2015	2016	2017e	2018e	2019e	2020e
EPS	(1.24)	1.03	1.89	2.12	2.20	2.69	2.57
Restated EPS	(1.19)	1.02	1.91	2.12	2.20	2.69	2.57
% change	-78.7%	-%	86.6%	11.1%	4.0%	22.0%	-4.3%
EPS bef. GDW	(1.24)	1.03	1.89	2.12	2.20	2.69	2.57
BVPS	22.38	17.92	14.72	16.29	17.57	19.17	20.54
Operating cash flows	5.76	7.61	6.90	5.34	4.25	6.03	6.16
FCF	2.66	3.38	2.39	1.23	(1.25)	0.43	0.38
Net dividend	0.0	0.0	0.48	0.53	0.55	0.67	0.64

Source: Company Data; Bryan, Garnier & Co ests.

### Company description

PSA group operates through three segments. The Automotive Division covers the design, manufacture and sale of passenger cars and light commercial vehicles under the Peugeot, Citroen, DS, Opel & Vauxhall brands. The Automotive Equipment Division corresponds to the Faurecia Group consisting of Interior Systems, Automotive Seating and Clean Mobility. The Finance Division corresponds to the BPF, which provides retail financing to customers of the Peugeot, Citroen and DS brands, and wholesale financing to the brands' dealer networks, in collaboration with Santander. The Company's other activities are grouped under Other Business, which includes the holding company and minority stakes in Groupe Gefco, as well as in Peugeot Motorcycles. The Company's brands and services include Free2Move, PSA Powertrain, Banque PSA Finance Group (BPF) and Mister Auto. The french OEM remains highly exposed to Europe (>65% sales), has a small exposure to China and is not present in North America.

## Table of contents

1. Investment Case.....	118
2. Peugeot in six charts .....	119
3. Harder time ahead .....	120
4. EBIT margin the priority to the detriment of market share .....	121
4.1. Stricter pricing power than the competition .....	122
4.2. Drastic cost cutting.....	122
4.2.1. Optimisation of industrial plants to boost utilisation rates.....	122
4.2.2. New platforms for more synergies between models.....	124
4.3. Difficulties still need resolving.....	125
4.3.1. A genuine problem in China .....	125
4.3.2. Group little present in emerging markets .....	128
4.4. And if new services were to provide fresh growth?.....	130
4.4.1. A return to the US market via Travelcar? .....	130
4.4.2. Ahead of rivals?.....	131
5. The transition towards new alternative engines is difficult.....	133
5.1. A pioneering group in optimisation of thermal engines ... ..	133
Expertise: the Blue HDi system.....	133
5.2. ... but lagging in alternative engine types .....	135
5.2.1. Successive failures in HYbride4 and Hybrid Air .....	135
5.2.2. Electric engines, the main thing missing .....	136
6. Acquisition of Opel/Vauxhall, genuinely strategic or just opportunist? .....	138
6.1. Looking for critical mass .....	138
6.2. Struggling brands highly exposed to the European market.....	139
6.3. Heading for a likely restructuring of the brands.....	141
7. Peugeot – Our estimates .....	144
8. Peugeot – Valuation .....	146
8.1. SOTP valuation (€24).....	146
8.2. Valuation by multiples (€15) .....	147
8.3. DCF valuation (€25).....	148
9. Peugeot – SWOT.....	150
10. PSA in short.....	151
10.1. Automotive division – 63% of sales – 52 % of EBIT.....	151
10.2. Faurecia – 35% of sales – 30% of EBIT .....	153
10.3. Bank PSA Finance .....	153
Bryan Garnier stock rating system.....	155

# 1. Investment Case

Why the interest now?



## The reason for writing now

As part of our report on car manufacturers, we are initiating coverage of French carmaker **Peugeot (PSA)**, which is the leader in France ahead of Renault, and now the European no. 2 behind **VW** following the acquisition of Opel/Vauxhall in early 2017. Since the arrival of **Carlos Tavares in 2014**, former no. 2 at Renault, the group is now favouring pricing power to boost margins per vehicle, but to the detriment of volumes and market share. This strategy is worthy of a premium carmaker and places the group among the small circle of highly profitable generalist carmakers, but implies a loss of commercial momentum in high-potential markets. **The integration of the Opel/Vauxhall brands is likely to dilute the group's earnings until 2026.**

Cheap or Expensive?



## Valuation

We value the group via SOTP and DCF calculations as well as historical multiples in order to better assess the value of its various businesses. Note that Peugeot still consolidates **100%** of **Faurecia** (Buy, FV at **EUR57**) thanks to its **47%** stake in the parts maker. We have a **FV of EUR19** on the share after the integration of the Opel/Vauxhall brands. **We are initiating coverage of the share with a Sell recommendation.**

When will I start making money?



## Catalysts

When the completion of the acquisition was officially announced (1st August 2017), the group indicated that it would present a recovery plan for the brand in the **following 100 days (by 9th November 2017)**. Note that PSA aims to generate EBIT margin at Opel/Vauxhall of **2% in 2020** and **6% in 2026** compared with its previous losses.

What's the value added?



## Difference from consensus

The consensus looks delicate to analyse following the announcement of the Opel/Vauxhall takeover with certain analysts including the operation and others not. (BG: 1st January 2018)

Could I lose money?

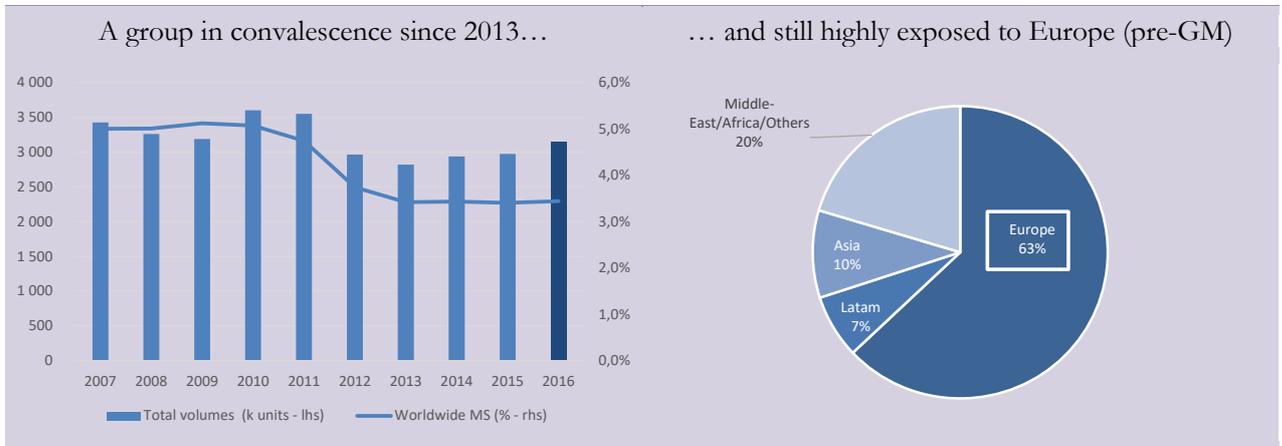


## Risks to our investment case

A recovery in the **European automotive market** could boost PSA's volumes and its global market share, which accounts for more than **>70%** of its volumes. Synergies could be higher and faster than expected.

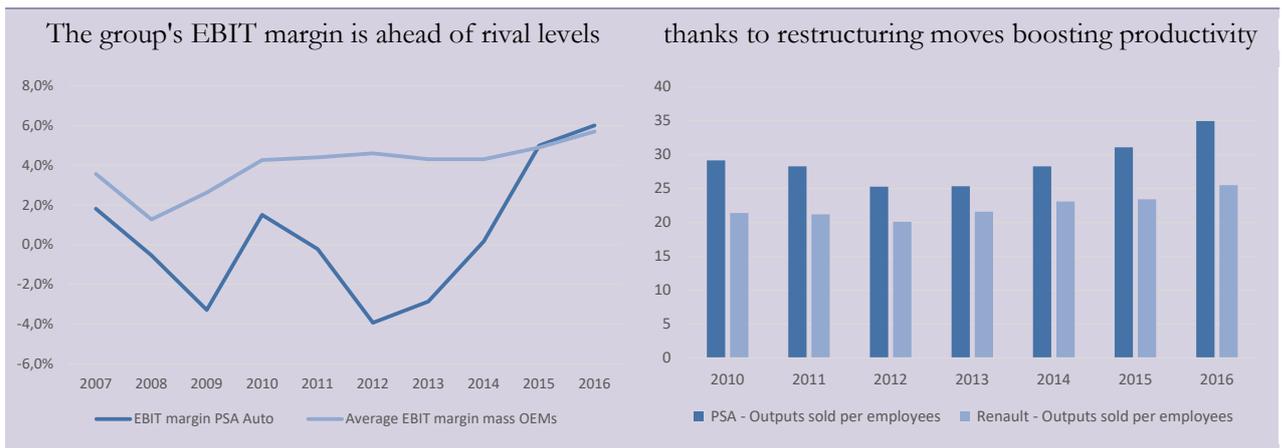
## 2. Peugeot in six charts

**Fig. 1: Market share losses since 2007...**



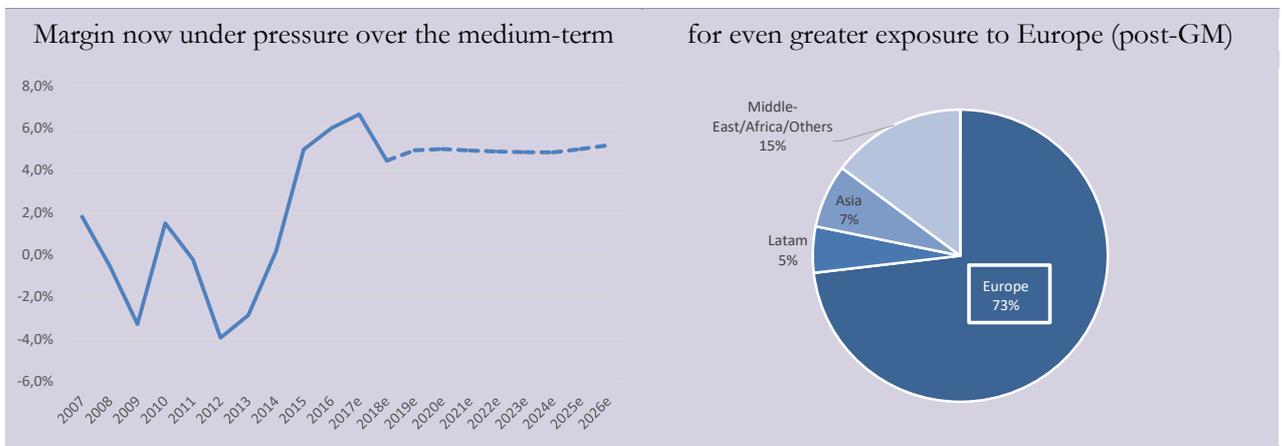
Source: PSA; Bryan, Garnier & Co ests.

**Fig. 2: ...but restored pricing power and industrial flexibility**



Source: Datastream, PSA; Bryan, Garnier & Co ests.

**Fig. 3: Is PSA going backwards with the Opel takeover?**



Source: PSA; Bryan, Garnier & Co ests.

### 3. Harder time ahead

After long seeking a partner to help it grow in a **high-volume** and **high fixed-cost industry** (BMW in 2009, Mitsubishi in 2010 and GM in 2012), French carmaker **PSA** was obliged to call on the market and rivals/partners on numerous occasions in order to survive cycle troughs in the sector (capital increases of EUR1bn in 2012 and EUR3bn in 2014), thereby diluting the historical shareholder of the family-owned company, the **Peugeot family**.

However, since the arrival of the former no. 2 at Renault, **Carlos Tavares**, in 2014, the group has entered a reconstruction phase driven especially by the roll-out of a strategy that now favours pricing power to the benefit of margin per vehicle and to the detriment of volumes and market share. This strategy is worthy of a premium carmaker and in recent years has enabled the group to join the small circle of highly profitable generalist carmakers, but has implied a loss of commercial momentum in high-potential markets.

Whereas the group had just proved to investors that it was capable of reaching profitability levels at the high end of the scale for generalist carmakers thanks to the roll-out of a coherent strategy and the deployment of a range of Peugeot models suited to market needs, the acquisition of **Opel/Vauxhall** has now placed PSA in a delicate phase of integration and restructuring. The acquisition was made official in March 2017 with the group acquiring the unprofitable European subsidiary of US carmaker GM, its industrial partner in the C segment since 2012. As such, PSA has become the **no. 2 in Europe** behind **VW** but ahead of **Renault** with **17%** market share, thereby adding weight to its position in the generalist segment in a move that totally contradicted the plans of the new CEO (focus on international and premium). **In our view, this acquisition is more opportunist than strategic** and is set to plunge the group into a complicated period for investors to manage and assess (restructuring moves, market share losses, margin narrowing...).

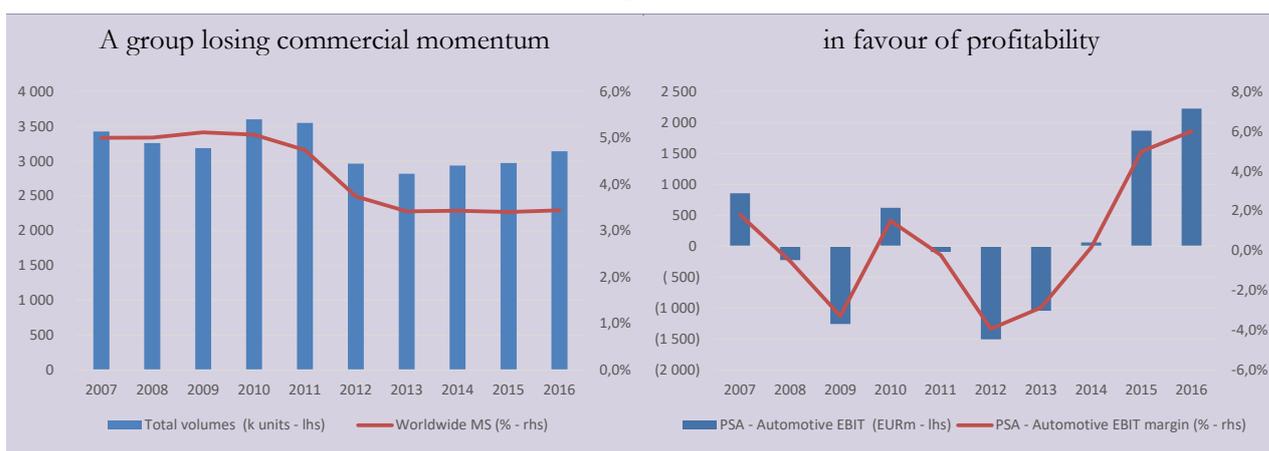
In our model, we are forecasting a decline in the automotive segment in the short and medium terms of around **150-200bp** (before restructuring costs) relative to the record reached in 2017 (6.7%). The recovery plan that the group is due to present during November 2017 should enable us to better assess the acquisition and its implications on the new group's accounts.

**This lack of short-term visibility combined with low upside potential for the share (<10%), despite the fact that our estimates and FV do not fully reflect potential restructuring costs associated with the acquisition, has prompted us to initiate the stock with a Sell recommendation (FV at EUR19). The share is currently trading on a premium of 20% to its historical multiples, despite the lack of visibility on future profitability levels at the new group.**

## 4. EBIT margin the priority to the detriment of market share

Since the arrival in 2014 of **Carlos Tavares**, Carlos Ghosn's former no. 2 at Renault, at the helm of PSA, the French group has restored growth but remains in a restructuring phase. The recovery of the second-largest French carmaker has been the fruit of a different strategy compared with previous ones and those at rivals. Unlike Renault, which has focused on size and hence volumes, PSA is looking for more **operating and industrial efficacy** to boost EBIT margin and earnings per vehicle, rather than volumes. This strategy has notably enabled PSA to generate record margins not only on a group scale but also for a generalist carmaker, but has nevertheless come at the expense of global market share. Prior to the takeover of Opel/Vauxhall, the group's market share stood at **3.4%** at the end of 2016 (4.9% with Opel/Vauxhall) vs. **5%** at end-2007. Over the same period, Renault's market share remained stable at **3.6%**.

**Fig. 4: Since 2011, PSA has lost market share on a global scale, but significantly increased its EBIT margin**



Source: Company Data; Bryan, Garnier & Co ests.

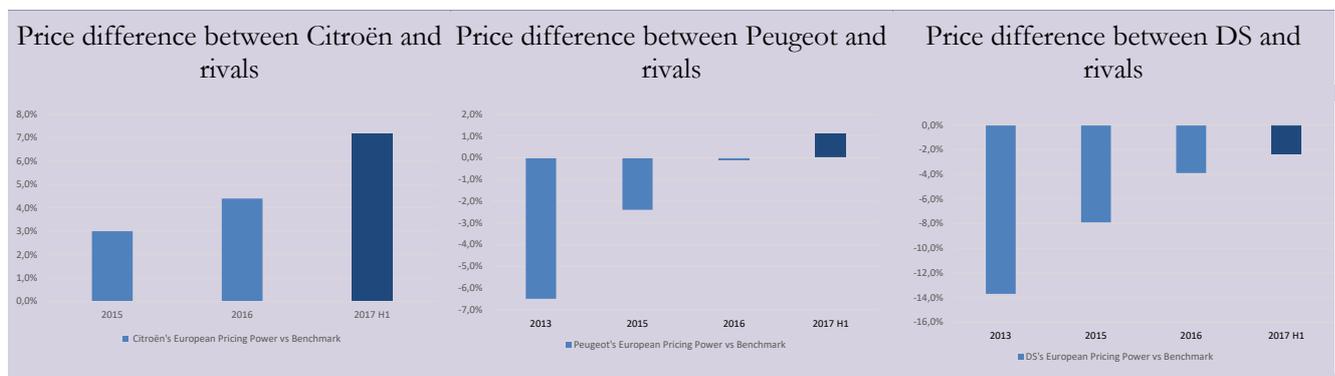
2016 figures as well as those for H1 2017 published by the group in July, confirmed this margin protection strategy. Indeed, whereas global demand rose by **3-4%** over H1 2017, PSA's sales volumes only rose by **2.3%** and this was only thanks to the recovery in the Iranian market (volumes in CKDs destined for this market down **11%** relative to H1 2016). However, despite this low sales performance (primarily in China and Europe), the group succeeded in widening its EBIT margin by **50bp** to **7.3%** in its automotive segment, thanks primarily to a beneficial product mix and optimisation of the purchasing cost base. Over the same period, Renault increased its volumes by **10.4%** but maintained its margin in the auto segment at a level close to **5%**.

## 4.1. Stricter pricing power than the competition

The group is now at the **high end of the scale for generalist carmakers** in terms of profitability with an EBIT margin of **6%** in 2016, which was strengthened further in H1 2017 to **7.3%**, 110bp higher than that published by direct rival Renault. Contrary to Renault, which is notably present in the low-cost segment with its Dacia brand requiring high volumes to maintain a high margin, PSA has chosen to maintain high pricing power, by focusing more on **high-margin services such as vehicle options and customisation and a rise in average prices for its models**. Whereas previously, the group's aim was to offer its customers lower prices than those of Renault for similar models, especially via aggressive sales offers, the strategy adopted following the arrival of Carlos Tavares in 2014 is diametrically opposed.

The group is aiming to reduce the price difference with its rivals, especially Volkswagen in order to strengthen its positioning as an upscale generalist.

**Fig. 5: The group now aims to reduce price differences with rivals**



Source: Company Data; Bryan, Garnier & Co ests.

## 4.2. Drastic cost cutting

Under the framework of its **Push to Pass strategic plan** (2016-2021), the group is aiming to reduce unit production costs by **EUR700** in order to continue reducing its break-even point and improve its profitability, already at the **high end of the sector average**. One of the solutions lies in streamlining production, by developing modular platforms serving as a base for Peugeot and Citroën models, a strategy already implemented by the Renault-Nissan Alliance. Note that the group is also benefiting from the overhaul of its European industrial facilities (closure of the Aulnay site in 2014) as well as various wage negotiations undertaken with trade unions in favour of a lower break-even point and greater flexibility.

### 4.2.1. Optimisation of industrial plants to boost utilisation rates

Faced with financial difficulties and problems concerning overcapacity in Europe, in 2012 the French carmaker decided to restructure the industrial activity, primarily in France, by reducing some of its headcount (8,000 jobs axed in France) and closing its historical Aulnay site in 2014.

As the **Sartorius report** highlighted in 2012, this restructuring process was necessary to enable a rapid return to breakeven, even though it was carried out in conditions that warranted criticism.

Apart from the closure of the Aulnay plant in 2014 (>3,000 employees producing Citroën C2 and C3 models), the number of production sites has not changed overall.

Please see the section headed "Important information" on the back page of this report.

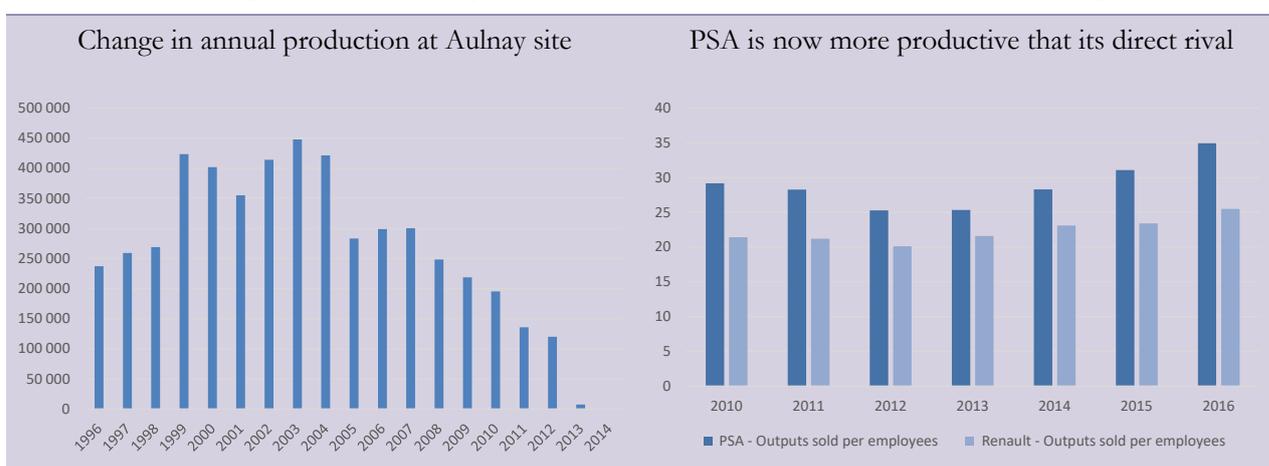
In order to produce more than **three million** vehicles a year, the carmaker still uses **16 assembly sites** (including the sites owned as joint ventures), the majority of which are located in Europe. In Europe, PSA preferred to rely on part unemployment and the reorganisation and restructuring of its plants as a means of reducing fixed costs and enhancing productivity. The switch **to a single assembly line (mono flow)** at all of the five French assembly plants helped reduce the space allocated for vehicle assembly and to bring suppliers closer to production lines, while reducing the manufacturing time for a vehicle. As such, whereas it previously took **28.5 hours** to assemble a vehicle, in 2015 this was slashed to **24.4 hours**. This figure should also continue to decline in the short term since the group has **changed its work organisation** in order to generalise **full kitting** techniques in its plants (2017). This technique consists of automatic sorting and delivery of the parts that workers require by using automated trolleys rather than making workers collect the parts themselves thereby generating productivity gains. More generally, the measures taken by the group were necessary and beneficial for the group's survival and productivity, with one notable fact being the reduction in the **break-even point**: whereas this stood at **2.6m vehicles** in 2013, it fell to **1.6m** in 2015. Furthermore, the capacity utilisation rate (Harbour rate) has improved considerably since 2014 standing at **98%** at end-2016 vs **79%** at end-2014 even though it is still below the European average (105%).

This overhaul in the group's industrial facilities has gone hand in hand with **competitiveness agreements** signed between management and trade unions in order to improve the group's flexibility. The first three-year plan in **2013** enabled a substantial fall in the number of employees (8,000 job cuts and 3,000 voluntary departures) in return for maintaining the sites in business and guaranteeing production levels

The second plan in **2016** was signed during the chairmanship of Carlos Tavares and focused more on **employee flexibility** (up to 12 additional working days a year in the event of increased activity in particular, with only overtime bonuses being paid) in return for **1/promises to hire staff** (1,000 long-term contracts over three years), **2/production of 1m vehicles a year in France until 2019** (2016 level) and **3/the group's commitment to spending on technological innovation** (85% must be invested in France).

**While the 2013 agreement was necessary for the group's survival, the 2016 one was more similar to that at Renault consisting of implementing greater flexibility within the group to continue the recovery and limit operating risks in the event of a market turnaround such as that seen in 2012/13.**

**Fig. 6: PSA managed to adapt its plants in Europe in favour of margins**



Source: Company Data; Bryan, Garnier & Co ests.

#### 4.2.2. New platforms for more synergies between models

PSA recently replaced its older production platforms with modular platforms used by many of the group's models, but also by certain models belonging to its partners.

■ The **EMP2 platform** (Efficient Modular Platform) has replaced the group's two older **PF2** platforms (previously used for the C, D and F segments) and **PF3** (D and E segments). Its modularity enables it to assemble vehicles with different sized bodies such as **saloons, cabriolets, crossovers** and even **minivans**. The platform helps make the group's production more flexible and offers a lot of advantages compared with the previous one: **a 70kg reduction in the weight of the vehicle** and hence, a **sharp decline in CO2 emissions** (by around 20%, strengthened by the roll-out of the SCR system). Used since 2013 only for certain **Peugeot** and **Citroën** vehicles (C4, 308 in particular), it is destined to equip more than **90%** of new models by the end of 2019 in the C+ and D segments vs. around **50%** at present. As of 2017, the platform is also set to develop the **Grandland X** for Opel following the partnership signed between the two groups in 2012 (at the time GM had taken a 7% stake in the group's capital via a capital increase).

■ The **CMP platform** (Common Modular Platform) destined to be operational in **2019**, should cover around **50%** of new models in the B and C segments by 2021 (vehicles such as the 208, C3, 301 and C-Elysée). The platform has been developed since 2015 in partnership with Chinese carmaker **Dongfeng**, enabling a modest investment (60% of the investment shouldered by PSA, or EUR120m). **1/**The platform is lighter (-40/45kg) enabling a further reduction in CO2 emissions. **2/**It requires fewer R&D investments since **40%** of the EUR200m initially invested was covered by Dongfeng. **3/**Its architecture has been designed to adapt to thermal and electric engines, in a specific version baptised **e-CMP** (planned for 2019). This latter point is important for PSA's development in electric vehicles since it should enable economies of scale and a reduction in marginal costs while joining forces with local carmaker Dongfeng to penetrate the **Chinese market, the leading global auto market, but also the leading global market for electric vehicles.**

**Fig. 7: PSA EMP2 modular platform – assembled models**

Launch date	Brand	Model	Plant
2013	Peugeot	308	Sochaux, Mulhouse
2013	Citroën	C4	Vigo
2014	Peugeot	408	Kulim
2016	Citroën, Peugeot, Toyota	SpaceTourer, Traveller, ProAce Verso	Valenciennes
2016	Citroën, Peugeot, Toyota	Jumpy,Expert, Toyota ProACe	Valenciennes
2016	Peugeot	3008	Sochaux
2016	Peugeot	5008	Rennes
2017	DS	DS7 Crossback	Mulhouse
2018	Citroën	C5 Aircross	Rennes
2018	<b>Opel</b>	<b>Grandland X</b>	<b>Sochaux</b>
2018	Citroën, Peugeot	Belingo III, Partner III	Vigo
2018	<b>Opel</b>	<b>Combo E</b>	<b>Vigo, Mungalde</b>

Source: Company Data; Bryan, Garnier & Co ests.

Modular platforms play a key role in optimising production costs. PSA is following the path of other carmakers and especially Renault, which is developing an increasing number of joint models with Nissan via their Alliance.

**In all, this strategic choice to protect margins implemented by Carlos Tavares has enabled the French carmaker to better manage its production tools while gradually changing its price policy and the positioning of the Peugeot brand in Europe more in the premium segment. However, although PSA's strategy seems promising in the short term, it looks more risky over the medium/long term, especially since the integration of Opel/Vauxhall is set to have a dilutive impact on the automotive division's accounts until 2026.**

We estimate that for every 2.5 points of outperformance by Renault relative to PSA in terms of volume growth, PSA will require margin growth of 20bp in order to generate the same increase in EBIT in value terms (assuming that Renault's margin remains unchanged in percentage terms).

### 4.3. Difficulties still need resolving

#### 4.3.1. A genuine problem in China

After a first unfruitful implantation in 1985, PSA returned to the market in 1992 by signing a partnership with Chinese carmaker **Dongfeng** via a 50-50 JV nominated **Dongfeng Peugeot-Citroën Automobiles (DPCA)**. The second-largest Chinese carmaker is now also a shareholder in the PSA group with 12.23% of the capital following a capital increase in 2014. The joint-venture now has five plants (for total capacity of around 1.05m vehicles, including the latest to open in **Chengdu** which is specifically dedicated to monospace cars and urban SUVs such as the Peugeot 4008.

The group's sales are nevertheless out of line with its level of production and remain disappointing: whereas the Chinese market is rapidly expanding, PSA is the only carmaker in the Top 15 whose sales are in decline. In **2016**, the group sold 618,000 cars in China and South-East Asia, or a 16% fall relative to 2015, with an even deeper deterioration for its premium DS brand (-25%). China and South-East Asia represent **20%** of its volumes whereas the group only has market share of **1.4%** after a sharp deterioration from 4% in 2015. This is primarily for two reasons: **an offer unsuited to the customer base and bad management of the distribution network.**

**Fig. 8: The group is losing ground in China, the leading global market**



Source: Company Data; Bryan, Garnier & Co ests.

Please see the section headed "Important information" on the back page of this report.

The group has not managed to adapt to changes in Chinese consumer preferences to move away from saloon cars in favour of SUVs since 2015. The SUV segment now represents **45%** of total sales in China, whereas they only accounted for 21% in 2014. As such, unlike Renault which arrived later in the market and which was able to easily adapt its offer to the demanding situation, in recent years, PSA did not have a sufficiently large range in the segment to be able to penetrate the market. **The eight launches planned in the next three years** should have a beneficial impact on the group's sales, even if we could question the relevance of having so many vehicles given the risks of them eating into sales of each other.

**Fig. 9: Schedule of future SUV launches in China**

Launch date	Last version	Brand	Model	Details
2013	H2 2017	Peugeot	3008	Restyled version, ≠ from European 3008 2nd generation
2014		Peugeot	2008	
November 2016	-	Peugeot	4008	Extended version of the European 3008 only for Chinese market
June 2017	-	Peugeot	5008	
October 2017	-	Citroën	C5 Aircross	
H2 2018	-	Citroën	C3 Aircross	
2018	-	DS	DS7 Crossback	A DS vehicle/year is scheduled

Source: Company Data; Bryan, Garnier & Co ests.

PSA not only had a shortfall of SUVs in its range, but its saloons have also had little success since they are not in line with consumer preferences for spacious and hence longer versions. The group therefore needs to try and continue adapting to the local market, as other carmakers have, such as VW and BMW, which offer models specifically dedicated to the Chinese market.

In an attempt to revive the premium DS brand in China, the group recapitalised it for **EUR500m** last June, an amount shared equally with the no. 4 Chinese carmaker, **Changan** via their joint venture CAPSA. The group is ambitiously targeting one new DS launch per year in order to resolve overcapacity issues in its plants. Note that in 2016, the joint venture only sold 15,000 models vs >25,000 in 2014. The DS brand suffers in China from the same strategic problems it has in Europe, namely a limited range of products and a complicated positioning relative to premium German brands.

Finally, the market slowdown in 2015 combined with the shift in demand from Tier 1-3 cities to smaller and less wealthy Tier 4-6 cities, prompted a price war that was beneficial to local carmakers. In its strategy to maintain margins to the detriment of volumes, PSA did not generally participate in this trend to level out prices from the low end. This also contributed to the plunge in its volumes and hence its local market share.

The group's sales in China were also penalised by its distribution network that is not very suited to new market growth. The distribution network made up of around 1,000 dealerships (495 Peugeot, 431 Citroën and 94 DS) has a genuine profitability issue with half of it generating no profits and only 37% of the dealerships delivering the monthly targets set by the parent companies. PSA's ill-suited range as mentioned previously, combined with the strategy to refuse price cuts, has made it difficult to run down high levels of stocks (equivalent to 2.7 months of sales in Q1 2017, with some dealerships with levels even as high as 180 days, compared with 60-65 at the PSA group level).

However, the problem is also structural, since several dealerships suffer a relative lack of experience and deliberately sell at a loss, in total contrast to the margin recovery strategy imposed by Carlos Tavares.

