

The External of China's Equipment Manufacturing Industry Analysis of the countermeasures of capacity cooperation

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Abstract: Under the guidance of the "several opinions of the State Council on accelerating the revitalization of the equipment manufacturing industry, " the Central Committee of the Party put forward the key task of "three elimination, one reduction, one replenishment" , China's equipment manufacturing industry has developed by leaps and bounds The autonomous level of major technology and equipment has been significantly raised, and the international competitiveness has been significantly enhanced. The technical level and occupancy rate of some products has risen to the forefront of the world. With the rapid development of this industry, the problems related to the cooperation of the equipment manufacturing industry with foreign production capacity have also been highlighted. We fully understand the development status and existing problems of the international production capacity cooperation of this industry. It is of great practical significance for China's economic progress to further explore policy suggestions for accelerating production capacity cooperation of China's equipment manufacturing industry. Based on an overall analysis of the current situation of China's foreign production capacity cooperation in the equipment manufacturing industry, this paper analyzes the scale and product structure of the foreign production capacity cooperation by using the new fixed assets and the import and export data of the four sub-industries of the Industry Based on the analysis of China's equipment manufacturing industry's advantage in production capacity and "Belt and Road" strategic policy support, the problems, opportunities and challenges in the cooperation are summarized Finally, from the international environment, domestic supporting policies, the enterprise's own development, the country's diplomatic guidance and other aspects of specific countermeasures and suggestions ^[1].

1. Introduction

1.1. Research background and significance

1.1.1. Research background

As the largest equipment manufacturing country, in recent years, China's high-speed railway, power equipment, electronic information manufacturing, engineering machinery, shipbuilding, and other industries have gradually gone abroad, becoming a pillar industry of China's foreign production capacity cooperation. At the same time, the problem of excess capacity persists in China, on the one hand, due to the transfer of the equipment manufacturing industry, on the other hand, due to excessive administrative intervention. For many years, China's equipment manufacturing industry fixed assets investment accounts for more than half of the total fixed assets investment, but the growth rate is obviously lower than the average level under the influence of various factors such as low profit and capacity reduction ^[2].

1.1.2. Research significance

China's government focuses on the rapid development of the equipment manufacturing industry,

various domestic support policies have been introduced. At the same time, the contribution rate of equipment manufacturing foreign trade and foreign direct investment to GDP becomes increasingly important. In 2018, China's foreign direct investment totaled US \$129.83 billion, up 4.2 percent year on year, according to statistics from the Ministry of Commerce. In terms of industrial distribution, the outflow of the manufacturing sector was US \$18.82 billion, down 1.6% year-on-year and accounting for 14.5%. The outflow to the equipment manufacturing sector was US \$7.27 billion, down 32.9% year-on-year and accounting for 38.6% of the total outbound investment in the manufacturing sector. This data shows that while the equipment manufacturing industry is speeding up the pace of external cooperation, the problem of excess production capacity is already very serious, so it is high time to find a more suitable development model and strengthen the development of external production capacity cooperation of equipment manufacturing industry.

1.2. Research methods

(1) Literature research method: through reading and interpreting the existing literature and Research, we can find out the unsolved problems and try our best to perfect them, which can be helpful for the writing of this paper and the research of other scholars;

(2) Theoretical analysis method: study the cooperation of China's equipment manufacturing industry with foreign production capacity, in theory, analyze the advantages and disadvantages, opportunities and challenges, and find a reasonable solution to the existing problems;

(3) Data analysis method: Search the website of Ministry of Commerce, National Bureau of Statistics of the People's Republic of China and so on about our country equipment manufacturing industry external production capacity cooperation data, use the data to analyze the existing problems in detail.

