

# China-U.S. Trade War Strategy for the Automotive Industry——Based on the Industrial Policy Perspective

Yang Yao

Shanghai University, Shanghai, China

2388465505@qq.com

**Keywords:** Trade frictions; Sino-US trade war; Industrial policy

**Abstract:** In July 2018, the trade war between China and the United States was officially launched. As an important field of global trade in the automotive industry, the tariff levy list for Sino-US trade frictions has repeatedly involved auto and auto parts related products. As the largest export market for auto parts in the US, trade friction will inevitably affect Chinese auto and auto parts industry. What challenges and opportunities will be encountered in the Sino-US trade war? In this regard, what measures should our country take to deal with the severe trade war? It has become an inevitable problem. This article mainly analyses the impact of Sino-US trade friction on my country's automobile and auto parts industry and analyses industrial policies, and briefly analyses the strategies for Sino-US trade friction challenges.

## 1. Overview of "China-US Trade War"

In March 2019, the Chinese government's work report stated: "Economic globalization has encountered setbacks, multilateralism has been hit, and international financial markets have fluctuated. In particular, Sino-US economic and trade frictions have adversely affected the production and operation of some enterprises and market expectations." 2019 In May, the United Nations' "World Economic Situation and Outlook 2019 Mid-year Report" pointed out that with the proliferation of "reverse globalization", national unilateralism and trade protectionism have gradually risen, global trade frictions are increasing, and global economic and trade relations are highly Tension and the uncertainty of trade policy have become prominent, which has seriously damaged trade growth. Since the United States launched the "301 Investigation" against China in August 2017, Sino-US trade frictions have officially opened. Subsequent China and the United States have gone through many rounds of negotiation and consultation. The Sino-U.S. trade frictions have intensified, and the scope of coverage has become wider and wider<sup>[1][2]</sup>.

From a field perspective, China intends to stop the tax cuts on agricultural products and fruits, pork, and other primary products such as the United States. Whether in the catalogue of the proposed tariff increase announced in the previous period or in the formal tariff increase catalogue, cars are among them, and basically cover all major import and export auto categories. At present, the United States, as China's largest export market for auto parts, is also the second largest source of imports for Chinese vehicles. In 2017, China's auto parts exports amounted to US\$68.6 billion, of which exports to the US amounted to US\$17 billion, accounting for 25%. As an important trade sector between China and the United States, the auto parts industry is also an industry that focuses on Sino-US trade frictions. Therefore, Sino-US trade friction is bound to affect my country's automobile and auto parts industry. The auto parts industry, as a manufacturing sector with deep engineering value in the global value chain, has a "fragmented" production model<sup>[3][4]</sup>. China's auto parts, especially key parts manufacturing, has gradually upgraded its division of labor in the global production network, and it has a core position in the Asian regional production network<sup>[5][6]</sup>. With the gradual advancement of the global production division of labor, Sino-US trade friction will inevitably affect the automobile manufacturing sector with deep participation in the global value chain<sup>[7]</sup>. As a result, international economic and trade frictions have increasingly intensified the dual pressures on China's auto parts industry to return mid- to high-end nodes to developed

countries and divert mid- to low-end nodes to developing countries.

At present, the literature research on Sino-US trade friction is very rich, mainly focusing on the following two aspects:(1) Some scholars focused on the theoretical level, and elaborated and predicted from the origin, development trend and future expectations of Sino-US trade friction <sup>[8]</sup> <sup>[9][10]</sup>; (2) Some scholars quantitatively analyse the impact of Sino-US trade friction <sup>[11][12][13][14][15]</sup>. However, the existing literature has paid less attention to the impact of trade friction on the auto parts industry.

