

Automotive & Assembly Practice



# Bigger, better, broader: A perspective on China's auto market in 2020

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China's automotive sector grew at a compound average rate of 24 percent a year between 2005 and 2011 and, in 2010, overtook the United States as the largest single-country, new-car market. We forecast that the growth of China's auto market will slow to an average of 8 percent a year between 2011 and 2020 – still very fast by developed-world standards. Sales are forecast to reach 22 million in 2020, bigger than either the European or North American markets.

As the years pass and the market matures, Chinese consumers are growing more sophisticated about cars and their tastes are evolving. Many have already purchased a first, entry-level car and will be ready to upgrade to newer and better models. To succeed in this more demanding environment, automakers must better understand what their customers want, and how their expectations differ from region to region and from auto-body-type segment to segment. In this way, the Chinese car market is becoming more like that of North American, Europe, and Japan and perhaps even more complex, given the many regional and segment differences. To address the need for deeper insights, McKinsey has developed detailed demand forecasts through 2020 of Chinese auto customers by region and segment. In the analysis, we identified fundamental drivers for demand growth such as increasing urbanization, rising household income, low car penetration rates, and infrastructure improvements.

The following trends will shape the Chinese auto market in the next 10 years, according to our analysis:

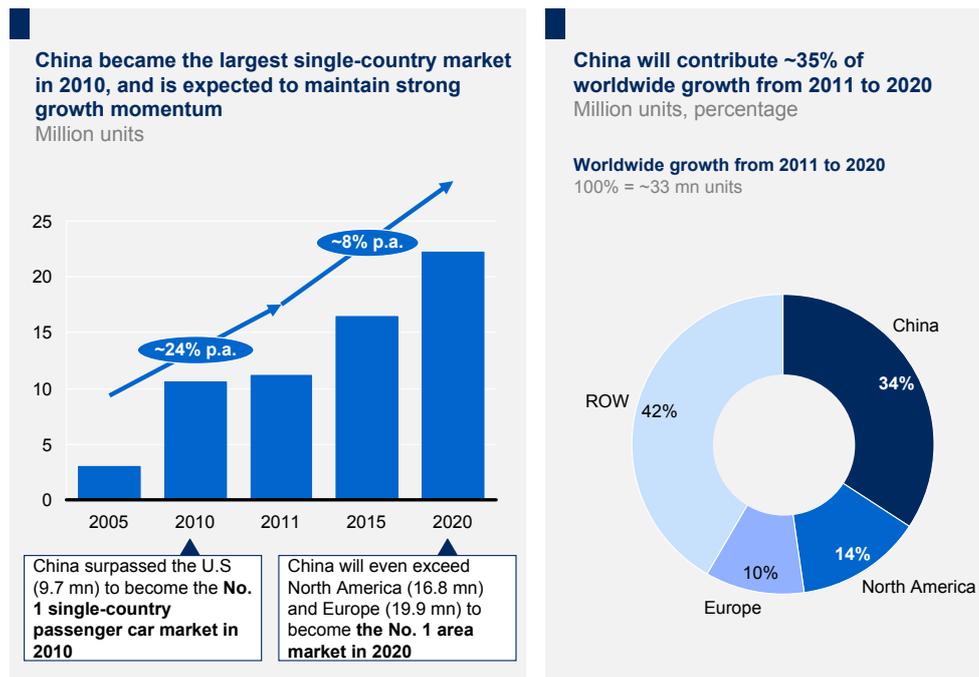
- **Going bigger:** Sales of sport utility vehicles (SUVs) will triple, although sedans will remain the largest segment
- **Trading up:** There will be more second-time buyers, and they will buy more high-priced cars
- **High volatility:** The volatile growth rates for new cars observed over the last two decades are likely to continue
- **Regional differences:** Consumer behavior by region and car-model preference will vary greatly

Our findings, detailed below, have significant implications for automakers. For example, they will have to place their bets on specific market segments and decide in which city clusters they should focus their efforts to take advantage of the “going bigger” and “trading up” trends. They will also have to be agile and flexible to react to the market volatility.