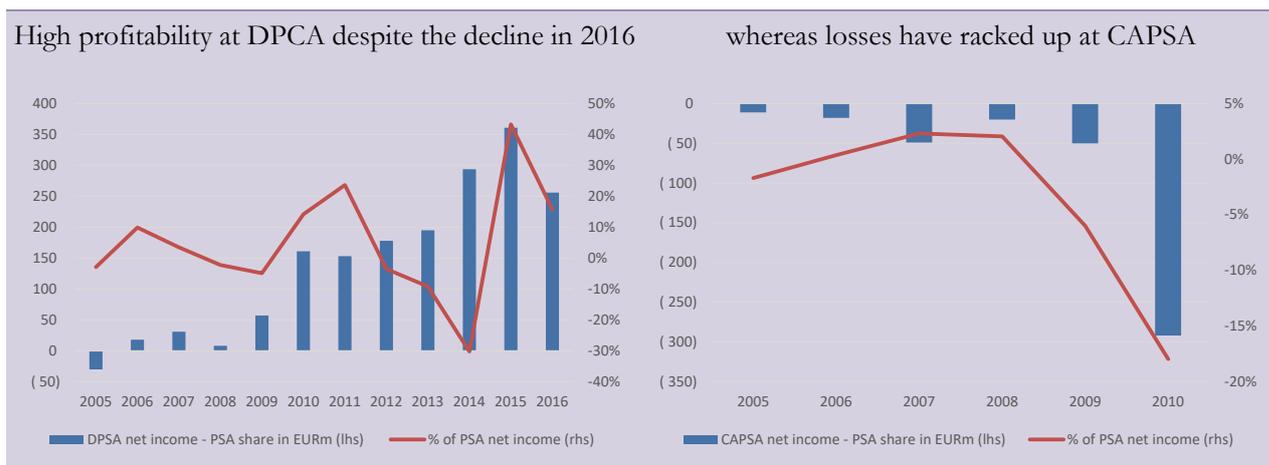
The majority of DPCA dealerships were chosen by Dongfeng over 2010-2014, namely when the market and the group were growing and demand was strong. Dongfeng did not pay much attention to the organisational and financial structures of the dealerships and the joint venture is now paying the price of this.

The restructuring operated by the group is all the more complicated to implement given the very close ties now existing between PSA and Dongfeng. Dongfeng is an historical ally for the group in China and is now the leading shareholder at PSA (12.23% of the capital) ahead of the French state and the Peugeot family. The CEO of the Peugeot brand Jean-Philippe Imperato estimates that only 10% of the dealerships are "good" with the remaining 90% still not experienced enough.

The current restructuring put in place by Carlos Tavares should also go hand in hand with a strategy to professionalise these dealerships by adapting them to the latest sales trends (leasing, second-hand cars) that remain limited in the country and help generate higher margins.

This strategy should boost the group's profitability in China, even though negotiations between DPCA and Dongfeng are delaying its application and its benefits are unlikely to be felt before 2019. Restructuring of the joint venture with Chang'An (CAPSA, for the DS brand) is also likely to take time with the two groups having just 1/recapitalised the entity in equal parts (EUR500m), and 2/signed a new partnership to produce new models in the Shenzhen plant in order to increase its utilisation rate (Chang'An vehicle in addition to DS, and production of a pick-up truck and utilities vehicles). Note that this site can produce around 200,000 vehicles a year on its own whereas DS has sold less than 5,000 vehicles in China since the beginning of the year.

**Fig. 10: Contribution from Chinese JVs under pressure since 2015**



Source: Company Data; Bryan, Garnier & Co ests.

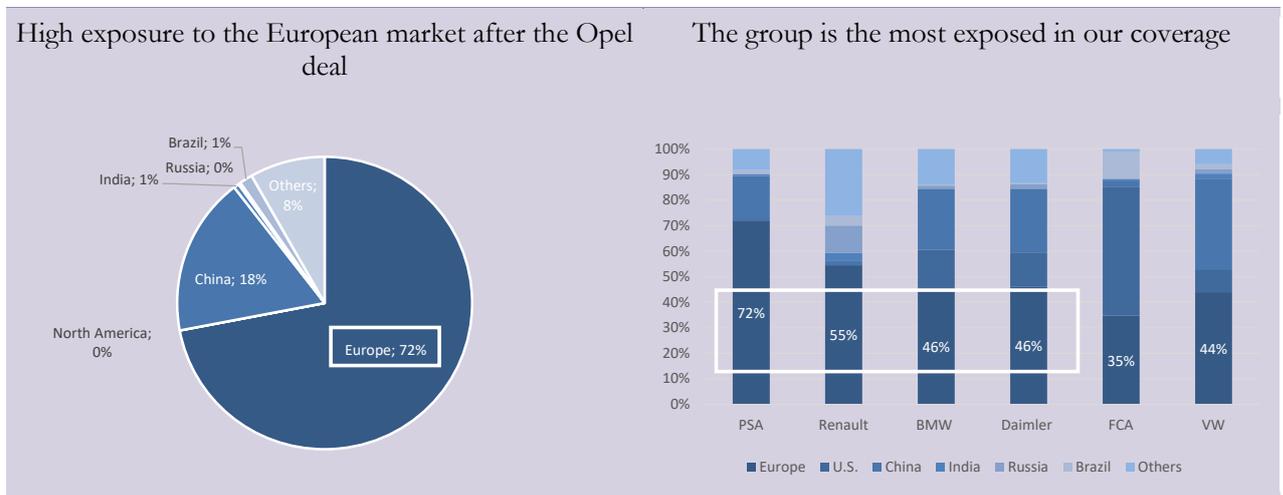
**In our model for Peugeot, we have not factored in a recovery in volumes in China at DPCA and Chang'An before the end of 2018 thanks to the arrival of new models.**

### 4.3.2. Group little present in emerging markets

The group's strategic about-turn destined at protecting its margins is not the only reason for the decline in its global market share noted in recent years. Its geographical positioning is also behind this underperformance with the carmaker having little presence outside Europe whereas market growth over the 2008-16 cycle was primarily driven by emerging markets and the US. The recent acquisition of Opel/Vauxhall is set to increase the group's exposure to Europe given that this former GM brand is only present in Europe (GM bought the carmaker in 1929 precisely with the aim of gaining a foothold in Germany and hence Europe). GM did not really underpin the German brand's expansion beyond Europe, but preferred to focus its investments on the **Buick, Holden** and **Chevrolet** brands that were already set up abroad.

In our sample of auto manufacturers at Bryan Garnier, PSA is **1/the most exposed to the European market** in terms of the percentage of volumes and sales, **2/the least exposed to Russia** and **3/one of the least exposed to the Brazilian market**. Although PSA looks highly exposed to the Chinese market at first glance, despite the decline in momentum since 2014 (18% of volumes post Opel/Vauxhall integration), the low profitability of its joint ventures with **Dongfeng** and **ChangAn** limit the group's economic exposure to this market. Despite a late start-up in the market, Renault offers higher exposure than PSA to this outlet via Nissan (consolidation of 43.7% of the Japanese carmaker's attributable net profit). We estimate that the Chinese market represents less than **2-3%** of PSA's attributable net profit and less than **5%** of Renault group's attributable net profit. Note that this market represents **8-9%** of BMW's net profit, **9-10%** for Audi and **5-6%** for the Daimler group.

**Fig. 11: PSA is THE carmaker the most exposed to the European market (volumes)**



Source: Company Data; Bryan, Garnier & Co ests.

**We expect no strategic change from PSA concerning international activities in the short-term.**

Whereas originally one of Carlos Tavaréz' objectives was to reduce the group's exposure to the European market, the acquisition of Opel/Vauxhall is likely to delay this aim for several years. Only a significant rebound in sales in China and Iran could have a beneficial impact on the group's geographical mix. Note that since 2017, PSA is again present in the Iranian market after having been obliged to suspend its relations in the country in 2012 under order from GM, which then had a 7% shareholding in the group.

## Peugeot

Thanks to the new partnership signed with state-owned group **Iran Khodro** in June 2016 aimed at producing three new Peugeot models (2008, 301, 208), PSA aims to restore growth and reach a **40%** market share in 2019-20. With more than 400,000 vehicles sold in 2016, the group already boasts the no. 1 spot with more than **30%** market share in a market of around **1.3-1.4m vehicles**. Although medium-term growth potential in the market remains substantial (200 cars for 1,000 inhabitants), financial circuits remain complex (especially due to US pressure) and competition is becoming increasingly tough. Renault did not withdraw from the market during the period of international sanctions and in September 2016 signed a framework agreement with the state holding company IDRO to create a joint venture in which Renault is to have the majority stake. Capacity of **150,000 units** a year is to be added to the **200,000** that it already has in the country, whereas several new models in the entry range are to come on the market soon (Renault Symbol, Dacia Duster and Renault Kwid).

The proposed acquisition of Indonesian group **Proton** (the former Malaysian national carmaker that owns the UK sports/competition brand Lotus) during 2017, would have enabled the French group to increase its presence in the Asian market fairly rapidly and more precisely in South-East Asia, which remains fairly untouched by European and US carmakers. Although the commercial success of the Malaysian group remained to be seen (73,000 sales in 2016), this acquisition would have provided PSA access to a high-quality and well located industrial facility (two plants enabling production of more than 400,000 cars a year). Finally, Chinese carmaker **Geely** (which owns Volvo) won the deal and took a **49.9%** stake in Proton.

**In our PSA model, we estimate that European volumes should represent more than 70% of the volumes sold by the group by 2020 vs. more than 45% in our Renault model.**

## 4.4. And if new services were to provide fresh growth?

In order to better seize future opportunities associated with new forms of mobility and to make its action method in this field more efficient, in 2016 PSA created a specific brand dedicated to this market transformation: **Free2Move**. The division aims to house all of the businesses associated with new forms of mobility such as **fleet management** and **car sharing** as well as **connected services** and **new financing methods**, which should represent significant sources of fresh growth in coming years. The brand goes hand in hand with the creation of a **EUR100m** investment fund to carry out strategic partnerships and invest in start-up companies primarily positioned in car-sharing and vehicle rental.

**Fig. 12: Significant stakes taken by PSA in start-ups focused on new mobility**

Company	Activity	Nature	Investment (in EURm)	Date
<b>Koolicar</b>	Car-sharing	Minority stake	18	2016
<b>Travelcar</b>	Car-sharing	Minority stake	7.5	2016
<b>Communauto</b>	Car-sharing	Minority stake	Undisclosed	2016
<b>Blue Alliance</b>	Electric car-sharing	24% stake	Undisclosed	2015 & 2016

Source: Company Data; Bryan, Garnier & Co ests.

### 4.4.1. A return to the US market via Travelcar?

The creation of **Free2move** should also help the group gradually return to the **US market** (the second-largest global automotive market) within the next 10 years, after having withdrawn from it in **1991** following the failures of the **Peugeot** and **Citroën** brands. In his second strategic plan "Push to Pass" unveiled to investors in 2016 (2016-21 plan), Carlos Tavares, who was long the head of Nissan in the US, clearly indicated his intention to return to the market, but in a gradual and above all, innovative manner.

Indeed, the group would like to adopt an innovative strategy to address this very competitive market. Contrary to a classic implantation that requires significant investments to build up a network of dealerships and offer a comprehensive range, PSA would firstly like to enhance its brand awareness by offering mobility services and solutions via **Travelcar** in particular. Only in a second stage will the group consider gradually developing a traditional car sales network. The group is even considering getting rid of the dealership system, like Tesla did in order to reduce investments and better manage stocks.

In this respect, the partnerships undertaken with **Free2Move** and **Bolloré** (via **Blue Alliance**) as well as **Travelcar** should enable PSA to gradually return to the market, while minimising risks and capital requirements in the short term. The group is now indirectly present in the market thanks to two companies:

**Travelcar** is a start-up that has both PSA and insurance group **Maif** as shareholders and has just set up at **Los Angeles** and **San Francisco** airports (April 2017). It offers a parking slot for every car owner that agrees to rent out their car, enabling them to be paid if their car is indeed rented. To set up its business, **Travelcar** has the **EUR15m** injected by **PSA** and **Maif**. The company has more than 200 agencies in 10 European countries, and already boasts 300,000 users for its service.

**Blue Alliance: 24%-owned by PSA** (since June 2015), **25%** by Renault and **51%** by the Bolloré group, **Blue Alliance** is specialised in the development of electric car sharing and owns car-sharing solutions in Lyon and Bordeaux (respectively **Bluely** and **Bluecub**).

Please see the section headed "Important information" on the back page of this report.

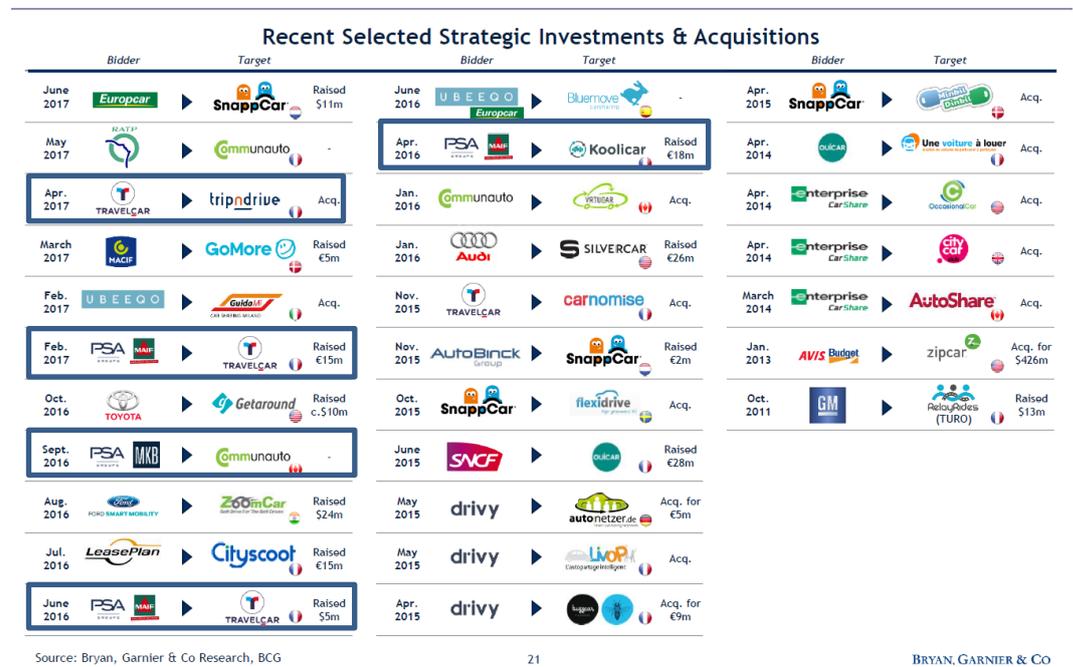
The PSA vehicles are now part of the Blue Alliance fleets in France and could potentially join the fleet of solutions installed by Blue Alliance in the US further out.

#### 4.4.2. Ahead of rivals?

More generally, we believe that PSA has understood the issues associated with the millennial generation and is aiming to adapt itself to consumers that are overturning the traditional approach to the auto industry. The use of **multichannel distribution**, with the possibility of purchasing a car on the internet (e-commerce) illustrates this strategy perfectly in our view

Since the creation of this new franchise, the group has been very active in round tables for the financing of new start-ups focused on mobility. Among the largest deals seen in the sector recently, the group clearly stands out from its rivals.

Fig. 13: An active group in the sector



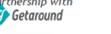
Source: Bryan, Garnier & Co Research, BCG

21

BRYAN, GARNIER & CO

Source: Bryan, Garnier & Co ests.

Fig. 14: And ahead of its direct rivals

Company	Investments & Initiatives in Car Sharing		
	<ul style="list-style-type: none"> <li>▶    ▪ Round-trip Airport / Railways car sharing solution</li> <li>▶   ▪ Peer-to-peer car sharing solution</li> <li>▶   ▪ Peer-to-peer car sharing solution</li> <li>▶   ▪ PSA brand for new mobility solutions: car sharing, fleet management, digital services, etc. Free2Move launched eMove in Spain in 2016</li> <li>▶   ▪ PSA free-floating car sharing solution in Madrid</li> <li>▶   ▪ Short-term leasing services proposed by the brand dealers (regular short-term leasing, extended test drives of new vehicles or replacement vehicles during maintenance services)</li> <li>▶   ▪ Urban public car sharing services launched in Berlin in 2013</li> </ul>		
		<ul style="list-style-type: none"> <li>▶   ▪ Round-trip Renault round trip car sharing solution</li> <li>▶   ▪ Nissan Shared Car Ownership service. Users can share a Nissan Micra with up to 4 people. An algorithm match users with complementary driving requirements. The service launched in April, starting with Paris</li> <li>▶   ▪ One-way car-sharing service launched in March 2017 in the City of Yokohama, after the successful completion of a 2-year trial. The new service allows users to pickup and return Nissan's ultra compact electric vehicles at 14 different locations centered around Yokohama Station (c.100 vehicles)</li> <li>▶ Collaboration with   ▪ Renault Mobiliz partners with Totem Mobi, electrical vehicles rental company</li> <li>▶ Collaboration with   ▪ Dacia encourages vehicle owners to share their cars on Drivy (Peer-to-Peer car sharing platform)</li> </ul>	
			<ul style="list-style-type: none"> <li>▶   ▪ Parking-to-parking car sharing solution</li> <li>▶ Partnership with   ▪ Ford Credit encourages Ford vehicle owners to share their cars on Getaround (Peer-to-Peer car sharing platform) and thus help them directly pay their loan or lease, the service was launched in 2015</li> <li>▶   ▪ Ford Credit Link allows up to six people to share a single vehicle using an app to manage payments and availability</li> </ul>
			<ul style="list-style-type: none"> <li>▶   ▪ ENI free-floating car sharing solution Launched in partnership with Fiat &amp; Trenitalia in 2013</li> </ul>
			<ul style="list-style-type: none"> <li>▶   ▪ GM round-trip car sharing solution</li> <li>▶   ▪ GM car sharing solution designed for gig economy workers</li> </ul>
			<ul style="list-style-type: none"> <li>▶ Partnership with   ▪ Hyundai partnered with WaiveCar (ad-supported car sharing company) Way of promoting Hyundai electric vehicle IONIQ. The service was launched in 2017</li> </ul>
		<ul style="list-style-type: none"> <li>▶   ▪ Car sharing service offering smart city free from polluting ICE cars</li> </ul>	
<ul style="list-style-type: none"> <li>▶   ▪ Peer-to-peer car sharing solution</li> </ul>			
	<ul style="list-style-type: none"> <li>▶   ▪ Toyota encourages Toyota vehicle owners to share their cars on Getaround (Peer-to-Peer car sharing platform) and thus help them directly pay their loan or lease. The service was launched in 2017</li> </ul>		
	<ul style="list-style-type: none"> <li>▶    ▪ VW round-trip car sharing solution</li> </ul>		
	<ul style="list-style-type: none"> <li>▶     ▪ New car sharing service using Skoda vehicles in Warsaw (Poland) launched in June 2017. Powered by Ridecell ridesharing platform provider</li> </ul>		
	<ul style="list-style-type: none"> <li>▶   ▪ Volvo round-trip car sharing solution</li> </ul>		

Source: Bryan, Garnier & Co ests.

In our view, the investments and mobility solutions provided by PSA are headed in the right direction. They provide a good way of diversifying the group's business while enabling it to position itself against serious rivals in a market that is set to grow in major cities over the medium term. In our view, the group is ahead of its main rival Renault. It has invested in numerous start-ups in order to take positions in a multitude of potential markets and we believe its aim is to avoid missing out on a buoyant market.

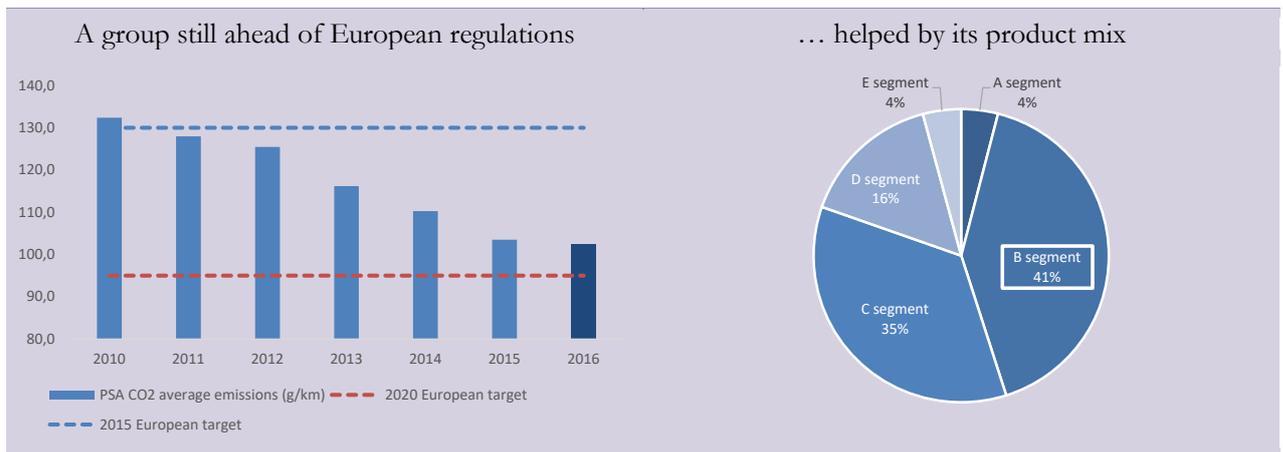
The impact of this new franchise on the group's accounts clearly remains very low at this stage.

## 5. The transition towards new alternative engines is difficult

### 5.1. A pioneering group in optimisation of thermal engines ...

Faced with the strengthening of anti-pollution standards in the US (**Tier 3 Standards**) and Europe (**Euro 6**) concerning CO<sub>2</sub>, NO<sub>x</sub> and particle emissions, carmakers are obliged to fit depollution systems in their engines or incur hefty fines (EUR90/g). As a longstanding leader in diesel engines, PSA is regularly at the top of the list of carmakers emitting the least CO<sub>2</sub>, just behind Toyota. This stems from its product mix more focused on small segments with low volumes that emit little greenhouse gases (B and C segments), but also thanks to the group's know-how in diesel.

**Fig. 15: Thanks to diesel, PSA is one of the carmakers with the lowest rate of CO<sub>2</sub> emissions**

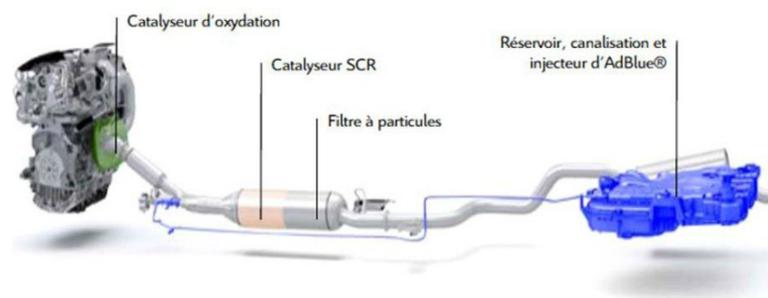


Source: Company Data; Bryan, Garnier & Co ests.

#### Expertise: the Blue HDi system

At the end of 2013, the group integrated the **Blue HDi technology** destined to significantly reduce **NO<sub>x</sub> emissions** in all of its diesel engines. The advantage of this technology lies in its efficacy, since the exhaust system is made up of three depolluting systems: an oxidation catalyst, an SCR catalyst (selective catalytic reduction) and an additive particulate filter.

**Fig. 16: Blue HDi, a technology comprising three depolluting systems**



Source: Company Data; Bryan, Garnier & Co ests.

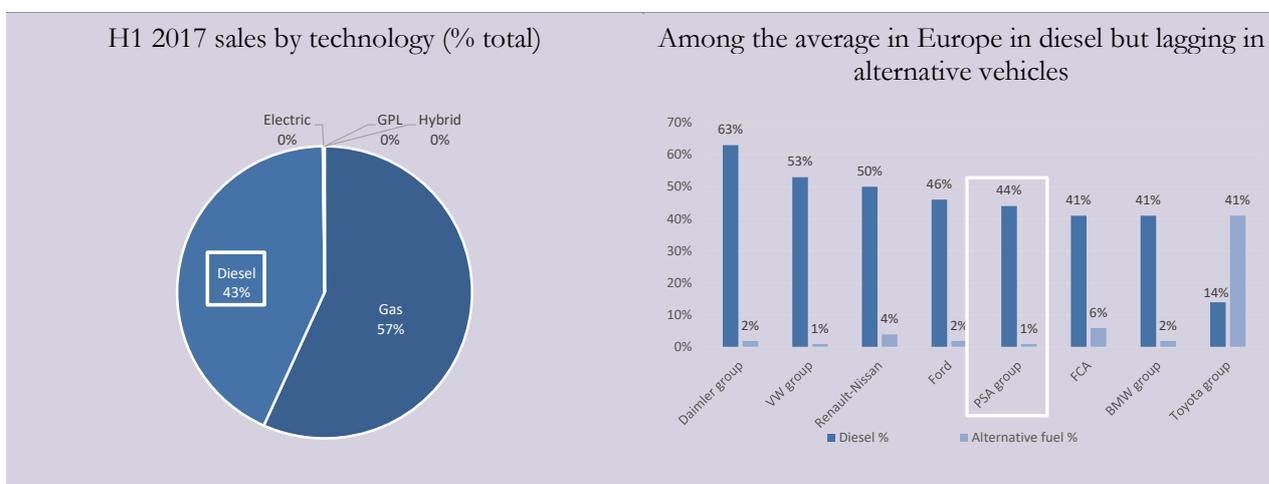
The decision to generalise the SCR system to all of the group's diesel engines was a first for a generalist carmaker but has proven costly (installation of an SCR prompts additional costs of EUR200-500 per vehicle according to the group). Other carmakers prefer to opt for a cheaper **NOx Trap** system (like Renault), or can combine the two and select one or the other depending on the vehicle's positioning or segment (an entry-level car is more likely to be fitted with an NOx Trap system whereas a premium vehicle is fitted with an SCR system). With this choice, PSA can nevertheless make the most of more advantageous sourcing conditions and better efficacy. Note that the SCR system, which transforms NOx into water and nitrogen thanks to a chemical reaction provoked by the addition of **AdBlue**, has proven to be more efficient than NOx Trap. The major advantage of using an SCR catalyst is an optimisation of the engine's yield and consumption since it makes the use of a low pressure EGR circuit unnecessary, enabling a **reduction in NOx (of up to 90%)** while **reducing the amount of fuel consumed (by 2-4% on the group's estimates)**.

The real competitive edge for PSA lies more in the **position** of the SCR catalyst, located **upstream** of the particulate filter, which helps **reduce the time it takes to rise in temperature and make combustion more efficient**. This specific feature is only possible given the **additive situated in the particulate filter**, patented by the group, which helps reduce the regeneration temperature (600°C vs 750°C for a classic particulate filter) and thereby enable normal functioning.

## 5.2. ... but lagging in alternative engine types

Since petrol and diesel engines cannot be optimised indefinitely, carmakers need to rely on **other less polluting engine types such as hybrid and electric engines**, or find themselves lumbered with hefty fines. The group has been a longstanding global leader in diesel and failed to anticipate trends to neglect diesel in favour of petrol engines but above all alternative engines such as hybrid and electric. This rejection of diesel was amplified by the VW scandal as well as the gradual end to government subsidies and leaves the group struggling since it is still overly dependent on the technology (43% of diesel sales in 2016 and H1 2017). Furthermore, financial difficulties in recent years mean the group is now lagging its rivals. Given the lack of clear strategy (development of three different hybrid technologies), its attempts have often ended in failure, so much so that the group is now a follower rather than a leader.

**Fig. 17: Group still highly exposed to diesel engines and little exposed to electric/hybrid engines**



Source: Company Data; Bryan, Garnier & Co ests.

### 5.2.1. Successive failures in HYbride4 and Hybrid Air

- In 2012, or almost 15 years after Toyota, the group started development of hybrid engines with the launch of the **P'HYbride4**, a combination of a diesel engine and an electric engine. PSA stood out from other carmakers since it was the only group to bet on diesel hybridation. However, the project ended in failure for two main reasons, namely its **lack of profitability** and the fact that it was **incompatible with the Chinese market**.

1/In order to avoid an overly wide price gap between the various engine types on offer and not to have a substitution effect between diesel and hybrid vehicles, only large-sized vehicles were equipped with this technology, namely only the Peugeot 3008 and 508 RXH as well as the DS5. Disappointing sales of these models were not enough to ensure a return on investment and PSA therefore decided not to pursue development of the technology but to focus on petrol hybrid engines.

2/The technology did not help penetration of the Chinese market since diesel accounts for a very small part of car registrations (less than 5%), also obliging the group to develop hybrid petrol engines. Given the logic of optimising costs and streamlining production, PSA was obliged to opt for the latter.

- In 2014, PSA then launched development of its compressed air hybrid technology, fitted with a thermal engine and a hydraulic engine, named **Hybrid Air**. For the same reasons as HYbride 4, PSA's bet did not pay off. No other carmaker was willing to participate in financing the technology estimated at **EUR500m**. As such, PSA, in the midst of a cost control policy, could not shoulder the project alone given the uncertain return on investment and the long time it would have taken to get customers to adopt the technology in view of their reticence to test new technologies since car purchases are extremely important for a household. Note that the **Toyota Prius** was only profitable as of the third generation, or 10 years after it was launched.

The group's hesitations (development of hybrid diesel, fuel cell and then petrol) did not help its penetration into alternative engine markets. It is now developing the rechargeable hybrid technology (PHEV) like the majority of carmakers, and is planning to market **seven hybrid models by 2021**.

### 5.2.2. Electric engines, the main thing missing

While the group was one of the precursors in proposing this technology as of the 1990s via its 100% electric Peugeot 106 and Citroën Saxo models, it is now clearly lagging due to a lack of investment in R&D. To avoid being totally absent from the electric segment, it has set up partnerships with carmakers to use their technologies and adapt them in order to offer its own customers a range of 100%-electric vehicles. Under the framework of a partnership with Mitsubishi, in 2010 it therefore marketed the **Peugeot iOn** and the **Citroën C-Zero**, which are in reality, rebadged Mitsubishi iMiEVs in order to position itself in the city car segment. In spring 2016, Citroën also launched the **E-MEHARI**, a four-seater clean and electric convertible cabriolet with autonomy of 200km. However, sales were disappointing for the group with the 2,800 electric vehicles sold in H1 2017 only accounting for 0.2% of the group's total volumes, well below the group's targets and above all, below figures at rival Renault, for which sales of the **Zoé** exceed **22,000 units a year (0.7% of total volumes)**.

Peugeot Ion



Citroën C-Zero



Mitsubishi MiEV



#### What future for the group in this field?

Despite these various partnerships, the group is in a weak position since it has no genuine know-how in electric cars. Given the time necessary to develop a new vehicle (around five years) and the time necessary to develop a new technology, PSA is unlikely to launch new models **before 2020**, thereby placing it in a delicate position relative to rivals. Furthermore, the implementation of quotas in China for alternative engine vehicles, primarily electric (8% of total sales in 2018, 10% in 2019 and 12% in 2020) means the group needs to ramp-up in this field in order not to suffer further difficulties in the market, but also to limit quota purchases.

PSA would like to step up its output of electric vehicles by offering **four new models by 2021**, and with having **80%** of the range offering an electric engine by 2023. Contrary to the audacious strategy implemented by Renault to create a vehicle from scratch, PSA is following a more classic path intending to electrify all of its range. In order to do so, it is working on the e-CMP platform in partnership with Dongfeng and could offer electric vehicles in the B/C segments as of 2019. Excluding the utilities segment, we believe PSA is wise to focus on the B segment of city cars since these concern the majority of electric car registrations at present. Indeed, current usages are primarily in cities given the low level of autonomy of electric cars at present (relative to current thermal models) and the development of infrastructure that is still hampering their use for longer journeys. The group is likely to compete directly with the Renault Zoé and the Nissan Leaf, which it does not manage to do at present with the iOn and the C-Zero due to its very low autonomy (15km in NEDC, ~120km real) and its high price.

The acquisition of Opel and Vauxhall should enable the group to access certain technologies developed by GM such as fuel cells (stemming from the JV between GM and Honda) and continue to sell the **Opel Ampera-e**, an electric model based on the Chevrolet Bolt, which is popular in the US. However, we believe that the advantages are only minimal: the fuel cell technology does not seem to be the technology backed by carmakers, state powers and consumers (failure of the **Toyota Mirai**). Concerning the Ampera-e, the group will only be able to market it until 2019 and is still banned from selling it in North America, China and Russia (or more than 50% of the global market). **Furthermore, the patents are unlikely to be sold by GM free of charge (royalties), thereby limiting by as much the advantages of this vehicle in the group's portfolio.**

**Fig. 18: The Opel Ampera-e can be marketed in Europe by PSA until 2019**



Source: Opel; Bryan, Garnier & Co ests.

## 6. Acquisition of Opel/Vauxhall, genuinely strategic or just opportunist?

In March 2017, PSA announced it intended to acquire the German and UK brands Opel and Vauxhall that had been part of General Motors' European division since 1929, for a price of **EUR1.3bn** (multiple of 8% of 2016 sales). The group also decided to acquire a joint stake alongside **BNP Paribas** (50/50) to take control of Opel's financing activities (GM Financial) for an overall amount of EUR900m (multiple of 0.8x book value). The cash outlay for the group was limited to EUR1.13bn, with the remaining EUR650m financed by GM subscribing to warrants providing it the right to **4.2%** of PSA's capital (nine-year maturity - exercisable as of the fifth anniversary of the deal).