The complex and treacherous international environment undoubtedly poses serious challenges to China's economic growth. In recent years, the added value of the automobile manufacturing industry has increased year by year as a percentage of GDP. In addition, the industry has the characteristics of a long industrial chain, high industrial correlation, wide employment, and large consumption pull. The automotive industry has gradually developed into an important One of the pillar industries. So, the following questions are raised: What is the evolution of the Sino-US auto and parts trade? How has the international competitiveness of Chinese autos and parts changed? What is the impact of trade friction on the Chinese auto and parts industry? These The questions are worthy of in-depth consideration. This article assesses the impact and opportunities of Sino-US trade friction on my country's auto and auto parts industry, and provides references for actively responding to the complicated and treacherous international situation.

## 2. Overview of China's Auto Industry

### 2.1. The Evolution of China's Auto Industry Trade

At present, the overall import and export trade between China and the United States is relatively balanced, and China's trade surplus with the United States is gradually narrowing. The surplus of China-US auto trade in 2015 was US\$3.9 billion, in 2016 the surplus narrowed to US\$3.3 billion, and in 2017 the surplus further narrowed to US\$2.5 billion. Among them, the trade of the entire vehicle with the United States is in a deficit state, with an amount of about 10 billion U.S. dollars, and the trade of parts with the United States is in a surplus state, with an amount of about 15 billion U.S. dollars. Generally speaking, in China's auto trade with the United States, the import of complete vehicles is mainly based on exports of parts, and the overall trade development level is relatively balanced.

**Table 1.** Import and Export Scale of China-US Automobile Trade

Category	Exports (USD 100 million)			Imports (USD 100 million)			Trade surplus (USD 100 million)		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Vehicle	1	12	14	117	121	131	-116	-110	-116
Parts	177	167	170	22	25	28	155	143	142
Total	178	179	184	139	146	159	39	33	25

### 2.2. China's Auto Industry Policy

At present, China's auto industry is undergoing transformation and upgrading, creating a new era of technological revolution, industrial transformation and business reshaping. Embark on the road of development from big to strong. The automotive industry is in a period of major changes. At the moment when intelligent vehicles and new energy vehicles have become the trend of the global automobile industry, policies have been planned accordingly.

**Table 2.** Important industrial policies

Policy	main content
Joint Venture Stock Ratio	The 2018 National Development and Reform Commission officially announced that the stock ratio restrictions in the automotive industry will be completely abolished in 2022.
Automobile tariffs	On May 22, 2018, the Ministry of Finance of the People's Republic of China issued the "Announcement of the Customs Tariff Commission of the State Council on Reducing Import Tariffs for Automobiles and Parts". It is proposed that from July 1, 2018, tariffs on the import of complete vehicles and auto parts will be reduced.
Double points policy	On September 27, 2017, the Ministry of Industry and Information Technology officially announced the "Administrative Measures for the Parallel Consumption of Average Fuel Consumption of Passenger Car Enterprises and New Energy Vehicle Points", which will be officially implemented on April 1, 2018. Carry out integral assessment on the average fuel consumption of car companies and the parallel management of new energy vehicles.
Smart Car	The National Development and Reform Commission released the "Smart Car Innovation Development Strategy" on January 5, 2018 (Draft for Comment). It is estimated that by 2020, the proportion of China's new standard smart cars will reach 50%, and the market promotion of middle and high-end smart cars will be realized.

With the release of China's stock ratio signal, the Chinese auto market is actively embracing the upsurge of reform and opening up. After opening the auto stock ratio limit in 2022, my country's auto companies will face a more difficult threat than technological upgrades, and the days when China will dominate will no longer continue. The key to solving this dilemma is the cohesion of public car companies, so that our joint ventures can gain a foothold in the "wind and rain" of open stock ratios.

Under the background that intelligent vehicles have become the general trend, many domestic automobile companies have established independent research and development plans and development channels for intelligent vehicles, and intelligent technologies are constantly developing. In fact, my country's smart network technology has received a lot of policy support in recent years. Against this background, many domestic auto companies have developed their own smart car development plans and development approaches, and smart technologies continue to develop. By 2020, the area where the automotive network industry development plan is released. By 2020, the automotive interconnection industry will achieve leapfrog development; industrial integration will be based on high-tech-(5g-V2X) wireless communication technology. Based on the 5th generation, the design speed is combined with the intelligent driving technology of intelligent driving and application software of specific scene scale. Some of these applications will build a communication and computing car network architecture.

