The road to 2020 and beyond: What’s driving the global automotive industry?
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Preface

For the last century, the car culture has spread over the entire globe. As much as any other product, the car has shaped not only the global economy but how billions of people live. In Europe alone, the automotive industry accounts for roughly 12 million jobs (including related jobs); in the US, more than 8 million; and in Japan, more than 5 million.¹

For all of its staying power, though, the industry has also seen constant change. Today’s cars – with their drive-by-wire electric systems or drive assistants – would have astonished Henry Ford, Ferdinand Porsche, and Kiichiro Toyoda. They would also have been taken aback by the increasingly demanding environmental requirements and the rise of new players, particularly in China. So what’s next?

This in-depth research offers a perspective on where the automotive industry is headed. It is based on many discussions and interviews with the top management of leading automotive original equipment manufacturers (OEMs) and an analysis of data from the top 17 (by sales) global OEMs, which comprise 80 percent of global sales. This work was designed to answer the most crucial questions:

- How are the industry and the market evolving?
- What are the future challenges and opportunities?
- How can OEMs benefit from these new challenges and opportunities?
- What are the implications for different market segments?

McKinsey’s analysis tells a story that is largely optimistic and sometimes surprising. But the most important narrative thread is this: the global automotive industry is about to enter a period of wide-ranging and transformative change, as sales continue to shift and environmental regulations tighten. The lesson: companies that want to have a successful, long-term future need to get key strategic decisions right in the next decade.

The future will not play out the same way for every country or type of car, so this report segments the markets accordingly and breaks down the industry geographically as follows: Europe (excluding Russia), North America (US, Canada, Mexico), Japan and South Korea, the BRICs (Brazil, Russia, India, China), and the rest of the world (RoW).

The report also divides the industry into three major vehicle segments according to the brand and the market positioning of vehicles in different regions. The premium segment (representing highest prices and margins) comprises 10 percent of the market. The value segment is the mid-price range; this comprises the vast majority of vehicles sold in all markets (70 percent). The entry segment refers to the least expensive vehicles in the different vehicle classes, making up the other 20 percent.

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Key findings

Overall, the global automotive industry is in better shape than it was five years ago, especially in the US, where profits and sales have recovered following the recent economic crisis, and in China, where growth remains strong. This progress will likely continue. By 2020, global profits for automotive OEMs are expected to rise by almost 50 percent. The new profits will come mainly from growth in emerging markets and, to a lesser extent, the US. Europe, Japan, and South Korea will be stagnant in terms of profit growth.

There are four key challenges that OEMs need to address to get a piece of future profitability. The analysis of this report projects to 2020, but these challenges will shape the industry until at least 2025.

- **Complexity and cost pressure.** There will be more platform sharing and more modular systems. At the same time, regulatory pressures will tighten, and prices in established markets are likely to be flat.

- **Diverging markets.** OEMs need to adapt to changing regional and segment patterns of supply and demand with respect to their production and supply base footprints, supply chains, and product portfolios; and the emerging Chinese aftersales market offers new growth opportunities.

- **Digital demands.** Consumers want more connectivity, are focused on active safety and ease of use, and are increasingly using digital sources in making their purchase decisions.

- **Shifting industry landscape.** Suppliers will add more value in alternative powertrain technologies and in innovative solutions for active safety and infotainment; Europe needs to restructure and adjust its capacity to better match demand; and competition is emerging from China.

To capture future growth and find profit from these challenges – and to mitigate their risks – OEMs cannot simply turn to their traditional toolbox. They need to review and adjust their strategic priorities, deploy the appropriate investments and resources, and develop new skills to execute these strategic objectives.
How are the industry and the market evolving?

Globally, the automotive industry has recovered from the economic crisis. Industry profits in 2012 (EUR 54 billion) were much higher than in 2007 (EUR 41 billion), the last precrisis year, and the prognosis for future growth is even better. By 2020, global profits could increase by another EUR 25 billion, to EUR 79 billion. That is good news, but the benefits will not be distributed equally across all geographies or all types of cars. Instead, some regions and segments will do much better than others.