Merger discussions between PSA and GM had already taken place in February 2012 but did not result in a merger but in **GM acquiring a 7% stake in PSA** (capital increase of EUR1bn at the time including EUR300m for GM making the US carmaker the second-largest shareholding in PSA behind the Peugeot family) thereby officialising the creation of an alliance between the two groups similar to that set up between Renault and Nissan. In industrial terms, the cooperation aimed exclusively at improving the **profitability and competitiveness** of the two carmakers (creation of a joint venture in purchases, sharing of platforms, modules and components) in order to restore GM's European subsidiary to breakeven while improving the profitability of PSA's automotive businesses. The initial agreement, presented as being planetary, was nevertheless gradually stopped in its tracks, with the targets rapidly downgraded as of October 2012. PSA no longer had access to the US market, the Brazilian platform project never saw the day while PSA's development in China came through Dongfeng and no longer GM. In all, in December 2013, the US carmaker announced it was withdrawing from PSA's capital as the French group was negotiating with **DongFeng** and the French state for a fresh capital increase of **EUR3.5bn**. Synergies were downgraded to EUR1.2bn vs. EUR2bn, given that only 700,000 vehicles a year were set to benefit from economies of scale vs. the more than one million planned initially.

**The takeover announced during 2017 is therefore a leap into the dark for the French carmaker since the two groups have already had close relations since 2012. The operation was nevertheless very surprising given that it totally contrasts with the strategic ambitions set out by Carlos Tavares (more premium and less Europe).**

### 6.1. Looking for critical mass

Reducing unit production costs remains one of the key factors for the automotive industry since it helps increase EBIT margins that are dented by the significant investments needed for R&D in the new growth segments (autonomous vehicle, alternative engines), but also by a price war in the majority of mature countries. PSA views the acquisition as a possibility to grow in size and reach critical mass enabling a better streamlining of production and hence costs. After integrating the **1.3m** vehicles sold by Opel and Vauxhall in 2016, PSA ranks as the no. 2 European carmaker (17.1%) behind Volkswagen and its **4m** vehicles (22.5% market share) whereas the French carmaker was previously the **no. 3 behind Renault**. On a global scale, there is no change in place in the general ranking.

Peugeot

The group is still stagnating in the **no. 9 spot** behind **Toyota, Renault-Nissan, VW, GM, Hyundai, Ford, FCA** and **Honda** and with its **4.3m** in unit sales remains far behind the more than **10m** cars sold by the Top 3 players every year.

**Fig. 19: Global ranking of carmakers, post-operation (2016)**



Source: Company Data; Bryan, Garnier & Co ests.

## 6.2. Struggling brands highly exposed to the European market

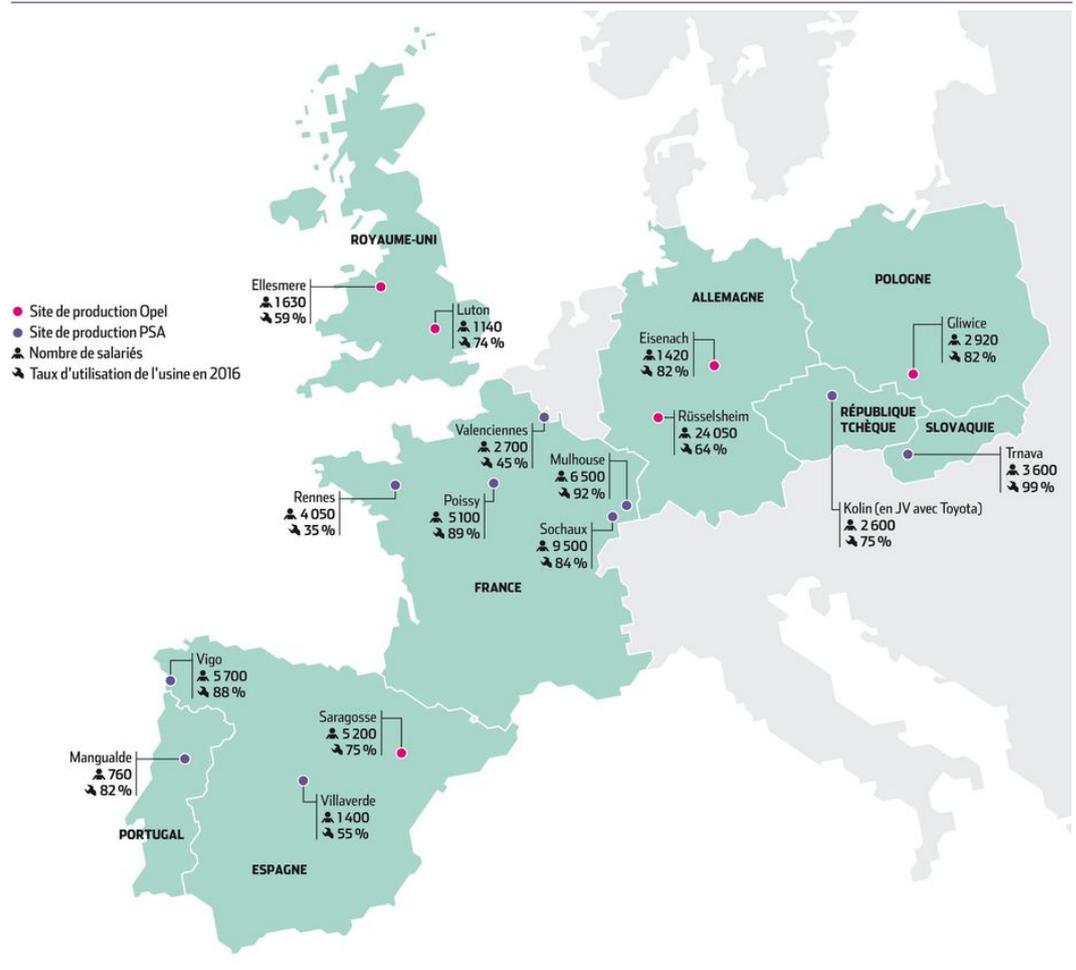
The position of **no. 2 carmaker in Europe** after the acquisition seems flattering for the group. However, it implies that the European market now accounts for a higher share of its sales than previously whereas Europe is a mature and very competitive market. Although it already accounted for more than 60% of PSA's volumes, with the new acquisition, the European market now represents more than **70%** of volumes for the new group since the **Opel/Vauxhall** brands (1.2m vehicles) are only sold in Europe. Historically, GM never really wanted to develop Opel internationally in order to avoid competition with its other brands in other key markets, such as **Buick** in China. Admittedly, the acquisition should enable the group to penetrate the German and UK markets, which are respectively the **no. 1 and no. 2 European markets in volume terms**, but this is set to significantly increase the risk of losses in the event of economic recession, as was the case during the crises of 2008 and 2010. Furthermore, the strategy may seem to contradict Carlos Tavares' initial aim to expand the brands internationally.

The low price-tag on the deal also reflects the poor financial health of the Opel/Vauxhall pairing, which is running out of steam and has not been profitable for around 10 years, prompting General Motors to try and sell it off on numerous occasions. Whereas in 2007, Opel was the second-largest brand in terms of market share in Europe with **12.5%**, it now only represents **6.3%** of the market and is positioned in the **no. 8 slot**. This downturn has stemmed from recurring financial difficulties, which have limited investments, as well as the low level of appeal for the brand's range with German and UK customers.

The company has had great difficulties, especially since the crisis in 2008, in selling its production in Europe in this highly-competitive market.

It needs to face hefty costs associated with recurring overcapacity problems with its plants only running at **65%** of capacity whereas break-even is situation at around **80%**, obliging the carmaker to cut its prices in order to attract more customers. In 2016 for example, around **40%** of the models sold were destined for use as demonstration vehicles or short-term rental companies, where margins are very low if not at zero. As such, Opel has not been profitable since 1999.

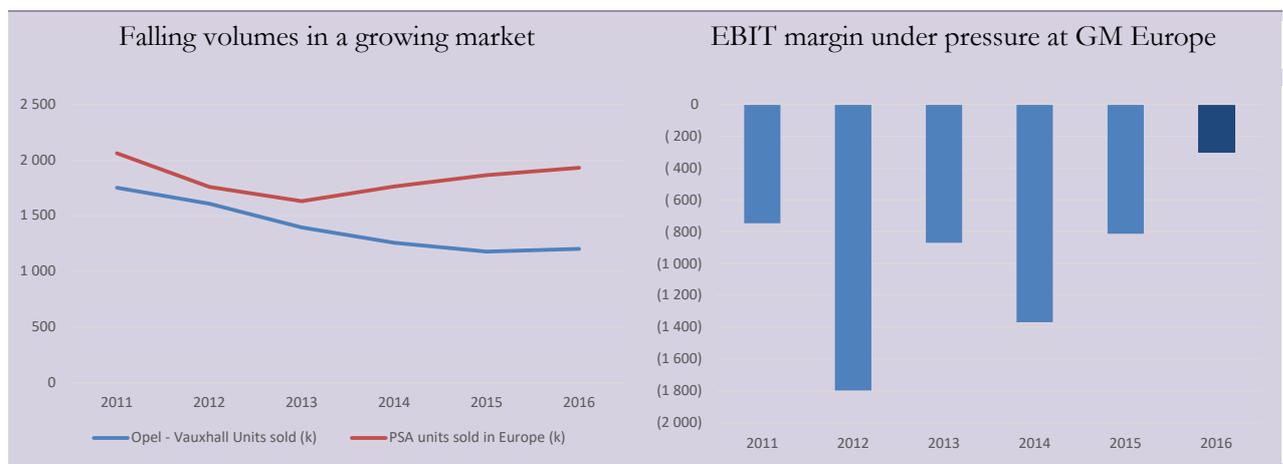
**Fig. 20: Industrial facilities in Europe underexploited by Opel/Vauxhall, contrary to PSA**



Source: Inovev; Company Data; Bryan, Garnier & Co ests.

General Motors' European division has never really obtained a global strategic policy backed by the parent company. As such, it suffers from an undefined positioning with the division aiming to both compete with generalist carmakers but also to seduce premium customers. **By trying to do both, Opel has not managed to do either.** It cannot rival other large-sized generalist players (VW, Toyota, Renault-Nissan) that benefit from significant economies of scale and can therefore offer good quality vehicles at prices suited to a mass consumer public (Skoda for example). Its range of premium vehicles limited to the **Insigna model** has not managed to attract the attention of premium customers, especially in Germany, with these preferring historical premium brands that are more prestigious (Audi, BMW, Mercedes). Furthermore, the budget cuts implemented by GM during the 1990s as well as reductions in R&D spending have clearly affected the quality of Opel models and hence, its brand image.

**Fig. 21: The collapse in the Opel & Vauxhall brands in the European market damaged profitability at GM's European subsidiary**



Source: ACEA; GM; Bryan, Garnier & Co ests.

### 6.3. Heading for a likely restructuring of the brands

PSA is now set to head a portfolio of five brands (Peugeot, Citroën, DS, Opel and Vauxhall), some of which have identical positions with the risk of sales eating into each other. As such, it seems very likely that over the medium/long-term (after the Push to Pass plan in 2021?) the group will decide to transform its portfolio by restructuring its brands and clarifying their positions. **In our view, two scenarios are possible.**

■ **Scenario 1: The Vauxhall brand is abandoned and the DS is replaced by Opel in the premium segment**

Since the Vauxhall brand is merely an adaption of Opel models for the UK market (adjusted for left-hand driving), its elimination would help gain visibility while remaining coherent with the aim to simplify the situation and focus the product offer on four brands. The need to relaunch the ailing Opel brand, which has direct negative consequences on PSA's EBIT margin, is a challenge that nevertheless proves more complicated. Even if the synergies announced seem high (estimated at EUR1.7bn by 2026 via a streamlining of purchases, production and R&D), they will not suffice to reach an **EBIT margin target of 2% by 2020 and 6% by 2026 at the German brand**. We believe that moving the Opel brand upscale and repositioning it in the premium segment would be a coherent strategy that would help widen margins thanks to the increase in value added in the vehicles. PSA could follow the example of Volkswagen, which acquired Audi in 1964 and turned it into a high-end brand that now contributes **19%** of the group's volumes and **more than 45%** of EBIT.

This strategy could only take shape over the medium/long-term however (beyond 2021) for several major reasons: **1/** it implies hefty R&D spending, which is not the group's priority for the moment given its size (hybrid and electric engines, vehicle depollution, autonomous vehicles etc.), **2/** it takes time to set up a brand in the premium segment (re. Volkswagen/Audi, the current difficulties with DS), **3/** it is tantamount to Carlos Tavares admitting failure after he drove the creation of the DS brand in 2014 when he was director of the auto division.

■ **Scenario 2: Abandoning the Citroën brand and replacing it with Opel**

In recent years, the group's sales have primarily been driven by the Peugeot brand, which remains the only brand in the portfolio that is still growing in volume terms. Citroën's positioning is more focused on less-sophisticated and more affordable models and remains misunderstood. The brand suffers clearly from Peugeot models eating into its sales with Peugeot the clear winner, since Citroën has very little exposure to the buoyant SUV segment in Europe.

The integration of Opel could change the group's strategy over the medium/long-terms (beyond 2021), by axing the Citroën brand and replacing it with the former GM brand. As such, PSA could penetrate southern-European countries whereas the German brand Opel would be more focused on northern European markets. Furthermore, it could help resolve the current problem encountered by the Peugeot/Citroën brands in China, since it would reduce the cannibalisation risk by addressing a different type of customer.

**More opportunist than strategic, the acquisition of Opel/Vauxhall by PSA is unlikely to be easy to digest. In our view, the increase in exposure to the European market is likely to penalise the new group's medium-term growth and cause a further decline in global market share contradicting the aim to increase the group's size. With sales of the various brands in the new group eating into each other, we expect the Citroën brand to suffer clearly, unless the group unveils a strategy with clearer positions for its customers.**

Whereas the group had just proved to investors that it was capable of reaching profitability levels at the high end of generalist carmaker averages thanks to the roll-out of a coherent strategy and the deployment of a range of Peugeot models adapted to market expectations, this acquisition means it is now entering a delicate period of integration and restructuring.

In our model, we expect a decline in EBIT margin in the auto segment in the short and medium terms of around 150-200bp (before restructuring costs) relative to the record level expected for 2017 (6.7%). The recovery plan that the group is due to present shortly (9th November 2017 maximum) should help us better assess this acquisition and its implications on the new entity's accounts.

**Fig. 22: Analysis of PSA's takeover of Opel/Vauxhall**

Positives	Negatives
<ul style="list-style-type: none"> <li>• The group is now the no. <b>2 European carmaker</b> in volume terms behind VW with a <b>17% market share</b>.</li> <li>• A fairly-low acquisition price (8% of sales vs. 20% at present for PSA), implying a limited cash outlay and a potentially high IRR.</li> <li>• Attractive industrial synergies in the <b>A/B segments</b> and in favour of the two groups' profit margins whereas at present with GM the group only shared platforms in the C segment.</li> <li>• Automotive revenues set to rise by more than <b>40%</b> thanks to an additional <b>1.2m</b> vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>• An increase in the group's exposure to the <b>European and UK</b> markets, whereas the risk of a slowdown in these markets seems to be growing.</li> <li>• A <b>dilutive impact on margins</b> in the short term, as well as in the medium term (EBIT margin in the auto segment set to fall below 5% until 2025 vs. 6.7% forecast for 2017).</li> <li>• The <b>Ampera-e</b> can only be sold by PSA until 2019 whereas Opel's know-how and positioning in electric vehicles would have been useful for PSA, which is lagging in this field.</li> <li>• PSA is gaining an <b>under-used industrial plant that is difficult to restructure</b> (promises relative to the UK and German governments).</li> <li>• <b>Restructuring costs are difficult to assess at present</b>, making analysis of the new group's profitability difficult. In our model we only integrated group's guidance on implementations costs (EUR1.6bn over 2018-21)</li> </ul>

Source: Bryan, Garnier & Co ests.

## 7. Peugeot – Our estimates

As indicated previously, we have factored in the acquisition of Opel/Vauxhall from GM as of 1st January 2018. We have also integrated our estimates for Faurecia given that we also cover the stock (since September 2016).

**Fig. 23: Peugeot – Income statement – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Revenues</b>	<b>54 090</b>	<b>53 607</b>	<b>54 676</b>	<b>54 030</b>	<b>55 984</b>	<b>74 951</b>	<b>77 500</b>	<b>79 905</b>
Change (%)	-2,4%	-0,9%	2,0%	-1,2%	3,6%	33,9%	3,4%	3,1%
EBITDA	2 955	3 119	5 555	5 673	6 084	7 033	7 630	7 926
% of sales	5,5%	5,8%	10,2%	10,5%	10,9%	9,4%	9,8%	9,9%
<b>Operating margin with restructuring</b>	<b>(4 699)</b>	<b>(1 346)</b>	<b>223</b>	<b>1 911</b>	<b>2 505</b>	<b>3 161</b>	<b>3 313</b>	<b>3 803</b>
% of sales	-8,7%	-2,5%	0,4%	3,5%	4,5%	4,2%	4,3%	4,8%
Change (%)	-591,6%	-71,4%	-116,6%	755,7%	31,1%	26,2%	4,8%	14,8%
Operating margin* with ass. Excl. rest.	(417)	(1)	1 483	3 078	3 329	4 139	4 353	5 160
% of sales	-0,8%	0,0%	2,7%	5,7%	5,9%	5,5%	5,6%	6,5%
Financial results	(658)	(763)	(642)	(268)	(253)	(336)	(328)	(322)
Tax	(387)	(313)	(706)	(517)	(885)	(948)	(1 105)	(1 082)
Tax rate	-21,2%	-121,5%	41,4%	21,9%	28,0%	28,0%	28,0%	28,0%
Profits from associates	176	282	437	128	254	408	470	487
Minority interests	99	(151)	(303)	(419)	(386)	(471)	(528)	(569)
<b>Net profit</b>	<b>(2 119)</b>	<b>(973)</b>	<b>834</b>	<b>1 624</b>	<b>1 890</b>	<b>1 966</b>	<b>2 312</b>	<b>2 213</b>

Source: Peugeot; Bryan, Garnier & Co ests.

**Fig. 24: Peugeot – Cash flow statement – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Operating cash flows</b>	<b>272</b>	<b>4 642</b>	<b>6 328</b>	<b>5 931</b>	<b>4 804</b>	<b>3 825</b>	<b>5 423</b>	<b>5 539</b>
Change in working capital	364	1 747	942	471	942	(622)	258	222
Capex, net	(2 406)	(2 428)	(2 968)	(3 574)	(3 695)	(4 947)	(5 037)	(5 194)
Financial investments, net	181	135	(107)	243	(1 130)	0	0	0
Dividends	(48)	173	3	(14)	(413)	(477)	(496)	(605)
Other	1 596	842	(1 498)	(1 653)	386	471	528	569
<b>Net debt</b>	<b>4 148</b>	<b>(548)</b>	<b>(4 560)</b>	<b>(6 813)</b>	<b>(6 766)</b>	<b>(5 638)</b>	<b>(6 056)</b>	<b>(6 365)</b>
<b>Free Cash flow</b>	<b>(2 243)</b>	<b>2 141</b>	<b>2 811</b>	<b>2 058</b>	<b>1 109</b>	<b>(1 122)</b>	<b>385</b>	<b>345</b>

Source: Peugeot; Bryan, Garnier & Co ests.

## Peugeot

**Fig. 25: Peugeot – Balance sheet – EURm**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	10 915	10 831	10 894	11 293	11 947	11 311	10 575	9 816
Intangibles assets	4 032	4 348	4 769	5 454	7 477	9 919	12 311	14 641
Cash & equivalents	7 755	9 959	10 896	12 208	12 161	11 033	11 451	11 760
current assets	39 650	22 031	19 424	21 188	20 707	20 919	21 628	22 234
Other assets	5 067	24 002	14 023	7 218	7 185	7 375	7 400	7 424
<b>Total assets</b>	<b>59 664</b>	<b>61 212</b>	<b>49 110</b>	<b>45 153</b>	<b>47 316</b>	<b>49 523</b>	<b>51 914</b>	<b>54 115</b>
L & ST Debt	11 077	2 814	7 482	6 187	6 187	6 187	6 187	6 187
Others liabilities	41 705	40 874	17 140	26 309	27 124	28 231	29 239	30 261
Shareholders' funds	6 882	17 524	14 487	12 657	14 005	15 105	16 488	17 667
<b>Total Liabilities</b>	<b>59 664</b>	<b>61 212</b>	<b>39 109</b>	<b>45 153</b>	<b>47 316</b>	<b>49 523</b>	<b>51 914</b>	<b>54 115</b>
<b>Capital employed</b>	<b>11 306</b>	<b>10 169</b>	<b>9 452</b>	<b>10 172</b>	<b>11 858</b>	<b>14 110</b>	<b>15 443</b>	<b>16 732</b>

Source: Peugeot; Bryan, Garnier &amp; Co ests.

**Fig. 26: Peugeot – Ratios - %**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	-2,5%	0,4%	3,5%	4,6%	5,6%	4,4%	4,9%	4,6%
Tax rate	-21,2%	-121,5%	41,4%	21,9%	28,0%	28,0%	28,0%	28,0%
Net margin	-3,9%	-1,8%	1,5%	2,6%	3,4%	2,6%	3,0%	2,8%
ROE (after tax)	-27,2%	-5,2%	5,2%	11,1%	11,6%	11,0%	11,7%	10,3%
<b>ROCE (after tax)</b>	<b>-1,9%</b>	<b>19,7%</b>	<b>16,9%</b>	<b>24,9%</b>	<b>22,7%</b>	<b>19,8%</b>	<b>20,4%</b>	<b>19,7%</b>
Gearing	42,6%	-3,7%	-21,1%	-41,2%	-36,5%	-27,0%	-26,5%	-25,8%
Pay-out ratio	0,0%	0,0%	0,0%	25,2%	25,0%	25,0%	25,0%	25,0%
<b>Number of shares, diluted</b>	<b>378</b>	<b>806</b>	<b>832</b>	<b>860</b>	<b>900</b>	<b>900</b>	<b>900</b>	<b>900</b>

Source: Peugeot; Bryan, Garnier &amp; Co ests.

**Fig. 27: Peugeot – Per share data – EUR**

	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>EPS</b>	<b>(5,97)</b>	<b>(1,24)</b>	<b>1,03</b>	<b>1,89</b>	<b>2,12</b>	<b>2,20</b>	<b>2,69</b>	<b>2,57</b>
Restated EPS	(5,56)	(1,19)	1,02	1,91	2,12	2,20	2,69	2,57
% change	-61,7%	-78,7%	ns	86,6%	11,1%	4,0%	22,0%	-4,3%
EPS bef. GDW	(5,97)	(1,24)	1,03	1,89	2,12	2,20	2,69	2,57
BVPS	19,39	22,38	17,92	14,72	16,29	17,57	19,17	20,54
Operating cash flows	0,72	5,76	7,61	6,90	5,34	4,25	6,03	6,16
FCF	(5,94)	2,66	3,38	2,39	1,23	(1,25)	0,43	0,38
<b>Net dividend</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,48</b>	<b>0,53</b>	<b>0,55</b>	<b>0,67</b>	<b>0,64</b>

Source: Peugeot; Bryan, Garnier &amp; Co ests.

## 8. Peugeot – Valuation

Like the other carmakers initiated in our sector report, we value Peugeot using an SOTP valuation as well as a DCF calculation and multiples in order to better assess the value of the various businesses operated by the group (auto production, parts production, financial services). **We value Peugeot at EUR19.** Note that we have integrated the acquisition of Opel/Vauxhall as of 1st January 2018.

**Fig. 28: Overview of valuation methods (EUR/share)**

Valuation method	FV
SOTP	24.4
EV/Sales	17.0
EV/EBIT	14.9
P/E	13.4
DCF	25.2
<b>Implied FV</b>	<b>19.0</b>
Latest share price	19.3
Upside	-1%

Source: Company Data; Bryan, Garnier & Co ests.

### 8.1. SOTP valuation (€24)

In our sum-of-the-parts valuation for **Peugeot** we use the group's multiples whereas for **Faurecia** (46.3%-owned by par Peugeot) we have taken latest share price. Contrary to Renault, we value Peugeot's automotive segment and its financing segment separately since Peugeot is only present in the latter business via joint ventures with **Santander** and **BNP Paribas**. As such, the group consolidates the net earnings of these two entities by the equity method. In our valuation, we have taken into account the acquisition of Opel/Vauxhall (cash impact and warrants) and value the group on 2018 multiples post-acquisition and not on 2017 figures as for other carmakers/parts markets that we currently cover.

**Fig. 29: Peugeot SOTP**

Sum-of-the-part method - 2018	Multiple/price	Stake	Method	2018	Value	Value per share
<b>Core business (Automotive only including Opel/Vauxhall)</b>						
Revenues	15,0%	100%	EV/Sales	56 493	8 474	9,4
EBIT	4,00x	100%	EV/EBIT	2 541	10 165	11,3
P/E calculated on EPS with associates & without Faurecia	10,00x	100%	P/E	1,4	13,6	13,6
<b>Core business value (average)</b>	-	-	-	-	<b>10 284</b>	<b>11,4</b>
<b>Other activities</b>						
Gefco (excluding business with PSA)	8,00x	25%	EV/EBIT	46	92	0,1
Faurecia (@ BG FV)	57,6	47%	Share price	7 946	3 705	4,1
PSA Bank (@ latest Book value)	1,00x	50%	Book value	2 092	1 046	1,2
GM Europe Financial Services (@ latest Book value)	1,00x	50%	Book value	1 200	600	0,7
<b>Other activities</b>	-	-	-	-	<b>5 442</b>	<b>6,0</b>
						0
<b>Sum of the parts</b>	-	-	-	-	<b>15 726</b>	<b>17,5</b>
						0
- Net industrial debt/cash (excluding net debt of Faurecia) - 2018e					5 782	6,4
- Pensions provisions					(1 235)	(1,4)
+ Financial assets (Book value reported on JV with DPCA, Chang'An & Toyota, net of Gefco)					1 683	1,9
<b>Total liabilities</b>					<b>6 230</b>	<b>6,9</b>
						0,0
<b>PSA implied FV</b>					<b>21 956</b>	<b>24,4</b>
Shares outstanding (including new shares from warrants)					900	0,0
Last price						19,2
Upside/Downside						27%

Source: Company Data; Bryan, Garnier & Co ests.

## 8.2. Valuation by multiples (€15)

As for the other auto sector stocks for which Bryan Garnier has initiated coverage, we take into account the group's historical **EV/sales, EV/EBIT and P/E** multiples for its valuation. Our three Fair Values are calculated over 2017-2026 (discounted by WACC each year) and point to figures of **EUR17, EUR15 and EUR13.4**. We value Peugeot on multiples of **30% of sales, 5x EBIT and P/E of 8x** in line with European, US and Asian generalist carmakers such as Peugeot and Renault.

### 8.3. DCF valuation (€25)

We have also valued **Peugeot** via a DCF model based on the following estimates:

- **WACC** of **12%** corresponding to a cost of capital since the group has negative net debt. We have assumed **beta** of **1.4**, a **risk premium** of **7%** and a **risk-free rate** of **1.6%**.
- A **growth rate to infinity** of **2%**, implying a performance by **Peugeot** in line with the auto market (+1.9%) despite the group's high exposure to Europe.
- **EBIT margin** (including restructuring and without the joint ventures) of **5.1%** on average and a margin to infinity of **5.5%**. We are more cautious than the group concerning long-term profitability of the PSA and Opel/Vauxhall brands.

**Fig. 30: Peugeot – DCF estimates - EURm**

	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e
<b>Revenues - Core business</b>	<b>55 984</b>	<b>74 951</b>	<b>77 500</b>	<b>79 905</b>	<b>81 980</b>	<b>84 151</b>	<b>86 424</b>	<b>88 806</b>	<b>91 307</b>	<b>93 934</b>
Revenue growth rate	-	33,9%	3,4%	3,1%	2,6%	2,6%	2,7%	2,8%	2,8%	2,9%
Operating margin	5,6%	4,4%	4,9%	4,6%	4,7%	5,3%	5,4%	5,4%	5,5%	5,7%
<b>EBIT (excluding JVs &amp; Associates, with restr. Charges)</b>	<b>3 161</b>	<b>3 313</b>	<b>3 803</b>	<b>3 698</b>	<b>3 890</b>	<b>4 500</b>	<b>4 629</b>	<b>4 779</b>	<b>5 055</b>	<b>5 361</b>
Adjustment for provisions	(80)	(81)	(70)	(65)	(61)	(57)	(53)	(50)	(47)	(44)
(-) Taxes on EBIT	(885)	(928)	(1 065)	(1 035)	(1 089)	(1 260)	(1 296)	(1 338)	(1 415)	(1 501)
(+/-) Movements in working capital	942	(622)	258	222	185	195	205	216	237	250
(+) Depreciation and amortisation	2 147	3 142	3 381	3 623	3 856	4 102	4 360	4 631	4 917	5 218
(-) Capital expenditure	(2 127)	(2 848)	(2 867)	(2 956)	(3 033)	(3 114)	(3 198)	(3 286)	(3 378)	(3 476)
(-) Intangibles	(1 568)	(2 099)	(2 170)	(2 237)	(2 295)	(2 356)	(2 420)	(2 487)	(2 557)	(2 630)
Free cash flow	1 591	(123)	1 270	1 248	1 453	2 010	2 227	2 466	2 812	3 179
<b>Present value of free cash flow</b>	<b>1 472</b>	<b>(102)</b>	<b>937</b>	<b>822</b>	<b>853</b>	<b>1 054</b>	<b>1 042</b>	<b>1 030</b>	<b>1 048</b>	<b>1 058</b>

Source: Bryan, Garnier & Co ests.

**Fig. 31:**

**Fig. 32: Peugeot – DCF @ EUR25**

PV of free cash flow	9 215
PV of terminal value	9 724
<b>EV implied - EURm</b>	<b>18 939</b>
- Net industrial debt/cash - 2016	6 813
- Minority interest value (N) - EURm	(4 175)
+ Financial assets (Book value reported on JV with DPCA, Chang'An & Toyota, Gefco)	1 775
+ PSA Bank & GM Europe FS (@ 1,0x BV)	1 646
- Pensions provisions	(1 235)
- Cash-out linked to GM Financial Services acquisition (for 50%)	(460)
- Cash-out linked to Opel/Vauxhall acquisition (for cash part only)	(670)
<b>PSA implied equity value</b>	<b>22 633</b>
Shares outstanding (including new shares from warrants)	900
<b>Implied Target Price - EUR</b>	<b>25,2</b>

Source: Bryan, Garnier & Co ests.

**We are therefore initiating coverage of Peugeot with a FV of EUR19 implying no upside, and with a Sell recommendation.**

## 9. Peugeot – SWOT

**Fig. 33: Peugeot – SWOT analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>The group is the <b>no. 1 French carmaker ahead of Renault</b> and the <b>no. 2 European carmaker</b> in volume terms behind VW.</li> <li>A leader in <b>CO<sub>2</sub> emissions reduction</b> with clear know-how in diesel.</li> <li>The beneficial consolidation of <b>Faurecia</b>, providing the group positive metrics even though at this stage, Faurecia still generates lower margins than PSA. As of 2018, Faurecia should boost the group's margin.</li> </ul>	<ul style="list-style-type: none"> <li>Low exposure to <b>emerging markets</b> (China, Brazil, Russia) contrary to rival Renault and very high exposure to the European market.</li> <li>The premium DS brand is struggling to penetrate the market and its positioning remains vague for consumers.</li> <li>Only Peugeot is driving the group's sales upwards, while the Citroën and DS brands are suffering from range renewal.</li> <li>The group has little presence in alternative engines such as hybrid and electric.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>Higher than expected <b>potential synergies</b> in manufacturing facilities following the takeover of Opel/Vauxhall.</li> </ul>	<ul style="list-style-type: none"> <li><b>Increased exposure to the European market</b> (which already represented 61% of sales in 2016), following the integration of Opel and Vauxhall. This could prove problematic in the event of a slowdown.</li> <li><b>Possible cannibalisation</b> of Peugeot and Citroën brands with Opel.</li> <li><b>The group's leading shareholder is now DongFeng.</b></li> </ul>

Source: Bryan, Garnier & Co ests.

## 10. PSA in short

Created in **1810**, the Peugeot group only entered the auto industry as of 1891 under the impetus of Armand Peugeot. The group is now a major carmaker ranking no. 2 in France behind Renault and no. 2 in Europe behind Volkswagen in volume terms.

It is present in **three** segment types in **more than 160 countries** via **378 entities**.

- **The automotive segment**, with the design, manufacture and sale of vehicles.  
The group distributes three brands (Peugeot, Citroën and DS) including passenger cars and utilities vehicles, via its dealership network (more than 10,000). It is also present in the spare parts market (aftermarket).
- **The auto parts segment**, primarily via its 46% stake in French parts maker Faurecia.
- **Financial services** via banking subsidiary PSA Finance which offers financing, insurance and rental contract services.