### **3. China's Auto Industry under the Trade War**

The total volume of Sino-US auto trade is comparable. According to my country's customs data, in 2017, China-US auto merchandise trade, China imported 15.86 billion U.S. dollars from the United States and exported 17.62 billion U.S. dollars to the United States, and the auto industry realized a small surplus of 1.76 billion U.S. dollars. China's imports are mainly high-end complete

vehicles, and the products exported to the United States are mainly tires, wheels and other components.

From the market point of view, at present, Chinese brand cars basically rely on their own markets, and the main export of Chinese cars to Russia, the Middle East and Latin America markets, not the United States. Therefore, from the perspective of the trade war, the impact is mainly concentrated on imported vehicles produced in the United States and my country's need to use models that originated in the United States.

### **3.1. Trade War Hits China's Auto Industry**

#### **3.1.1. Consumers' car purchasing power will decline**

As we all know, investment, consumption, and export are the three main factors that can promote economic growth. Among these three, the proportion of exports is quite large, and one of the main destinations is the United States. The tariff war in the Sino-US trade war has caused the price of imported goods to rise and rise, and there is no doubt that it will have a great impact on the Chinese economy. With economic growth slowing, consumer income will definitely fall. But at the same time, for domestic automakers, pressure from competitors has been reduced, and domestic consumers have turned to low-priced domestic products.

#### **3.1.2. China's auto parts exports suffer**

Although last year China exported less than 900,000 vehicles and the destination was a developing country, there were still a lot of spare parts exports. In 2017, net exports reached 334.6 billion yuan, of which the United States was the main destination. Except for several factories such as Fuyao Glass, which set up factories in the United States, most of them adopt export trade. In the past, tires were greatly affected during anti-dumping.

Many auto parts come from small and medium-sized enterprises, and such enterprises are not only the backbone of the rise of Chinese industry, but also the workshops of the global production supply chain. Official data shows that in 2017, SMEs contributed about 60% of China's GDP, while private companies (mainly SMEs) accounted for 47% of exports.

For Chinese producers, the increase in their procurement costs for foreign customers is nothing to do. The business pressure of some Chinese parts export suppliers has doubled. For foreign companies that need to purchase cheap, high-quality parts, the biggest problem is that it is difficult to find suitable manufacturers to replace Chinese suppliers. Buyers usually spend years to develop suppliers that can meet quality requirements and freight schedules. However, there are still some customers looking for alternative suppliers. Kankins-based aftermarket parts supplier Hopkins Manufacturing purchases from 45 Chinese factories, but is currently considering purchasing from Taiwan. Some Chinese suppliers say that the customer relationship they have built over the years may well be completely destroyed by the trade war.

#### **3.1.3. The development of high-tech technologies such as intelligent networking is limited**

The Japanese car successfully entered the global market that year, and has a great relationship with the addition of electronic technology. If Audi is famous for its technology, Japanese cars have created the era of high-tech cars. The concept of Internet + car has been mentioned for many years, but a large number of consumer-grade products have only met with consumers since 2017.

At present, China's Internet market is already one of the most developed markets in the world. As of December 2017, the number of Internet users in my country reached 772 million, with a penetration rate of 55.8%, exceeding the global average (51.7%) by 4.1 percentage points. The huge Internet users determine the growth of the huge automobile consumer group. Their growing demand for cultural consumption requires rapid development of automotive technology to meet.

Although the traditional vehicle and its core business are still the foundation of my country's automobile progress, it still needs to explore new business models and conquer and master new core technologies in the fields of car networking, new economy, autonomous driving, mobile travel, and new energy. At present, whether it is a traditional car-making force or a new car-making force on

the Internet, there will be a tremendous change in intelligent networking. The R&D center for autonomous driving is located in the Silicon Valley of the United States. Under the increasingly fierce Sino-US trade war, the high-tech industry will bear the brunt. The speed of the Chinese automobile industry to "change lanes first" will slow down. The auto industry's "overtaking in corners" will have a certain impact.