## Where the market is headed

New car sales in China are forecast to contribute 35 percent of the world's car-market growth between 2011 and 2020 (Exhibit 1). Still, car penetration will reach only about 15 percent by 2020.

## Exhibit 1

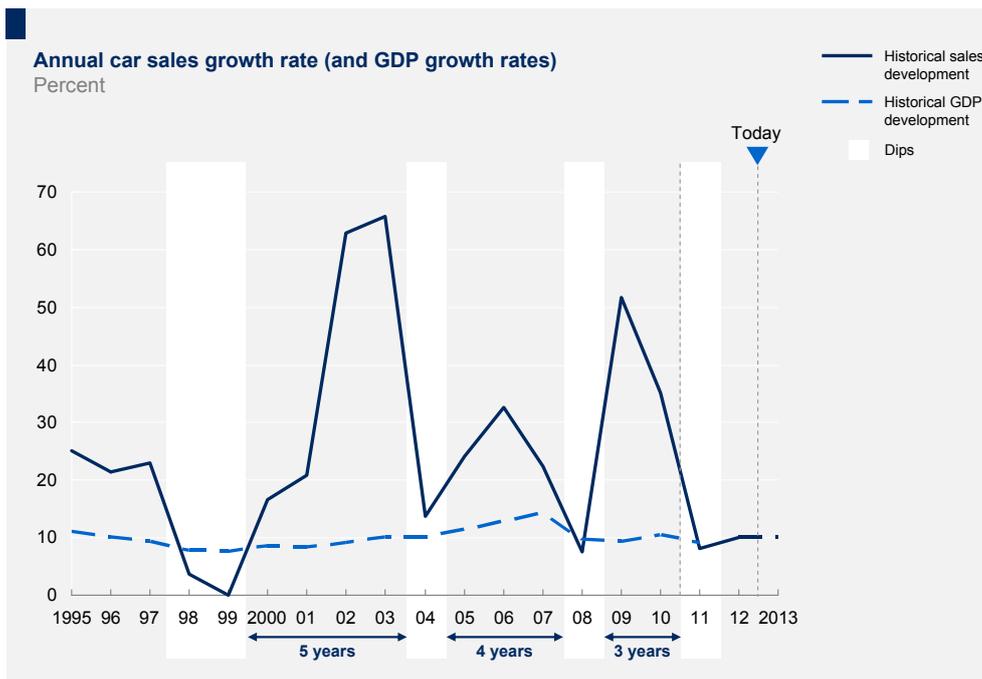


SOURCE: McKinsey GOG analysis; McKinsey Insights China; team analysis

- The country's economy is expected to continue to grow 7 to 8 percent a year in the next 10 years while the percentage of the population residing in urban areas is expected to rise to 60 percent in 2020, from 51 percent in 2011. Increased urbanization will have a profound impact on mobility demands
- The number of high-income urban households – those earning more than 80,000 RMB a year -- will expand greatly, to 58 percent in 2020, from 17 percent in 2011. Higher incomes plus low auto penetration suggest that the passenger car market has not reached the saturation level
- The quality of roads has improved significantly in recent years while expansion of road systems has continued apace; more progress is likely in both areas

But automakers must also factor in the uncertainties that may slow or disrupt market growth. The potential developments mentioned below could further contribute to the volatility that the Chinese car market has experienced in the past two decades, when new car sales growth ranged from 0 to 70 percent annually (Exhibit 2). The volatility, combined with chronic overcapacity, adds greatly to the challenges of doing business in the Chinese market.