1.3. The content and framework of the paper

The article is divided into five parts, its main content is as follows: the first part is the introduction, summarized the research background, research significance and purpose of this paper as well as the literature review at home and abroad. The second part is the analysis of the current situation and existing problems of China's equipment manufacturing industry's capacity cooperation with foreign countries. The third part is the great opportunity that our country develops the overseas production capacity cooperation of the equipment manufacturing industry. The fourth part is the challenges and countermeasures of proceeding with the equipment manufacturing industry's capacity cooperation with foreign countries. The fifth part is the conclusion and the research prospect.

2. The status quo of China's equipment manufacturing industry's foreign capacity cooperation

2.1. The overall scale of development of China's equipment manufacturing industry's foreign capacity cooperation

As can be seen from Figure 1, the new fixed assets of the four sub-industries in the equipment manufacturing industry showed steady and sustained high growth from 2008 to 2015, and the assets of 2016 and 2017 did not change much, indicating that China's equipment manufacturing industry developed rapidly between 2008 and 2015. China's equipment manufacturing capacity has a comparative advantage. However, with the expansion of China's equipment manufacturing industry, the problem of overcapacity gradually emerged, so in 2016 there was a downward trend in new fixed assets^[3].

As can be seen from Figure 2, since 2008, the import and export volume of machinery and transport equipment has shown a general upward trend, reflecting the increasing scale of China's equipment manufacturing industry's cooperation with foreign production capacity. However, since 2014, the slight decline in both import and export volumes indicates that China's demand for machinery and transport equipment is gradually saturating, and that the previous upward trend in

the demand for machinery and transport equipment in the import and export cooperation countries is no longer maintained The international production capacity cooperation of China's equipment manufacturing industry has met with the urgent difficulties to be solved..

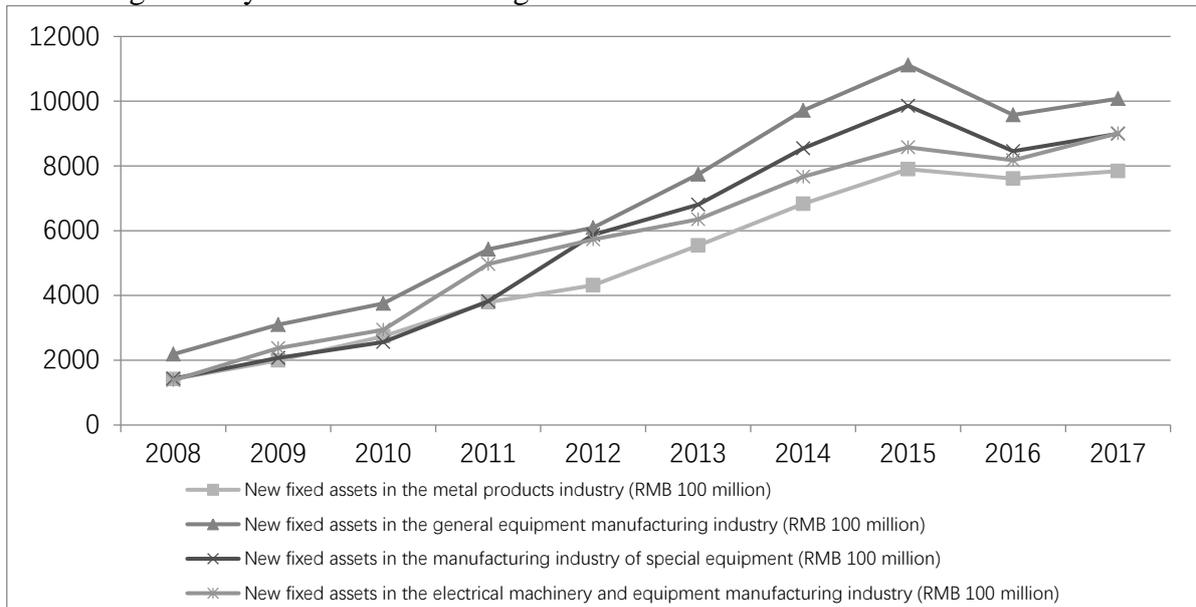


Figure 1 Trend chart for new fixed assets in four sub-industries in equipment manufacturing