What is most striking about the recent past is how profoundly the source of profits has shifted. In 2007, the BRICs and RoW accounted for 30 percent of global profits (or EUR 12 billion). In 2012, that share rose to nearly 60 percent (EUR 31 billion), as sales in these regions rose 65 percent and outpaced growth in Europe, North America, Japan, and South Korea (Exhibit 1). More than half of this growth came from China (EUR 18 billion).

Europe went in the other direction: in 2007, its automotive industry recorded profits of EUR 15 billion. By 2012, that profit had become a loss of EUR 1 billion. There are two main reasons for the decline. First, fewer people bought new cars. Across the region, the number of new registrations declined by more than four million units over this period, and car sales today are at levels last seen in the early 1990s. Second, Europe’s well-developed automotive industry suffers from overcapacity; fierce competition is keeping prices (and therefore profits) down.

Japan and South Korea are also looking far from robust. Both markets suffered from the economic crisis, and Japan endured another hit in 2011, with the tsunami-earthquake disasters in March. But in 2012, both countries saw their first profitable year since 2008.
In Japan, exports and production rose and domestic sales also increased sharply. But this trend does not look likely to be sustained, as car purchase subsidy programs expire. Sales in Japan have fallen so far in 2013, and projections indicate a continued drop.

By contrast, North America is in good shape: profits improved from EUR 9 billion in 2007 to EUR 23 billion in 2012. Sales in North America reached 17 million units in 2012 – the most in five years – and are rising again this year. The product mix has also started to shift to higher-value pickups and SUVs. Finally, following some painful balance sheets and labor and non-cost restructurings, the cost structure of leading OEMs has significantly improved, providing a basis for enhanced profitability.

Not only did emerging markets (the BRICs and RoW) account for almost 60 percent of worldwide automotive profits in 2012, these regions are poised to significantly outpace growth in established markets over the next seven years. Profit in the BRICs and RoW is projected to grow more than three times as fast as in established markets. By 2020, emerging markets will account for approximately two-thirds of the total automotive profit, and China will be the driving force (Exhibit 2).

The vast majority of the estimated additional profits (EUR 25 billion) will come from steady sales growth (an estimated 3.8 percent a year, including 4.4 percent for the premium segment). The sources of those profits, however, will be rather lopsided. McKinsey’s research indicates that China will account for a little more than half – EUR 13 billion, including EUR 9 billion from the premium segment alone. Other emerging markets will add about EUR 6 billion, while established markets will likely contribute only EUR 4 billion in additional profits, almost all of that from North America. Additional challenges and opportunities could add EUR 2 billion to total profit.

The next 7 years will be profitable with emerging markets driving the majority of gains

Overall automotive industry profit growth, 2012 - 201

<table>
<thead>
<tr>
<th>Established markets</th>
<th>Emerging markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>(North America, Japan, South Korea, Europe)</td>
<td>(BRIC and RoW)</td>
</tr>
<tr>
<td>2012</td>
<td>2020</td>
</tr>
<tr>
<td>1 Shifting sales patterns²</td>
<td>2 Additional challenges and opportunities</td>
</tr>
</tbody>
</table>

1 Profits captured by top 17 OEMs
2 Including vehicle segmentation shifts to higher-value segments

SOURCE: McKinsey
What are the future challenges and opportunities?

Apart from sales volume growth, four challenges will shape the near and medium-term future. The industry response to these challenges could raise profitability by EUR 2 billion in a base case scenario. These challenges will matter much more for established markets than for emerging ones.

**Complexity and cost pressure.** The increase in regulations with respect to environmental and safety standards will raise costs but also increase complexity, as they need to be managed apart from domestic markets. The growing number of derivatives serving different vehicle segments and markets based on a single platform also raises complexity. At the same time, OEMs will have to develop alternative powertrain technologies for lower-emission vehicles without knowing what will end up being the prevailing technology of the future. This will require significant investment. Given all these pressures, plus flat net price development due to less budget available for new features, it will be more difficult for OEMs to differentiate themselves with new features while extracting economic value from these forces.

**Diverging markets.** Emerging markets’ share of global sales will rise from 50 percent in 2012 to 60 percent by 2020, while their share of global profits is also set to rise by 10 percentage points. However, the location of current production and supply bases is not sufficiently aligned to future sales. Moreover, there is potential for “portfolio mismatch,” as smaller vehicle classes are growing more strongly than others, particularly in fast-growing emerging markets. Finally, OEMs need to prepare for the Chinese aftersales market, which will grow an estimated 20 percent per year.

