

# The Future Development of China's Automobile Industry

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## Abstract

After 20 years of rapid growth, the production and sales of China's automobile market have experienced negative growth in the past two years, which marks that China's automobile industry has entered a critical period of structural adjustment and transformation and upgrading. How to promote the high-quality development of automobile industry and realize the strategy of automobile power has become a difficult problem in front of the automobile industry, which needs to be faced by the whole industry.

## Keywords

Technological Change; Automobile Industry; Challenges; Opportunities.

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## 1. Several Analysis on the environment of China's automobile industry

### 1.1 China's economy has stepped up to high-quality development, and the basic aspect of the long-term good automobile market has not changed.

The development of domestic and foreign automobile market shows that no matter what stage the automobile market is in, the automobile market is strongly positively related to the economic development. At present, the domestic economy is affected by trade friction, investment slowdown and weak domestic demand between China and the United States, and the downward pressure is relatively high. However, under the support of infrastructure investment, the support of tax reduction and cost reduction on industry and stimulating consumption policy, the economy is basically stable in the year. In the third quarter of 2020, China's GDP growth rate is 3.2%, 4.9% and 6.5% respectively. The annual growth rate in 2021 is expected to be 8.5%, China's economy has entered a high-quality development stage from high-speed growth. Under the influence of favorable factors such as further release of dividend and continuous optimization of economic structure in 2020, the economy is expected to reach the bottom in the first half of the year and stabilize and recover in the second half.

In response, China's automobile market is also changing from medium to low speed growth stage. According to the analysis of the development and research center of the State Council, the growth rate of the car ownership of 1000 people in China has naturally fallen from about 12% to 5%. Although the domestic automobile market is under pressure in short term, we think that the basic aspect of the long-term good domestic automobile market has not changed: first, China's automobile consumption still remains unchanged It is in the period of popularization. According to the Ministry of public security, by the end of 2020, the total number of vehicles in China is 281million and the number of drivers is 456million. However, the total population of China is over 1.3 billion, which means less than 900million people have no cars yet. Second, the level of 1000 people in low-level cities still has a larger space to rise compared with high-speed cities. The population of the cities in line 3-6 is over 700million, the number of vehicles with 1000 people is less than 100, and the per capita GDP is less than 6000 yuan. According to the national revenue doubling plan, the income increase of the urban population in this type of city will directly drive the automobile consumption in

2021; thirdly, the improvement of urbanization level will promote the growth of the automobile market. In 2020, the rate of urbanization of permanent residents in China exceeded 60%, and the rate of urbanization of registered residence population was 45%, far below the average level of 80% in developed countries. The continuous improvement of urbanization level will not make more farmers increase their income through employment transfer, but also promote the balance of population flow and ease the contradiction between population concentration and automobile popularization. Fourth, the market of Chinese automobile "going out" is broad. At present, the annual export volume of China's automobiles is still around 1 million. In 2020, China's automobile output will reach 1999.4 million, accounting for 30% of the global share, but the export volume only accounts for 1.6% of the global automobile export share. In the future, the export scale of China's automobile is expected to achieve several times.

### **1.2 The reform of industry policy has been further promoted, and structural market opportunities and risks coexist**