### **3.2. Opportunities for the Chinese Automotive Industry**

In the case of changes in the external environment, in addition to the challenges mentioned above, the consumption structure of the automotive industry is facing new opportunities, and it is possible to seek partners other than the United States to achieve a win-win situation.

#### **3.2.1. Good automobile consumption environment**

In the current consumption expenditure structure of the common people, the most important ones are housing, cars, education, and other consumptions are also being upgraded, but the bulk can not be compared with these three types of consumption. In the real estate market, housing prices are now high, and the task of transferring inventory is nearing completion. It is impossible to introduce new stimulus policies; in addition to education and training, a considerable chunk of education consumption is to study abroad, and the main destination is the United States, so it is impossible to encourage ; And the automotive industry in terms of travel. As of the end of the year, China had 217 million cars and 131 cars per thousand people, which is far below the average level in developed countries. There is still a lot of room for it. It can be seen that the auto industry has great potential.

If the economic growth rate falls too fast, it needs to be regulated in terms of policies. For example, in the consumption of traditional fuel vehicles, expand automobile financial consumption, encourage second-hand car transactions, and promote the obsolescence of old cars. ; In terms of consumption of new energy vehicles, the government should increase efforts to improve infrastructure such as charging stations and charging stations. It can be predicted that the development of China's auto industry will usher in a better domestic consumption environment.

#### **3.2.2. Automobile export and cooperation**

If the Sino-US trade war starts, and if it escalates, this part of the commodities exported to the United States in the past will definitely find alternative countries. The threshold for trade between China and countries outside the United States will be further lowered, creating conditions for Chinese products to go global. Chinese cars can also go abroad in large quantities, and among these countries, countries along the "Belt and Road", especially Southeast Asia, should be the first choice.

In addition to American brands will also be indirectly impacted by parts, German brands have also been affected. Although China's counterattack policy is aimed at the United States, since the customs clearance only considers the place of production and does not consider the brand's subordinate country, the export models produced by German car companies in the United States will lie innocently and become the victims of the policy. According to a rough statistics, BMW alone will have the X5, X6 and other high-volume SUV models affected, and the domestic import volume of the BMW X5 in 2017 has reached as high as 56,151.

Just recently, Sino-German automobile cooperation began to heat up, and German car companies Daimler and Volkswagen have added new layouts in China. According to the information released by the National Development and Reform Commission a few days ago, FAW-Volkswagen will take the lead in building the Volkswagen MEB platform, which will be located at the Foshan plant in Foshan City, Guangdong Province. In the future, the four concept models of the Volkswagen I.D. family, including cars, SUVs and small buses, will be produced in China. Accordingly, Chinese companies are actively exploring the possibility of cooperation with German auto companies. In an interview with foreign media, BMW CEO Kruger revealed that he has signed a purchase contract of more than 1 billion euros with Chinese battery supplier Ningde Times, and Ningde Times is also expected to build a factory in Germany. The cooperation between Chinese and German auto companies in multiple dimensions has provided a good example of future trade cooperation

between China and Germany and even between China and Europe. In the future, China and Germany will also explore the possibility of cooperation in many fields such as autonomous driving, new energy vehicles, industrial Internet, intelligent manufacturing, e-commerce, energy conservation and environmental protection.

Secondly, in the face of the cold winter of American cars, China will undoubtedly further open up Japanese brands, providing a great opportunity for it to fully enter the Chinese market. Affected by the Sino-US trade war, policies to promote economic and trade development between China and Japan will be introduced accordingly. With policy support, in-depth cooperation between the two countries will help Japanese car companies to speed up the localization process in China, which will be a good opportunity for Japanese cars to show their efforts in the Chinese market.