In **2016**, the group grew for the third year in a row with EBIT of **EUR2.61bn** (+32%) and net profit of **EUR2.15bn** (+79%) even though revenues were down 1.1% to **EUR54.03bn** due to a disadvantageous exchange rate.

### 10.1. Automotive division – 63% of sales – 52 % of EBIT

This is the group's main historical division, which is now focused on three major brands: **Peugeot, Citroën and DS**.

Peugeot and Citroën are the group's historical brands and are destined for generalist customers.



- **Peugeot** is the group's historical brand and still accounts for 61% of total group volumes. The brand has enjoyed sales growth since 2013 thanks to a fruitful strategy to launch new models surfing on market trends such as the SUV segment with the launch of the **3008**. Furthermore, it is continuing its international expansion by conquering new markets such as the Middle East and forecasts that more than 45% of sales will be generated outside Europe in 2017.



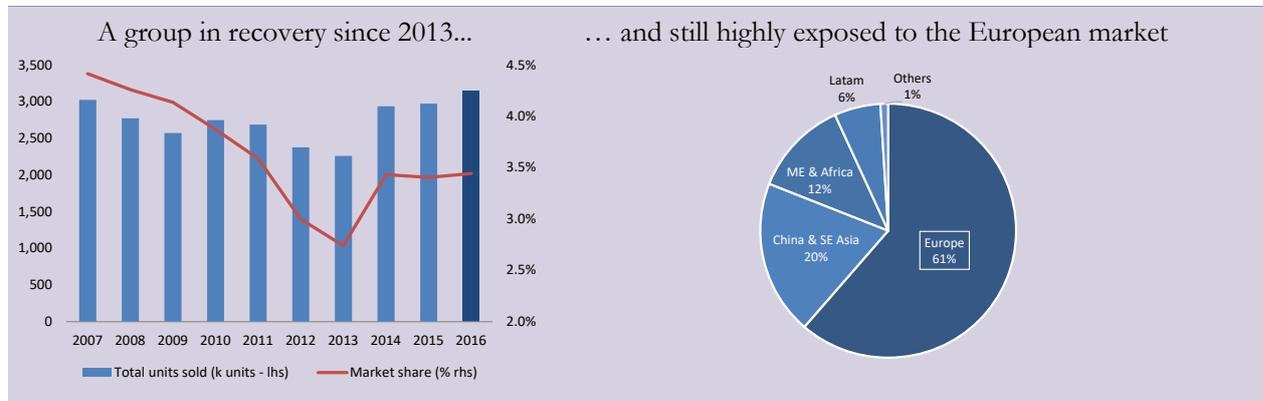
- Since its forced takeover in **1974**, **Citroën** is the second generalist brand in the group and contributes 36% of volumes. The brand is being radically overhauled in order to comply with the **Push to Pass** plan announced in 2016 and in a bid to stop the haemorrhage in sales and market share. The brand has long suffered from its lack of an SUV model in the European market and the fact that Peugeot models have eaten into its sales.



- Previously an upscale line within the Citroën brand, in 2014, PSA decided to make **DS** a distinct brand to enable it to stand out better within the group and to provide it a premium positioning. DS now has no reference to Citroën, but is still struggling to create a real identity for itself despite the group's recent attempts (specific sales points, DS stores, or corners in dealerships, DS Salons). The brand's sales are disappointing in Europe accounting for around 3% of group sales, and falling 15% in 2016 due to low brand depth, and vehicles that do not have a clearly-defined positioning. Only the DS3 is clearly defined as a city car, while the DS4 is halfway between a compact car and an SUV, and the DS6 is reserved for the Chinese market.

The number of car registrations in China remains low (less than 250,000) but represents 25% of the brand's total sales, and the models exclusive to the Chinese market (DS4S, DS5LS and DS6) provide growth potential.

**Fig. 34: A group still overly exposed to Europe**



Source: Company Data; Bryan, Garnier & Co ests.

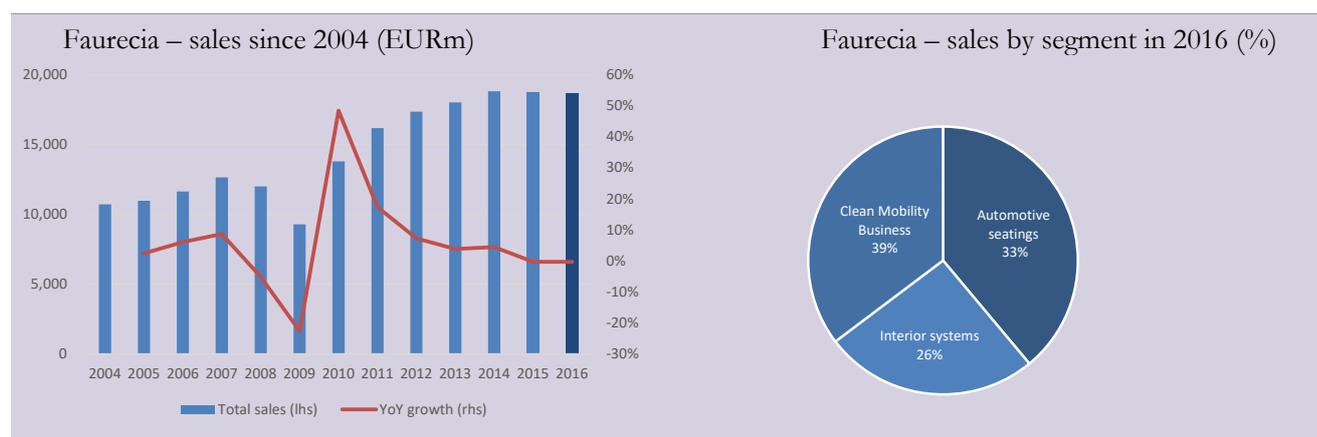
The group remains highly exposed to the European market (more than 69% of volumes in 2007 vs. >60% today) in view of its dense production facilities with **22 production plants (cars, engines and other parts) owned or jointly owned, including 16 in France** even if this exposure has tended to narrow in recent years given the group's opening to China and other countries outside France. However, this exposure is set to increase further in 2017 once the acquisition of the **Opel and Vauxhall** brands is completed, strengthening the group's exposure to Germany and the UK.

In **2016**, PSA sold around **3.15 million vehicles (+6%)** enabling it to boast the **no. 3 position in Europe** with market share of **9.7%** and a global market share of around **3.5%**. After fully factoring in the Opel and Vauxhall brands sold by General Motors for EUR2.2bn, the group is set to become the no. 2 player in Europe behind VW with a market share of around **17%**.

## 10.2. Faurecia – 35% of sales – 30% of EBIT

**Faurecia** was created in 1997 following the merger of Bertrand Faure and ECIA, the Peugeot subsidiary that manufactured seats, front blocks and interior fittings. The company is a car parts specialist active in three main businesses: seat design and assembly (Automotive Seating), cockpits and interior systems (Interior Systems) and CO<sub>2</sub>/NO<sub>x</sub> emissions (Clean Mobility). Until 2015, it was also present in **exterior modules** before the sale of the Automotive Exteriors division to **Plastic Omnium** for EUR665m.

**Fig. 35: Faurecia in figures**



Source: Company Data; Bryan, Garnier & Co ests.

Today, **PSA** owns **46.33%** of Faurecia and consolidates 100% of the group in its financial statements. In **2016**, the group had sales of EUR18.7bn (-1%), underlying EBIT of EUR970m (+17%) and EBIT margin of 5.2% (+80bp) representing respectively 35% of sales and 30% of pre-tax net profit at PSA. Recently, Faurecia raised its growth prospects for 2017 and is now targeting like-for-like growth of 7% vs. 6% in sales and an improvement in EBIT margin (6.6-7% vs. 6.4-6.8%). Furthermore, the group is targeting strong growth over the long term thanks to the development of its Clean Mobility segment, which currently accounts for 39% of sales, by making the most of increased regulations in terms of reducing CO<sub>2</sub> and NO<sub>x</sub> emissions. For **2030**, it is targeting EBIT margin of 15% and a CAGR of 7% over the next 15 years.

Faurecia's robust financial strength is positive for **PSA** since it contributes one third of the group's sales and pre-tax EBIT. It should not cause any major strategic changes by the group.

## 10.3. Bank PSA Finance

Created in **1919**, bank PSA Finance (BPF) is 100%-owned by PSA and ensures the distribution of financing and services offers aimed at increasing vehicle sales for the group's three brands and encouraging customer loyalty. It is present in **18 countries** since partnerships were created with **Santander** in **2015**, enabling the bank to set up in 11 European countries and in Brazil.

The bank's main business is financing end customers, both individuals and professionals, and this represents the majority of its total outstandings (68.3% or EUR15.6m at end-2016 under IFRS 8).

## Peugeot

The division offers three types of service: **1**/loans for the purchase of a new or second-hand group vehicle, **2**/operating or financial leasing (LLD); **3**/associated services such as insurance, maintenance or extension of guarantee. However, this only concerns a small share of its outstandings and PSA Finance also has a useful role in financing the group's stocks of new or demonstration vehicles.

Whereas the business was previously 100%-owned by the French carmaker, in July 2014 PSA signed an agreement with **Santander Consumer Finance** (Santander CF), **Banco Santander's** unit specialised in consumer loans, in order to secure access to its refinancing, improving the cost of financing and hence improving the competitiveness of its offer to increase its penetration rate in the car financing market. This agreement led to the creation of 50/50 joint venture in Europe (11 countries) and Latin America.

**The group's former banking activities are therefore now consolidated via the equity method in Peugeot's accounts.**

Since the partnership was created, the number of vehicles financed by the group (768,000) has surged (+9.5% between 2014 and 2016) as has the amount of loans outstanding (+8.5% to EUR22.8bn).

Under the framework of the **Opel/Vauxhall** acquisition, alongside **BNP Paribas**, PSA is also set to take over the financing divisions of the previous European GM unit. PSA Finance and BNP Paribas are therefore set to acquire 50% each of the banking units for a total price of **EUR900m** (0.8x BV), with BNP Paribas fully consolidating the asset whereas PSA is set to consolidate the new unit via the equity method. Note that the Opel/Vauxhall's financing activities meet the financing needs of almost 1,800 dealerships in 11 European countries and represented outstanding loans of around **EUR9.6bn** at end-2016, including around **EUR5.8bn** financed by deposits or securitisations.

INDEPENDENT RESEARCH

25th September 2017

Automotive

Bloomberg	RNO FP
Reuters	RENA.PA
12-month High / Low (EUR)	90 / 71
Market capitalisation (EURm)	24,090
Enterprise Value (BG estimates EURm)	3,631
Avg. 6m daily volume ('000 shares)	938.6
Free Float	59.0%
3y EPS CAGR	11.4%
Gearing (12/16)	-13%
Dividend yields (12/17e)	4.03%

YE December	12/16	12/17e	12/18e	12/19e
Revenue (EURm)	51,243	58,712	61,082	63,861
EBIT(EURm)	3,282	3,955	4,137	4,403
Basic EPS (EUR)	12.54	15.42	16.10	17.34
Diluted EPS (EUR)	12.54	15.42	16.10	17.34
EV/Sales	0.12x	0.06x	0.04x	0.02x
EV/EBITDA	1.0x	0.6x	0.4x	0.2x
EV/EBIT	1.8x	0.9x	0.6x	0.3x
P/E	6.5x	5.3x	5.1x	4.7x
ROCE	10.4	14.8	14.5	14.6



# Renault

The best is still to come

Fair Value EUR99 (price EUR81.46)

**BUY**  
Coverage initiated

As Renault emerges from a full cycle of renewal of its model range, the group is now entering a recovery phase in its main emerging markets, Russia and South America, and this is set to boost sales growth and margins. Nissan's takeover of Mitsubishi should also help the Renault-Nissan Alliance move up a gear in terms of synergies. Buy. FV of EUR99.

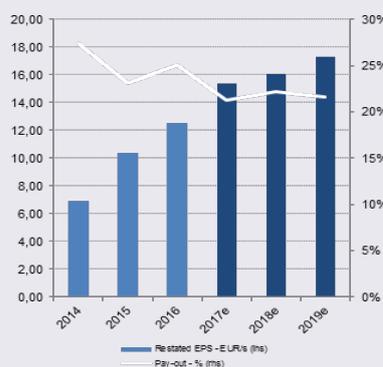
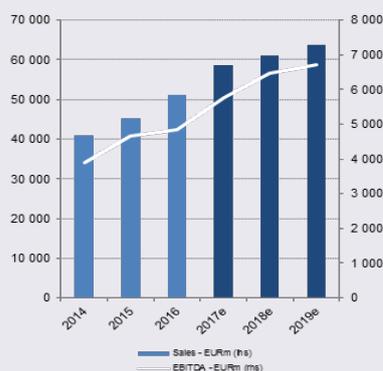
- Recovery in Russian market to benefit growth:** The group's high exposure to the Russian market (>10% of volumes) following the acquisition of **Avtovaz** is beneficial as of 2017 even if margin improvement is set to be gradual. With Nissan, Renault has a dominant position in Russia making it one of the European groups the most exposed to the country.
- Playing in the big league with Mitsubishi:** Thanks to **Nissan's** timely takeover of **Mitsubishi**, the Alliance now ranks among the Top 3 global carmakers competing directly with **VW** and **Toyota**. Diversification in terms of geography (more southern Asia) and products (more SUVs), combined with potential synergies thanks to the sharing of CMF modules with Mitsubishi should be beneficial for Renault over the medium term.
- Conquering China, finally:** After a false start in 1993, Renault has finally set up industrially in the country with the 2016 inauguration of its first plant with **Dongfeng**. Although considerable development is still required (network, extending the product range etc.), the group could potentially benefit over the medium term from its expertise in electric vehicles and the Alliance's dominant position to face new government restrictions. We view the potential launch of an electric version of the **Kwid** as very positive.
- Still under-valued despite high growth potential:** The group's aim to generate sales of >EUR70bn by 2022 and EBIT margin of at least 7% seems to leave investors indifferent despite the share's still attractive valuation (2017e and 2018e P/E of 5.3x and 5.0x respectively vs. a sub-sector average of 7.9x and 7.3x). In our model, we expect the group to at least outperform over the next two years. We are initiating coverage of the share with a **Buy** recommendation and **FV** of **EUR99**.



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Anthony Aimar

## Renault



### Company description

Renault group designs, produces and sells passenger cars and light commercial vehicles under the Renault, Samsung, Dacia & Lada brands. Renault also provides financial services through RCI Banque. Through the Alliance (collaboration with Nissan & now with Mitsubishi) the group is close to become the worldwide leader in the sector with a >12% market share.

Simplified Profit & Loss Account (EURm)	2014	2015	2016	2017e	2018e	2019e	2020e
Revenues	41,055	45,327	51,243	58,712	61,082	63,861	66,571
Change (%)	0.3%	10.4%	13.1%	14.6%	4.0%	4.5%	4.2%
Adjusted EBITDA	4,656	4,855	5,764	6,468	6,727	7,196	7,708
EBIT	1,609	2,320	3,282	3,955	4,137	4,403	4,661
Change (%)	29.5%	44.2%	41.5%	20.5%	4.6%	6.4%	5.9%
Financial results	(333)	(221)	(323)	(372)	(364)	(355)	(343)
Pre-Tax profits	2,134	3,271	4,598	5,186	5,415	5,824	6,211
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax	(136)	(311)	(1,055)	(855)	(893)	(962)	(1,030)
Profits from associates	1,362	1,371	1,638	1,766	1,842	1,977	2,093
Minority interests	(108)	(137)	(124)	(128)	(132)	(135)	(140)
Net profit	1,890	2,823	3,419	4,203	4,390	4,727	5,042
Restated net profit	1,890	2,823	3,419	4,203	4,390	4,727	5,042
Change (%)	223%	49.4%	21.1%	22.9%	4.5%	7.7%	6.7%
<b>Cash Flow Statement (EURm)</b>							
Operating cash flows	3,972	6,017	4,389	6,662	5,762	6,213	6,706
Change in working capital	771	457	(239)	766	(40.6)	(39.5)	(38.5)
Capex, net	(2,511)	(2,801)	(3,097)	(3,640)	(3,787)	(3,959)	(4,127)
Financial investments, net	(274)	(248)	1,190	0.0	0.0	0.0	0.0
Dividends	(585)	(722)	(911)	(932)	(970)	(1,059)	(1,112)
Other	389	(64.0)	(3,124)	128	132	135	140
Net debt	(2,104)	(2,661)	(2,720)	(4,654)	(5,505)	(6,817)	(8,381)
Free Cash flow	1,461	3,216	1,292	3,022	1,975	2,253	2,579
<b>Balance Sheet (EURm)</b>							
Tangible fixed assets	10,801	11,171	12,988	12,941	12,916	12,805	12,554
Intangibles assets	3,443	3,570	4,899	6,073	7,295	8,572	9,904
Cash & equivalents	12,497	14,133	13,853	16,071	17,207	18,537	20,144
current assets	47,038	53,018	61,510	64,367	65,986	67,873	70,023
Other assets	34,513	37,587	40,593	41,385	42,606	43,799	44,907
Total assets	81,551	90,605	102,103	105,753	108,591	111,672	114,930
L & ST Debt	33,365	36,447	40,680	40,680	40,680	40,680	40,680
Others liabilities	23,288	25,684	30,528	31,818	32,144	32,561	32,973
Shareholders' funds	24,476	27,992	30,743	32,975	35,357	37,884	40,591
Total Liabilities	81,551	90,605	102,103	105,753	108,591	111,672	114,930
Capital employed	14,428	14,966	19,745	20,106	21,344	22,549	23,668
<b>Ratios</b>							
Operating margin	3.92	5.12	6.40	6.74	6.77	6.89	7.00
Tax rate	17.62	17.64	37.20	25.00	25.00	25.00	25.00
Net margin	4.60	6.23	6.67	7.16	7.19	7.40	7.57
ROE (after tax)	318	338	60.11	138	139	143	147
ROCE (after tax)	9.19	12.77	10.44	14.75	14.54	14.64	14.77
Gearing	(7.00)	(15.04)	(12.84)	(18.60)	(20.47)	(22.51)	(24.85)
Pay-out ratio	27.44	23.18	25.12	21.28	22.23	21.68	21.29
Number of shares, diluted	273	273	273	273	273	273	273
<b>Data per Share (EUR)</b>							
EPS	6.92	10.35	12.54	15.42	16.10	17.34	18.49
Restated EPS	6.92	10.35	12.54	15.42	16.10	17.34	18.49
% change	222%	49.6%	21.1%	22.9%	4.5%	7.7%	6.7%
EPS bef. GDW	6.92	10.35	12.54	15.42	16.10	17.34	18.49
BVPS	82.77	94.66	104	112	120	128	137
Operating cash flows	14.55	22.07	16.10	24.43	21.13	22.79	24.59
FCF	5.35	11.80	4.74	11.08	7.24	8.26	9.46
Net dividend	1.90	2.40	3.15	3.28	3.58	3.76	3.94

Source: Company Data; Bryan, Garnier & Co ests.

## Table of contents

1. Investment Case.....	158
2. Renault in six charts .....	159
3. The best is still to come.....	160
4. Just one step to switch from a Franco-French group to a future global leader! .....	161
4.1. Transforming strategic acquisitions .....	161
4.1.1. 1999: Renault-Nissan .....	162
4.1.2. 2010: Renault-Nissan + Daimler.....	164
4.1.3. 2012: Renault-Nissan + Avtovaz.....	166
4.2. Playing in the big league following Nissan's acquisition of Mitsubishi .....	167
4.3. A strategy presenting clear advantages.....	169
4.3.1. Synergies at last! .....	169
4.3.2. A comprehensive and diversified technological and geographical positioning....	170
4.3.3. Now ranking among the leaders .....	171
4.4. Even though it makes analysis of the group more complex .....	172
4.4.1. Performance analysis still not clear... ..	172
4.4.2. ...and is also reflected in the group's valuation .....	172
4.4.3. Complicated governance.....	174
4.4.4. A new strategic plan at the Alliance level, a first step towards closer ties between the three groups?.....	176
5. Well positioned to benefit from the recovery in emerging markets.....	177
5.1. From Russia with love.....	177
5.1.1. A false start in 2005.....	177
5.1.2. A new start in 2017?.....	178
5.2. Conquering China: " <i>slow and steady wins the race</i> " ( <i>La Fontaine</i> ) .....	181
5.2.1. A good product positioning to start with.....	181
5.2.2. But more work is still needed!.....	182
6. A clear lead in electric vehicles.....	183
6.1. A new battery for the Zoé for greater autonomy.....	183
6.2. And what next?.....	184
7. Renault – Our estimates .....	185
8. Renault – valuation.....	187
8.1. SOTP valuation (€126).....	187
8.2. Peer comparison (€84) .....	188
8.3. DCF valuation (€114).....	188
9. Renault – SWOT .....	189
10. Renault in short.....	190
10.1. Renault Auto – 95% of sales– 73% of EBIT.....	190
10.2. RCI bank – 5% of sales – 27% of EBIT .....	192
Bryan Garnier stock rating system.....	193

# 1. Investment Case

*Why the interest now?*



## The reason for writing now

Under the framework of our carmakers report, we are initiating coverage of French group **Renault**, which is close to becoming the world no. 1 carmaker in partnership with Nissan (Renault-Nissan Alliance) following Nissan's acquisition of Mitsubishi. As of 2017, the group should benefit from the recovery in emerging markets (Brazil and Russia especially) as well as the ramp-up of its first plant in China, created in partnership with Chinese group **DongFeng**. The group should outperform the market in 2017 and 2018.

*Cheap or Expensive?*



## Valuation

The complex nature of capital ties between the group and its various partners in the Alliance obliges us to value the group via an **SOTP** valuation as well as a DCF calculation and peer comparison. In our SOTP, we value Renault using peer multiples whereas we value Nissan via a discounted dividend model in order to better assess the cash paid by Nissan to Renault that the group pledges to pay out **in full** to its own shareholders. **We initiate the rating with a Buy rating and a FV of EUR99.**

*When will I start making money?*



## Catalysts

On October 6<sup>th</sup> Renault is set to present investors a **strategic plan** for 2017-22, by replacing the current "Drive the Change" plan unveiled by Renault in 2011. This plan should allow us to better assess the future exchanges possible between Renault and its partners and is likely to precede the announcement of a major technology programme for the three groups combined. The **2022** target for sales of **EUR70bn** and a **margin of 7%** should be confirmed.

*What's the value added?*



## Difference from consensus

We are currently in line with the consensus in terms of 2017-18 sales, but 4% above in terms of EBIT. We are also in line at the EPS level. Our model is based on a **EUR/JPY exchange rate of 129.**

*Could I lose money?*

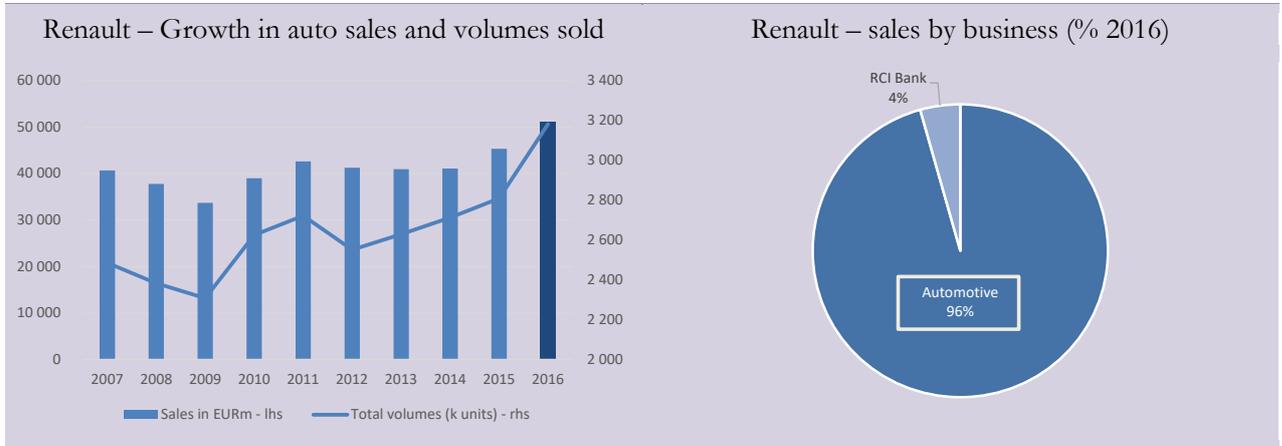


## Risks to our investment case

Any slowdown in the **Russian market** could penalise Renault especially following the recent acquisition of Avtovaz. A sharp slowdown in the European market would also take a toll on the group's earnings as would a **ramp-up in hybrid engines to the detriment of diesel.**

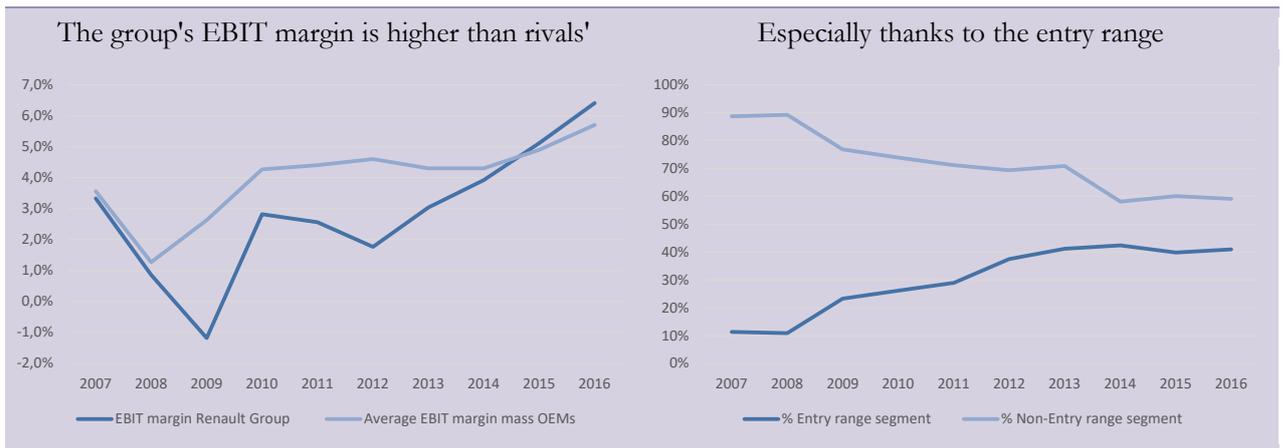
## 2. Renault in six charts

**Fig. 1: Sharp growth in sales since 2009 thanks to new models**



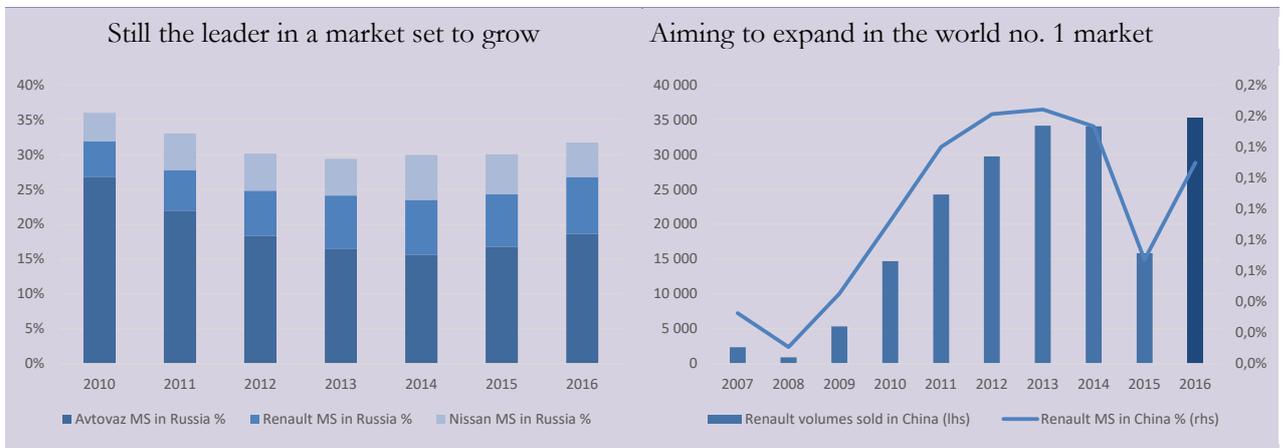
Source: Renault; Bryan, Garnier & Co ests.

**Fig. 2: Rise in EBIT margin thanks to the entry range segment**



Source: Renault; Bryan, Garnier & Co ests.

**Fig. 3: The group is out to reconquer Russia and conquer China**



Source: Renault; Bryan, Garnier & Co ests.

### 3. The best is still to come

In a fixed cost industry, where it is vital for any global carmaker to reduce its unit production costs as far as possible, either via **organic growth** or **via acquisitions** by taking over **direct rivals** (Fiat-Chrysler et PSA-Opel) or **complementary brands** (BMW-Mini, VW-Lamborghini-Bentley), **Renault** is one of the rare carmakers to have adopted a strategy that combines these two sources of leverage by: **1/creating industrial partnerships** with other players in exchange for minority interests (Renault-Daimler) and **2/making opportunist acquisitions of rivals** without taking a majority stake, in order to create operating synergies while optimising its commercial presence in unaddressed markets (Renault-Nissan and Nissan-Mitsubishi). In creating the **Renault-Nissan Alliance** in **1999**, the group has switched from a positioning as a French carmaker to one of a major global carmaker that should be strengthened by the recent purchase of Mitsubishi by Nissan in 2016.

The group's high exposure to emerging markets (>30% of volumes) and more specifically to Russia (>10% of volumes) following the takeover of Russian leader **Avtovaz** in 2016 should help the group continue outperforming global demand in the short term (CAGR of 7.6% between 2016/19 vs. 1.9% expected for the auto market on our estimates), in favour of EBIT margin. Note that the group aims to generate EBIT margin of **at least 7%** on a group scale by 2022 vs. **6.4%** in 2016. Thanks to synergies and a richer product offer outside Europe, we are forecasting a margin of **7.3%** in our model, ahead of the average of the group's direct rivals. Renault's recent move into China with the inauguration in 2016 of its first plant with **Dongfeng** is likely to weigh on earnings in the short term but should restore commercial momentum over the medium-term. Although considerable development is still required (from networks to extending the model range etc.), over the medium term, Renault could potentially benefit from its expertise in electric vehicles and the dominant position of the Nissan-Renault Alliance in the field to face new government restrictions. Under this framework, we view the potential launch of the electric version of the **Kwid** as very positive.

The structure of the **Alliance** makes the group's commercial and operating analysis more complex and also weighs on the group's valuation. However, in our view, Renault remains one of the rare mid-range carmakers to offer so much growth potential in the short and medium-terms, thanks in particular to its rising exposure to emerging countries. Mitsubishi's integration into the Alliance should also be beneficial to Renault shareholders in the short term thanks to Nissan, while the amount of synergies existing between the two groups should continue to increase on the back of a wider sharing of CMF modules between the brands (more than EUR6.3bn in 2018e vs. EUR5bn in 2016).

Renault is trading on a high discount (more than 40%) relative to historical multiples as well as a discount of more than **30%** relative to its direct rivals in terms of 2017e-19e EPS, despite earnings growth over the period **4-5x** higher than that of the automotive market.