From the policy orientation, the main direction of government to promote industrial transformation and upgrading, from big to strong is to deepen the internal structural adjustment and accelerate the opening up to the outside world. In terms of structural adjustment, the policies of reducing taxes and reducing fees and energy saving and emission reduction in manufacturing industry have been vigorously promoted, and supporting policies for the enlargement and strengthening of Chinese brand automobiles and international automobile enterprises have been issued. First, the implementation of a larger-scale tax reduction and fee reduction, and local policies to encourage automobile consumption are expected to accelerate the launch. In 2020, the tax rate of 16% of manufacturing industry has been reduced to 13%, and the enterprise social security rate has been reduced to 16%, which has reduced the operating cost of the automobile manufacturing industry. Meanwhile, the relevant ministries and commissions have accelerated the implementation of macro guiding policies such as several opinions issued by the State Council to stimulate the consumption of residents and the rural revitalization plan, and clarified the comprehensive elimination of second-hand car restrictions, prohibition of new car purchase restrictions, relaxation of pickup into the city, promotion of rural automobiles. After the requirements of updating and replacing generations, Guangzhou, Shenzhen and other cities gradually relaxed the car purchase restrictions. It is expected that more provinces and cities will introduce relevant policies to stimulate automobile consumption next year. Second, the blue sky security campaign has been vigorously promoted, including the elimination of three vehicles in China, the implementation of the national sixth policy in advance, and deepening the reform of freight transport, which will bring considerable market opportunities for additional purchase; meanwhile, the road transport safety supervision and vehicle consistency compliance inspection will be tightened continuously, and the enterprises will attach great importance to the compliance operation. Third, the firm development of new energy vehicles and intelligent Internet connected vehicles has become two major breakthroughs in China's automobile industry from big to strong, which is reflected in specific policies. (1) the issued action plan for green travel (2019-2022) takes the implementation of new and updated energy-saving and new energy source vehicles as the breakthrough point. The new energy vehicle industry development plan (2021-2035) to be issued is proposed. The government will accelerate the transformation of government functions, be compatible with various technical routes and enhance the market-oriented role. (2) In June last year, the subsidy declined and the white list of power batteries was cancelled. The industry will enter the post subsidy era this year. How to match the huge investment and market demand is particularly important. In terms of opening up, the foreign investment law is in effect and the foreign capital management in new energy vehicles will be treated equally, and the competition intensity and survival of the fittest in the post joint venture era are even more intensified. First, the "national treatment before entry + negative list management system" will be implemented in full by foreign investment from next year. In combination with the liberalization of the ratio of commercial vehicles in 2020 and the liberalization of the share ratio of passenger vehicles and joint ventures in 2022, the process of localization of foreign capital and the rhythm of products will be greatly accelerated, and the

development space of self-owned brand automobile enterprises will be further reduced; second, the state requires to guarantee the birth of domestic and foreign auto manufacturing enterprises. The new energy vehicles produced enjoy the same market access treatment, and require the revision of the double integral method to allow foreign investment in China to transfer the credits between the vehicle enterprises, which puts forward higher requirements for the cost control and product competition of domestic vehicle manufacturers.

### **1.3 The new four modernizing technology changes the enabling vehicles, which will bring new value growth points**

The automobile industry chain has experienced the reconstruction of the largest industrial chain and value chain in history for a century. The Chinese automobile industry has entered the technological breakthrough period, and the new energy and intelligent network have become the consensus of China's automobile development. From the supply side, there are emerging new technology development trends such as electric, intelligent and networking. From the demand side, sharing and personalized new consumption mode of market is accelerating application. For car enterprises, product competition has been upgraded from the competition among individual enterprises to the competition among industrial chains. More and more host plants and suppliers have simply bought and sold, It is transformed into joint development and then transferred to strategic cooperation. As a veteran of automobile, I feel deeply in it. The most intuitive change is the change of participants. Traditional parts such as engine and gearbox are slowly stepping down the altar. The battery, motor and electric control three electric system are emerging and on the historical stage. The parts related to intelligent and networking become important players in the industrial chain. The second is the change of cost structure value. The cost of traditional vehicle power assembly system accounts for only about 15% of the whole vehicle, while the three-way system of new energy vehicles accounts for almost half of the cost of the whole vehicle. In the field of intelligent network connection, experts expect that the additional value of electronic components and software will account for nearly 60% in 2021. Third, the commercialization of new technology is accelerating. In 2021, the carrying capacity of China's L2 driving assistance system is expected to exceed 1 million 400 thousand sets. L3 and L4 automatic driving systems are also in a small test stage. In 14th Five-Year, intelligent network and unmanned vehicles will usher in a substantial breakthrough with the development of 5G applications. Meanwhile, with the cost of materials and manufacturing reduced, we expect that the cost of pure electric vehicles will be fuel and fuel after 2024. Car price, the future is really coming.