**Digital demands.** When it comes to buying a car, research shows that digital channels are already the primary information source for customers. For many, the next step could be online purchasing. This might be an opportunity for OEMs, but it also means the potential threat of competition from online retailers and puts pressure on the existing dealership structure. The growing role of digital also applies to the driving experience. Consumers want to combine mobility with communication. This could be an opportunity for OEMs, but only if they can figure out how to make money from this desire.

**Shifting industry landscape.** As OEMs seek to develop alternative powertrain technologies, suppliers will likely provide more of the value-added content per car. In addition, OEMs need to ensure that their suppliers’ production footprints – especially in emerging markets – match future market demands and their own production plans. OEMs in Europe have one unique challenge: managing the restructuring that is clearly required. And everyone will have to deal with emerging Chinese players entering new segments and markets.

Beyond base case assumptions, these challenges could give rise to further risks to automotive profits. Recent restrictions on China’s pharma and dairy industries could foreshadow a tightening of regulations to the automotive industry. Therefore, assuming a negative scenario, which might induce a 50-percent margin drop, a negative profit impact of up to EUR 15 billion is possible.
Moreover, OEMs would have to pass on the expense of developing new powertrains. However, market constraints in a less positive scenario could lead to lower markups. Assuming a 5-percentage-point drop in markup for electric vehicles (EVs) and a 2-percentage-point decline in markup for hybrids (HEVs), this could add up to EUR 4 billion less in future profits. These two examples indicate the necessity for defining appropriate strategies, as business as usual would probably not be sufficient to tackle those risks from the overarching challenges. Similar penetration and pricing scenarios need to be modeled and understood for the adoption of new features in active safety and the wide range of connectivity offerings for customers.

How can OEMs benefit from these new challenges and opportunities?

The lion’s share of profit growth will come from higher sales. But beyond selling more cars, the industry is changing in more fundamental ways. The research points to nine major imperatives for the automotive industry, especially for OEMs.

1. The price-cost gap narrows

Price and regulatory pressures mean that OEMs in the established markets of Europe, North America, Japan, and South Korea have little margin of error when it comes to making the right decisions on how to differentiate themselves. An analysis of 76 vehicle models shows that prices have been almost flat in real terms since 1998, while

Price growth at the pace of inflation plus added content have led to a decline in profit per vehicle

<table>
<thead>
<tr>
<th>Profit per vehicle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of revenue, 1998 - 2011</td>
<td></td>
</tr>
<tr>
<td>t = 0</td>
<td>Net list price is flat</td>
</tr>
<tr>
<td>Net list price development</td>
<td>List price growth of 3% p.a.</td>
</tr>
<tr>
<td>Added content</td>
<td>Inflation of 2 - 3% p.a., leaving prices almost constant</td>
</tr>
<tr>
<td>Tactical spend</td>
<td>Additional features increase</td>
</tr>
<tr>
<td>t = +1 year</td>
<td>Additional features cause price increase of ~ 2% p.a. (e.g., ESP, further airbags)</td>
</tr>
<tr>
<td></td>
<td>Other improvements (e.g., gas consumption, weight) with relevant cost basis increases of ~ 2% p.a.</td>
</tr>
<tr>
<td></td>
<td>Further price reductions</td>
</tr>
<tr>
<td></td>
<td>Short-term measures (e.g., retail discounts) highly volatile</td>
</tr>
</tbody>
</table>

SOURCE: EC car price reports; automobile review; Edmunds; McKinsey
more and more features and improvements have been added due to competition, customer demands, and regulation. The net effect has been a decline in profit per vehicle (Exhibit 3), but OEMs have been able to manage this so far because they have been able to make efficiency and quality gains of 3 to 4 percent a year. However, tighter regulations for emissions or safety will add further costs to the average vehicle. Evidence suggests that the share of this regulation-driven content will increase to 60 percent in these markets (up from 40 percent). This will narrow the price-cost gap, and OEMs will face difficulties in prioritizing among differentiating features and basic customer demands. Therefore, OEMs need to find ways to impose markups for mandated content and to tighten annual cost improvement beyond 3 to 4 percent.