Exhibit 2



SOURCE: IHS Global Insight (for 1995-2009)

- The current global economic uncertainties will likely have a negative impact on China's prospects, and may also lead to a slowdown in the pace of urbanization, as fewer jobs would be created in the cities.
- Governments could introduce policies that might restrict car use in big cities because of worsening traffic conditions and environmental concerns such as air pollution. Beijing, Guangzhou, and Shanghai, where car density has reached a burdensome 250 vehicles per kilometer of roads, have already introduced restrictions. We estimate that by 2020, another 20 Chinese cities will exceed this car-density threshold, perhaps prompting officials to implement similar restrictions.
- Emerging urban alternatives to new car ownership such as improved public transportation and increased availability of car rentals and sharing could alter consumer behavior, as already seen in Western cities such as Berlin.
- The used-car market in China is growing, a development that could cannibalize new car sales, especially in the lower price segment.
- Consumers put increasing weight on quality and safety. Sales of domestically developed cars could suffer if automakers fail to address these concerns, although there are signs of improvement.
- The Chinese automotive landscape faces major disruption if, as expected, the industry consolidates as a result of increasing competition.

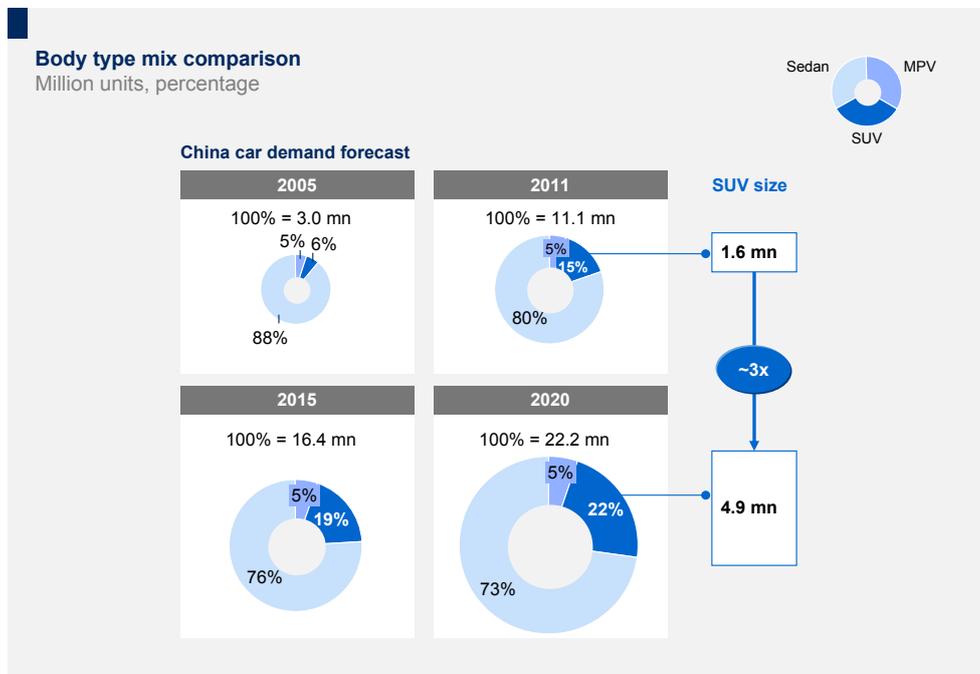
## Where the growth will come from

Two trends will drive growth of the Chinese auto market, our analysis found: consumers will increasingly choose to buy bigger and more expensive cars.

### Going bigger

Sales of SUVs are forecast to rise 13 percent, compounded annually, from 2011 to 2020, exceeding the growth rate of all other segments. Overall, we expect annual SUV sales to triple in the next 10 years, as the number of wealthy consumers increases. Our research found that wealthy consumers are more likely to consider buying SUVs than the rest of the market. Purchasing an SUV would allow them not only to satisfy their driving needs, but also to show off their personal taste and lifestyles, the research suggests. Also, Chinese consumers consider buying SUV an upgrade from a sedan (Exhibit 3). Despite the expected high growth, the forecasted market share of SUVs in 2020 -- about 20 percent -- will be significantly lower than the 35-percent market share found in the United States in 2011.

Exhibit 3



SOURCE: McKinsey GOG analysis; McKinsey Insights China; McKinsey 2011 auto survey ; Global insight; team analysis

Sedans will still command 70 percent of the total car market by 2020. Within the sedan segment, the “C” model will remain the main choice for many Chinese consumers looking

to buy a car for the first time and will account for 55 percent of the market by 2020<sup>1</sup> (Exhibit 4).