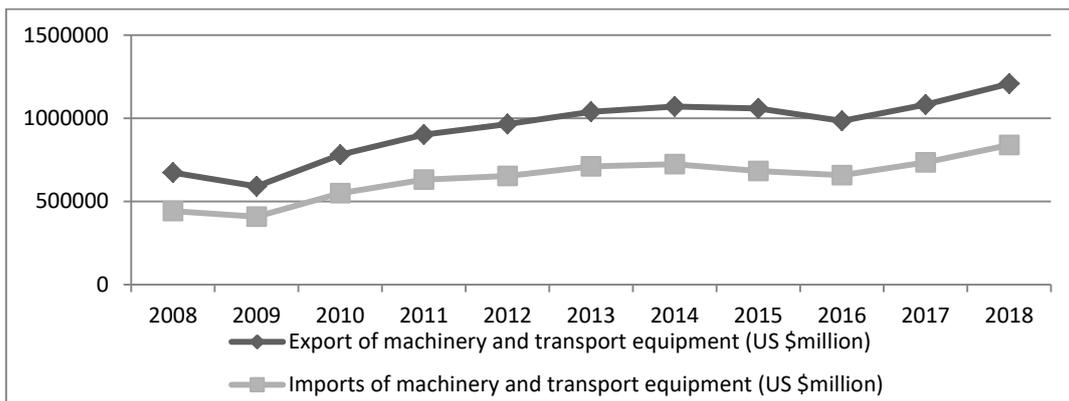


Figure 2 Import and export of machinery and transport equipment

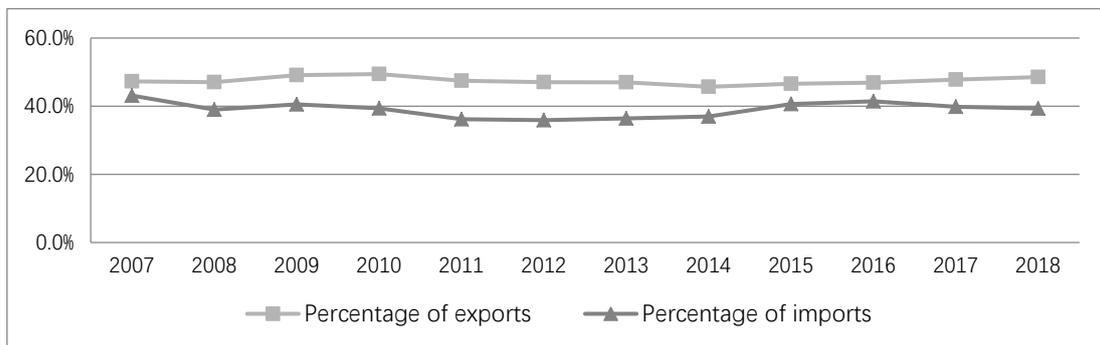


Figure 3 proportion of machinery and transport equipment in total imports and exports

From Figure 3, it can be clearly seen that the import of machinery and transportation equipment in 2007-2018 in China's total imports of about 40% of the floating, export volume in China's total export son less than 50%, indicating that machinery and transportation equipment imports and exports accounted for a relatively large, China's total imports and exports have a greater impact, It is closely related to the level of national economic development.

From the above analysis, we can see that the development scale of China's equipment manufacturing industry cooperation with foreign production capacity have a slight decline after

experiencing a rapid rise. At present, China's equipment industry ranks the first in the world in product categories, the first in product quantity and the fourth in product value. The equipment manufacturing industry has become one of the important pillar industries of China's national economy it has an extremely important influence on the international production capacity cooperation in China. However, China's equipment manufacturing industry is relatively weak in independent innovation capacity, and its technological level still falls behind the world's leading level. There are fewer products with independent intellectual property rights, and the proportion of products assembled by enterprises is large China's industrial value-added rate is still far below the United States, Japan, and Germany, but also the need for our government, enterprises and other joint efforts^[4].