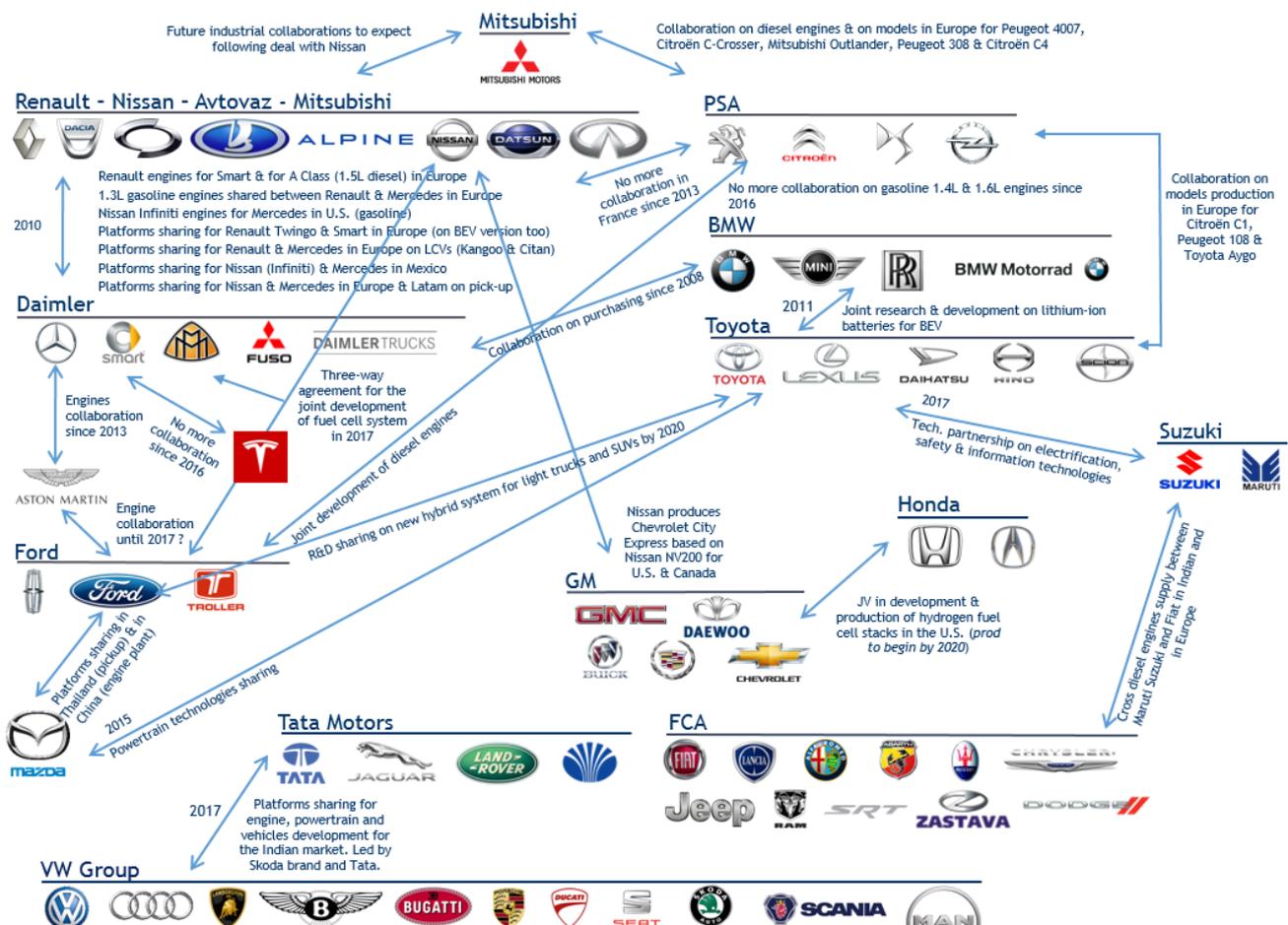
**We are initiating coverage of the share with a Buy recommendation and a FV of EUR99.**

## 4. Just one step to switch from a Franco-French group to a future global leader!

### 4.1. Transforming strategic acquisitions

Since the automotive industry is a fixed-cost industry, it is vital for all global carmakers to reduce their unit production costs either via **organic growth** or via **acquisitions** by **taking over direct rivals** (Fiat-Chrysler et PSA-Opel) and by **acquiring complementary brands** (BMW-Mini, VW-Lamborghini-Bentley). The sharing of platforms and/or models between carmakers also remains a very widespread solution in the sector, thereby enabling a significant increase in utilisation rates for engine or assembly plants in favour of a **better absorption of fixed costs and hence, the improvement in margins**.

Fig. 4: Examples of industrial partnerships between the main carmakers



Source: Company Data; Bryan, Garnier & Co ests.

Contrary to other global carmakers, **Renault** is the only one to have adopted a strategy combining these various growth levers consisting of: **1/creating industrial partnerships** with other players in exchange for minority stakes (Renault-Daimler) and **2/making opportunistic acquisitions of rival players**

without taking a majority stake, in order to create operating synergies while optimising its commercial presence in non-addressed markets (Renault-Nissan and Nissan-Mitsubishi).

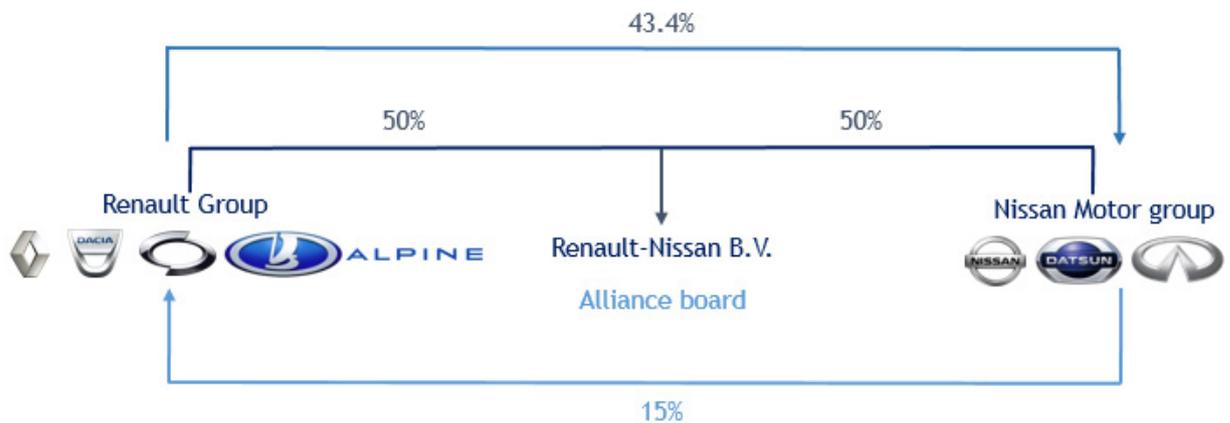
This strategy has helped the Renault and Nissan groups round out their brand portfolios:

- Renault owns 100% of Dacia, 100% of Alpine, 80.1% of Renault Samsung Motors, and 47% of Lada.
- Nissan owns 100% of Infiniti, 100% of Datsun, 34% of Mitsubishi and 50% of Venucia.

#### 4.1.1. 1999: Renault-Nissan

In March 1999, the Renault-Nissan alliance was created following a period of financial difficulties at Nissan, providing the French carmaker the opportunity to acquire part of the Japanese group and place Carlos Ghosn at its head to operate the restructuring (Mr Ghosn was then the right-hand man to Louis Schweitzer, the chairman of Renault at the time). The acquisition went ahead in two stages, firstly with Renault taking a 36.4% stake in Nissan while investing EUR5bn in order to restructure the group, while several years later, Nissan took a 15% stake in Renault and Renault increased its interest in Nissan to 43.4%. At present, Renault's stake in Nissan is worth EUR17.3bn, while Nissan's stake in Renault is worth slightly more than EUR3.6bn.

**Fig. 5: A complex capital structure but generating substantial synergies since 1999**



Source: Company Data; Bryan, Garnier & Co ests.

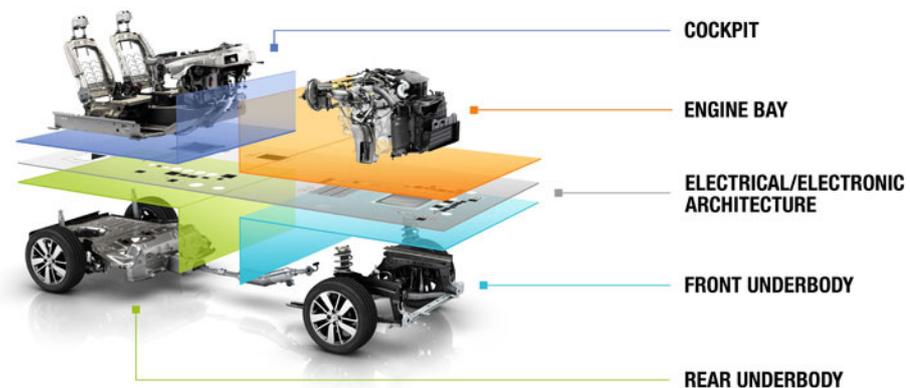
Thanks to this operation, the French group has managed to double in size in terms of car registrations while addressing new markets (Japan, China and the US) and has also **unlocked hefty synergies** enabling it to generate higher EBIT margins than the majority of its direct rivals, especially as of 2014. Note that in 2001, the first joint company was created to undertake pooled purchases.

**The Renault-Nissan Alliance** as such (Renault-Nissan BV, a Dutch company) was created in 2002 in order to develop a common strategy and above all, to unlock synergies between the two groups. The entity is jointly owned by Renault and Nissan in equal shares.

Since 2012, the Alliance has enjoyed the synergies unlocked by a new approach entitled the Common Module Family, or CMF, enabling the group to reach a high level of economies of scale thanks to the standardisation of parts and modules not visible for customers. This approach is set to be gradually deployed on Renault and Nissan models between 2013 and 2020 and the group estimates it should result in an average reduction in the production cost of **30-40% per model**.

**Fig. 6: Sharing technical platforms helps reduce costs within the Alliance**

**COMMON MODULE FAMILY (CMF) : 4+1 BIG MODULES**



Source: Renault; Bryan, Garnier & Co ests.

- **CMF C/D:** This is the first module sharing system created between the two groups. It includes C and D segment models for the two brands: **Nissan X-Trail**, **Nissan Rogue** and **Nissan Qasqhai**, and **Renault Espage**, **Kadjar**, the new **Mégane**, the **Renault Talisman** and the **Renault Koleos**. The **Dacia Duster** should also benefit from this module as of 2017.
- **CMF-A:** for category A vehicles in high-growth markets, primarily emerging markets. This module sharing was created in 2015 with the **Renault Kwid**, a low-cost model dedicated specifically to the Indian market. Nissan started producing the **Datsun redi-GO** on the same platform as of April 2016 (Datsun is the low-cost Nissan brand created in 1913 and relaunched in 2013).
- **CMF-B:** The first model stemming from this transversal sharing method is the **Nissan Juke** (second generation), for which production started during 2017. It will then be joined by the **Nissan Micra** and the **Renault Clio** in 2019.

Further out, the group is aiming to have **70%** of its future models under the CMF scope by 2020, thanks to the deployment of its three categories of CMF.

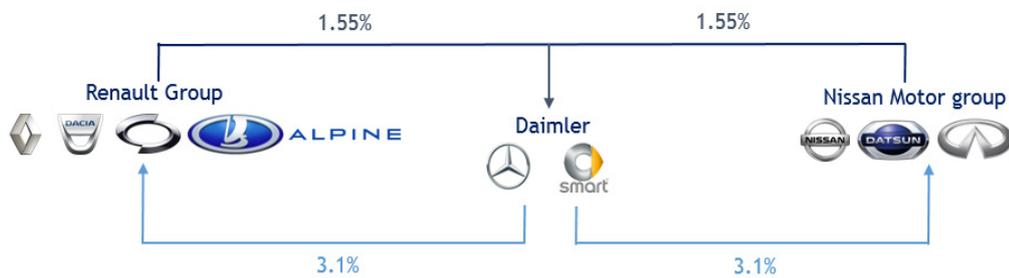
This module sharing combined with joint developments in engine parts and moto-propulsion groups (85% of Renault-Nissan moto-propulsion group are co-developed and/or shared between the two groups) and synergies/economies of scale in purchases/IT/sales should have enabled the two groups to generate more than **EUR23bn** in synergies since 1999 (according to Renault), when the Alliance was created.

Synergy gains should ramp up in coming years as the sharing rate between the various groups' models rises and in view of Mitsubishi's arrival in the alliance following its acquisition by Nissan in 2016 (see section on synergies).

#### 4.1.2. 2010: Renault-Nissan + Daimler

In April 2010, the Renault-Nissan Alliance and Daimler announced the creation of a partnership based on three projects/pillars at the time, primarily in Europe. Capital ties between the three groups were implemented with the Renault-Nissan Alliance taking a 3.1% stake in Daimler (1.55% each), while Daimler took a 3.1% stake in both Renault and Nissan. Today, around 10 projects in three different continents exist between the three groups.

Fig. 7: Cross shareholdings with Daimler



Source: Company Data; Bryan, Garnier & Co ests.

The partnership between **Renault** and **Daimler** is mainly focused on **four projects**:



- **Development of a joint architecture** for the new generation Smart car by Daimler and the Renault Twingo (versions on sale since H2 2014). The four-seater versions of both vehicles are manufactured at the Renault plant at Novo Mesto in Slovenia.
- **Development of the Citan**, a utility vehicle based on the Renault technology and produced for the Mercedes-Benz brand in the Renault plant at Maubeuge since the end of 2012.
- **Use of Renault engines by Daimler:**
  - **The 1.5l diesel engine** produced by Renault in Spain equips the **Class A, Class B, CLA and GLA** models for entry-level engines for the German brand (adapted by Mercedes-Benz).
  - **The 1.6l diesel engine** produced by Renault in France equips the entry-level versions of the **Class C**. A variety of this engine combined with a Renault transmission system equips the **Vito** in Mercedes-Benz' front traction.
- **Use of the electric engine on the new Renault Zoé** for the electric versions of the **Smart ForTwo** and **Smart ForFour** models that entered production at the end of 2016.

This partnership therefore enables Renault to amortise its investments/skills in small-sized diesel engines more rapidly, while sharing some of the assembly costs at its Slovenian plant with Daimler. With this partnership between the two groups, we estimate that Renault's Novo Mesto plant has increased its utilisation rate by **more than 20 percentage points** thanks to production of the **Smart ForFour** on behalf of Daimler.

The partnership between **Nissan** and **Daimler** focuses on **five projects** based primarily on the sharing of engine plants but also assembly platforms:

- **Production and supply of Daimler 4 petrol cylinder engine** in Nissan's US plant Decherd in order to equip the Infiniti and Mercedes models.
- **Production and supply of Daimler's automatic nine-gear box** for the Nissan and Infiniti vehicles as of 2018.
- **Production and supply of the Daimler 2.2l turbo diesel engine** coupled with an automatic seven-gear box and/or a manual six-gear box for the Infiniti Q50 model.
- **Architecture sharing (MFA) between Daimler and Infiniti** on the **Q30** and **QX30** models, which are produced by the Japanese carmaker in England at the Sunderland plant.
- **Sharing of parts for production of the Mercedes Canter and Nissan Atlas vans** in Japan.



Co-development and joint production of the Daimler and Nissan compact range of cars in Mexico (MF12 platform for the Infiniti Q40 model) initially planned for 2017/18, was suspended by the Japanese group in Q1 2017 since sales and prices for Infiniti did not reach a level compatible with the cost of components for the new platform.

Via this partnership, Nissan benefits from Daimler's expertise in large engines and in the premium segment that Nissan is continuing to address via the **Infiniti** brand despite the relative success of this compared with German carmakers and above all, Toyota's premium brand **Lexus**. The partnership enables Daimler to amortise development costs on these engines and gear boxes more quickly.

The three groups also share a platform dedicated to **4X4/pick-ups** in Spain (Nissan's Barcelona plant) and in Argentina (Renault's Cordoba plant), which is used especially for production of the new **Nissan NP300** (a.k.a Navara). This platform will be used to produce the **Mercedes Classe X pick-up truck** as well as the **Renault Alaskan** at the end of 2017.

### 4.1.3. 2012: Renault-Nissan + Avtovaz

Whereas in 2008, the group decided to expand in the Russian market by signing a strategic partnership with the country's leading carmaker **Avtovaz**, it was not before 2012 that it officially become more strategically present after acquiring a majority stake in the **Alliance Rostec Auto BV joint venture**, created with the Russian state-owned company Rostec. The various setbacks encountered by the Russian carmaker following the economic slowdown that affected the country due to the plunge in commodities prices and sanctions following the annexation of Crimea in 2015-2016, obliged Renault to recapitalise the Russian entity, bringing its stake in the JV to **>70%**. The group now owns Avtovaz and has increased its market share in Russia from **9%** to **29%**, with Russia now accounting for **≥10%** of the Renault group's volumes.



Renault has consolidated sales and earnings at Avtovaz since 1st January 2017 and the **Lada brand is now a fully-fledged brand belonging to the Renault group.**

Originally, the acquisition aimed to extend the group's commercial presence in this high-potential market while **sharing components and industrial sites between the three groups.**

As of 2015, the creation of an entity responsible for managing and optimising purchases for partners in the Alliance in Russia (ARNPO) backed this aim although its real impact on Avtovaz' profitability was very limited.

After Renault took over 100% of the Russian carmaker in 2016, potential synergies between the various brands should gain momentum, especially since the recovery plan announced by Avtovaz implies an **increase in partnerships** within the Alliance in terms of purchases and part sharing.

**Renault's operating margin is nevertheless likely to be penalised in the short term before Avtovaz's operating profitability becomes positive again after 2019.**

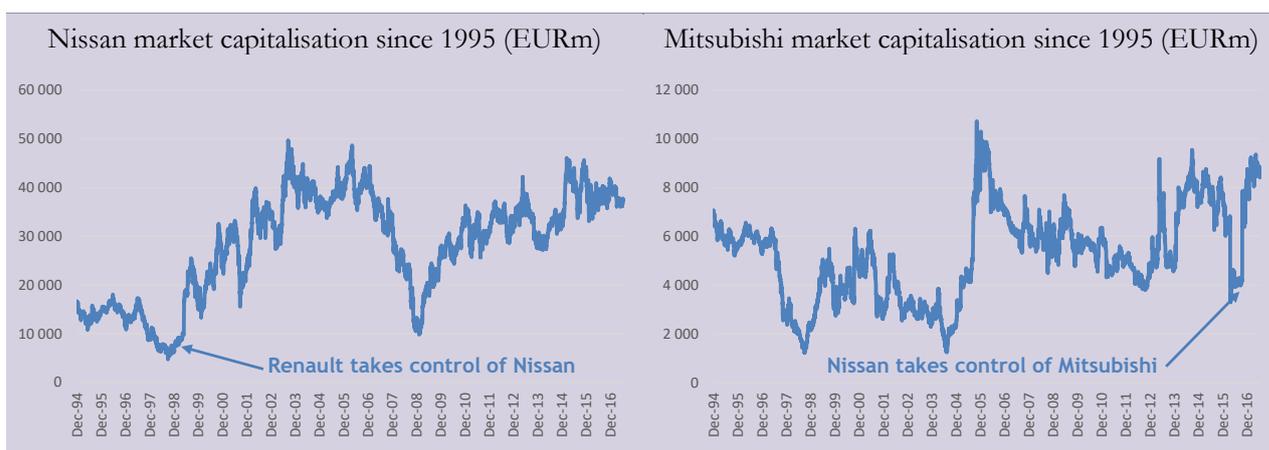
## 4.2. Playing in the big league following Nissan's acquisition of Mitsubishi

Whereas industrial partnerships already existed between **Nissan** and **Mitsubishi**, especially in the *keijidoshas* segment of small cars destined for the Japanese market (shorter than 3.40m with a cylinder capacity no higher than 700cm<sup>3</sup>), the merger between the two groups accelerated in October 2016 when Nissan bought a stake in Mitsubishi. The operation was announced in May 2016 when discussions were made public and was closed at the end of the year when Nissan took a 34% stake in Mitsubishi via a capital increase of **EUR2bn**.

As with Nissan, this acquisition took place as Mitsubishi was suffering an unprecedented crisis, leaving existing shareholders vulnerable and in favour of a takeover. After being on the verge of collapse in the early 2000s due to uncompleted recalls in violation of Japanese legislation, **Mitsubishi** joined forces with **Daimler-Chrysler** (before the end of the merger between the two groups in 2007), which took a controlling stake in before finally backing out. In 2011, Mitsubishi then teamed up industrially with **PSA** (no capital ties between the two groups), to which it had long supplied electric models (Peugeot Ion and Citroën C-Zéro) and SUVs. Although a merger between the two groups was considered, Mitsubishi finally remained alone, like PSA, with less than **1.5%** of the global market.

Whereas during discussions between the two groups at the time (March 2010), Mitsubishi was valued at more than **EUR6bn** in market capitalisation, or **>25%** more than French group PSA, following a series of revelations of fraudulent actions by the group for more than 25 years concerning its vehicle consumption levels, the share price plummeted more than **50%** within a few days on the Tokyo stockmarket (April 2016) thereby prompting the group to listen to the market in order to find a potential buyer/rescuer.

**Fig. 8: Opportunist purchases at the origin of the Alliance**



Source: Datastream; Bryan, Garnier & Co ests.

During previous crises, other companies in the Mitsubishi galaxy had come to the carmaker's rescue. This time however, the "*keiritsu*" managers refused and the board ended up accepting the hand held out by Nissan, an industrial partner to the group for five years.

**Four points** are worth noting from this operation:

- **Nissan became the key shareholder in Mitsubishi with a 34% stake**, ahead of the previous parent company, **Mitsubishi Heavy Industries (MHI)**, which now only has a 20% interest.
- **The Japanese group is now headed by Carlos Ghosn** who was able to nominate four representatives on the Board of Directors out of 14 members. Since Mr Ghosn recently renounced his position as chairman of Nissan and passed the reigns to the current co-CEO, he will not be able to focus more time on turning around Mitsubishi, as he already did with Nissan.
- **Nissan paid EUR2bn to take over 34% of Mitsubishi** implying a premium of **38%** to the low point seen on the market during April after the accusations of cheating made against the group.
- **In the short term, synergies are primarily set to stem from purchases**, before Mitsubishi is led to include vehicles in the A/B/C-D CMF module sharing. Mitsubishi estimates potential synergies at up to **EUR200m** for the first tax year (ending March 2018), whereas Nissan is forecasting **EUR480m**.
- **The operation will enable Nissan to increase its presence in the small vehicle segment and in four-wheel drives in South-East Asia.**

For the moment, the operating merger between the two Japanese groups remains limited, although synergies in purchases should rapidly become visible for both groups as of 2017/2018. Following this acquisition, Nissan will now book **34%** of Mitsubishi's net profit via the equity method, or around **EUR180m** over the full-year in 2017 (split financial year running from April to March).

### 4.3. A strategy presenting clear advantages...

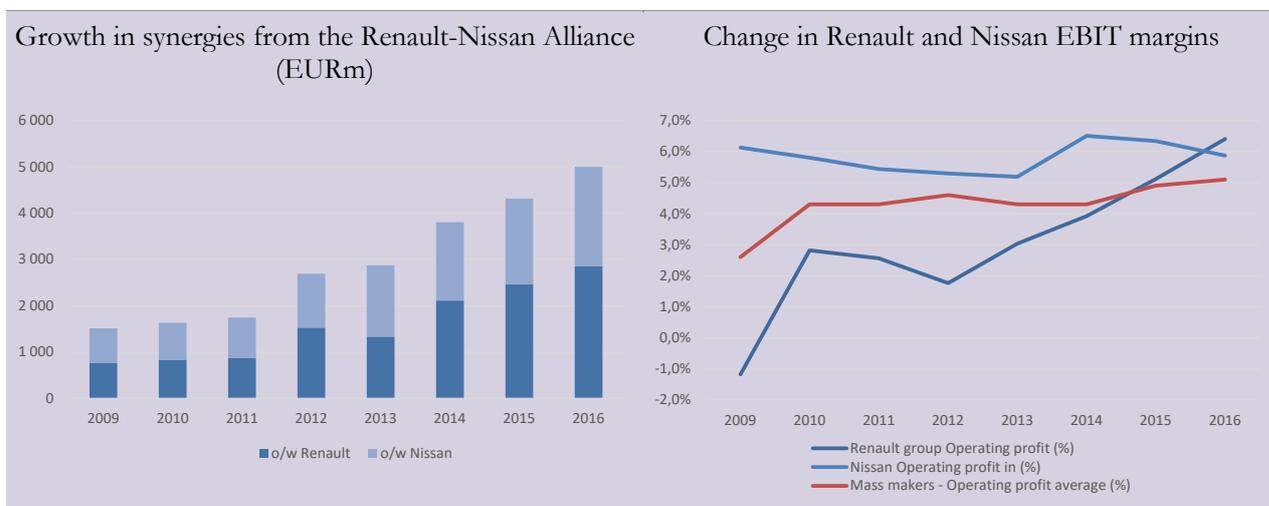
#### 4.3.1. Synergies at last!

As indicated previously, since the auto industry is a fixed-cost industry, it is vital for any global player to reduce its unit production costs as far as possible, either by increasing the number of vehicles produced by assembly line following an acquisition, or by sharing a significant portion of components with industrial partners.

Contrary to other global players, **Renault** is the only group to have adopted a strategy combining these various levers since unlike VW, which expanded by acquiring brands, the French group has never merged with Nissan despite its majority stake. The French and Japanese groups continue to have **their own identity and strategy while sharing R&D spending, development costs and production costs**.

Whereas synergies have taken time to unlock within the Alliance since its creation in 1999, both groups now seem to be benefiting finally, thanks to the gradual deployment of the CMF technical platforms. In all, over the past eight years, total synergies have reached more than **EUR23bn**, or an average of almost **EUR3bn** in annual gains. These gains have gradually improved with the 2016 level of **EUR5bn** representing a **16%** increase relative to 2015.

**Fig. 9: Renault has clearly benefited from the Alliance since 2009**



Source: Companies data; Bryan, Garnier & Co ests.

Since Renault is smaller than Nissan, selling almost half the amount of vehicles, it has benefited the most from these synergies to the detriment of Nissan that has seen its group margin stabilise over the past seven years at around **6%**, whereas Renault's has risen from **-1% to 6.4%** over the same period. Over this same period, the French group has even exceeded the average level of its rivals (generalists) despite its absence from the two markets that have enjoyed the highest growth, namely the US and China.

Renault nevertheless fared less well than its direct French competitor PSA over the same period, especially since PSA managed to benefit from wage renegotiations with trade unions in favour of increased competitiveness as well as a beneficial product mix following the launch of new Peugeot models.

These synergies should continue to increase mainly on the back of the ramp-up in assembly module sharing, but also thanks to Mitsubishi's gradual integration into the Alliance. Carlos Ghosn has indicated on several occasions that he aims to reach **EUR5.5bn in synergies for 2018** (yet that was before the integration of Mitsubishi in the Alliance), without indicating a target for 2017 (BGe EUR5.6bn), implying annual growth of **>10%** relative to 2016. Renault's margin should therefore continue to widen over the next two years, thanks also to the restructuring implemented in Russia but also the market share gains expected from the roll-out of the latest Renault brands (Espace, Scenic and Megane) outside Europe. **By 2022 the Alliance now targets to generate EUR10bn of synergies, representing doubling of 2016 synergies.**

### 4.3.2. A comprehensive and diversified technological and geographical positioning

Although it is very complex to steer and analyse, the Alliance provides the various groups participating a virtually comprehensive geographical positioning relative to major auto markets while limiting the amount of investments needed to access these markets, contrary to rivals.

The Alliance also enables the groups to share R&D spending and enjoy positions in various technologies (in terms of motorisation, embedded systems etc.), thereby limiting the risks of failure and financial impacts. Nissan seems to be the most geographically diversified group in the Alliance even if its exposure to emerging markets remains low since these markets are addressed directly by Renault, which is absent from the US and Chinese markets (although a plant has just been opened in China).

**Fig. 10: The Alliance helps address various markets at a lower cost**

		Renault	Nissan	Mitsubishi
Geo mix	North America		★ ★	★
	China		★ ★	
	Europe	★ ★	★ ★	★
	Russia	★ ★	★ ★	
	Latam	★	★	
	Asia exc. China		★	★ ★
Motorization	Diesel	★ ★	★ ★	
	Gasoline		★ ★	
	Hybrid	★	★	★
	Battery Electric Vehicle	★ ★	★ ★	★
	Fuel-Cell	★	★	
Growth	Self-driving car	★	★	
	New mobility solutions	★	★	
	SUVs	★	★	★ ★

Source: Bryan, Garnier & Co ests.

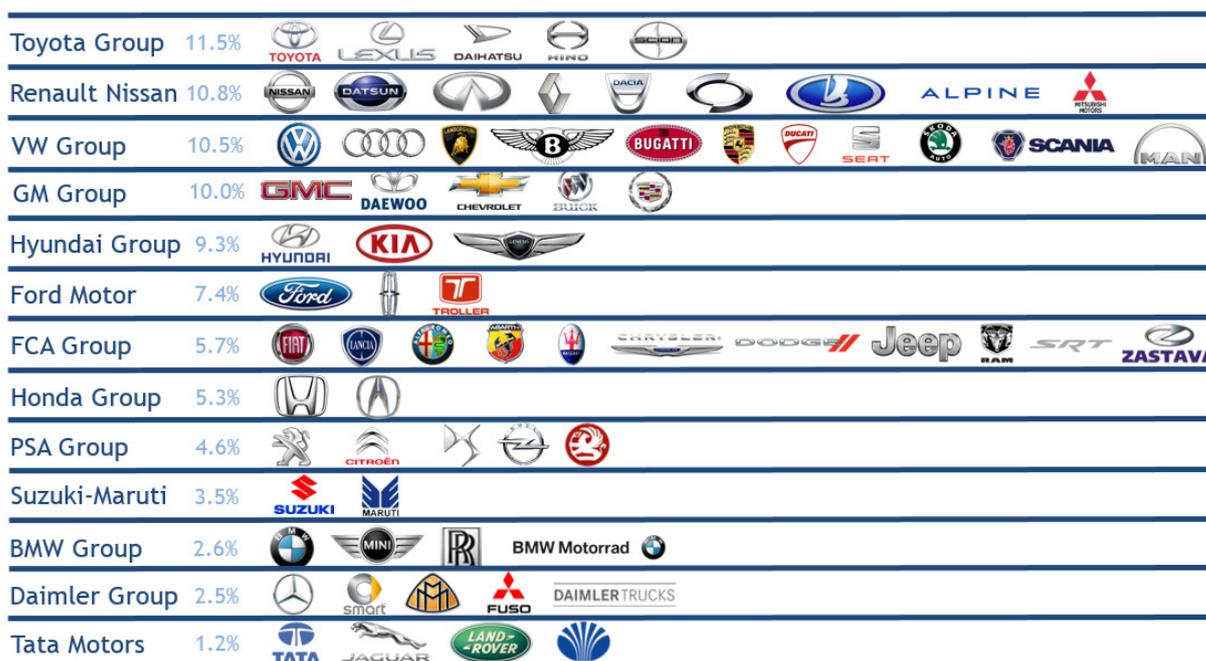
### 4.3.3. Now ranking among the leaders

Before the creation of the Alliance with Nissan in 1999 and prior to Nissan's takeover of Mitsubishi, the Renault group, with less than **2m** vehicles sold (1997) only had a low market share of **3.6%**. Although today the group's market share remains identical, including Nissan volumes and now Mitsubishi volumes, the Alliance now boasts a market share of **>11.5%** with more than **10.5m** vehicles sold over 2017 (BGe).

The Alliance therefore integrates the very closed circle of carmakers that sell more than **10m** vehicles a year, a circle comprised only of German group VW and Japanese group Toyota. Following the sale of the Opel brand to PSA, GM is now below the Renault-Nissan Alliance and ranks among the Top 3 largest carmakers in the world.

Contrary to Volkswagen, which has increased its market share thanks to classic yet complex acquisitions operations (Audi in 1964, Seat in 1986, Skoda in 1986, Bugatti and Lamborghini in 1998, Bentley in 1999...), via the Alliance, Renault has succeeded in positioning itself as a leader without having to acquire 100% of Nissan or 100% of Mitsubishi.

**Fig. 11: Provisional ranking of carmakers (2016 estimates following M&A operations)**



Source: Company Data; Bryan, Garnier & Co ests.

By 2022, the Alliance now targets to sell around **14m vehicles** on a worldwide basis implying a sales CAGR of **7% over 2016-22 period**.

## 4.4. Even though it makes analysis of the group more complex

This organisation makes analysis of the group more complex since it is more difficult to assess short-term margin changes prompted by synergies and the group's real exposure to a market or to a technology even.

Note that in acquiring Renault shares, investors are not only exposed to the Renault group, which designs, produces and markets vehicles under the **Renault, Dacia, Samsung, Alpine and now Lada brands**, but are also **43.4%** exposed (via the equity method) to Nissan Motors (Nissan, Datsun, Infiniti), which itself now owns more than **36%** of Mitsubishi Motors (also accounted for by the equity method).

### 4.4.1. Performance analysis still not clear...

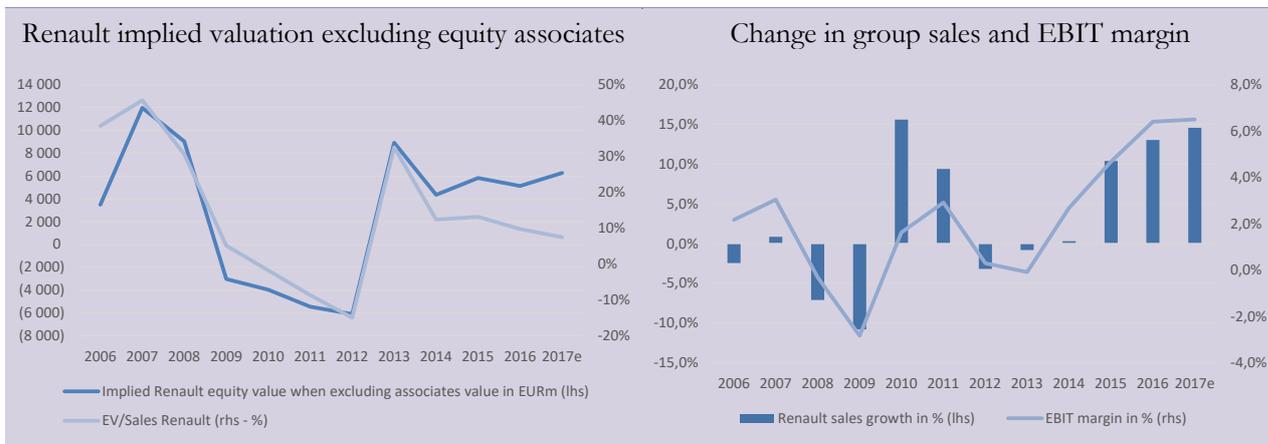
In all, the Alliance enables the Renault group to obtain **indirect exposure to the US and Chinese automotive markets**, even though Renault is not industrially present in them. This is what the majority of investors forget given that Renault consolidates Nissan by the equity method and not by full integration.