Exhibit 4



SOURCE: McKinsey GOG analysis; McKinsey Insights China; Global Insight; team analysis

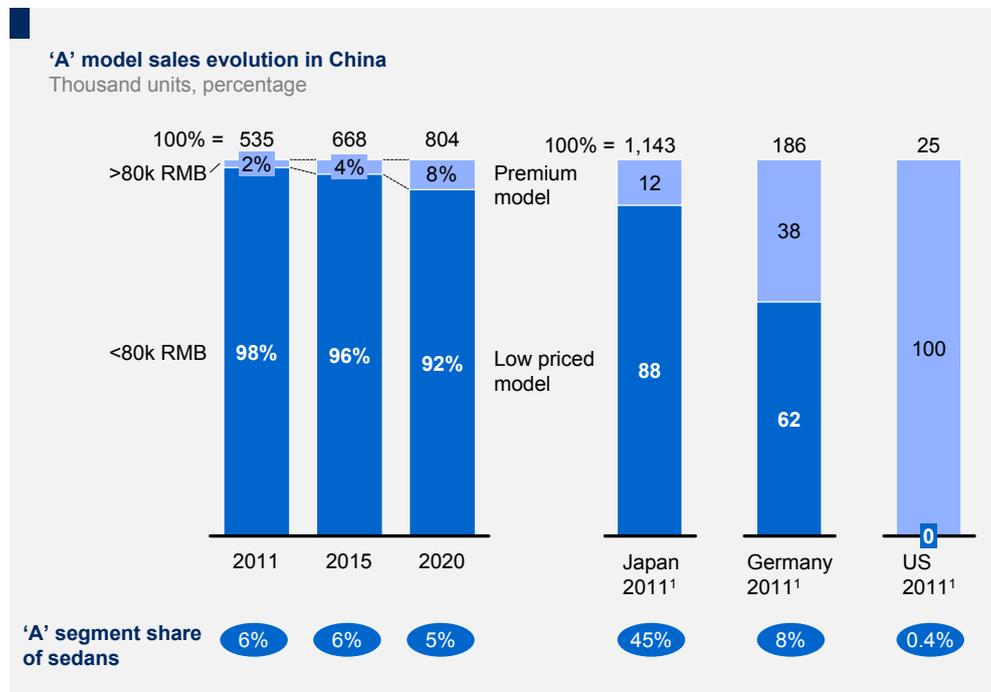
Preference for bigger cars will increase the market share of E and F models while squeezing A and B's share. The A and B models, as a share of the total sedan market, will shrink to 19 percent, from 23 percent, while the E and F models will increase to 8 percent, from 5 percent. The Chinese consumer will choose a bigger car, as long as he or she can afford it. Even in the budget segment, we expect consumers increasingly to choose larger cars, especially as Chinese-multinational joint ventures aggressively enter the market with C models. Local automakers currently dominate the budget car segment, especially the A model.

Although "going bigger" is clearly a trend, there are still strong sales opportunities in the small car segment, especially as a new urban lifestyle emerges. The premium small-car price segment, such as Smart, represented only 2 percent of the A model market in 2011. Our study suggests, however, that this niche will reach 8 percent of the total segment in

<sup>1</sup> A,B,C,D,E, and F are model-size segmentations for a sedan. We apply the segmentation definition from Global Insight. A is the utility/city class, which is an inexpensive, entry-level small passenger city car, mostly three-door hatchbacks but five-door models increasingly common. B is the supermini class, typically a small three- or five- door hatchback. C is medium-sized five-door hatchback, while D is an upper medium-sized or executive passenger car. E and F are further defined by price, which are large and luxury or super luxury class.

2020, when more urban residents buy a second car for commuting (Exhibit 5). The trend is consistent with the market development of Germany and the United States, where a large share of the small-car segment have high price tags. Meantime, electric vehicles (EVs) are expected to grow in the A model segment, with higher public environmental awareness and more government policy incentives expected.

