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RIDING CHINA'S HUGE, HIGH-FLYING CAR MARKET

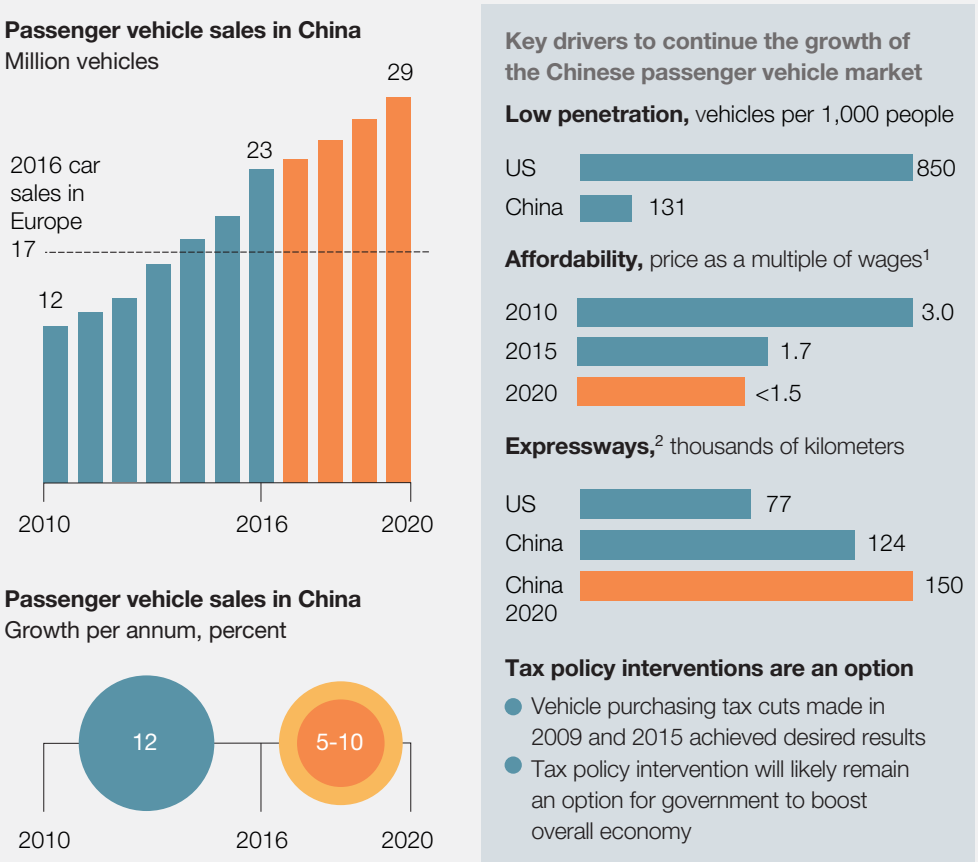
October 2017

Few car markets in history have risen so far so fast. Here's a peek under the hood at what's driving China's automotive future.

Many automakers rightly view China as the industry's new center of gravity. The country makes and sells more light vehicles than any other nation; so many, in fact, that in 2016, 40 percent more cars were sold in China than in all of Europe. To get here, the overall passenger vehicle market has reliably grown at double-digit rates, with most analysts expecting it to expand at a somewhat slower 5 to 10 percent annual pace through the end of the decade (Exhibit 1).

Exhibit 1

The overall market is expected to grow at a compound annual rate of 5 to 10 percent, although the base is already large.



[1]Average annual wage.
[2]China data refers to GaoSuGongLu network of China; US data refers to its Interstate Highway System.

Source: CEIC; IHS (Jan 2017); National Bureau of Statistics of China; McKinsey analysis

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Yet some indicators appear to suggest that the market is simply catching its breath for another sprint. For example, per capita vehicle distribution remains low compared with developed nations such as Germany and the United States, and cars are also becoming more affordable. While a new vehicle cost three years' wages in 2010, estimates for 2020 cut that figure in half. Furthermore, the government could support future demand with additional tax policy interventions if necessary. As for worries that continued growth in the car market could turn the country into a parking lot, China already has the world's longest highway network, which it continues to expand.

Local players gaining ground

While global automakers have enjoyed the fruits of the expansion of China's automotive market with little meaningful domestic competition, this could soon change. Local brands have begun to exhibit real competitiveness based on vehicle designs and quality levels, strengthening their brand images and likely leading to larger market shares. For instance, Chinese domestic brands as a group increased their share of the passenger vehicle market from 32 percent in 2014 to 38 percent in 2016—a huge feat when the market itself was undergoing double-digit yearly growth. What's more, they captured this growth from global automakers of nearly every nationality, not from a single segment of weak players.