Based on our figures for Renault-Nissan in 2017, we therefore estimate that the US market represents more than **15% of the Renault group's EPS** whereas the Japanese market represents more than **22%** thanks to the **43.4%** consolidation of Nissan's net profits (45% of 2017e net profit of Renault group). Note also that Renault has pledged to pay its shareholders the amount of dividends received from its stakes in listed companies (more than EUR700m stemming from Nissan and Daimler), with a one-year delay. This exposure to the US and Japanese markets is therefore vital for Renault shareholders even though the French carmaker is not really recognised for its presence in these markets. In addition, whereas the majority of listed players in the sector (French in particular) include contributions from equity associates under operating profit (net profit from these entities is added to the group's operating profit in order to boost the margin), Renault logically does not follow this rule given the importance of the impact on its margin (+290bp lifting the Renault group margin from 6.5% for 2017 to more than 9%).

### 4.4.2. ...and is also reflected in the group's valuation

This complexity is reflected in the Renault group valuation, which despite the group's **43.4%** stake in Nissan, valued at the latest share price at **EUR17.3bn**, and **1.6%** stake in Daimler, valued at the latest share price at EUR1.1bn, continues to imply a significant discount in Renault's core business, especially relative to its French rival PSA. Note that this discount has narrowed constantly in recent years in favour of the Renault share price. The group's enterprise value was even negative between 2009 and 2012, despite the start of an improvement phase in the margin and the group's debt reduction.

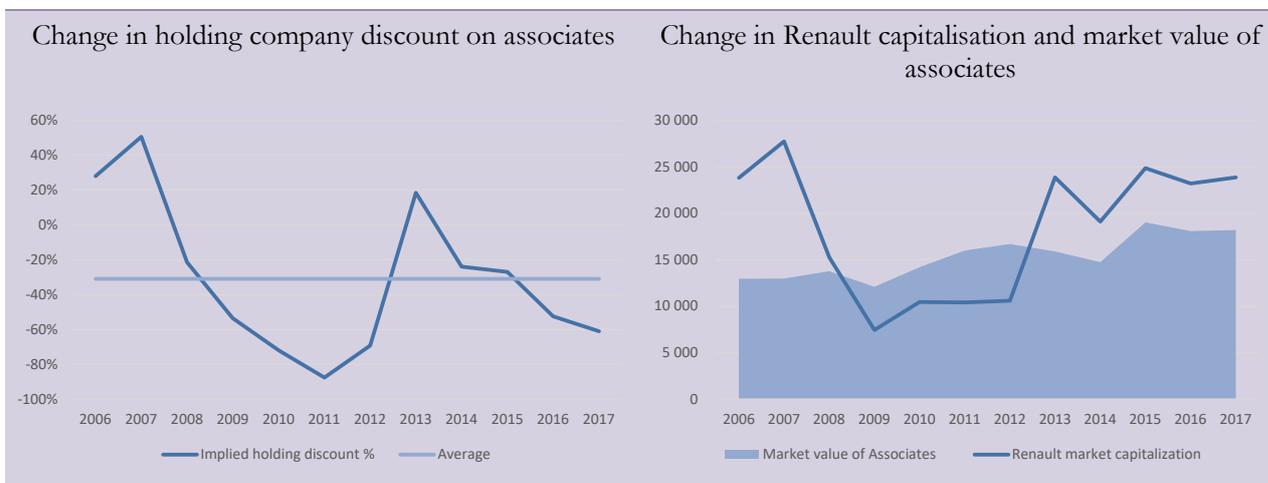
**Fig. 12: An undemanding valuation despite the improvement in metrics**



Source: Datastream; Bryan, Garnier & Co ests.

Another look into changes in Renault's market capitalisation enables us to deduct a holding company discount on the group's stakes of **30-35%** on average over the past 10 years. We reach this conclusion by fixing the valuation of Renault's core business (automotive division and financing unit) with an **EV/sales ratio of 25%** and **EV/EBIT multiple of 5x** over 2016-26 while valuing the group's associates at their market value.

**Fig. 13: An excessively high holding company discount for three years now**



Source: Datastream; Bryan, Garnier & Co ests.

The current discount is close to **60%** whereas Nissan (94% of associates) is faring well despite the sharp increase in the JPY and Renault is set to report record sales and EBIT margin for 2017. Surprisingly, Renault's market capitalisation is currently **15%** lower than it was in 2007 before the crisis whereas the value of associates is **15%** higher and the group's EBIT is **twice as high** (margin estimated at 6.4% vs 3%). Although a discount seems logical in view of the complexity of the Alliance's structure and organisation, we consider it excessive at present. In our SOTP valuing Daimler at its market value and Nissan via a DDM, we implicitly reach a discount of **30%** in line with our historical discount calculated over 2006-16.

### 4.4.3. Complicated governance

The complexity of the Alliance's structure has always made governance within Renault and the Alliance fairly opaque. Since Carlos Ghosn officially took over as head of Renault in 2005, he has constantly gained power over the various groups and structures, much to the regret of the French government, which is clearly against the group's double-remuneration (almost triple with Mitsubishi).

#### Carlos Ghosn, from "Mr Fix-it" to "mega-CEO"

Given the importance of Carlos Ghosn's role in the recovery of the Renault and Nissan groups, as well as the transformation of the French carmaker into a renowned international player, it seems clear that the end to his mandate as the head CEO at Renault will not be painless despite the criticisms stemming from the French government and certain shareholders over the extent of his salary.

- **1996:** After 18 years at **Michelin**, **Carlos Ghosn** joined **Renault** as deputy CEO and headed up the group's activities in the Mercosur region. He was behind the deployment of the cost cutting plan and therefore played a key role in the group's economic recovery.
- **1999:** **Mr Ghosn** managed the operation for Renault to take a stake in Nissan and create the Renault-Nissan Alliance. He joined the Japanese group as Head of Operations and implemented the Nissan Revival Plan by closing five plants and reducing the group's headcount by up to **14%**. He also became CEO of the Alliance.
- **2000:** Nomination as **Chairman of Nissan**.
- **2001:** Nomination as **CEO of Nissan**.
- **2005:** **Mr Ghosn** took over from **Louis Schweitzer** to become **CEO of Renault**.
- **2009:** Nomination as **Chairman of the Board of Directors at Renault**.
- **2013:** Nomination as **Chairman of the Board of Directors at Avtovaz**, with the position maintained until **June 2016**.
- **2016:** Nomination as **Chairman of the Board of Directors at Mitsubishi** following its takeover by Nissan.

At present, Carlos Ghosn remains CEO of the Renault group (mandate due to expire in 2018), but has no longer been CEO of Nissan since April 2017. He remains CEO of the Renault-Nissan Alliance.

Whereas his succession is clearly going ahead smoothly at Nissan following the nomination of **Hiroto Saikawa** (the group's former joint CEO) as CEO in April, the real issue concerning his succession lies at both Renault and the Alliance. So far, Mr Ghosn has no official right-hand man in Paris thereby making his transition more complex. The current mandate for Mr Ghosn (63 years of age) at Renault expires at the **2018 AGM**.

Although it can be renewed one more time, **Mr Ghosn could decide to abandon his operating functions at Renault** while remaining Chairman of the French group, thereby following the scheme already chosen for Nissan. Two names that Carlos Ghosn could present to the Board are circulating at present: **Thierry Bolloré**, Chief Competitive Officer at Renault and **Jean-Christophe Kugler**, director

for Europe at Renault. Since competitiveness is a vital factor for Renault, our initial choice would be Thierry Bolloré.

In our view, this gradual and calculated withdrawal of Carlos Ghosn from Renault (in favour of the Alliance) could help ease the current tension not only with the French government, which still owns **19.74%** of Renault (and 23.2% of voting rights), but also with other shareholders. Long accused of having favoured Nissan to the detriment of Renault, while benefiting from a salary considered by some as scandalous, tension between Carlos Ghosn and Emmanuel Macron, then Minister of the Economy, Industry and Digital under François Holland's presidency reached its peak in April 2015 when the government increased its stake in the group's capital from **15% to 19.74%** in order to impose the application of the new Florange law, without warning Mr Ghosn. The application of the Florange law provided the government a minority controlling stake in Renault making a potential merger between Renault and Nissan more complicated.

Mr Ghosn's salary is also a delicate subject given that the state votes systematically against it at the AGM as do a number of shareholders. Note that in 2016, Carlos Ghosn received **EUR7m** at Renault (including EUR1.23m as a fixed salary) down **3%** relative to 2015, or 0.3% of the group's net profit excluding associates. This compares with **EUR5.3m** (of which a EUR1.3m fixed salary) paid to Carlos Tavares at PSA in 2016, also representing 0.3% of the group's net profit before associates. Carlos Ghosn's remuneration nevertheless amounts to more than **EUR15m** if the salary he receives from Nissan is also included.

In our view, two catalysts could improve the group's governance issues to the benefit of share price:

- **A reduction in the French state's stake of 4.74% to return to 15%.** Although the state promised to sell this interest on, the timing remains uncertain for the moment. The APE which manages the French state's holdings wants to avoid making a capital loss on this operation whereas the Renault share price has since lost **7%**, in particular due to the DGCCRF's enquiry into pollution emissions caused by the group's diesel engines. The resale could take time given that the APE is obliged to have no insider knowledge or to be in a period of financial results publication on the date of sale.
- **The implementation of separate governance within Renault** with Carlos Ghosn as **the group's chairman** and the nomination of a **CEO** (Thierry Bolloré or Jean-Christophe Kugler?) at the head of the group's operating management.

Note also that it is general knowledge, following an interview with Carlos Ghosn and comments made during the 2016 results presentation that the format of the Renault-Nissan Alliance is unlikely to change as long as the French state remains a shareholder in the French carmaker.

As such, it appears obvious that the day the French state decides to withdraw entirely from the group (which is not immediately in our view), a tighter merger between the two groups could take shape, for example via the creation of a consolidated group that would favour the elimination of the holding company discount.

Over the long term, the creation of a consolidated group seems to be the most relevant solution and the one that would create the most value for shareholders.

The very close ties between Renault and Nissan should facilitate this potential transformation, making the Alliance the largest global carmaker ahead of Toyota and VW.

The Renault group's sales would therefore be multiplied by **more than 2.5x** after the consolidation of Nissan (by >2.7x with Mitsubishi) and EBIT by **>2x** (by >2.5x with Mitsubishi) whereas attributable net profit would remain fairly unchanged. We estimate that the discount of **32%** noted on P/E multiples in year N+2 relative to other generalist carmakers would then disappear.

A rapid calculation puts our **FV at EUR120-125** after a consolidation with Nissan (with no increase in Renault's stake in Nissan or Nissan's stake in Mitsubishi) compared with a current price of **EUR81** (>50% upside). **We arrive to such FV by valuing 2018e EPS at 7-8x in line with peers as holding discount is not justified anymore.**

#### 4.4.4. A new strategic plan at the Alliance level, a first step towards closer ties between the three groups?

Whereas the French group easily sailed past its 2017 targets (EUR50bn in sales, more than 5% EBIT margin with positive FCF) a year ahead of time, with **sales of EUR51.2bn** and **EBIT margin of 6.4%**, the carmaker is preparing the next strategic plan (2017-22) due to be presented to investors on October 6<sup>th</sup>.

This new plan should restore visibility on the group's strategy as well as the Alliance following the acquisition of Mitsubishi by Nissan. At the same time as **Nissan** and **Mitsubishi**, the group should therefore present investors a **triple strategic plan** for 2017-22, replacing the previous plan unveiled in 2011. This triple plan should enable us to better assess the future exchanges possible between the three carmakers and should be preceded by the announcement of a major technology programme common to the three groups.

Although Renault has provided few indications concerning the details of this investor day, Carlos Ghosn has already stated that the group's new targets would be to deliver **EUR70bn in sales** and a minimum **EBIT margin of 7%** at the end of the plan while maintaining positive FCF every year (including the full integration of Avtovaz as of 2017). In concrete terms, this implies a CAGR for sales of **5.3%** for the period and **7%** for EBIT, compared with our estimate for full-year market growth of **2%** over the medium term.

In our current Renault model, we are forecasting sales of **EUR71.7bn for 2022** and EBIT margin of **7.3%** (Renault definition).

**The prospect of this event should have a very positive impact on the share price during Q4 given that the group is set to present the first ever strategic plan covering the three units. The creation of the position of Chief Competitive Officer in the Alliance, in order to implement the new strategic plan, and by replacing the current Competitive directors at Renault and Nissan respectively, would send a positive signal to investors showing that the relations between the two groups are becoming increasingly strong.**

## 5. Well positioned to benefit from the recovery in emerging markets

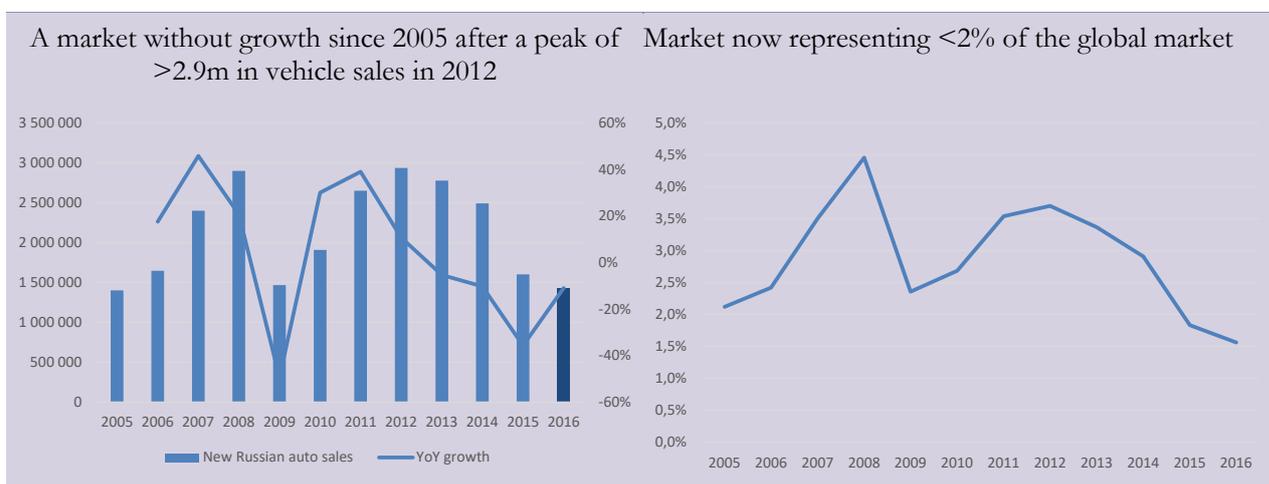
### 5.1. From Russia with love

#### 5.1.1. A false start in 2005

Renault first set foot in Russia in **2005** with the start of production for the **Dacia Logan** in the **Avtoframos** plant in Moscow. The group was then the first foreign automotive company to start producing a vehicle in the market with **1.4m** vehicles sold, representing just **2%** of the global auto market. Note that since **1999**, the French group is present in Eastern Europe and more precisely in Romania following the takeover in 1999 of **Dacia** under the stimulus of **Louis Schweitzer**. This aim to expand in the Russian market is therefore fully in line with the group's low-cost strategy implemented for several years now. Three years later in 2008, Renault spent **EUR1bn** to acquire 25% of **Avtovaz**, the leading Russian carmaker created with the help of Fiat engineers at the end of the 1960s.

Whereas the Russian auto market seems to be very buoyant, the country gradually moved into a crisis situation in 2008-09, like all other major countries, before being more specifically affected by the plunge in oil revenues in Moscow due to the fall in commodities prices and the sanctions imposed following the annexation of Crimea in 2015-16. Over 2005-2016, the Russian market remained stable at **1.4m** vehicles after reaching a peak of **>2.9m** in 2012, implying a **50bp** fall in market share from **2.1%** at the end of 2014 to **1.6%** at the end of 2016, with the global auto market having risen by **38%**.

**Fig. 14: Russian auto market under pressure since 2004...**



Source: Renault; OAR; Bryan, Garnier & Co ests.

Over this same period, Avtovaz's sales plummeted on the back of the plunge in volumes, taking a toll on margin and earnings and obliging the group to undertake a capital increase in 2016 in a **rescue operation partly financed by Renault**.

**Fig. 15: ... pushing the Russian no. 1 into the red**



Source: Renault; OAR; Bryan, Garnier & Co ests.

As such, via the capital increase that cost Renault around **EUR230m**, the Alliance took control of the Russian carmaker with Renault now owning a **majority stake in Avtovaz** enabling it to fully consolidate the Russian group's accounts as of 2017, whereas previously the group only consolidated **25%** of its earnings by the equity method (net loss of EUR620m in 2015 and loss of EUR90m in 2016). **This change in scope is also likely to weigh on Renault's net debt and profitability in the short term.**

**Fig. 16: The group now consolidates Avtovaz' earnings and Lada is a Renault group brand**



Source: Company Data; Bryan, Garnier & Co ests.

## 5.1.2. A new start in 2017?

### 5.1.2.1. A clear strategy to improve profitability

The Russian market now represents 11% of the group's global volumes following the consolidation of Avtovaz vs. 5% previously, with the group's strategy in the country now more than vital. A return to break-even is still expected for 2018 whereas EBIT margin at 5% is still the medium-term target for 2021.

This gradual improvement in profitability should be possible thanks to various sources of leverage to the fixed cost base:

- **An increase in productivity per employee** with a reduction in surplus employees by transferring them to other surrounding companies (suppliers, call centres etc.).
- **A reduction in the number of consulting service providers.**

- **The roll-out of the Monozukuri method** already in place in the Renault-Nissan Alliance, to step up cost cutting while improving the quality of vehicles.
- **Increase in industrial partnerships and parts sharing** with the Renault-Nissan Alliance.
- **Increase in annual production** in the **Togliatti** and **Ijevsk** plants to more than **1m** vehicles by 2020 vs. **400,000** in 2016 thanks in particular to the increase in exports outside Russia.

The group also aims to maintain market share higher than **20%** in Russia (19% in 2016 and 17% in 2015 vs. a peak of 27% in 2010) thanks to the launch of **seven new models** by 2022 (excl. facelifts), implying a doubling in the size of the range of products offered by the brand to **14 models**. Between 2023 and 2026, the group aims to launch five new models in Russia.

**Fig. 17: Lada product plan directions 2017-26**



Source: Lada; Bryan, Garnier & Co ests.

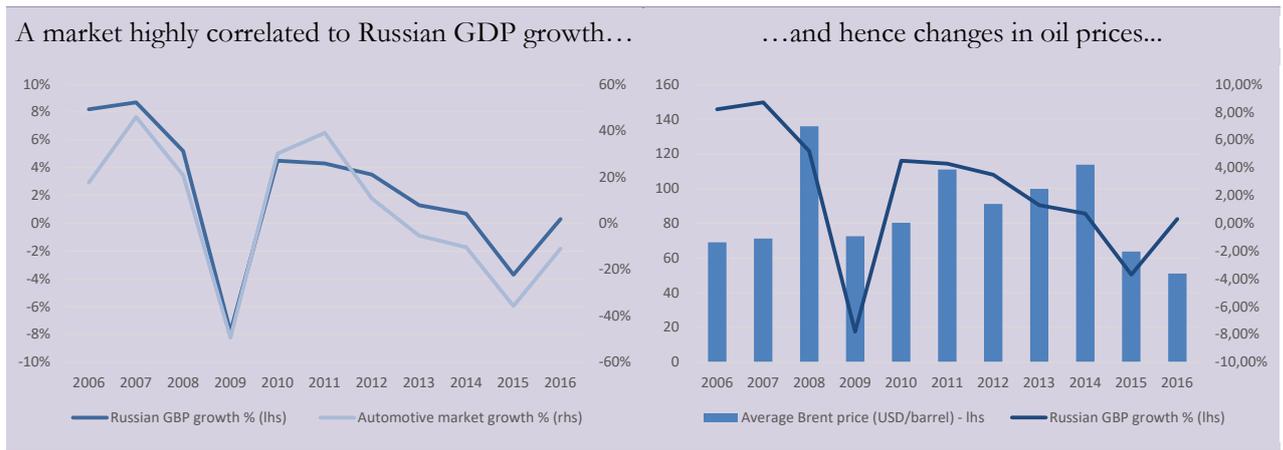
In our model, we are forecasting a slight increase in the group's market share in its local market, from **20%** in 2017 to slightly more than **22%** by the end of 2026 thanks in particular to the widening of its range. In all, the Renault group should have market share of **>28%** with the consolidation of Avtovaz vs **8%** previously.

The Renault-Nissan Alliance now has a dominant position in this market with a combined market share of **35%** well ahead of **Hyundai-Kia** (22%) and the **VW** group (11%).

### 5.1.2.2. A market on the point of recovery?

While the Russian automotive market is extremely cyclical given its dependence on the country's economic health and hence oil prices (oil represents 70% of the country's exports), it remains a high-potential market over the medium/long-terms. The fleet is ageing (46% is over 10 years), whereas the equipment rate remains very low relative to mature markets (around 350 cars per 1,000 inhabitants vs. over 500 in Europe) implying fairly substantial potential growth if the country's economy continues to improve.

**Fig. 18: A very cyclical Russian auto market but with a lot of potential**



Source: Renault; OAR; Bryan, Garnier & Co ests.

Since the beginning of the year, the market has shown signs of a rebound, in favour of the dominant market players, namely the Alliance brands (Renault, Nissan, Avtovaz, Infiniti and Datsun), the VW group and the Hyundai-Kia group. The market was up **9.6%** over the first eight months of the year, thanks to a healthy performance over Q2. This market recovery is promising but nevertheless remains very sensitive to the country's economy which could suffer again from weak oil prices following OPEC's failed policy to reduce supply.

In our model, we continue to expect a rise in the Russian automotive market of around **5%** in 2017 and then **4%** in 2018 and 2019. More optimistic estimates suggest that this market could exceed **3m vehicles in 10 years' time**, close to the level of the UK market and higher than the French market.

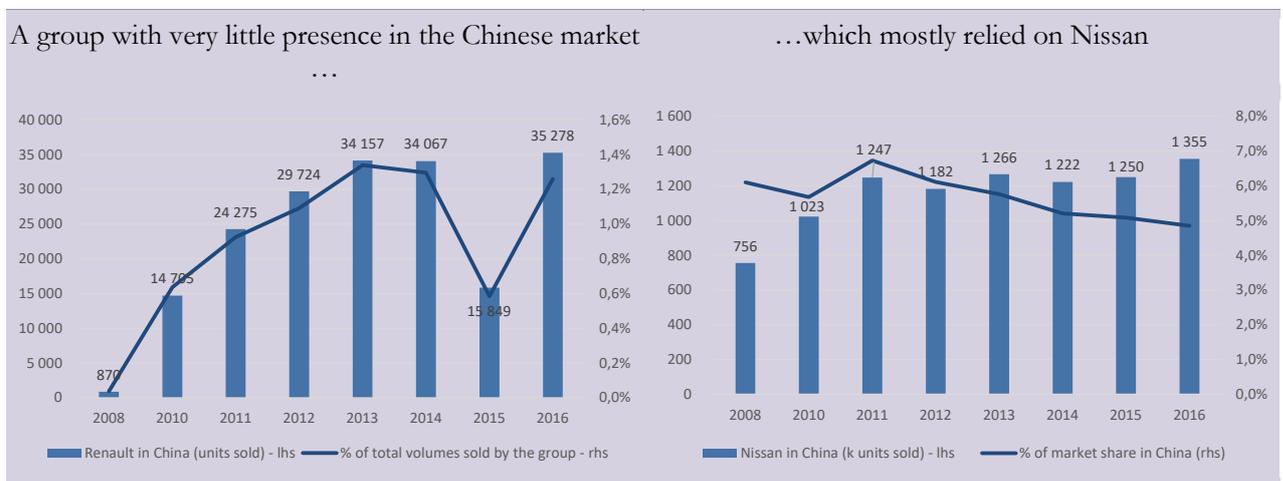
Avtovaz' short-term aim is to increase 2016 sales by **50%** in 2019 and to more than **double the amount by 2023**. We consider this cautious in view of the portfolio of new products unveiled by the group. Note that in H1 2017, Avtovaz' sales contributed around **EUR1.29bn** for an operating profit of **EUR3m** in Renault's accounts, thereby representing more than **4%** of group sales.

Further out, we estimate that the group's exposure to the Russian market (the group's historical exposure combined with Avtovaz) could rise to **>12% within the next two/three years**.

## 5.2. Conquering China: "slow and steady wins the race" (La Fontaine)

After a false start in **1993**, Renault has finally set up industrially in China with the inauguration in early 2016 of its first automotive plant with local partner **Dongfeng**, the second local Chinese carmaker, also partner to **Honda**, **Nissan** and **PSA** (DPCA) in which it also has a 14% stake since January 2014. The French group is the last large international carmaker to set up in the country, which is now the leading global automotive market. During the 2000s, after a first failure in production of utilities vehicles in China, Renault had decided to focus its international development on Russia, Brazil and India while allowing its partner Nissan to address the Chinese market directly (4.8% market share at end-2016). Only a few thousand Renault vehicles were exported towards the country each year, representing around 1% of global volumes at the French carmaker.

**Fig. 19: A strong group with little presence in the leading global auto market**



Source: Renault; Bryan, Garnier & Co ests.

### 5.2.1. A good product positioning to start with

#### Renault Kadjar



#### Renault Koleos



After tough negotiations with the Chinese government for several years, the group is now present industrially at **Wuhan** with a first site with an average capacity of **150,000 vehicles a year**, a site at which **Renault** and its partner **DongFeng** (JV – DRAC) could easily add a second production line by 2020 in order to double the initial capacity (capacity could even increase to 450,000 if the group decided to add a new building). The group currently produces two SUVs locally, the **Kadjar** and the **Koleos**, in line with rising demand from Chinese consumers for this type of vehicle (more than 30% of vehicles sold in China are now SUVs).

Since the start of production for the Kadjar in **March 2016**, the group has increased its market share considerably. Over the first eight months of 2017, volumes sold in China were up by more than **225%** with more than 45,000 vehicles sold. Comparison with the year earlier period is set to become gradually more difficult at the end of 2017, but we nevertheless expect growth of more than 100% to around **72,000 models**.

### 5.2.2. But more work is still needed!

Ramping up the network of dealerships (200 at the end of 2017 vs. 125 in September 2016) should contribute massively to a gradual increase in the group's market share. However, compared with networks of the group's direct foreign rivals (VW, PSA, GM and FCA), the group's presence currently remains limited, at least for the short-term. The group aims to have 230 dealerships by the end of 2018.

In addition to the rise in the number of concessions, the group will also have to extend its commercial offer to other segments, even though the SUV segment remains the most buoyant on the market for the moment. As of 2018, the group's range of electric models should be rounded out by a new version of the Fluence ZE (likely to be called DongFeng Fengnuo E300), a vehicle set to be produced directly by the DRAC entity and which will take the DongFeng badge directly. The E300 should logically keep the same characteristics as the Fluence ZE and embed an electric engine of 94ch fuelled by a **22kWh** lithium battery, which should enable the car to reach an autonomy of **185km** (NDEC). The **Captur** model (small SUV based on the Clio) should also round out the group's offer in the short term, whereas the introduction of the Kwid could help the group address the low priced small vehicle market segment, which is fully captured by Chinese brands.

By 2020, Renault should therefore have an offer made up of five models, which compared with VW, PSA and Fiat, therefore seems fairly limited.

Without providing any dates, the group indicated that it was targeting 3.5% in this market, or around 1m vehicles, which is likely to imply huge investments in order to increase the group's capacities.

In our model for Renault, we are currently forecasting a rise in the JV's market share of **1%** implying market share of more than **5%** for the Renault-Nissan Alliance in the leading global market. Since the group is present via a JV, the net contribution to the French group's earnings is set to remain negative in the short term (net negative contribution of EUR46m in 2016). We do not expect a positive contribution to Renault's earnings before 2020 when the group should be close to generating annual sales of **150,000 vehicles**.

In addition to this **JV with DongFeng**, the group also announced the signing of a letter of intent with **Brilliance China Automotive Holdings** (CBA) for the creation of a joint venture to expand in the Chinese **light utilities** market.

## 6. A clear lead in electric vehicles

In all, the Alliance has invested more than EUR4bn in R&D and production tools to develop electric cars, including EUR1bn for Renault alone over the past 10 years. Whereas the majority of carmakers have preferred to bet on hybrid vehicles since they are less complex to develop and above all less disruptive for the customer, Carlos Ghosn decided to bet on electric cars before other rivals, like **Toyota in hybrid vehicles**. Nissan was the first to be put to the test with the **Leaf** in **2010** whereas Renault made the most of the maturity of some of the technologies developed by the Japanese group to launch the **Zoé** in **2012**.

Strengthened by this lead, the Alliance now boasts a dominant position in the world market with more than **150,000 vehicles sold last year**, implying market share for both groups of **45%** in a rapidly growing market relative to the world automotive market.

Renault dominates the European landscape with more than **21,700 unit sales** of its **Renault Zoé** over 2016 ahead of **BMW** and **Tesla** out of more than 100,000 sales in the market. Sales were nevertheless well below the targets set by Carlos Ghosn in 2011 when he predicted that by 2015, the French group would saturate production capacity for electric vehicle production, which then stood at more than 250,000 units a year. The lack of charging infrastructure combined with a low level of battery autonomy got the better of market growth.

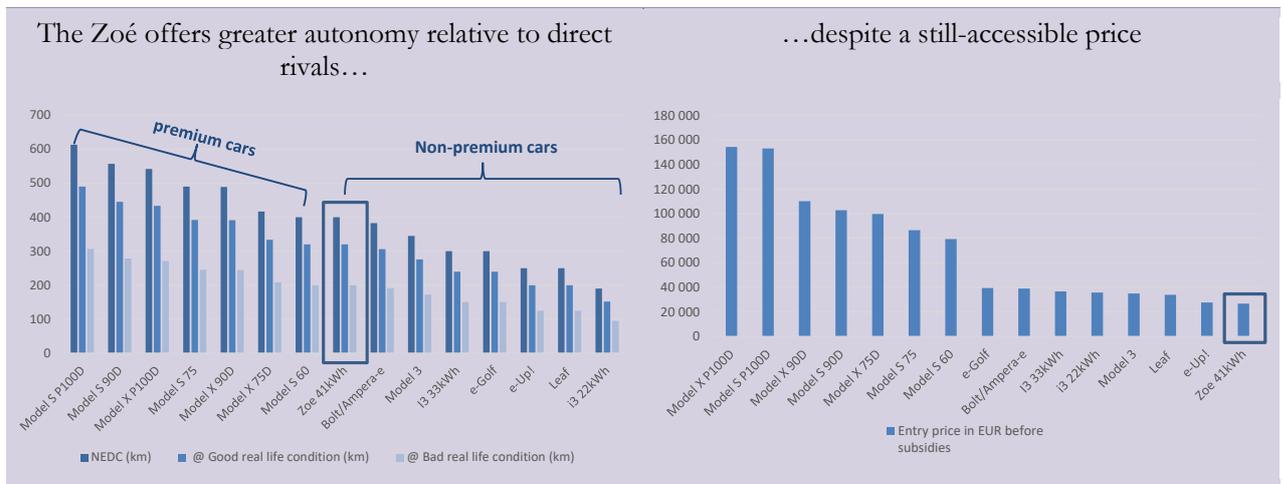
Pressure on foreign carmakers by the Chinese government to develop electric and hybrid vehicles in the country by 2018-25 could be the trigger that would prompt carmakers to extend their sales offers in this segment and state authorities to invest in developing new infrastructure. Production costs for batteries should also plummet given the rising amount of capacity developed by carmakers in recent years.

**The lead boasted by the Renault-Nissan Alliance, and hence Renault, in this technology should be beneficial in the short term.**

### 6.1. A new battery for the Zoé for greater autonomy

During 2016, the group unveiled the latest version of the Zoé model fitted with a new battery enabling a doubling in the car's autonomy (220km in real conditions), for a similar price to the previous version (EUR16,300 after incentives from the French state). Since the first models were only delivered at the end of 2016, the real impact of this new vehicle on the group's sales should gradually be felt during 2017 and 2018. In H1 2017, registrations had increased by **>42%** relative to last year. In our view, the new Zoé should add weight to the group's dominant position in Europe given the lack of credible competition in this niche, with the exception of **VW** and its **e-Up!**

**Fig. 20: Renault remains very well positioned in the market with its new Zoé**



Source: Renault; Bryan, Garnier & Co ests.