Exhibit 5

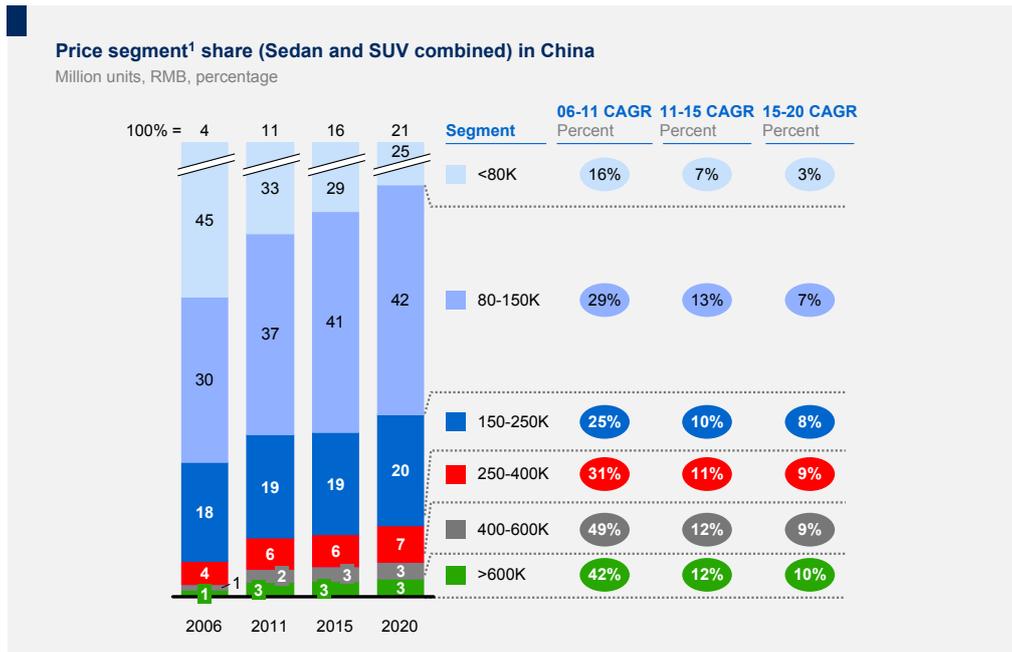


SOURCE: McKinsey GOG analysis; McKinsey Insights China; Global Insight; team analysis

### Trading up

Our study suggests that Chinese consumers will be much more likely to purchase high-priced cars (250,000 to 800,000 RMB) in the next decade than in the past. Incentive to do so will come not only from higher incomes but also from more aggressive marketing and sales activities of premium brands, as car owners look to replace their entry-level vehicles. But the 80,000 to 250,000 RMB range will remain the dominant price segment, with 60 percent of the market in 2020. Rising household income and higher demand from small and medium-size cities will underpin demand in this price segment (Exhibit 6).

Exhibit 6



<sup>1</sup> Excludes the impact of inflation

SOURCE: McKinsey GOG analysis; McKinsey Insights China; team analysis

There's another important factor for automakers to consider besides the “going bigger” and “trading up” trends. China's passenger car market has experienced significant price erosion, ranging from 4 to 6 percent, compounded annually, over the past decade, and prices are expected to continue to fall over the next five to 10 years.