2. Rising complexity encourages more platforming

Well into the 1990s, major brands would build four or five different models off a single platform. But car buyers worldwide continue to be more and more demanding, seeking region-specific features, performance, and styling as well as an element of uniqueness even in mass market products as a way of differentiating and emphasizing individual taste and status. Most automakers respond to this demand with an increasing number of derivatives subject to markups compared with standard models. It is not uncommon to have 20 or even more such “derivatives,” as companies seek to profit from different market niches. In effect, derivatives share common non-consumer-facing product elements (e.g., common chassis underpinning, body structures, core components) in order to make differentiation of consumer-facing features profitable. In the entry and value segments, the pace of introduction of new derivatives will likely peak, and the number of new models will level off. Continuing to create even more derivatives will simply exert pressure on profitability (Exhibit 4). Just in the premium

Profits based on derivatives are likely to stagnate in the medium term

Derivatives with additional pricing potential for OEMs …

<table>
<thead>
<tr>
<th>Derivatives with additional pricing potential for OEMs …</th>
<th>… but number of new derivatives will be limited due to market size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average list price</strong></td>
<td><strong>Body types per premium sales brand</strong></td>
</tr>
<tr>
<td><strong>Values normalized</strong></td>
<td><strong>Indexed, 2012 = 100</strong></td>
</tr>
<tr>
<td><strong>Standard model</strong></td>
<td><strong>+1% p.a.</strong></td>
</tr>
<tr>
<td><strong>Derivative</strong></td>
<td><strong>+3% p.a.</strong></td>
</tr>
<tr>
<td><img src="image-url" alt="Diagram" /></td>
<td><img src="image-url" alt="Diagram" /></td>
</tr>
</tbody>
</table>

1 Average price of standard model = 100 (48 models investigated)

SOURCE: McKinsey
segment, there are some remaining market niches that offer opportunities. For non-premium players, the key to profit is to produce higher volumes on fewer platforms. But running more derivatives per platform also increases complexity. To manage this complexity, control costs, prevent cannibalization, and ensure that differentiation is aligned with consumer preference, OEMs need to develop new global platform strategies, including modular concepts. They would have to thoroughly analyze niches where derivatives still might create additional value. However, this would require more sophisticated research on customer preferences and diligent assessments of customer trade-offs and cannibalization effects. Moreover, OEMs need to balance global scale, complexity, and local or segment-specific customer demand. Specifically, they should consider ways to cooperate with other OEMs and how to enhance platform usage across segments, regions, and price levels.

3. Greening gets more expensive

Carbon dioxide regulation is likely to continue to tighten, and not just in Europe. China, the US, and Japan have also enacted laws to reduce emissions. One immediate result will be higher costs. Because the easy things have already been done, the price of cutting future emissions is rising (Exhibit 5). In Europe, the 2020 target might be reached with the help of advanced conventional technologies, but to meet the overall fleet targets, more electrification could be necessary (especially for premium players). This will push OEMs to invest more in e-mobility, meaning electrical/hybrid powertrains, including batteries, as well as in lightweight and aerodynamic drag-reducing technologies.

### Tougher emissions regulations will encourage OEMs to invest in e-mobility

<table>
<thead>
<tr>
<th>Corresponding fleet targets</th>
<th>Additional manufacturing costs¹ EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 (3.9)</td>
<td>0</td>
</tr>
<tr>
<td>80 (3.3)</td>
<td>1,000</td>
</tr>
<tr>
<td>70 (2.9)</td>
<td>2,000</td>
</tr>
</tbody>
</table>

¹ Anticipated for 2020, average for gasoline and diesel internal combustion engines

² Relative to 2010 baseline

**SOURCE:** ICCT; McKinsey
Ultimately, electric vehicles may be the answer, though the transition will not happen fast, or soon. In 2020, conventional internal combustion engines (ICEs) will still account for more than 90 percent of cars. OEMs will have to continue developing more advanced ICEs, including cylinder deactivation or variable valve timing and lift. On the other hand, they need to invest in alternative powertrain technologies to meet future emissions targets – without knowing which kind will prevail. Managing these pressures will be a fact of OEM life to 2025 and beyond.