Perhaps the local brands' most dramatic improvement has occurred in product quality. In 2010, an 89-point initial quality gap existed between local and international brands; by 2016, it had fallen to 14 points. Local cars have also gained a reputation among customers as value leaders, offering features costing 25 to 35 percent more on comparable joint venture brands. These quality and value improvements have boosted the strength of local brands, enabling some to raise their prices and increase their bottom lines.

The increasing competence of local brands constitutes an urgent warning to Western OEMs that opportunities to earn "easy money" in China may be gone forever. Some foreign OEMs will face greater competitive pressure in the country if they continue to offer uncompetitive products through subpar dealer networks.

Taking the lead in electric-vehicle momentum

Befitting the world's largest passenger vehicle market, China has become a leader in electric-vehicle (EV) demand and production. The country's 2020 EV target seeks to put five million of the vehicles on the road by 2020, requiring a challenging 40 percent increase in new-energy-vehicle sales each year. To achieve the 2020 target, the country needs to activate both supply- and demand-side drivers:

Supply

For example, to stimulate increased EV production, the government can finalize proposed policies concerning EV credits. Doing so will compel more automakers to enter the segment, since the program mandates they earn EV credits to produce vehicles with internal combustion engines (ICEs). The program awards credits for battery EVs, plug-in hybrids, and fuel-cell-powered EVs.

China is taking steps to improve EV charging infrastructure support. One example: boosting the charging-outlet ratio from one plug-in "pole" for every two to three EVs today to one for every EV by 2020. The country is also developing more expressway charging facilities, expanding the current focus on coastal highways deeper into the country.

The market will also depend on a strong supply of new and attractive models. To fill that need, the industry's joint venture operations should begin launching high-volume EVs in 2017 and 2018, and they are expected to have an estimated 100 EV models on the market by 2020. Adding to this list, more than ten new entrants have received EV production licenses as well.

From a performance perspective, ongoing advances in battery technology will also support the market, with cell-level energy densities expected to improve from 220 watt-hours per kilogram now to 300 watt-hours per kilogram in 2020.

Demand

Finding effective ways to entice consumers to learn about and buy EVs remains a significant challenge. Luckily, consumer interest in this mobility technology is starting to grow due to improved education levels, high consumer awareness of environmental issues, and the growing benefits EVs offer on total cost of ownership (TCO). In fact, between 2011 and 2016, the proportion of consumers potentially interested in buying an EV jumped from just 8 percent to 23 percent.

One major advantage of EVs for first-time car buyers involves the dramatically reduced licensing barriers for EVs, meaning purchasers do not have to wait extended periods before they can use their cars on the road. Another increasingly relevant advantage is cost: with or without government subsidies, EVs are becoming cheaper to buy from a TCO perspective. Battery system costs, for example, will likely fall by half by 2020, and innovative EV sales and mobility models can reduce TCO as well. However, currently, the TCO advantage over ICEs only exists in China's tier-one cities after reaching a certain travel distance.

Because of the strides China is making in both EV supply and demand, global automakers have begun to develop their own China-specific EV strategies to stay attuned with this future technology.

Using alliances for a breakthrough in shared mobility

Experience suggests that the best way to evolve new mobility solutions is for automakers to collaborate more effectively with selected ecosystem partners. Successful automotive players will likely develop tailored strategies adapted to the needs of different cities with different demographics. In this environment, variations on four mobility types are likely to emerge, depending on city size and other characteristics. Each will require support and coordination of other mobility players, governments, and infrastructure providers.

For example, metropolitan areas with more than ten million people and large cities (those with over three million people) will feature integrated smart mobility, with well-developed mass-transit systems, car sharing, and other shared mobility options. These cities are most likely to take the lead in enabling autonomous driving due to their focus on smart infrastructure and include Beijing, Guiyang, and Shanghai. Likewise, smaller cities with strong economies and medium-range commutes will probably focus mainly on car sharing while similarly sized but less affluent cities will emphasize economical sharing in the forms of mass-transit busways and bicycles.

By 2030, more than 280 Chinese cities will probably have shifted to shared mobility solutions, involving roughly 800 million people. While many of these people will reside in big cities and benefit from integrated smart mobility programs, sizable numbers in smaller cities will rely on economical sharing to get around. The sheer size of this potential mobility migration should draw the attention of every automaker in China, reinforcing the need for effective shared mobility strategies.

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China's ascent to the peak of the automotive industry has changed the game for virtually every OEM worldwide. The world's largest vehicle market is also one of its fastest growing, which makes gaining a clear understanding of how this market moves and what's ahead perhaps the most important skill any automaker can cultivate.

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