## The geographical imperative

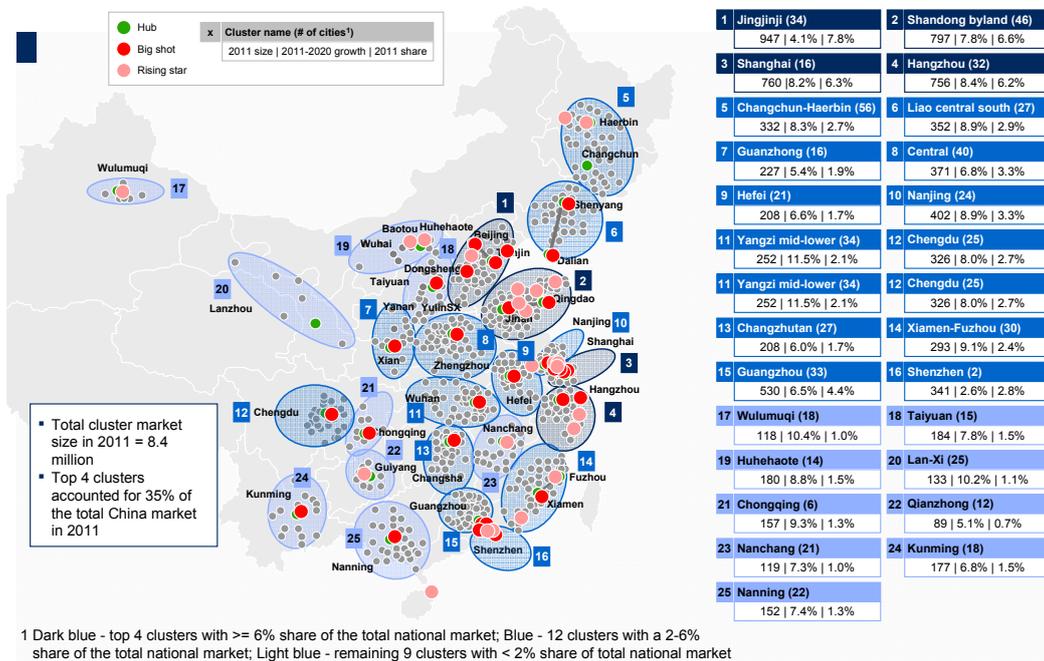
Similar to the trend of urbanization, China's car market has strong regional characteristics. Take city tiers<sup>2</sup>: China's smaller cities are accounting for more and more automotive sales. From 2002 to 2011, for example, tier three and four cities contributed about 40 percent of total new car sales in China. We project that the contribution to growth of new car sales of these smaller cities will reach almost 60 percent between now and 2020. New car sales in tier three and four cities are forecast to grow at about 10 percent a year, compounded annually, from 2011 to 2020, compared with four percent for tier one cities and 6 percent for tier two cities.

<sup>2</sup> City tiers are defined by 2010 nominal urban GDP: Tier 1 > 932 billion RMB, Tier 2 >120 billion RMB, Tier 3 >22 billion RMB and Tier 4 <22 billion RMB

However, city tiers alone are not sufficient to describe geographical differences in car sales. Drilling down into the country’s geographic growth patterns, we identified 25 distinct clusters comprising 815 cities (Exhibit 7). Each cluster displays unique consumer attributes.

Exhibit 7

China Auto Market Cluster Map



SOURCE: Polk data; McKinsey GOG analysis; McKinsey Insights china; team analysis

For example, Fuzhou, Hangzhou, Shandong, and Shanghai are all located along China’s east coast, but consumers in Hangzhou and Shandong say they care about attractive external styling while their counterparts in Shanghai and Fujian are less concerned with exterior appearance and more sensitive to price, according to McKinsey research<sup>3</sup>.

In another example, consumers in the adjacent clusters of Guangzhou and Shenzhen illustrate different behaviors with respect to media. Our research finds that outdoor billboards are the most influential media in Shenzhen, but have much less impact on consumers in Guangzhou, who are more receptive to information in newspaper ads. Also, as a cluster with many young people, Shenzhen is much more open to up-and-coming brands than Guangzhou, where a significant proportion of consumers say they buy only well-known brands.

Three forces shape these clusters: local economic linkages, such as the state of infrastructure development; local consumer preferences; and the extent to which

3 McKinsey Insights China, 2010 Annual Consumer Survey

automakers are physically present in a particular region through manufacturing plants or big offices. The 25 clusters, with clear hub-and-spoke cities inside them, comprised 75 percent of China's automotive market in 2011, or 8.4 million cars. Our research shows that the top four clusters accounted for 36 percent of sedan sales and 31 percent of SUV sales in 2011. Consumer attitudes in hub cities have strong influence over the spoke cities. Our analysis of cluster dynamics found two main groups of cities within them, which we call "big shots" and "rising stars."