One way to lower investment outlays and to drive innovation is to create strategic alliances with other OEMs and preferred suppliers. OEMs could also experiment with alliances with car sharing companies as a way to push EVs into the market, and thus help customers get used to them. Finally, OEMs need to build up their capabilities to anticipate – or at least be prepared for – foreign regulations, especially regarding imports.

4. The aftersales market in China becomes more important

China is already the world’s largest automobile market, with 19 million vehicles sold in 2012. But new car sales growth is slowing, from 18 percent a year between 2006 and 2012 to a projected 6 percent a year between 2012 and 2020. That is still a lot of cars, but an even more promising, and less obvious, opportunity is the aftersales market, including spare parts, service, used car sales, and financing, which serves as an integral component of brand building and sales funnel management. Aftersales automotive parts revenues on its own could grow from approximately EUR 20 billion in 2012 by 20 percent a year and reach nearly EUR 100 billion by 2020. A strong aftersales network could also enable OEMs to build brand loyalty. To capture this opportunity, OEMs need to enhance their dealer capabilities, as today the dealership is mainly focused on new car sales.

5. Growth continues to shift

The automotive industry’s economic center of gravity will continue to shift, as sales volumes and market share keep moving toward emerging markets. The global sales share of established markets will decline from 50 percent in 2012 to 40 percent in 2020; these will account for only about 25 percent of future volume growth. The premium segment will account for more than half of future profit growth.

One major growth opportunity is in smaller vehicles (subcompacts, microcars, and superminis); these already account for more than 30 percent of global sales and could reach more than 30 million vehicles in 2020. More than 60 percent of this market is located in emerging economies, where sales are set to grow 5 to 6 percent a year until 2020 (Exhibit 6). The majority of this growth will be in urban areas, offering OEMs the opportunity to address a large share of growth with relatively few, focused footprint adjustments. Competition in this segment, however, will be intense, as many emerging market players are expanding. Success requires a low-cost business model, such as a limited number of body types based on one platform and a lean sales approach with a limited offer range due to despecification. In addition, OEMs would have to think about differentiating their brand perception.
6. Connectivity becomes more important

Just as phones got smart, so will cars. They won’t quite think, but they will respond and remind. Cars on the road are being equipped with danger-warning applications, traffic information services, and a host of infotainment features and increasingly active safety features as well. The number of networked cars will rise 30 percent a year for the next several years; by 2020, one in five cars will be connected to the Internet (Exhibit 7). These cars will be in the premium segment (approximately 50 percent) and increasingly in the value segment as well, where many of them will have network solutions by 2020 (compared to 3 percent in 2011). Delivering services through the car – Internet radio, smartphone capabilities, information/entertainment services, driver-assistance apps, tourism information, and the like – is a promising area for future profits and differentiation. So is the creation of new technical features for safe, comfortable, and eventually, autonomous driving. To deliver on this, OEMs will have to manage shorter product and service development cycles, such as software and other technology updates. They will also need to build relationships with affiliated firms that build apps tailored to the car. Given that car owners spend about 50 minutes a day in their vehicles, there is a real opportunity to monetize digital media revenues and generate additional, highly profitable revenue streams. But again, the competition will be intense, particularly if new players from the non-automotive “digital arena” enter the market. Ultimately, end consumers will seek applications that make driving more convenient and a seamless element of their daily routines and lifestyles. This entire space is still in the early stages of development, both from a technology/service offerings perspective as well as from the perspective of the dominating players.
### 7. Retail of the future comes closer