2.2. Market structure of China's equipment manufacturing industry's external capacity cooperation

According to the UN COMTRADE database, China is the world's largest auto producer and marketer, but its export growth has slowed in the last decade. Taking accumulated export figures from January to May 2019 as an example, China's car exports mainly to Iran, Chile, and Mexico. Iran is currently the fastest growing country in western Asia, where car consumption has been boosted by a "Belt and Road" policy. SUVs are mainly exported to Bangladesh, India and the United States. Bangladesh, a South Asian country, is growing fast under the influence of China's Belt and Road policies, and India, the second generation emerging market after China, is highly regarded by Chinese automakers. Trucks are mainly exported to Vietnam, Myanmar and the Philippines. It is obvious that Southeast Asian countries are major consumers of China's truck exports. The passenger cars are mainly exported to Bolivia, Vietnam, and Peru^[5].

2.3. Product structure of China's equipment manufacturing industry in cooperation with foreign production capacity

This paper will analyze the product structure of China's equipment manufacturing industry through analyzing the export delivery value of the six major industries.

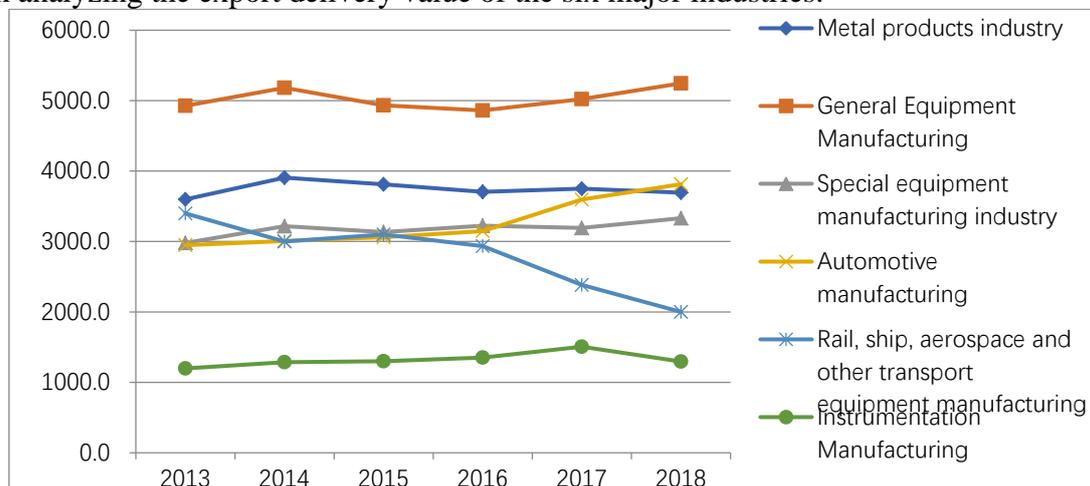


Figure 4 Export delivery value of six major industries in China's equipment manufacturing industry (units: RMB 100 million)

In the foreign production capacity cooperation of China's equipment manufacturing industry, the cumulative export delivery value of the electrical machinery and equipment manufacturing industry up to December 2018 was 1061.77 billion yuan; The computer, communications and other electronic equipment manufacturing industry showed a positive upward trend with the cumulative value of export deliveries of 5,546.83 billion yuan as of December 2018. As can be seen from the figures in figure 4, the general equipment manufacturing industry has the largest export delivery value in the equipment manufacturing industry, which is about five times the export delivery value of the Instrument Manufacturing Industry In the past six years, the value of export delivery fluctuated around 500 billion yuan in the general equipment manufacturing industry, while the

instrument manufacturing industry showed an upward trend year by year. Obviously, our country's general equipment manufacturing industry development is good, is the national economy pillar industry^[6].