#### **4. Summary and Policy Recommendations**

As an industry in the global value chain, the automotive industry cannot be underestimated. In the short term, as China's largest auto market in the world, GM Ford's business will be greatly affected, other multinational companies; especially German auto companies will also be affected. In the domestic market, Chinese auto companies may benefit from competition The reduction of opponents. Since the two markets of China and the United States account for nearly half of world car sales, in the long run, the global auto industry will be shrouded in the cloud of the trade war and will be hindered. The automotive industry is currently on the eve of major changes, and automation, sharing, intelligentization, and electrification are profoundly changing the automotive industry. The United States is far ahead in automotive driverless technology, and China has accumulated a wealth of electric vehicles and travel data. Based on the data and experience, the trade war will hinder the cooperation between the two sides.

##### **4.1. Promote the export of parts**

The increase in tariffs has caused domestic parts export manufacturers to be hit, and a large number of orders from American automakers have been lost. Therefore, it is imminent to find export substitution demand outside the United States. Promote the export of automobile commodities. Auto parts exporters should actively explore emerging markets such as the Belt and Road Initiative and the European Union. The trade war will impact existing products in the short term. Relevant companies need to adapt to the unexpected changes in the consumer market and customers, and actively work on the supply side to find new partners and strive to open up new market space. Automobiles are still important trade commodities in the world. The international competitiveness of my country's autos in new energy commercial vehicles, tires, glass, electric power pools and other components has steadily increased, and they are able to win the international market.

From a policy point of view, give preferential tariffs to China's auto parts manufacturing enterprises, lower the threshold of their trade transactions with other countries, encourage other countries with good qualifications, strong strength and good business transactions with China, and give corresponding policy preferences and Support and adhere to the principle of "going out and bringing in".

##### **4.2. Fight speculation and standardize investment management**

At the time of the rapid development of emerging new energy vehicles, according to incomplete statistics, there are currently more than 50 new car forces. In the past two years, they have sprung up everywhere. This simple and rough way of pulling several people on stage to sing operas cannot be continued, but measures should be promulgated to stop it.

It is necessary to clarify the rules for resolute control of automobile manufacturing speculation and increase the entry threshold for new energy. For the qualifications and investment requirements of shareholders, higher standards and restrictions should be made. At the same time, its shareholders are required to have intellectual property rights on parts and components and strong production capacity.

In addition to the corresponding regulations on the supply side, in order to promote the industry management system, it is also necessary to actively guide consumer demand. my country's automobile production and sales volume ranks first in the world, and automobile ownership is also growing rapidly. "Double Points" provides a long-term mechanism for the development of new energy vehicles, and the "Blue Sky Defense War" puts forward new requirements for the environmental protection of vehicles. Through improving the management system, guiding rational consumption, and injecting continuous momentum into the development of the industry.

### **4.3. Intelligent car**

In terms of automotive technology, the development of the next-generation Internet + car is now visible. Autonomous driving and artificial intelligence are the two major focuses of future development. The further development of the in-car life platform can realize online and offline shopping and control of home appliances. As well as the social experience of the car community. The further combination of advanced Internet technology + automobiles will enable Chinese automobiles to occupy an absolute advantage in the subdivided fields in industrial transformation and upgrading. Differentiated competition will also enable independent brands to maintain their existing market share, seize joint ventures and foreign markets. To a positive role.

At present, FAW Group has a preliminary practical layout. It is mentioned in the technical strategy "R-Flag Queqi Plan" released by the FAW Group, hoping to realize the intelligent network technology, electric technology, shared travel technology, interactive experience technology, etc. through the leadership of technology brands. A rapid breakthrough.

In the "Medium and Long-Term Development Plan for the Automotive Industry", it has been proposed that, taking into account the shortcomings of the industry, it should be committed to the development of high-end accessories such as automotive sensors and network chips, and gradually promote the technological innovation of intelligent network-connected vehicles. We must focus on research and development of the main technical components, focusing on supporting the research and development and industrialization of core technologies, such as sensors, control chips, fixed-point high-density positioning, network terminals and operating systems. Promote the rapid development of the intelligent automobile industry.