With a few clicks, potential car buyers can already access a tremendous amount of information, and the volume and breadth of the material available on the Internet will only increase. In 2012, 70 percent of buyers stated the Internet as a major source for information gathering, displacing brochures, ads, and test reports (Exhibit 8). Five years ago, customers visited dealers an average of five times before purchasing a car; now they enter the showroom well-informed, giving the dealer one chance to turn the browser into a buyer. Dealerships are still important in decision making and in the customer’s overall experiences but less so in the research and product comparison phases. This presents OEMs with contrasting challenges. On the one hand, they need to create a state-of-the-art Web presence that provides customers with a digitally supported purchasing experience based on, for example, comparison tools, car configurators, and other online tools. On the other hand, they need to provide an engaging interaction and compelling experience across all touch points on the customer decision making journey and in the post-purchase experience. The path to purchase and the post-purchase experience are comprised of multiple touch points and are two of the most innovation-ripe areas for a truly superior customer experience. Innovative retail concepts, such as brand experience centers that feature high-tech digital, personalized visualization tools or “pop up” stores that advertise a specific product to create buzz, could help. This development would require joint investment from dealers and OEMs and intense cooperation to create a seamless experience for the customer throughout the pure online and digitally supported offline channels. Another cost-efficient strategy would be to establish an online presence to foster direct sales. Half of car buyers say they would make the transaction online as long as they got a test drive opportunity or an equivalent experience. OEMs will need to determine the best combination of online and offline touch points to shape the customer’s decision making and experience along the purchase journey. The rewards are great for those that get it right.

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**Internet-connected cars are on the rise**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional cars (Billion units)</th>
<th>Cars with network solutions (Billion units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0.98</td>
<td>3%</td>
</tr>
<tr>
<td>2013</td>
<td>1.01</td>
<td>5%</td>
</tr>
<tr>
<td>2014</td>
<td>1.05</td>
<td>8%</td>
</tr>
<tr>
<td>2015</td>
<td>1.09</td>
<td>10%</td>
</tr>
<tr>
<td>2016</td>
<td>1.13</td>
<td>12%</td>
</tr>
<tr>
<td>2017</td>
<td>1.18</td>
<td>14%</td>
</tr>
<tr>
<td>2018</td>
<td>1.22</td>
<td>17%</td>
</tr>
<tr>
<td>2019</td>
<td>1.27</td>
<td>19%</td>
</tr>
<tr>
<td>2020</td>
<td>1.32</td>
<td>22%</td>
</tr>
</tbody>
</table>

*SOURCE:* Carpark; McKinsey

Exhibit 7
8. Suppliers add more value

OEMs will have to manage rising production volumes – up to 70 percent in Asia by 2020. That means building a local supplier base, designing an enhanced supply chain, and bolstering supplier capacities. This is particularly important because the imperative to improve green mobility means that suppliers will become more important in terms of how much value they add, especially for the constantly improving ICE but also for the various electrified powertrain alternatives.

On the one hand, conventional ICE-powered vehicles have to be optimized with the help of engine control systems, downsizing, and lightweight or automatic transmissions. On the other hand, there are the long-term possibilities of the various electric powertrain alternatives – and these have not been core competencies of most OEMs. They will need technological and logistical support to manage the long-term transition from ICES to EVs or augmentation of ICE-based vehicles with electrified powertrain solutions, with increasing adoption to be expected beyond 2020, given tighter regulation requirements and continued technological progress. But OEMs could consider positioning themselves long-term in the areas of e-motor design and/or manufacturing, battery packaging, and integration. In addition, electronics and software will play a dominant role in vehicle innovation. Approximately 90 percent of automotive innovations in 2012 featured electronics and software, especially in active safety and infotainment options. Since those capabilities will be crucial, OEMs should consider solutions like developing “vertical partnerships” with their preferred suppliers. These would allow OEMs to cut R&D costs while also developing and implementing new features faster.
9. The OEM battle intensifies

Europe is in a particularly difficult position because it is maintaining significant overcapacity, according to the European Automobile Manufacturers Association (ACEA). Moreover, a number of lower-cost brands have recently entered the market, heightening competition further. European OEMs have announced capacity reductions of 750,000 vehicles by 2015. But with regard to how the market is likely to develop, that may not be enough. If OEMs in Europe do not revise their production footprint beyond the announced capacity adjustments, it could be five years before the industry gets back to its precrisis utilization rate and related profitability levels. Similar challenges apply to OEMs in Japan and South Korea, where capacity adjustments have already been initiated.

Closing a plant poses severe challenges on the people side, particularly given Europe’s high and prolonged rates of unemployment. The recent history in North America, however, shows the possibilities of restructuring and its ultimate benefits. Though restructuring the industry was painful, sales and profits have rebounded. Capacity is running higher than before the crisis, and almost double that of 2009 (Exhibit 9). Therefore, OEMs in Europe ought to revise their production footprint beyond the announced capacity adjustments.