China's equipment manufacturing industry has made great progress in scale, quality and level in foreign trade, and the scale of foreign trade and investment has been gradually increased. The brand management consciousness strengthens gradually; the whole Technology Content Enhances Unceasingly; at the same time, also starts to pay more attention to the energy conservation environmental protection. In a word, to a certain extent, carrying out equipment manufacturing industry cooperation with foreign production capacity has strongly supported, promoted and promoted the rapid development of the national economy.

3. Opportunities and challenges for developing equipment manufacturing cooperation with foreign capacity

3.1. Opportunities for equipment manufacturing industry to cooperate with foreign production capacity

At present, China's equipment manufacturing industry faces new opportunities for international production capacity cooperation: "Belt and Road" provides a new platform for manufacturing industry to cooperate with foreign production capacity; The interconnection of infrastructure provides a new space for the development of equipment manufacturing industry, and the Globalization Division of Labor provides a strong impetus for the development of China's equipment manufacturing industry. The strong financial support from government and enterprises has provided favorable conditions for the development of Equipment Manufacturing Industry^[7].

3.1.1. The industry has a strong foundation and has achieved results in opening up to the outside world

After years of industrial development, China has developed a well-connected and well-structured industrial system and become global manufacturing power. China's equipment manufacturing industry is also booming. In 2009, China's equipment manufacturing industry became the top in the world. Since then, the industry has continued its strong momentum, accounting for about one-third of the global total and accounting for more than 22 percent of the world's total. China's proposed "Made in China 2025" program is accelerating its progress from being a manufacturing power to becoming a manufacturing power, with the country largely industrializing by 2020. At present, China ranks third in terms of outbound investment and is the world's largest exporter of goods.

3.1.2. Fiscal Policy and "Belt and Road" Policy Support

In 2018, Chinese companies invested \$14.36 billion in non-financial direct investment in 59 countries along the Belt and Road, accounting for 12 percent of the total, according to the Ministry of Commerce. The 61 countries along the "Belt and Road" signed contracts worth us \$144.32 billion, accounting for 54.4 percent of the total in the same period, up 14.5 percent from the same period last year. The turnover of completed projects amounted to us \$85.53 billion, or 50.7 percent of the total, up 12.6 percent from the same period last year. The step-by-step development of the "Belt and Road" strategy will pave a smooth and comfortable road for China's foreign trade. We will also strive to take the "Belt and Road" high-speed train and vigorously develop foreign production capacity cooperation in equipment manufacturing. We will strive to achieve policy, infrastructure, trade, financial and people-to-people connectivity and build a new platform of international cooperation to create new drivers of common development. According to the ministry's assessment, the commodities that contributed most to Vietnam's export performance in Mid-2018 were: telephone sets and their spare parts, which were the largest exports, amounting to about US \$39 billion, followed by textiles and clothing, which are expected to reach US \$25 billion; Electronics, computers and their parts are worth about \$22 billion. This shows that the equipment manufacturing industry has also greatly accelerated China's import and export trade with the

countries along the "Belt and Road".

3.2. Challenges to develop cooperation in foreign capacity of equipment manufacturing industry

3.2.1. Domestic overcapacity and foreign capacity demand

Vitalizing equipment manufacturing industry is the inevitable choice for accelerating manufacturing China to "smart manufacturing" China. At present, the bottleneck of China's high-end equipment manufacturing industry lies in the lack of key core technology, the lag of basic manufacturing level, the shortage of high-end talents, the existence of excess capacity in some fields, and the shortage of capacity abroad. If China's equipment manufacturing industry wants to solve the problem of linking domestic excess capacity with foreign capacity demand, it should aim at the foreign demand and solve the corresponding problem.

3.2.2. Structural contradictions highlight the difficulty of capacity cooperation

The structural contradiction of China's equipment manufacturing industry is obvious: The supply capacity of high-end equipment is insufficient, the supply capacity of service-oriented equipment is insufficient, and the product quality of equipment manufacturing industry is not high. According to statistics, the proportion of the international standard that our country takes the lead in making is less than 0.5%, but the age of standard is more than 1 times than that of Germany, America, Britain, Japan, and other developed countries. China's equipment manufacturing industry lacks world-famous brands and multinational enterprises, China's 500 world brands into the equipment manufacturing enterprises are few. The structural contradiction of China's equipment manufacturing industry is prominent, which makes it difficult for China's foreign production capacity cooperation in this industry to continue well.