### **1.4 The trend of consumption demand upgrading is continuous, and high quality and good price demand is a major opportunity**

From the demand side, the changes in market structure, user groups and diversified travel modes have prompted the upgrading of automobile market consumption. The results are as follows: (1) a large number of customers with base plate support nearly 10 million new replacement sales, and the number of passenger vehicles in China in 2020 is 281 million, and the replacement scale is expected to be 9.51 million in 2021, accounting for 43.7% of the total sales volume of new vehicles. In 2022, the replacement scale is expected to reach 1.01% 0250000 vehicles, accounting for 47.2% of the total sales volume of new vehicles, have been driven by the change of purchase on the growth of new vehicles. The domestic market gradually changes from new purchase market to new one; (2) the youth, female consumers and new consumption concepts rise, and the demand groups in low-line market tend to be younger, and the re purchase and female groups gradually increase, which brings the automobile consumption from traditional functional values as the driving force. The main purpose is to expand to the personality experience, technology pursuit, hometown complex and other directions; (3) new travel modes such as online car appointment and time sharing leasing are developing rapidly, and are being accepted by more and more consumers. From the supply side, the continuous upgrading of consumer demand leads the new development direction of car enterprises. First, brand upgrading, product upgrading and service upgrading. This is also what we all should work together. From the perspective of brand upgrading, first, with the coming of the stock competition era in the car market

and the rise of new middle class people, the proportion of customers who buy more and more cars is increasing, and the customer's recognition of brand quality is higher and higher, which gives the independent brand a good growth space; secondly, the brands in the stock market will change to service brands. We find that most of the independent brands will be transformed into service brands. Customer retention loss is not dissatisfaction with the quality and quality of the car itself, but the product has problems. The service response is slow and incomplete, which leads to complaints and slow loss. From the perspective of product upgrading, the upgrading of the consumers of the car owners below the level a in China is mainly physical size, and when the product is upgraded to level B and level C, consumers will choose between different categories and brands. Among them, the consumption upgrading of replacement users is reflected in the comprehensive upgrading of brand and product level. According to the analysis of China automobile research, the proportion of upgrading the replacement user model level is 63.4%, the proportion of brand level upgrading is 42.9%, and the proportion of at least one upgrade between brand and vehicle model is 75.2%. Compared with other customers, the customers pay more attention to comfort and power factors related to comfort and performance. From the perspective of service upgrading, one is the upgrading of channel service system, and the construction of scenario experience consumption with "user as the center" has become a new direction of automobile channel upgrading. In the future, we should talk about experience and application of new technology when launching products. Second, the business service scope is upgraded. With the popularization of automobile travel service consumption, more and more host plants are changing from "manufacturing" as the main to the profit mode of "manufacturing + service". From the past "one-hammer" automobile sales to optimizing value chain, extending industrial chain, increasing financial service support for suppliers, dealers and customers, we should integrate into the future Transformation of service providers of the living platform.

### **1.5 The competition pattern of the industry is accelerated and the independent brand must fight against the water**

Overall, China's auto industry is in a new round of deep adjustment period. We expect that the deep adjustment of the auto industry will take at least three years, that is, from 2021 to 2024, and from 2022, China's auto production and sales will return to the growth channel. It is estimated that the negative growth of domestic automobile production and sales is about 7.5% this year, and that in 2022 is roughly the same as this year. From the perspective of competition pattern, the concentration of the industry has been continuously increased since 2020, and small and medium-sized vehicle enterprises have been further squeezed. New forces of car building have started to divert the market, and the sales of traditional automobile vulnerable brands are rapidly declining. As for the independent brands, the overall decline in auto sales of independent brands in 2020 is higher than that of the industry. We judge that next year will be the life and death test period of independent brands. The first tier team will decrease by about 5% year-on-year in 2020, stand firm in 2020, recover and increase in 2021, and the same ratio of tier 2 and 3 brands will drop by about 20% in 2021. Vulnerable independent brands will continue to fight prices in order to obtain cash flow due to survival pressure. The war will be a general event. [1]