### Exhibit 9

**Consolidation in the US may be a model for addressing overcapacity in Europe**

<table>
<thead>
<tr>
<th>Year</th>
<th>Consolidation in North America</th>
<th>Growing overcapacities in Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>05</td>
<td>94</td>
<td>98</td>
</tr>
<tr>
<td>09</td>
<td>55</td>
<td>85</td>
</tr>
<tr>
<td>2013</td>
<td>105</td>
<td>85 (-15%)</td>
</tr>
</tbody>
</table>

**Utilization rate of vehicle production facilities**

Indexed, 2000 = 100

1 Based on maximum production capacity: theoretically 24 hours, 7 days per week; usually constrained by paint line capacity.

**Max. capacity**

Million vehicles

**SOURCE:** IHS Automotive; McKinsey

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China’s automotive sector is also suffering from significant overcapacities with an average utilization rate of only about 60 percent in 2012. The top 17 OEM joint ventures outperform this level with an average utilization rate of roughly 70 percent, which is similar to Europe’s current level (selected OEMs even have fully utilized capacity). Generally, those Chinese overcapacities are somewhat offset by the ongoing growth of Chinese vehicle sales at 6 percent annually. This triggers even further production capacity expansion. Complicating the slowing Chinese economy and the risk of political constraints for production expansion of foreign OEMs, market volatilities and uncertainties are also on the rise. Thus, OEMs need to invest in precise market forecasts for their segments, and they need to manage production expansion with higher flexibility over the short and medium term to be able to respond to market shifts.

What are the implications for different market segments?

Just as the implications of global developments differ by region, they are also a function of the specific automobile segment. Players will find that their strategies will have a lot to do with the types of cars they manufacture.

Premium segment

In recent years, premium players have responded to customer demands by creating more and more derivatives and expanding their portfolios, an approach that has delivered both profits and growth. This will likely continue for the next few years. But after that, finding profitable market niches will be more difficult. Therefore, it will become more and more complicated for premium OEMs to differentiate themselves through derivatization.

At the same time, creating such differentiation is vital to maintaining a premium perception. Inside the car, premium OEMs could differentiate themselves with the help of design elements, new features in infotainment, and innovations directed at safety and comfort. Among the possibilities for differentiation, intuitive feature design and usage holds significant value potential but is currently one of the least tapped innovation areas. Beyond the tangible elements of products and features, these OEMs should provide offerings that enhance the customer experience and build loyalty through, for example, brand experience centers and superior interactions with the customer across all major touch points along the decision making and experience journey.

All of this will require more investment. Because prices, in real terms, have basically been flat for the last 15 years, and the costs associated with mandated content are going to rise, the amount of money available to invest in differentiation will be constrained. Given these limitations, managers at premium OEMs will want to consider the following questions:

- What are the next horizons of differentiating features and services, especially in the domain of consumer-intuitive solutions for active safety and infotainment?
- How can we differentiate our customer experience along the entire customer decision journey? How can we design and execute a consistently positive experience?
How do we ensure that our unique features and services and our approach to customer experience are aligned with the brand perception we want to cultivate?

How can we enhance “vertical” and “horizontal” partnerships with suppliers in order to share development costs, establish common platforms, and improve economies of scale?

How can we find ways to pass on costs for CO₂ reduction to customers?

Value segment

The prospects for the value segment vary from region to region. In Europe, many markets are suffering economic trauma, and the industry has yet to restructure. Japan and South Korea are barely profitable. By contrast, North America and the emerging markets are seeing healthy profits; the latter are also experiencing sales increases of 5 to 6 percent a year. One trend to watch is that entry segment OEMs are beginning to enter the value segment, and this will complicate and heighten competition. On the other hand, premium OEMs are reaching further toward price points of the upper end of the value segment and offering competitive products in that space. So, clear product positioning and competitive underlying cost are becoming more and more critical for OEM players in the value segment.