### *Big shots*

Thirty cities accounted for 36 percent of car sales in 2011, or 3.8 million vehicles; these cities will still represent 25 percent of the market in 2020, our analysis shows, despite expected faster growth in smaller cities and more government car-use restrictions. They are also extremely influential in new model launches, with the cumulative sales ramp-up speed for a new model in these "big shots" cities as much as four times as high as the national average. Our consumer survey and interviews also show the influence of hubs on their spoke cities, whose residents are more likely to follow the consumption habits and lifestyle preferences of their hub neighbors because of the powerful reach of local media and word of mouth.

### *Rising stars*

Twenty cities are expected to lead market growth in the years to come. We forecast that sales in "rising stars" will increase 10 percent, compounded annually, from 2011 to 2020, faster than growth nationally and for that of the "big shots." Total new car sales of the "rising stars" will represent 8 percent of China's market in 2020.

Automakers can use hub cities as springboards to penetrate an entire cluster. Our experience suggests that leading auto brands invest disproportionately in and achieve much higher success rates in selected top cities compared with their average performance. This point illustrates that even the most successful companies exhibit variable performance across regions.

## **A basic guide for automakers**

Our findings suggest a few lessons for automakers seeking to win in the emerging Chinese automotive market:

**Offer products for the growing segments of the markets:** Automakers should systematically review their product-cycle plans and identify the most favorable segments in which they might play. Are you prepared for the strongly growing segments such as SUVs or higher-priced vehicles (250,000 RMB and above)? Are you prepared for the environmentally conscious consumers, such as those in the premium A or EV segments? And how do you tailor your products and brand communications to appeal to a bipolar consumer market comprising new and experienced consumers living in urban and rural markets?

**Balance the product portfolio:** Chinese consumers want more spacious cars, but China is imposing increasingly stringent fleet fuel-economy requirements. In response, automakers' product portfolios must strike a balance between the bigger cars consumers desire and the more fuel-efficient cars and EVs that will enable OEMs to meet fuel economy standards.

**Prepare for customer upgrading – and retain existing customers:** Automakers have prioritized first-time buyers, but it's time to re-think that strategy. More and more consumers are ready to upgrade and trade up. Do you have the right product mix for the upgrade? Do you have the appropriate CRM program to monitor their upgrade demand? Do you have a used-car program to help them trade in and an attractive financing program for the upgrade?

**Look at the market through a regional and granular lens:** Automakers typically think of China as one market or a maximum of three to four markets (tier 1 to tier 4 cities). As we have shown, Chinese consumers now exhibit much more differentiated behavior than before, and automakers must prepare to serve those diverse needs. For example, they should step up their games in consumer research if they are to take advantage of the opportunities. That means gaining a better, more granular understanding of market segments and geographical differences.

**Improve agility in operations to prepare for volatility:** Increasing volatility in car sales in a slower-growing overall market could be problematic. For example, a drop in plant utilization could also affect cash flow. How agile and flexible is your operation system to react to the volatility? Do you have a strong dealer network and well performing suppliers under critical market situations?

□ □ □

Chinese consumers are becoming increasingly sophisticated about cars, and are developing strong preferences, following in the footsteps of consumers in Japan and the West. Millions are preparing to upgrade to bigger, higher-priced models. At the same time, they are displaying increasingly diverse behavior and needs. Automakers should invest in better understanding these evolving consumer attitudes, and prepare accordingly for the Chinese market of the future.

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## About the research

Our model comprises two subsystems. The first provides Chinese national-level projections of total car demand and demand by size and price segment. The second is a city car model. In the latter, outputs from the national model serve as benchmarks for city-level projections to ensure consistency. Weighted adjustment was necessary to align the sum of car segment demand with total demand. All results should be statistically significant.

We cross-checked our results with available data sources and international benchmarks to make sure the estimates were reasonable, and interviewed experts to round out our understanding of specific factors such as city car-use restrictions that might affect market development.

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