## 6.2. And what next?

So far, the Renault group has not precisely indicated how it would like to extend its range of electric vehicles contrary to other brands that are new in the segment and that would like to rapidly catch up their lag. The Alliance (Carlos Ghosn) believes in the future of electric cars but primarily in the **A segment** corresponding to small city cars (Twingo, Smart, Polo etc.) and for the **utilities segment** given increasing environmental restrictions in cities. Although the strategy adopted by Renault contrasts totally with other carmakers, especially premium ones who are aiming to electrify their entire range, it seems coherent with our vision of electric car usage today. Indeed, we consider that demand is primarily set to concern city cars and hence, the A/B segment as well as the D and E segments (such as Tesla). Growth in intermediary sectors is primarily set to concern hybrid engines that seem better suited to a mixed usage.

However, the group's recent development in China after signing the industrial partnership with Dongfeng could oblige it to review the situation rapidly in order to respect the potential quotas imposed by the Chinese government (8% of sales in China in NEVs as of 2018, 10% in 2019 and 12% in 2020). The local offer should therefore be official rounded out as of 2018 by the new version of the **Fluence ZE** (due to be baptised the DongFeng Fengnuo E300), a vehicle set to be produced directly by the DRAC unit and badged DongFeng directly. The E300 should logically keep the same characteristics as the Fluence ZE and will embed an electric engine of 94ch fuelled by a **22kWh** lithium battery that should help the vehicle reach an autonomy of **185km** NDEC and **hence 100km in real conditions**.

An electric version of the low-cost model the **Kwid**, created jointly by Nissan and Renault under the framework of the development in India could also see the day as well, either under the Renault brand or under a brand specifically created with DongFeng. This new model could clearly boost the group's market share given the sharp growth in the market of small electric vehicles in favour of Chinese carmakers. A new entity called **eGT** owned at **25%** respectively by Renault and Nissan and at **50%** by Dongfeng was created back in August 2017 to address this issue. **Main target of this new JV is to produce a small BEV vehicle dedicated to the Chinese market specifically.**

**Carlos Ghosn also indicated the Alliance (with Mitsubishi) targets to launch 12 new BEVs by 2022.**

## 7. Renault – Our estimates

**Fig. 21: Renault – P&L – EURm**

Renault- P&L	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>Revenues</b>	<b>40 932</b>	<b>41 055</b>	<b>45 327</b>	<b>51 243</b>	<b>58 712</b>	<b>61 082</b>	<b>63 861</b>	<b>66 571</b>
Change (%)	-0,8%	0,3%	10,4%	13,1%	14,6%	4,0%	4,5%	4,2%
EBITDA	3 895	4 656	4 855	5 764	6 468	6 727	7 196	7 708
% of sales	9,5%	11,3%	10,7%	11,2%	11,0%	11,0%	11,3%	11,6%
<b>Operating margin with restructuring</b>	<b>-34</b>	<b>1 105</b>	<b>2 121</b>	<b>3 283</b>	<b>3 792</b>	<b>3 937</b>	<b>4 203</b>	<b>4 461</b>
% of sales	-0,1%	2,7%	4,7%	6,4%	6,5%	6,4%	6,6%	6,7%
Change (%)	-127,9%	-3350,0%	91,9%	54,8%	15,5%	3,8%	6,7%	6,2%
Operating margin* with ass. Excl. rest.	2 686	2 971	3 691	4 920	5 721	5 979	6 379	6 754
% of sales	6,6%	7,2%	8,1%	9,6%	9,7%	9,8%	10,0%	10,1%
Financial results	(282)	(333)	(221)	(323)	(372)	(364)	(355)	(343)
Tax	(433)	(136)	(311)	(1 055)	(855)	(893)	(962)	(1 030)
Tax rate	-137,0%	17,6%	17,6%	37,2%	25,0%	25,0%	25,0%	25,0%
Profits from associates	1 444	1 362	1 371	1 638	1 766	1 842	1 977	2 093
Minority interests	(109)	(108)	(137)	(124)	(128)	(132)	(135)	(140)
<b>Net profit</b>	<b>586</b>	<b>1 890</b>	<b>2 823</b>	<b>3 419</b>	<b>4 203</b>	<b>4 390</b>	<b>4 727</b>	<b>5 042</b>

Source: Renault; Bryan, Garnier & Co ests.

**Fig. 22: Renault – Cash flow statement – EURm**

Renault - CFS	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Operating cash flows	3 572	3 972	6 017	4 389	6 662	5 762	6 213	6 706
Change in working capital	528	771	457	(239)	766	(41)	(39)	(39)
<b>Capex, net</b>	<b>(2 749)</b>	<b>(2 511)</b>	<b>(2 801)</b>	<b>(3 097)</b>	<b>(3 640)</b>	<b>(3 787)</b>	<b>(3 959)</b>	<b>(4 127)</b>
Financial investments, net	25	(274)	(248)	1 190	0	0	0	0
Dividends	(550)	(585)	(722)	(911)	(932)	(970)	(1 059)	(1 112)
Other	513	389	(64)	(3 124)	128	132	135	140
<b>Net debt</b>	<b>(1 761)</b>	<b>(2 104)</b>	<b>(2 661)</b>	<b>(2 720)</b>	<b>(4 654)</b>	<b>(5 505)</b>	<b>(6 817)</b>	<b>(8 381)</b>
<b>Free Cash flow</b>	<b>823</b>	<b>1 461</b>	<b>3 216</b>	<b>1 292</b>	<b>3 022</b>	<b>1 975</b>	<b>2 253</b>	<b>2 579</b>

Source: Renault; Bryan, Garnier & Co ests.

Renault

**Fig. 23: Renault – Balance sheet – EURm**

Renault - Balance Sheet	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Tangible fixed assets	10 973	10 801	11 171	12 988	12 941	12 916	12 805	12 554
Intangibles assets	3 282	3 443	3 570	4 899	6 073	7 295	8 572	9 904
Cash & equivalents	11 661	12 497	14 133	13 853	16 071	17 207	18 537	20 144
current assets	42 861	47 038	53 018	61 510	64 367	65 986	67 873	70 023
Other assets	32 131	34 513	37 587	40 593	41 385	42 606	43 799	44 907
<b>Total assets</b>	<b>74 992</b>	<b>81 551</b>	<b>90 605</b>	<b>102 103</b>	<b>105 753</b>	<b>108 591</b>	<b>111 672</b>	<b>114 930</b>
L & ST Debt	30 857	33 365	36 447	40 680	40 680	40 680	40 680	40 680
Others liabilities	20 921	23 288	25 684	30 528	31 818	32 144	32 561	32 973
Shareholders' funds	22 837	24 476	27 992	30 743	32 975	35 357	37 884	40 591
<b>Total Liabilities</b>	<b>74 992</b>	<b>81 551</b>	<b>90 605</b>	<b>102 103</b>	<b>105 753</b>	<b>108 591</b>	<b>111 672</b>	<b>114 930</b>
<b>Capital employed</b>	<b>14 536</b>	<b>14 428</b>	<b>14 966</b>	<b>19 745</b>	<b>20 106</b>	<b>21 344</b>	<b>22 549</b>	<b>23 668</b>

Source: Renault; Bryan, Garnier & Co ests.

**Fig. 24: Renault – Ratios - %**

Renault - Ratios	2013	2014	2015	2016	2017e	2018e	2019e	2020e
Operating margin	3,0%	3,9%	5,1%	6,4%	6,7%	6,8%	6,9%	7,0%
Tax rate	-137,0%	17,6%	17,6%	37,2%	25,0%	25,0%	25,0%	25,0%
Net margin	1,4%	4,6%	6,2%	6,7%	7,2%	7,2%	7,4%	7,6%
ROE (after tax)	192,9%	317,5%	337,9%	60,1%	137,6%	138,8%	143,3%	146,8%
<b>ROCE (after tax)</b>	<b>20,3%</b>	<b>9,2%</b>	<b>12,8%</b>	<b>10,4%</b>	<b>14,8%</b>	<b>14,5%</b>	<b>14,6%</b>	<b>14,8%</b>
Gearing	-7,1%	-7,0%	-15,0%	-12,8%	-18,6%	-20,5%	-22,5%	-24,8%
Pay-out ratio	79,9%	27,4%	23,2%	25,1%	21,3%	22,2%	21,7%	21,3%
<b>Number of shares, diluted</b>	<b>272</b>	<b>273</b>	<b>273</b>	<b>273</b>	<b>273</b>	<b>273</b>	<b>273</b>	<b>273</b>

Source: Renault; Bryan, Garnier & Co ests.

**Fig. 25: Renault – Per share data – EUR**

Renault- Data per share	2013	2014	2015	2016	2017e	2018e	2019e	2020e
<b>EPS</b>	<b>2,15</b>	<b>6,92</b>	<b>10,35</b>	<b>12,54</b>	<b>15,42</b>	<b>16,10</b>	<b>17,34</b>	<b>18,49</b>
Restated EPS	2,15	6,92	10,35	12,54	15,42	16,10	17,34	18,49
% change	-66,9%	221,6%	49,6%	21,1%	22,9%	4,5%	7,7%	6,7%
EPS bef. GDW	2,15	6,92	10,35	12,54	15,42	16,10	17,34	18,49
BVPS	77,22	82,77	94,66	103,96	111,51	119,56	128,11	137,26
Operating cash flows	13,12	14,55	22,07	16,10	24,43	21,13	22,79	24,59
FCF	3,02	5,35	11,79	4,74	11,08	7,24	8,26	9,46
<b>Net dividend</b>	<b>1,72</b>	<b>1,90</b>	<b>2,40</b>	<b>3,15</b>	<b>3,28</b>	<b>3,58</b>	<b>3,76</b>	<b>3,94</b>

Source: Renault; Bryan, Garnier & Co ests.

## 8. Renault – valuation

The complex nature of capital ties between the group and its various partners in the Alliance oblige us to value Renault via an **SOTP** as well as a **DCF calculation** and **multiples** as we already do for other stocks in the sector. **We value Renault at EUR99.**

**Fig. 26: Overview of valuation methods (EUR/action)**

Valuation method	FV
SOTP	126
EV/Sales	67
EV/EBIT	94
P/E	92
DCF	114
<b>Implied FV</b>	<b>99</b>
Latest share price	81
Upside	21.6%

Source: Bryan, Garnier & Co ests.

### 8.1. SOTP valuation (€126)

In our SOTP, we value Renault using multiples whereas we value Nissan via a DDM in order to better assess the cash distributed by Nissan to the French group that Renault pledges to pay out entirely (100%) to its own shareholders. We value Renault's 1.6% stake in **Daimler** at latest share price.

**Fig. 27: Renault SOTP**

	Multiple	Data EURm 2017	Value	Value per share
<b>Core business (Automotive + RCI Bank)</b>				
Group revenues	30%	58 712	17 614	65
Group EBIT	5,0x	3 768	18 860	70
P/E calculated on EPS excluding associates	10,0x	8,9	89	89
<b>Core business value (average)</b>	-	-	<b>20 182</b>	<b>74</b>
<b>Listed assets</b>				
Nissan (through DDM model with cost of equity at 10% and LTG at 2%)	-	9 908	9 908	36
Daimler (market value)	-	67	1 163	4
<b>Listed assets value</b>	-	-	<b>11 072</b>	<b>41</b>
<b>Sum of the parts</b>				
- Net industrial debt/cash 2017e	-	-	4 654	17
- Minority Interest value (book value 2017e)	-	-	(280)	(1)
- Pensions (book value 2017e)	-	-	(1 656)	(6)
<b>Renault implied equity value</b>	-	-	<b>34 073</b>	<b>126</b>
Shares outstanding	-	-	272	-

Source: Company Data; Bryan, Garnier & Co ests.

Our SOTP valuation of Renault points to a FV of **EUR126 per share**, implying **more than 55%** upside.

As an indication, if we value Nissan at its market value, our SOTP would imply a FV of **EUR151 per share**, or **upside potential of 85%**.

## 8.2. Peer comparison (€84)

As for other stocks in the automotive sector initiated at Bryan Garnier, we use the group's historical **EV/EBIT and P/E** multiples to value **Renault**. Our three FVs are calculated over the period from 2017-2026 (discounted by WACC each year) and stand at respectively **EUR67, EUR94 and EUR92**. We value Renault on multiples of **30% of sales, 5x EBIT and P/E of 8x**, in line with generalist European, US and Asian peers like Renault.

## 8.3. DCF valuation (€114)

We also value **Renault** using a DCF model based on the following estimates:

- **WACC of 11.6%** which corresponds to a cost of capital, since the group has negative net debt. We assume a **beta of 1.35, a risk premium of 7% and a risk-free rate of 1.6%**.
- A **growth rate to infinity of 2.5%**, implying a slight outperformance by **Renault** relative to the auto market (+1.9%).
- **EBIT margin** (with restructuring and without the JVs) of **6.9%** on average and a margin to infinity of **6.0%**.

**Fig. 28: Renault –DCF estimates - EURm**

	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e
<b>Revenues - Core business</b>	<b>58 712</b>	<b>61 082</b>	<b>63 861</b>	<b>66 571</b>	<b>69 087</b>	<b>71 709</b>	<b>74 440</b>	<b>77 288</b>	<b>80 256</b>	<b>83 351</b>
Revenue growth rate	-	4,0%	4,5%	4,2%	3,8%	3,8%	3,8%	3,8%	3,8%	3,9%
Operating margin	6,4%	6,4%	6,6%	6,7%	6,8%	6,9%	7,0%	7,1%	7,2%	7,3%
<b>EBIT (excluding JVs &amp; Associates, with restr. Charges)</b>	<b>3 768</b>	<b>3 937</b>	<b>4 203</b>	<b>4 461</b>	<b>4 703</b>	<b>4 957</b>	<b>5 225</b>	<b>5 506</b>	<b>5 802</b>	<b>6 113</b>
Adjustment for provisions	(115)	(116)	(100)	(94)	(88)	(82)	(77)	(72)	(67)	(63)
(-) Taxes on EBIT	(942)	(984)	(1 051)	(1 115)	(1 176)	(1 239)	(1 306)	(1 377)	(1 451)	(1 528)
(+/-) Change in working capital	762	(37)	(39)	(39)	(225)	(240)	(257)	(274)	(293)	(312)
(+) Depreciation and amortisation	2 513	2 590	2 793	3 047	3 249	3 586	3 756	4 000	4 222	4 432
(-) Capital expenditure	(2 466)	(2 565)	(2 682)	(2 796)	(2 902)	(3 012)	(3 126)	(3 246)	(3 371)	(3 501)
(-) Intangibles	(1 174)	(1 222)	(1 277)	(1 331)	(1 382)	(1 434)	(1 489)	(1 546)	(1 605)	(1 667)
Free cash flow	2 345	1 603	1 847	2 133	2 180	2 536	2 726	2 992	3 238	3 475
<b>Present value of free cash flow</b>	<b>2 217</b>	<b>1 358</b>	<b>1 401</b>	<b>1 450</b>	<b>1 328</b>	<b>1 384</b>	<b>1 333</b>	<b>1 311</b>	<b>1 271</b>	<b>1 222</b>

Source: Bryan, Garnier & Co ests.

**Fig. 29: Renault – DCF @ EUR114**

PV of Free Cash Flows	14 292
PV of Terminal Value	9 939
<b>EV implied - EURm</b>	<b>24 231</b>
- Net industrial debt/cash N-1 EURm	(2 720)
- Minority Interest value - book value EURm	(280)
+ Financial assets (as valued in SOTP) EURm	11 429
- Pensions and warranties EURm	(1 656)
<b>Renault implied equity value</b>	<b>31 004</b>
Shares outstanding	273
<b>Implied Target Price - EUR</b>	<b>114</b>

Source: Bryan, Garnier & Co ests.

We are initiating coverage of Renault with a Fair Value of EUR99, implying upside of 22%.

## 9. Renault – SWOT

**Fig. 30: Renault – SWOT analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>A group now <b>in the world Top 3</b> following the takeover of <b>Mitsubishi</b> by <b>Nissan</b>, with <b>market share of 12%</b></li> <li>A group ahead of the competition in the electric vehicle thanks to its Renault Zoé model and the Nissan Leaf.</li> <li><b>A healthy financial position</b>, since the group has negative industrial net debt.</li> <li>Very strong positions in emerging markets where growth potential in volume terms remains high (Russia, Latin America, North Africa).</li> <li>Vital presence in the Alliance enabling Renault to benefit from <b>significant synergies</b> with Nissan and potentially with Mitsubishi</li> </ul>	<ul style="list-style-type: none"> <li>A group present primarily <b>in the mid-range</b> segment where price pressure is the highest</li> <li>Low exposure to <b>China</b> despite the group's recent investments in the region</li> <li>No real expertise in <b>hybrid vehicles</b> whereas this segment should account for more than <b>35%</b> of the market by 2026-27 vs <b>4-5%</b> at present.</li> <li>The French state's 20% stake in Renault following the acquisition of a further <b>5%</b> in 2015, thereby limiting interaction between Renault and Nissan, and <b>blocking developments in the Alliance</b>.</li> <li>Risk associated with the <b>DGCCRF enquiry</b> in France on <b>polluting emissions of certain diesel engines</b>.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>High growth potential in the <b>electric vehicle field</b> where the group and the Alliance have genuine expertise (Renault Zoé and Nissan Leaf)</li> <li>The success of the new <b>Alpine</b> brand in the premium segment could help the group access new markets (US?).</li> </ul>	<ul style="list-style-type: none"> <li><b>The slowdown in the Russian automotive market</b>, which now accounts for <b>8-10%</b> of the group's total volumes following the consolidation of Avtovaz.</li> <li>Sharp increase in demand for hybrid vehicles in which the group is virtually absent.</li> <li>Increase in <b>commodities prices</b> in the short term, taking a toll on the group's profitability.</li> </ul>

Source: Bryan, Garnier & Co ests.

## 10. Renault in short

Created by **Louis Renault** in **1898** in **Boulogne-Billancourt**, France, **Renault** is now the second-largest French carmaker in France, behind the PSA group. However, in partnership with Nissan and Mitsubishi, it also ranks among the **Top 3** largest carmakers in the world alongside **VW** and **Toyota**.

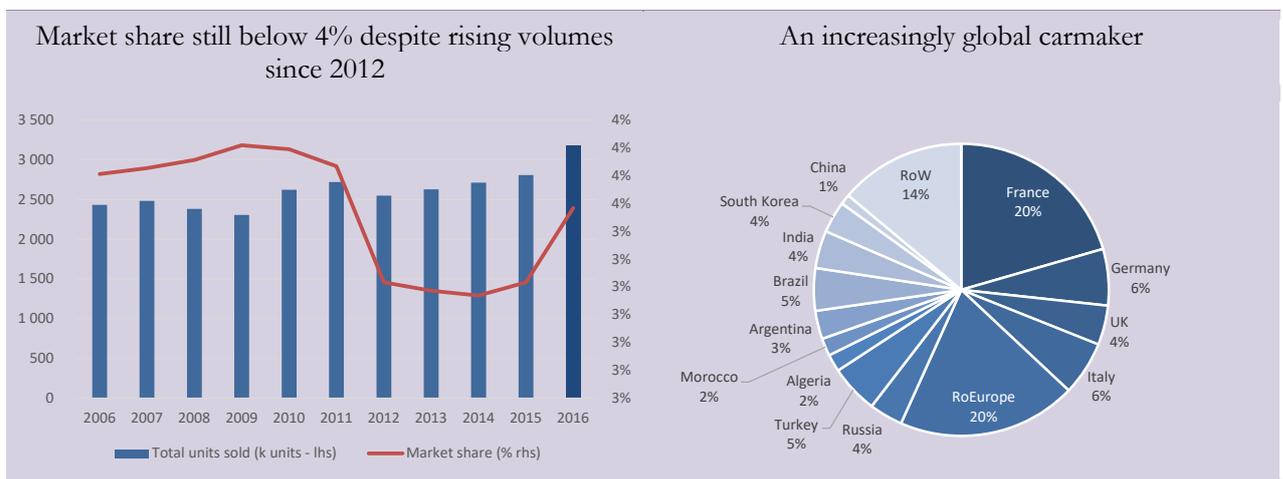
The group's businesses are spread between **two types of operating activities**, in more than **120 countries**:

- **The automotive segment**, with the design, manufacture and distribution of products via its commercial network (among others by subsidiary Renault Retail Group):
  - **New vehicles** with several ranges including passenger cars, utility vehicles and electric cars (exclusively Renault) under four brands: **Renault, Dacia, Renault Samsung Motors and Lada**. Vehicles manufactured by Dacia and RSM can be sold under the Renault brand depending on the country.
  - **Second-hand vehicles and replacement parts.**
  - **The Renault mechanics ranges** (B2B activity).
- **Various financial services:** financing of car sales, rentals, maintenance and service contracts.

At end-2016, the Renault group had sales of **EUR51.2bn**, up **27%** relative to 2006 with **EUR48bn** stemming from the automotive business and **EUR2.25bn** stemming from the financing business.

### 10.1. Renault Auto – 95% of sales– 73% of EBIT

**Fig. 31: Renault: an increasingly global carmaker**



Source: Renault; Bryan, Garnier & Co ests.

Historically very present in France, which accounted for more than 25% of the group's volumes in 2007 vs. 20% today, like the PSA group, Renault has managed to expand internationally and especially in North Africa and Russia where it has built expertise in the low-cost segment, especially thanks to the acquisition of the Romanian brand **Dacia** in **1999**.

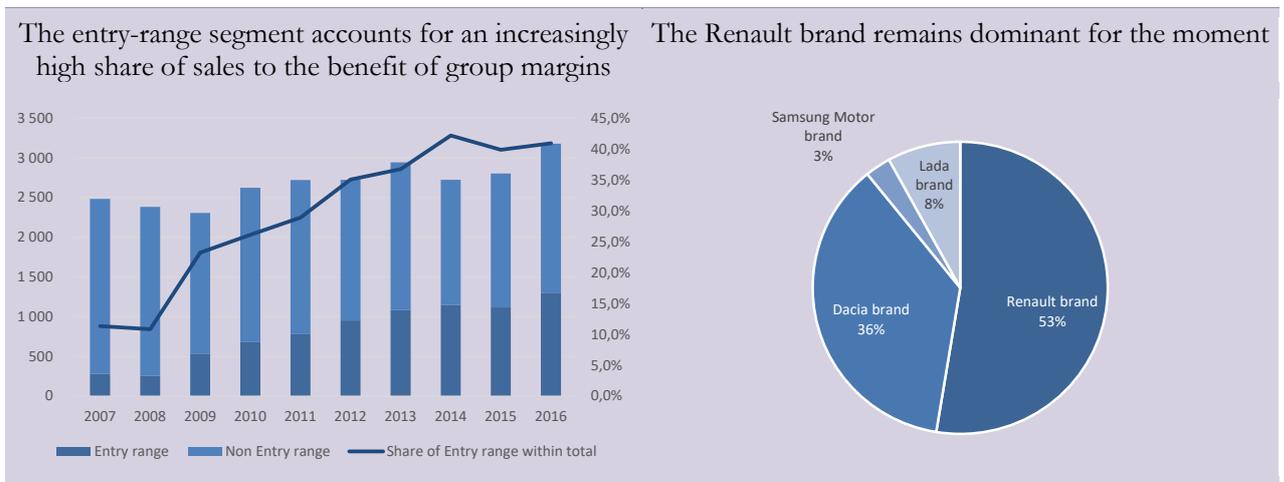
At end-2016, the Renault group had sold around **3.2m vehicles**, up **13%** relative to 2015, implying a global market share of **3.5%**.

Renault

Including the acquisition of Avtovaz at end-2016 as well as volumes from Nissan and Mitsubishi, total volumes at Renault enabled by the Alliance are set to exceed more than **10.8m vehicles by end-2017**, or a global market share of around **12%**.

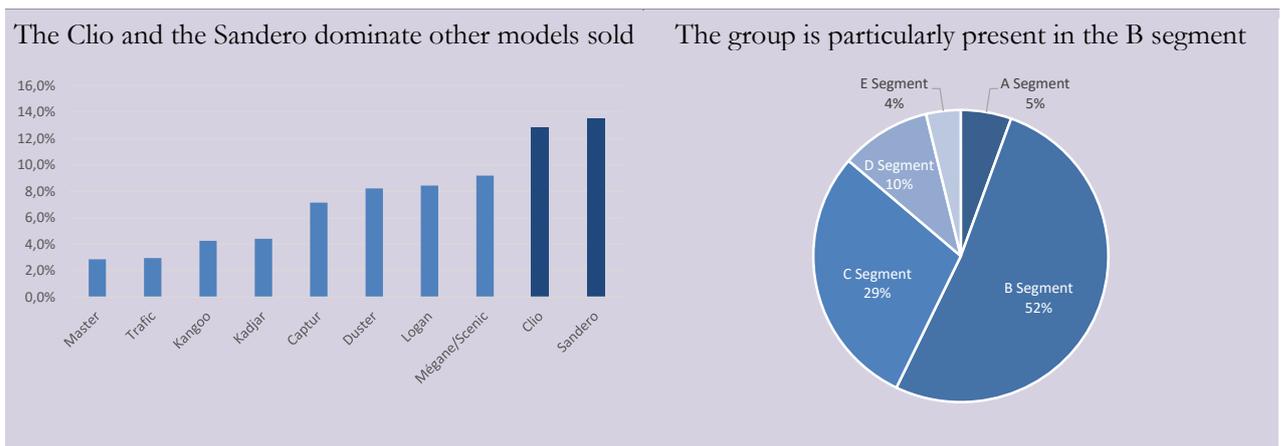
At the end of H1 2017, the group's entry-range segment including **Dacia** (as well as Dacia vehicles rebadged Renault) and **Lada** accounted for **45%** of volumes sold by the group vs. **39%** in the previous year and **23%** in 2009, in line with the group's strategy to expand into this segment. Note that the group's margin is higher (300-600bp) in this segment than in the traditional segment given that a large share of components used in Dacia vehicles have already been amortised on Renault vehicles.

**Fig. 32: Renault increasingly present in the low-cost segment**



Source: Renault; Bryan, Garnier & Co ests.

**Fig. 33: The Clio and the Sandero account for 25% of volumes sold**



Source: Renault; Bryan, Garnier & Co ests.

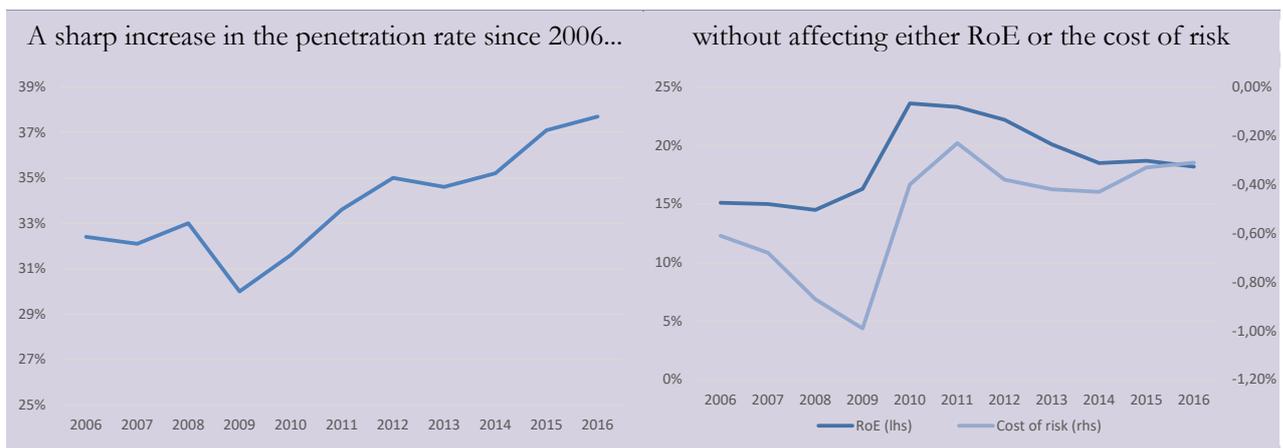
For the moment, the **B segment** remains dominant in the group's sales although the strategy to move towards the **SUV** segment, especially in China, should gradually increase the share of the C segment in the group's future sales.

## 10.2. RCI bank – 5% of sales – 27% of EBIT

**RCI or Renault Crédit International** was created in 1974 under the name of **Société Financière de Renault (Sofiren)** in order to facilitate the financing of car purchases in the group's Renault dealership. Now present in **five continents** with more than **3,100 employees** (2.5% of the group's employees), RCI now accompanies the development of the Renault, Renault Samsung Motors, Dacia, Nissan, Infiniti and Datsun brands (Lada soon?) and their network of distributors by offering customers a comprehensive range of **financial, insurance and services solutions**.

With more than **1.6m vehicles financed** in 2016, RCI has a penetration rate of close to **40%**, a rate that even exceeds **50%** at the **Samsung Motors** brand. This healthy performance (+12.5% relative to 2015) was driven by growth in the automotive market, especially in Europe where growth in new vehicle sales offset the decline seen in Brazil and Russia, and by growth in market share for the Alliance brands. In comparison, the **PSA group**, Renault's main rival in Europe, only had a penetration rate of **31%** in 2016.

**Fig. 34: RCI, a captive bank gaining momentum**



Source: Renault; Bryan, Garnier & Co ests.

Like many other captive banks in the sector, access to cheaper financing via increased exposure to customer deposits has clearly become a priority in order to reduce financing costs as far as possible without reducing duration as well. Over 2016, these deposits at RCI rose by **EUR2.3bn**, reaching **EUR12.6bn** at end-December, representing **33%** of net assets on line whereas at end-2012, these deposits only accounted for EUR900m or less than 4% of net assets for RCI. Note that RCI was aiming to have a third of assets from deposits. The interest margin should therefore stabilise after rising sharply in recent years to the benefit of the bank's operating profit (interest margin of 3.3% in 2016 and EBIT margin of 40% vs. respectively 0.9% and 36% at end-2012).

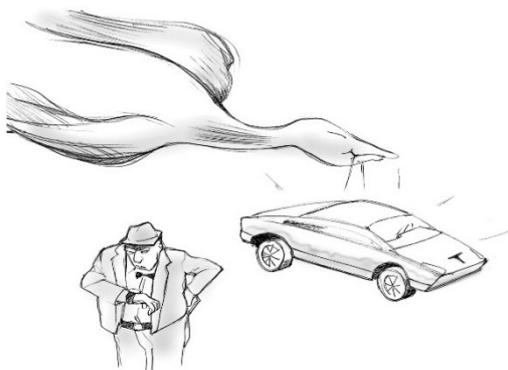
In our model, we estimate that growth in RCI's net profit should stem primarily from a rise in the penetration rate as well as an increase in the portfolio of outstanding loans outside France.

INDEPENDENT RESEARCH

25th September 2017

Automotive

Bloomberg	TSLA
Reuters	TSLA.O
+Haut /+Bas 12 mois (USD)	383,5 / 181,5
Capitalisation Boursière (USD)	59 312
Volume moyen 6 mois (000 actions)	6 808



# Tesla Inc.

Now Elon MusT deliver the goods

**NOT RATED**

Whereas Tesla Inc.'s market cap has been multiplied by 284 since its flotation in June 2010 and has leapt 70% YTD, the group is entering a delicate phase in its history as it aims to shift from being a disruptive tech company into a niche carmaker with the launch of its Model 3, destined for a mass consumer public this time. This stage will be crucial for the group's future in the short term but potentially dilutive to multiples over the longer term.

- **Rapidly no. 1 in premium electric vehicles:** With the sale of its luxury electric saloon car **Model S** as of 2012, the group has rapidly become the **no. 2** player in the field behind **Nissan** (Leaf) and the **no. 1** in premium cars ahead of BMW. The launch of the SUV **Model X** at end-2015 at a similar price to the previous model, simply confirmed the group's positions. At end-2016, the group had an 11% share of the global electric market with around **75,000 deliveries**.
- **From a simple disruptive tech company to a niche carmaker:** long considered by customers as a **start-up** offering differentiating and innovate products but as an **unconvincing rival** to carmakers, Tesla Inc. is on the verge of changing status with the launch of the **Model 3** destined for mass consumers. With more than **455,000 future customers to deliver** before the end of 2018 vs. just 84,000 vehicles produced in 2016, all eyes are riveted on **Elon Musk's** Twitter account (12.8m followers), in order to know whether production delays will be announced during Q4.
- **And margins in all that?** Normative EBIT margin for an electric vehicle remains difficult to assess for the moment, with the battery still accounting for more than **50% of production costs**. Over the medium-term, Elon Musk estimates he can continue to generate gross margin of **25%**
- **A market which believes in Musk short term targets:** Consensus currently stands at **USD27bn of sales, USD1.7bn of EBIT** (6.1%) and **USD1.1bn** of net profit (4%) as for 2019 implying EV/sales multiples of 2.6x and P/E of 61x. Estimates seems in line with Musk ambitions on short term.

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## Sommaire

1. Investment Case.....	195
2. Now Elon MusT deliver the goods!.....	196
3. Investing in Tesla Inc. is above all investing in Elon Musk.....	197
4. Electric or nothing.....	199
4.1. A group rapidly no. 1 in premium electric.....	199
4.2. Group about to become profitable.....	201
4.2.1. A 100% electric vehicle assembly line.....	201
4.2.2. The Gigafactory, the centrepiece for reducing production costs.....	201
4.3. Master of its future with development of the Superchargers network.....	202
4.4. Model 3 launch a turning point for the group.....	203
5. Autopilot...too soon, too fast?.....	206
5.1. Autopilot 2.0: Better, faster, stronger.....	206
5.2. ... but above all remains a marketing argument.....	207
6. What is priced in by market?.....	208
7. SWOT – Tesla Inc.....	209
8. Tesla Inc. in short.....	210
Bryan Garnier stock rating system.....	211

# 1. Investment Case

*Why the interest now?*



## The reason for writing now

The group is on the verge of changing status with the sale of its latest model, the **Model 3**, shifting from a simple Silicon Valley **start-up** offering stand-out and innovative products to a niche carmaker. This stage will be crucial for the group's short-term future but could dilute multiples over the longer term.