A global footprint (production, supply base, and product development) will be required to be globally competitive. It will not be possible for OEMs to compete against local players in the BRICs and RoW if they do not produce on site with the support of local supply bases and supply chains. Profits are too thin, and the added costs of labor and shipping too high. Therefore, the key challenge of how to manage this global presence at a competitive level arises. OEMs have to manage the complexity of a global production footprint combined with a global sourcing network. There is the need to balance global scale on the one side with the necessary local adaptations on the other. But global players will benefit from a diversified production as they can mitigate market volatilities and keep pace with developments in future key technologies. Moreover, having a local presence offers the chance to venture into promising adjacencies, such as the Chinese aftersales market.

OEMs in the value segment that do not have a global presence will find it difficult to succeed. Addressing five key strategic questions will help them begin making the necessary moves:

- How can we rearrange product portfolios in our core markets to enter more profitable segments, such as cross-overs or SUVs?
- How can we expand by cooperating with other OEMs or local players?
- How do we react to the looming threat of entry segment players expanding into the value segment?
- How can value segment OEMs continue to create a differentiating customer experience across all touch points of purchase and post-purchase and create more consumer loyalty?
Can OEMs in the value segment further differentiate or sharpen their brand/value proposition and translate this into economic benefit in an increasingly competitive market, or are there limits to brand differentiation?

Entry segment

Apart from the Chinese market, it is the entry segment that offers the next set of growth opportunities. Emerging markets already account for 70 percent of entry segment sales, and these are growing 4.5 percent a year. The research indicates that global profits in this category will rise an estimated 3 percent a year, to a total of EUR 7 billion in 2020. These trends present a solid growth opportunity for current players. They also could be an incentive for value players to enter the segment and gain additional volume. While this is a demanding idea from an operational point of view, given rising competition and emerging Chinese players, there is also a strategic challenge. As market dynamics indicate that entry segment OEMs are emerging into the value segment, and more and more drivers show a growing affinity for the entry segment, there arise strategic questions for OEMs to address:

- How can we tap into new customer groups (in many cases, first-time car buyers) and start building brand loyalty?
- How can we implement the low-cost approach of the entry segment, e.g., offshore development facilities or a lean product portfolio, addressing the mainstream needs of consumers in this segment?
- What supporting customer experience does the entry segment require? How can they be cost efficient and still appeal to the customer?
- What is the appropriate brand value proposition and positioning? Do we need different brands or sub-brands to sharpen the offering in the entry segment and differentiate it from other offerings in the value segment?
- How might we translate cost efficiencies from the entry to the value segment?

Beyond these major trends and key strategic questions, interesting areas of exploration for the future will doubtlessly emerge. For example, automakers will need to define their market approach to new alternative powertrain technologies, i.e., determining their statuses as either first movers or followers. They will also have the opportunity to explore the development of their platforming and modular systems to cover an extended range of price and vehicle segments across global regions. Finally, shaping the entrance of a budget car segment with a low-cost approach that avoids brand dilution is another near-horizon opportunity area for some OEMs.
Overall, evidence indicates that future opportunities will outweigh the challenges. However, those developments will significantly drive changes in the industry over the next decade. OEMs that understand and anticipate those future challenges and opportunities and address them proactively and early will be better positioned to succeed in this complex industry.
Authors:

Dr. Detlev Mohr is a Director in McKinsey’s Stuttgart office.
Dr. Nicolai Müller is a Principal in McKinsey’s Cologne office.
Dr. Alexander Krieg is an Associate Principal in McKinsey’s Stuttgart office.
Paul Gao is a Director in McKinsey’s Hong Kong office.
Hans-Werner Kaas is a Director in McKinsey’s Detroit office.
Dr. Axel Krieger is a Principal in McKinsey’s Beijing office.
Russell Hensley is an Expert Principal in McKinsey’s Detroit office.

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Constantin Beelitz, Guido Bertels, Dr. Dirk Breitschwerdt, Gianluca Camplone, Dr. Andreas Cornet,
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Dr. Katharina Peterwerth, Dr. Christoph Promberger, Pei Shen, Tobias Wagenführer, Dr. Florian Weig,
Dr. Silvio Wenzel

If you have any queries, please contact:

Jennifer Bothe
Phone: +49 (711) 255-3600
E-mail: jennifer_bothe@mckinsey.com