## **2. The "four challenges", "six opportunities" and "two measures" faced by independent brands**

### **2.1 Difficulties and challenges in 2021**

(1) The joint venture accelerated the launch of SUV and its price exploration, compressed the living space of independent brands, and the growth bonus of cross passenger vehicles and SUV no longer exists. The joint venture has laid down the entry-level market, and has entered the era of positive competition of the whole vehicle system; [2]

(2) New energy products of joint venture brand will be ready and put into the market in 2021. The products of the top enterprises of new power of car building will be launched continuously, and the market competition will be further intensified;

(3) The external environment is difficult because of the policy of further decline of new energy vehicle financial subsidy and the cancellation of foreign equity ratio of commercial vehicles;

(4) The survival pressure of vulnerable independent brands without joint venture profit contribution such as Lifan is increasing, and the new car building forces with weak financing capacity such as Yangtze River and future will survive hard. [3]

## 2.2 Opportunities and advantages to be faced in 2021

(1) The consumption of economic products will return to the warm. Under the pull of economic stability and stimulating consumption, the market of middle and low-end products will warm up, and then the sales volume of the third tier and below cities will be warmed up, and the independent brand will be favorable;

(2) Policy stimulus has helped to bring the market back to the warm. The policies of opening up the purchase restriction, eliminating the three vehicles in China, implementing the Sixth Party ahead of time, relaxing the policies of taking the pickup into the city and increasing the promotion of new energy vehicles will bring the market opportunities for additional purchase;

(3) The complete automobile industry chain and the rapid development of intelligent interconnection provide good support for independent vehicle enterprises to create differentiated competitive advantages. Meanwhile, capital has given birth to a number of competitive start-ups. Intelligent automobile parts make the gap between independent brands narrow, leading enterprises of new energy vehicles gradually grow into, and some technologies (such as solid-state batteries) are in sync with the world;

(4) Chinese consumers are more receptive to new things, and the travel market is huge (10% of shared cars in 2030 and 20-30% in 2035). For the shared cars with de branding, Chinese brands have comparative advantages in price and quality, and will form a new round of growth dividends;

(5) China has accelerated reform and opening up, and the system and mechanism have been continuously broken through and the competition environment is more fair, and the enterprise will be more vigorous;

(6) Chinese independent brands understand Chinese consumers better, and the awareness of autonomous car enterprises integrating into global competition is stronger. [4]

## 2.3 Two initiatives

Therefore, for the independent brand, from students to competitors, after more than 30 years of efforts, 40% of the market share is worth cherishing, but Chinese brand cars should know more about Chinese consumers, and we must get the momentum. On the one hand, we should firmly develop confidence, firmly do not engage in price war, adhere to customer value as the guide, adhere to the brand up, and adhere to providing high-quality and high-quality and high-price models and services; on the other hand, we should actively prepare for the price war, adhere to the blade inward, adhere to lean management, adhere to cost reduction and efficiency, and survive the winter to usher in a warm spring.

## References

- [1] Economic Policy Uncertainty. Global Economic Policy Uncertainty Index [DB/OL]. (2019-11-30) [2019-12-26]. [https://www.policyuncertainty.com/global\\_monthly.html](https://www.policyuncertainty.com/global_monthly.html). The application of blockchain technology in China and the transformation of enterprise financial management system.
- [2] Economic Policy Uncertainty. Newspaper-Based Uncertainty Indices for China [DB/OL]. (2019-10-31) [2019-12-26]. [https://www.policyuncertainty.com/china\\_epu.html](https://www.policyuncertainty.com/china_epu.html).
- [3] Knight, Frank H., Risk, Uncertainty and Profit (1921). University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. Available at SSRN: <https://ssrn.com/abstract=1496192>.
- [4] Gulen H, Ion M. Policy Uncertainty and Corporate Investment[J]. The Review of Financial Studies. 2016, 29(3):523-564.