*Cheap or Expensive?*



## Valuation

We have no estimates or FV for the stock.

*When will I start making money?*



## Catalysts

The group needs to gradually step up output of its **Model 3** in order to deliver more than **455,000 customers** who have pre-reserved the car.

*What's the value added?*



## Difference from consensus

We have no estimates. The consensus is forecasting sales of **USD11.9bn** for 2017 and **USD19.9bn** for 2018, implying growth rates of respectively **190%** and **67%** and EBIT margin of **6%** in 2019 vs. **-7%** in 2017.

*Could I lose money?*



## Risks to our investment case

Any slip-up in terms of production and hence deliveries would have a hugely negative effect on the share price. More departures among the top management team would also be badly viewed by investors.

## 2. Now Elon MusT deliver the goods!

As part of our report initiating coverage of auto manufacturers (BMW, Daimler, PSA and Renault), we have taken the time to analyse the strategy and positioning of **Tesla Inc.**, previously considered a disruptive tech player, but now gradually tending to be seen as a credible rival to traditional carmakers.

Thanks to its positions in both **electric cars** and **connected/autonomous cars**, the US group headed by the emblematic and charismatic **Elon Musk** should easily outperform growth in the global auto market over the medium term.

Now leader in the premium electric market thanks to the sale of its luxury electric saloon car the **Model X** since end-2015, the forthcoming launch of an SUV with a similar price-tag means the group is on the verge of becoming the world leader in electric cars thanks to the delivery of more than 450,000 **pre-orders of its Model 3**, destined for mass consumers. These deliveries will be vital for investors since they would make credible (or not) Elon Musk's industrial and commercial strategy to gradually flood the market with his models. This stage should enable the US group to switch from its status as a start-up to that of a niche carmaker.

**Elon Musk's** Twitter account will be closely watched to see if any production delays are announced during Q4 2017.

Normative EBIT margin for an electric vehicle remains difficult to assess for the moment since the battery still represents more than 50% of the production cost. As such, it is difficult to estimate the group's medium/long-term profitability. Elon Musk estimates he can continue to generate gross margin of 25% once the Model 3 is fully commercialised, thereby enabling it to generate EBIT margins slightly higher than premium carmakers (>10%).

**For the moment, the consensus seems to agree with him since estimates imply margins of 12% as of 2020.**

### 3. Investing in Tesla Inc. is above all investing in Elon Musk

As part of our initiation of coverage of Tesla Inc., it seems necessary to focus some of our report on the group's CEO, **Elon Musk**, in order to better understand his importance in the group's management and strategy, and to shed light on this unusual personality who is far more than a simple managing executive. Before arriving at the head of **Tesla Inc.** and **Space X** and becoming chairman of the board of SolarCity, South-African born Mr Musk became a Canadian citizen in 1988 and then a US citizen in 2002 and went on to found a number of companies, start-ups and projects.

While still a student, in 1995 Mr Musk co-founded **Zip2**, an online publication software publisher, and then **X.com** which went on to become **PayPal** in 1999. These two companies were rapidly successful and Mr Musk was able to sell his stake in Zip2 to Compaq in 1999 and that in PayPal to eBay in 2002 for around **USD175m** (Musk had 11.7% of PayPal's capital). After that he took an interest in and moved towards start-up companies that in his view answered the need to create a better world, especially with the use of renewable energies to help fight against global warming and to reduce the risk of destroying humanity (also stating his wish to colonise Mars).

Elon Musk is currently the founder of or has a key role in the following companies:

- Founder, CEO and CTO of **SpaceX** since 2002
- CEO and product architecture director of **Tesla Inc.** since 2008
- Founder and CEO of **Neuralink** since 2016
- Chairman of the Board of Directors of **SolarCity** since 2016
- Also: co-founder of OpenAI, implication in the development of **Hyperloop**, founder of **The Boring Company**...

The multi-faceted manager who inspired the director of **Ironman** for his character **Tony Stark** prompts as much reaction and fascination as he does annoyance. Elon Musk is often criticised for his lack of openness and his authority in company management. He was obliged to open Tesla Inc.'s board of directors to include **two new independent members under pressure from shareholders**, who reproached him the fact that the board was only made up of Mr Musk's inner circle. Tesla's takeover of **SolarCity** (founded by Musk's cousins, the Rive brothers) also caused a huge stir over possible conflicting interests.

Although Mr Musk did not create Tesla Inc. himself (it was founded by Martin Eberhard and Marc Tarpinning), he rapidly took a leading role becoming chairman of the board in **2004** a short time after investing **USD7.5m** in the company. At the time, he was working with other engineers on the design of the **Roadster**.

It was only in **2008** that Mr Musk became CEO of Tesla after it narrowly avoided bankruptcy following internal problems with the launch of the Roadster, and personally invested several million dollars.

## Tesla

Since taking up the position, he has boosted the group's sales activity (even though it still does not generate a profit), regularly using social networks (especially Twitter, which is described as being a fully-fledged information source for investors in SEC filings) to unveil important information such as new product launches. The communication effect is pretty successful since there is often a positive correlation between the information announced on Twitter by Mr Musk and changes in the Tesla Inc. share price.

Although the various companies managed by Elon Musk generate genuine synergies between each other (especially Tesla Inc., SpaceX and SolarCity), we believe his hyper-implication weakens the group, which could suffer from the attention he places in other projects just as the launch of the **Model 3** is a central subject requiring permanent attention. Furthermore, the company remains highly dependent on Elon Musk who has so far managed to federate a consensus with investors in view of the share price performance since the start of the year (+80%) and the stockmarket valuation (USD62.6bn, only USD3bn below market cap of BMW, whereas the US group is aiming to sell one million vehicles by 2020/21 vs. 2.8m for BMW), **thanks in particular to well controlled communication.**

**Mr Musk's strong character combined with his very specific management method could take a toll on the group's industrial development further out, with the departures of key managers within the group since the start of the year providing clearly negative indicators concerning internal management (DAF Jason Wheeler in March 2017, Chris Lattner, head of the team working on the Autopilot system in June 2017, six months after his arrival to replace Sterling Anderson who left at the end of 2016).**

## 4. Electric or nothing

### 4.1. A group rapidly no. 1 in premium electric

Contrary to other carmakers, who remain specialised in the development and production of internal combustion engine vehicles (petrol or diesel), Tesla Inc. has entered the auto market directly by offering **100% electric models**, especially via the marketing from 2008 to 2012 of its first model the **Roadster**. Developed with the help of **Lotus Cars**, which provided the chassis base of the **Lotus Elise** whereas the drivetrain was developed by Californian company **AC Propulsion**, the model was created from the technical expertise of the group's engineers in the field of **batteries and electric transmission**. Although only 2,500 units of the model were sold in total over 2008/12, **it signed the start of the Tesla's adventure in the Elon Musk era.**

**Fig. 1: Expertise rapidly recognised by peers**

Tesla Inc. Roadster



Mercedes electric B-Class



Source: Company Data; Bryan, Garnier & Co ests.

At the same time as the development and marketing of the **Roadster**, in 2009 the group signed a partnership with **Daimler**, which was aiming to benefit from Tesla's technological know-how in batteries to develop its first electric cars. As part of this agreement, in April 2010 Daimler took a **10% stake** in Tesla for around **USD50m**. In addition to benefiting from a volume effect on the production of battery packs, Tesla was also able to benefit from Daimler's industrial experience enabling it to rapidly market its **Model S** saloon, planned for 2011 in the US.

In May 2014, the German group sold on its stake in Tesla Inc. stating that the collaboration between the two groups did not require such close financial ties, and then in March 2016, indicated that it was no longer using Tesla to supply batteries for its electric models (B-Class and Smart ForTwo), **having decided to produce its own batteries and the components for its electric transmission chains.**

At the same time, Tesla Inc. started its transformation by marketing the **Model S** as of June 2012 in the US, or four years after unveiling the model to the press, in a process that gradually lent credibility to the group's skills and expertise both with customers and with other carmakers.

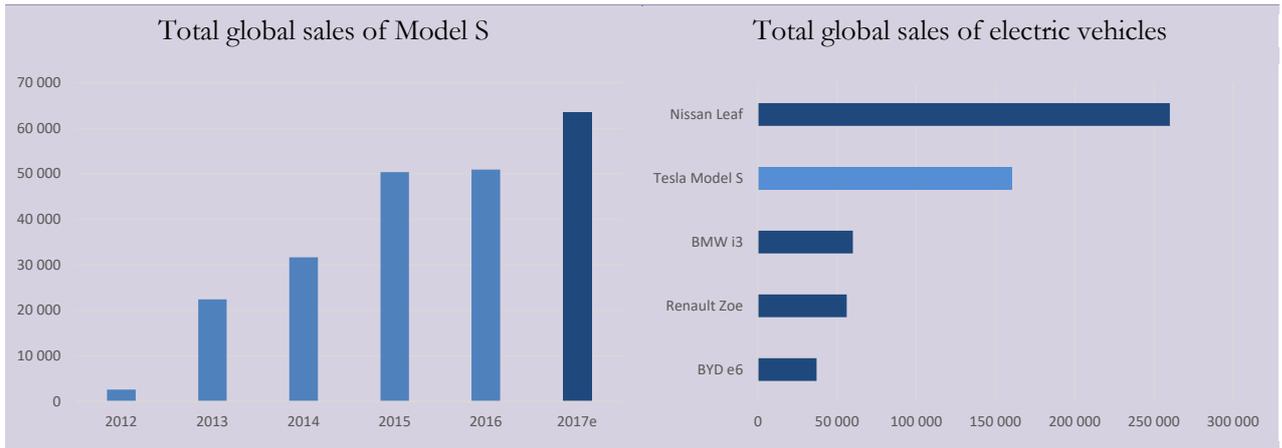
In 2013, the vehicle entered the European market first with the special series **Signature** and **Signature Performance** and then in the **D version** (Dual Motor), a version equipped with a new serial

Tesla

functionality, the Autopilot, which assists drivers during motorway driving thanks to three series of short and long-reach sensors in addition to the GPS.

The car was rapidly successful and with more than **160,000** in total sales, even became the second highest selling electric car in the world behind the **Nissan Leaf** but ahead of the **BMW i3**, despite a high entry price (more than EUR70,000). The group is therefore the first in the **premium electric market**.

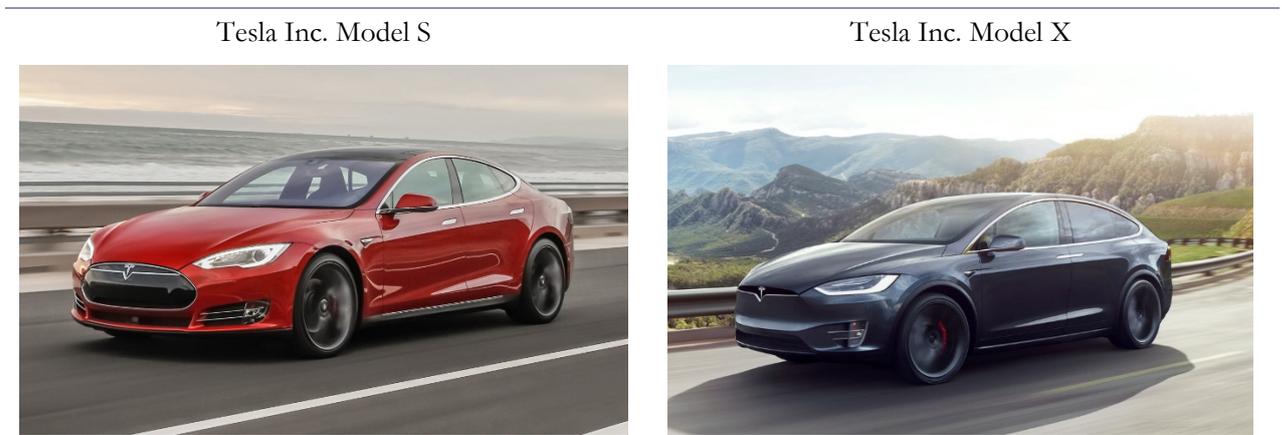
**Fig. 2: The group was rapidly successful with its Model S**



Source: Company Data; Bryan, Garnier & Co ests.

With the **Model X**, initially sold in the US in September 2015 and then in 2016 in Europe (two years later than the initial plan for 2013), the group entered the SUV market that had been very buoyant for several years in both mature markets and emerging markets. The first deliveries were affected by production delays due to a shortfall of important parts in January and February 2016. However, sales were quick to exceed volume levels for the Model S when it was launched in 2013. For the moment, the group has only delivered less than **50,000 Model X cars since its launch at the end of 2015**.

**Fig. 3: Two new models developed between 2012 and 2015**



Source: Company Data; Bryan, Garnier & Co ests.

## 4.2. Group about to become profitable

### 4.2.1. A 100% electric vehicle assembly line

One clear advantage that Tesla Inc. has over traditional carmakers that are not present or have little presence in the electric vehicle field **lies in its industrial facilities and more specifically its assembly line**. Whereas increasingly restrictive environmental standards in Europe and China are obliging carmakers to develop and sell fully electric models in addition to their range of ICE vehicles, the US group **started from the ground up in developing and producing the Model S, Model X and now the Model 3**. This advantage should enable Tesla to rapidly generate positive margins on its vehicles unlike Nissan, BMW, Daimler and VW.

The fact that an electric engine is far **simpler than an internal combustion engine**, while battery costs are set to fall, logically implies a decline in assembly costs further out to the benefit of EBIT margin. Unfortunately, the fall in assembly costs is not set to be so beneficial for traditional carmakers who will have to mix ICE vehicles with fully-electric vehicles on the same production lines. Daimler-Mercedes' chairman Dieter Zetsche recently indicated to the press at the Frankfurt motorshow that in the short term, the German group would be negatively affected by the low margins generated on its first electric vehicles, a margin that in some cases could be almost half as wide for certain vehicles.

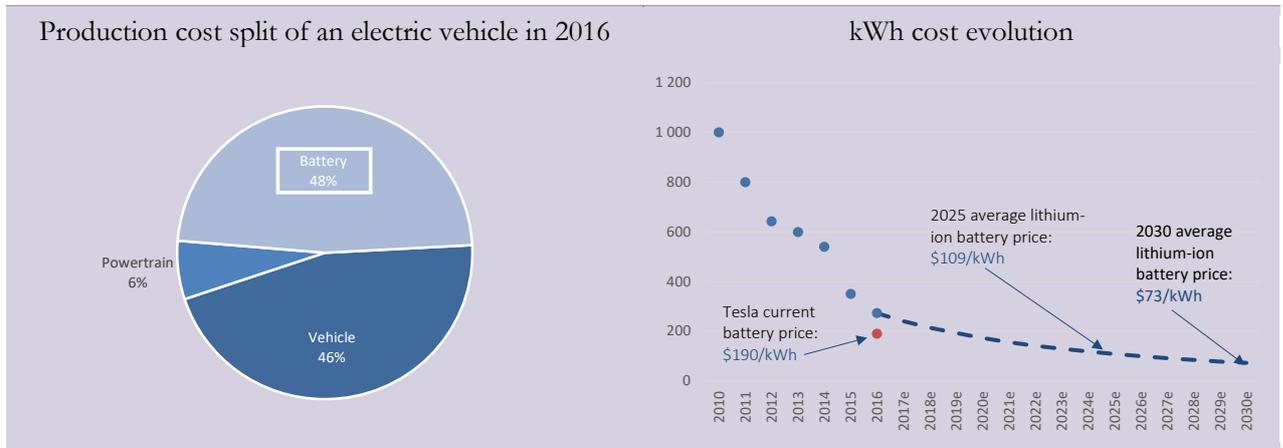
### 4.2.2. The Gigafactory, the centrepiece for reducing production costs

One of the major brakes to the development of battery driven electric vehicles (BEV) for carmakers is the high cost of electric technology. Indeed, the cost of the electric battery accounts for around half of the total cost of the vehicle, even though this dropped by around **70%** between 2010 and 2016.

Electric technology remains expensive since the infrastructure dedicated to producing electric batteries is not sufficiently large to substantially reduce the unit cost. In view of this, Tesla Inc. started building work on its **Gigafactory 1** plant in Nevada in **2014**, a factory destined solely for battery assembly. The plant, which is still being built and whose final size will make it one of the largest factories in the world, is set to provide Tesla a genuine edge in cost cutting relative to other carmakers, since it is already announcing (without the new plant used at full capacity) a production cost of less than **USD190/kWh** since 2016, which is around four years ahead of Bloomberg's estimates for this level in around 2020. The group's target to reach capacity of **35GWh** as of 2018, i.e. equivalent to global battery production in 2013, should enable it to **continue slashing its unit cost per kWh** over the medium term, in favour of the gross margin in its auto business.

Note that we estimate a balance in terms of production costs between an ICE vehicle and an electric vehicle when the kWh price is close to **USD100**, or in 2025, based on an annual reduction in costs of 20% between 2016 and 2025.

**Fig. 4: A competitive group thanks to its competencies in the « battery pack »**



Source: Bloomberg; Bryan, Garnier & Co ests.

### 4.3. Master of its future with development of the Superchargers network

To facilitate the introduction of electric vehicles, the autonomy of which is still a problem compared with ICE vehicles, Tesla Inc. decided to locate its first Supercharger station in the US in 2012. The station is capable of fast-charging a Tesla car (around 80% of the battery for a Model S in 40 minutes, or 312km using the example of an S 70kWh) using the same technique as other recharge standards such as CHAdeMO and SAE CCS Combo, i.e. recharge via direct current (DC). **We believe Tesla has an edge over rivals for a number of reasons.**

- The **Supercharger** network currently belongs exclusively to Tesla Inc. even though reflection is underway on the possibility of offering its use to outside carmakers. As such, only Tesla Inc. users can access the network and bearing in mind that they can also access CHAdeMO and CCS Combo stations using an adaptor, they boast a network of available recharging stations **twice as large as other electric vehicle users**. The network is very dense since it is currently made up of **6,550 functioning Supercharger stations** spread over **951 stations and more than 30 countries**, primarily in the US and Europe. With the arrival of the Model 3, Tesla would like to continue its expansion with a target of more than **10,000 Supercharger stations by the end of 2017**. We believe that this could be a key factor for decision making in choosing an electric vehicle.
- Tesla Inc. benefits from the fact that carmakers are fairly hesitant concerning the development of a network of recharging stations and the adoption of a fast-charging standard (Standard Level 3 J1772/EVSE) given the high cost that this represents.

Recently, Tesla's CTO stated the group was in advanced discussions with other carmakers in order to authorise access to the Supercharger network for non-Tesla vehicles, an idea already suggested by Elon Musk in 2015. We believe this could enable Tesla to amortise significant costs associated with the construction and deployment of the Superchargers (estimated at between USD200,000 and USD300,000 per site).

Furthermore, note that access to the Superchargers is now a pay service for new Tesla owners (since 15th January 2017) that exceed their annual quota free of charge of 400kWh (or around 1,600km). Once this credit is exhausted, the recharge costs EUR0.20 per kWh. This leads to a price of EUR20 to "fill" the battery on new models containing a 100kWh battery. The price is fairly similar to the price/kWh of a home recharge, with the speed of service as a bonus.

Thanks to this gradual roll-out of the network of Superchargers, Tesla is adding weight to its lead over rivals even if the process is set to dent margins in coming years.

#### 4.4. Model 3 launch a turning point for the group

Set out in detail in Elon Musk's Master Plan I in 2006, Tesla's strategy is to **make electric vehicles affordable and accessible for as many people as possible**. The high fixed costs implied by the electric technology (more than 60-70% higher than ICE vehicles) initially led the group to offer a small amount of cars with high entry prices (Roadster, Model S and X). Thereafter, thanks to the economies of scale achieved with the Gigafactory, in mid-2016, the group announced the launch of its fourth vehicle, a compact saloon car, with an entry price of **USD35,000** (more than USD59,000 with options), more in line with cars offered by the competition

**Fig. 5: The Model 3 is a turning point for the group**



Source: Tesla Inc. Bryan, Garnier & Co ests.

**In our view, the launch of the Model 3 is vital for Tesla Inc. and more generally for the auto industry for several reasons.**

For the first time since its creation in 2013, Tesla Inc. needs to mass produce in order to satisfy more than **500,000 pre-orders**, while continuing to produce the S and X models, all within a fairly small amount of time. In comparison, pre-orders of the Model 3 represent almost **double the amount of the group's total sales since 2012** (230,000 Model S and X sold since 2012). In order to meet this demand, Tesla has significantly increased its production capacity in order to be able to produce more than 455,000 Model 3 units a year in 2018, but has regularly put off and reduced production rate improvement targets.

**The industrial success of this model is set to be vital for the group's future in our view.**

More generally, the arrival of the Model 3 should prove or not whether it is possible for carmakers to become profitable in electric car production destined for mass consumers. While the Models S and X generate gross margin of around **25%** at present, this is mostly thanks to a high entry price and the group's initial positioning in a niche market.

For the moment, the various examples of electric vehicles produced by generalist carmakers shows that it is still difficult to be profitable, especially due to the low level of volumes produced.

The **Chevy Bolt EV**, produced by GM and often compared with the future Model 3 comes at a loss of around **USD9,000 per vehicle for the US group before the ecological bonus**. BMW does not communicate on margins in its electric segment, but our estimates for production costs still clearly point to losses per model. For information, Mr Musk recently announced he hoped to generate **USD20bn in annual revenue and USD5bn in gross margin** (implying gross margin of 25%) when Tesla Inc. reaches its maximum production capacity. Note that the group is already capable of generating gross margin in its auto business of more than 20%, with net profit suffering from R&D and marketing expenses.

We nevertheless believe that the Model 3 is unique in the auto industry since Tesla Inc is solely focused on electric engines, whereas electric cars at other carmakers are more showcases and are not really produced in high quantities. As such, if Tesla does respect its production target, it could well become profitable for two main reasons: **the decline in production costs prompted by higher volumes and the lower battery costs, and a business model based on high-margin extra options.**

As seen previously, Tesla Inc. boasts a clear competitive edge in unit production costs for its batteries, with a cost of less than **USD190/kWh** since 2016. The two versions of the Model 3 battery with a capacity of **50kWh** and **75kWh**, should therefore have an estimated cost of **USD9,000** and **USD14,250** in the least favourable scenario, which is well below other carmakers, for which the battery represents around **50% of the cost of the vehicle.**

Tesla's strategy consists of offering an affordable generalist vehicle at a competitive entry price of **USD35,000** excluding tax. Tesla encourages and offers incentives to customise and improve the vehicle via a system of high-margin pay options. We could expect a high selection rate for options as with the Models S and X. The various surveys undertaken on the internet (Model3Tracker in particular) add weight to this idea, providing a good indication of an average potential price even if the weakness of the sample should be taken into account (around 6,300 people having reserved the Model 3, or 1.5% of total orders). We also believe that Autopilot, a flagship function at Tesla and massively promoted by the group, should be popular since it generates considerable curiosity and since the vehicle will be the only one to offer an ADAS of this level for this price-tag.

**Fig. 6: The various extra pay options available on the Model 3**

Options	Price (in \$)
<b>Model 3 Standard</b>	<b>35,000</b>
Long-range battery	9,000
Premium equipment	5,000
Enhanced Autopilot	5,000
Full self-driving	3,000
19" Wheels	1,500
Special paint	1,000
<b>Model 3 with all options</b>	<b>59,500</b>

Source: Company Data; Bryan, Garnier & Co ests.

Further out, the group hopes to launch a new model, the Model Y, a compact or cross-over SUV that should be built on the same platform as the Model 3. According to Elon Musk, further out, the vehicle is set to represent the majority of the brand's sales. It should be similar in size to an Audi Q5, a BMW X3 or a Mercedes-Benz GLC. Little information is available for the moment, but a similar price to the Model 3 seems feasible. Synergies between these two models should exist since Tesla Inc. has already announced a development cost half the amount of the Model 3. Planned for 2019, the Model Y is to be produced in a new plant and not at Fremont, which is now overloaded. The launch of the model is therefore set to come at the same time as a new production plant and in addition to the opening of new battery plants.

**Fig. 7: Model Y design recently unveiled by the carmaker**



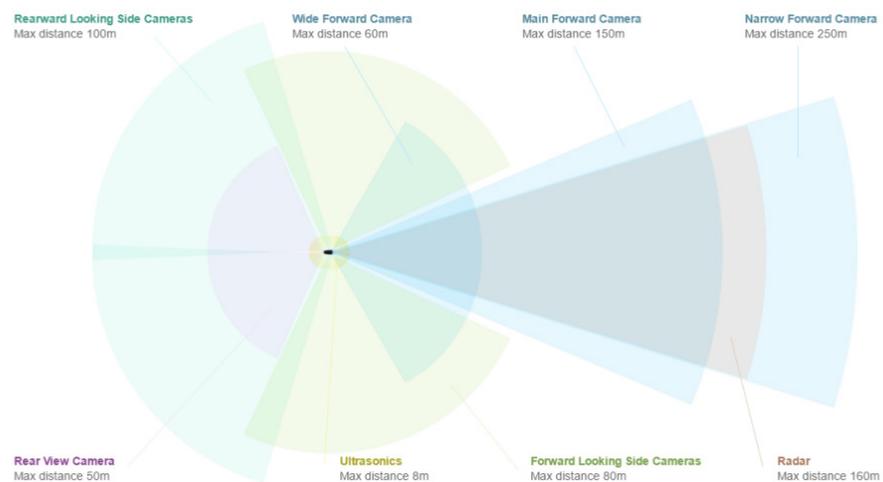
Source: Tesla Inc. Bryan, Garnier & Co ests.

## 5. Autopilot...too soon, too fast?

### 5.1. Autopilot 2.0: Better, faster, stronger...

The first version of the Autopilot was launched with the Model S in 2014. At the time, the vehicle was only equipped with **a radar, a camera and 12 sensors**. It was not until 2016 that the second version of the Autopilot (HW2) was launched, with the number of **cameras increased to eight** without changing the number of sensors. According to the group, this second version helps drastically improve the driver assistance function and already makes the vehicle operational with enough sensors in order to move towards **Level 4 and Level 5** autonomy once regulations and technology will allow (after 2025). In the meantime, a semi-autonomous Level 2 system still exists and is one of the most efficient among the premium carmakers. Contrary to other carmakers including Audi, Tesla Inc. has chosen not to use a **lidar** primarily for cost reasons and for its inefficiency in certain situations. This new version also means the end of the partnership with Israeli company Mobileye to favour Nvidia and the use of its Drive PX2.

**Fig. 8: New Tesla models are now fitted with a radar, eight cameras and 12 sensors**



Source: Company Data; Bryan, Garnier & Co ests.

Tesla Inc. has taken the bet of installing sensors, cameras and radars on each vehicle, even though the Autopilot system remains an option, primarily with the aim of amortising production costs. Indeed, this option is offered at a price of USD5,000 for Tesla's entire current and future range (Models S, X and 3) and corresponds to a software update system. Future clients will only be able to use the latest version of the software if they choose to buy the update for **USD5,000**. **In our view, the transformation rates should be fairly high and help boost the group's margin.**

We estimate an impact of **USD800m** on the group's attributable net profit if **one out of two new customers for the Model 3** decide to pay for the option (based on the principle that the consensus is pricing in no options).

## 5.2. ... but above all remains a marketing argument

Autopilot remains a flagship element of the group's communication. However, Tesla Inc. via Elon Musk, uses terms that are often considered as ambiguous (such as autonomous driving and automatic pilot) which suggest that the system makes the car entirely autonomous whereas in reality, it corresponds to **Level 2** autonomy under the official description and remains far from Level 5, which we do not expect to be functional before 2035.

In the Autopilot presentation on the group's website, Tesla suggests that the system enables "eyes-off" driving and forgets to point out that the driver is still solely responsible for the vehicle and must control it in all circumstances, in compliance with the **Vienna Convention of 1968**. In principle, the driver should actually have their hands on the steering wheel during phases where the car is capable of driving alone, at the risk of seeing the system stop working.

Autopilot was harshly criticised by the US consumer defence body the Consumer Report when a user suffered a fatal car crash in May 2016. The organisation denounced the aggressive and premature roll-out of Tesla's autonomous technology that was considered as dangerous for users in a beta test. **Internally too, criticism has mounted against Elon Musk's aim to rush the launch of Autopilot 2.0 for marketing purposes and in the race towards Level 5 autonomy.** A sizeable share (15%) of engineers working on Autopilot resigned when the group switched to AP2, including the programme's former director **Sterling Anderson**.

## 6. What is priced in by market?

To better apprehend the recent share price performance compared with SXAP index and to better understand current valuation of Tesla, we decided to compute a reverse-DCF to arrive to current share price of **EUR375/share** (market capitalization of USD62bn).

By using a **WACC of 9.8%**, a LT growth rate of **4%** and an average **EBIT margin of 7%** over the period (10% on a longer term) current share price (EUR375) implies 2020 and 2025 sales of **USD35bn** and **USD79bn** thanks to the sale of around **582 000** and **1.2m cars respectively**. Our 2020 sales estimates in our DCF is quite in line with current consensus (USD35.4bn).

**As a reminder, Elon Musk aims at delivering 500 000 cars by 2018 and around 1m in 2020 thanks notably to the launch of new models (Model Y?).**

**Market seems then in our view quite in line with Musk short to midterm ambitions.**

## 7. SWOT – Tesla Inc.

**Fig. 9: Tesla Inc. – SWOT analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• <b>A good brand image</b>, associated with efficient and high-quality premium vehicles.</li> <li>• <b>Very flexible</b> production facilities with good control of the production chain since the plant has no assets in ICE vehicles to use and most importantly to amortize.</li> <li>• <b>Low unit production costs</b> for batteries thanks to the Gigafactory</li> <li>• A dense network of Superchargers, capable of being a competitive advantage in choosing an electric vehicle.</li> </ul>	<ul style="list-style-type: none"> <li>• The group is <b>dependent</b> on Elon Musk's strong personality. He is also at the head of SpaceX.</li> <li>• A <b>delicate</b> financial position with high debt. There has only one positive quarter since the group's creation in 2003.</li> <li>• The group constantly <b>calls on the market</b> to finance its investments, at the risk of diluting existing shareholders.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Gradual banning of internal combustion engine vehicles in favour of electric vehicles.</li> <li>• Development of an ecosystem thanks to SolarCity</li> </ul>	<ul style="list-style-type: none"> <li>• The Tesla Inc. share price could plunge if the group does not manage to validate the commercial targets for the <b>Model 3</b> or if <b>the production timeframe is not respected</b>.</li> <li>• <b>Sharp competition</b> on the cards in the electric segment, especially due to the arrival of premium carmakers in the segment (Mercedes and BMW).</li> </ul>

Source: Bryan, Garnier & Co ests.

## 8. Tesla Inc. in short

When it was created in 2003 by **Martin Eberhard** and **Marc Tarpinning**, Tesla Inc. overturned the auto industry by aiming to offer 100% electric vehicles at a time when internal combustion and alternative engines still only accounted **for less than 1% of global demand**. After launching its first model the **Roadster** in 2006, it rounded out the range in 2008 with the **Model S** saloon car and in 2015 with the SUV **Model X**.

After initially targeting the premium vehicle market, Tesla then set about spreading use of the 100% electric vehicle to the wider population by unveiling the Model 3 in mid-2016. The saloon car has an entry-range price of **USD35,000**, made possible by significant economies of scale and huge cuts in battery assembly costs thanks to the construction of its Gigafactory. The model is due out in early 2018 and should help the group reach a wider audience than the current niche market with a target of 500,000 unit sales in 2018 (whereas total car sales since 2012 only stand at 185,000 vehicles).

Strengthened by its experience and know-how in electric batteries, the group is aiming to conquer other growth segments and diversify particularly into sectors enabling the group to generate an ecosystem based on electric technology. With this in mind, in 2016, it acquired SolarCity, the US leader in solar panels for **USD2.6bn**. Even if the solar power storage subsidiary only accounts for a tiny portion of the group's sales (around 2.5% at USD181m at end-2016), it posted sharp growth between 2015 and 2016.

For the moment, the group is not profitable given its hefty R&D and marketing expenses relative to a low level of sales. For 2019, the consensus is forecasting **sales of USD27bn**, **EBIT of USD17bn** (implying a margin of 6.1%) and attributable net profit of **USD1.1bn** (implying a net margin of 4%).

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NEUTRAL	Opinion recommending not to trade in a stock short-term, neither as a BUYER or a SELLER, due to a specific set of factors. This view is intended to be temporary. It may reflect different situations, but in particular those where a fair value shows no significant potential or where an upcoming binary event constitutes a high-risk that is difficult to quantify. Every subsequent published update on the stock will feature an introduction outlining the key reasons behind the opinion.
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