4. Countermeasures for China to carry out international capacity cooperation in equipment manufacturing industry

4.1. Overseas market choice to solve production capacity problems

Major countries in the world are accelerating the competition for Africa, Southeast Asia, South Asia, and other markets so that China's production capacity transfer is facing fierce competition. Facing the overseas market, how should our country choose? The academic circles have carried out some researches on the overseas market strategy pattern of equipment manufacturing industry, mainly focusing on the overseas market location choice, the entry pattern, and the influencing factors, etc.

For example, Pan Y and David K TSE developed the hierarchical model of overseas market entry mode, Majumdar S K studied the legal form of overseas market choice, and Hernandez e studied the relationship between overseas market location choice and overseas business performance Perkins e looked at the impact of MNC experience and institutions on overseas market entry ^[8]. These theories are of great significance to the international production capacity cooperation of China's equipment manufacturing industry. Choosing a good partner is equivalent to more than half of the success, so we should study overseas markets in light of the actual situation, careful choice of partner countries. In view of the connection between China's domestic excess production capacity and foreign production capacity demand, we should choose the most suitable partner country, respond to its needs, coordinate cooperation, and take into account the actual situation of the partner country on the basis of fully drawing on previous international experience, considering the actual needs on the ground, choosing the most suitable partner according to their needs, taking into account the problems such as the inconsistency of the legal system and the difference of the legal environment between the partner country and China, and combining the different situations and characteristics of each country, for national policy, rather than "one-size-fits-all", to "one country, one policy", to achieve the best advantage of production capacity docking

4.2. To enhance the international status of China's equipment manufacturing industry

We must put right our point of view that international production capacity cooperation is not foreign aid, both sides of cooperation should obtain certain benefits, and the ultimate goal is to achieve "win-win cooperation". We should uphold the principle of openness and inclusiveness, put the interests of our production capacity partners first, give each other more consideration and take a long-term view so as to achieve mutual benefit and win-win results. "The implementation of international production capacity cooperation has achieved the goal of mutual benefit and win-win results"^[8].

Many countries have responded positively. International production capacity cooperation has also received strong support from enterprises. Chinese enterprises have actively participated in the cooperation, and they are assuming the role of ties among some countries in the international arena. "As a pillar industry of our economy, equipment manufacturing industry, should bear the brunt, play a leading role in external production capacity cooperation. The state has stepped up policy support and training to build a good reputation for "made in China" and "China Project" , and promote "Chinese standards" to go abroad and go global. Adhere to high standards, strict requirements, so that Chinese enterprises in the larger and stronger at the same time, foreign friends appreciate the sight. The government departments have strengthened policy guidance to enterprises and provided targeted one-to-one advisory services, and strengthened financial support to enterprises that intend to carry out international production capacity cooperation but have economic difficulties. Without violating international rules, formulate and implement industrial, fiscal, and financial support for production capacity cooperation. At the same time, to carry on the international production capacity cooperation enterprise, carries on the diplomatic guidance, helps it to carry on the international trade more conveniently, quickly and safely"^[9].

5. Conclusions and Research Prospects

Based on the Comparative Advantage Theory, Investment Development Cycle Theory and overseas market theory, this paper analyzes the status quo of China's equipment manufacturing industry and puts forward the corresponding measures.

The purpose of this paper is to provide a general analysis and countermeasures for China's equipment manufacturing industry to carry out production capacity cooperation with foreign countries. At the same time, due to my lack of knowledge, the depth and breadth of research is far from enough, so I will continue to pay attention to the development of China's equipment manufacturing cooperation with foreign production capacity, continuous learning, and research.

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