### **4.4. New energy vehicles**

China's new energy vehicle industry and related technologies are still in their infancy. Similarly, supporting facilities and infrastructure such as charging stations are often lacking. In addition, high prices and low social acceptance constitute a major obstacle to the new energy vehicle industry. Large-scale applications and industrialization still have a long way to go.

It regulates the technical standards of emerging new energy vehicle brands existing in the industry and limits the growth of bubbles in the new energy vehicle industry. It is also necessary to promote its investment and construction in major cities in the construction of infrastructure downstream of the industrial chain. First of all, it is necessary to clarify its facility construction and operation mode. In relevant standards such as battery size, battery replacement, and car charger standards, automotive technology Standards and charging station technical standards are agreed with car companies, and at the same time, the industrialization of passenger cars and commercial vehicles is promoted according to local conditions. Because the long charging time greatly affects the efficiency of the vehicle, the economy and convenience of consumers' purchase and use are related to the competitiveness of the vehicle. Therefore, the charging piles related to the construction of shopping malls, communities and office buildings should also be considered and implemented in the promotion of new energy vehicles.

## **References**

[1] Huang Peng, Wang Jianxin, Meng Xue. 2018. Economic globalization rebalance and Sino-US trade friction [J]. *China Industrial Economy* (10): 156-174.

- [2] Yu Zhen, Zhou Binghui, Xie Xubin, Wang Zinan. 2018. Participate in the reconstruction of global value chains and Sino-US trade friction [J]. *China Industrial Economy* (07): 24-42.
- [3] Gereffi G.2008.Development models and industrial upgrading in China and Mexico[J]. *European Sociological Review*, 25(1):37-51.
- [4] Timmer M P,Dietzenbacher E,Los B,et al. 2015. An illustrated user guide to the world input-output data base:the case of global automotive production[J]. *Review of International Economics*, 23(3):575-605.
- [5] Athukorala P C,Menon J.2010. Global production sharing,trade patterns,and determinants of trade flows in East Asia[R].Philippines: Asian Development Bank:1-43.
- [6] Deng Shizhuan. 2015. China's role in the global value chain-based on the perspective of parts and components [J]. *Economic issues* (11): 83-89.
- [7] Athukorala P.2017. China's evolving role in global production networks: Implications for Trump's trade war[R]. *China's New Sources of Economic Growth: Human Capital,Innovation and Technological Change*,2:363-388.
- [8] Ren Liang. 2017. Trump's trade policy and the US "301" investigation on China [J]. *International trade issues* (12): 153-165.
- [9] Lin Yifu. 2019. China's new era and the Sino-US trade dispute [J]. *Journal of Wuhan University (Philosophy and Social Sciences Edition)* (02):159-165.
- [10] Ma Hong, Teng Yue, Xu Kun. 2018. Strategic Thinking on the Escalation of Sino-US Trade Friction——Based on the Perspective of Japanese Experience [J]. *International trade* (03): 32-40.
- [11] Guo Meixin, Lu Lin, Sheng Liugang, Yu Miaojie. 2018. Countering Sino-US trade frictions and expanding openness [J]. *Academic Monthly* (06): 32-42.
- [12] Huang Peng, Wang Jianxin, Meng Xue. 2018. Economic globalization rebalance and Sino-US trade friction [J]. *China Industrial Economy* (10): 156-174.
- [13] Li Chunding, He Chuantian, Lin Chuangwei. 2018. Evaluation of the effect of China-US trade friction response policy [J]. *China Industrial Economy* (10): 137-155.
- [14] Amiti M, Redding S J, Weinstein DE. 2019. The Impact of the 2018 Tariffs on Prices and Welfare [J]. *Journal of Economic Perspectives*, 33(4): 187-210.
- [15] Fajgelbaum PD, Goldberg P K, Kennedy P J, et al. 2019. The Return to Protectionism[R]. National Bureau of Economic Research.