

Analysis on the development trend of China's foreign trade structure based on five forces model

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Abstract

It becomes an inevitable era development trend to solve modernization construction by using new technologies. As a model often used to study enterprise competitiveness, Five Forces Model is applied to study development of China's foreign trade structure in this paper. Five forces in the Five Forces Model take five important influencing factors of China's trade structure, namely, China's economic structure and changes, China's economic policy adjustment, foreign economic structure and changes, foreign economic adjustment as well as world trade demand. Analysis results demonstrate that China's foreign trade development will slow down in future. Export growth will decelerate, while import growth will accelerate, which will change existing trade deficit of China gradually. Moreover, technical level of import and export products will be increased. Attentions will be shifted to service export instead of resource and product export.

Keywords: Converter Five Forces Model; foreign trade; trade structure; trend

1 Introduction

In the past 38 years since the reform and opening-up policy, China's economy experienced a great historical turn from closed and semi-closed economy to all-around open economy, achieving remarkable results in opening to the outside world. Foreign trade goods enrich continuously from products to services, accompanied with continuous increasing of foreign trade scale and significant improvement of export product quality [1]. The total volume of China's foreign trade in 1950 was only 1.135 billion dollars, which increased to 14.804 billion dollars in 1977, showing an annual average growth of less than 10%. China's foreign trade has been developing quickly since 1978. The total volume of foreign trade in 2008 increased sharply to 2,561.6 billion dollars from 20.6 billion dollars in 1978, increasing by 123 times in 31 years with an annual average growth of 18.1%. China achieved breakthroughs in foreign trade after entered into the WTO. The total volume of China's foreign trade in 2001 was 509.7 billion dollars, which exceeded 1,000 billion dollars in 2004 and 2000 billion dollars in 2007. The total volume of China's foreign trade in 2008 is more than four times higher than that in 2001. The annual average growth of foreign trade from 2002 to 2008 is 25.9%, presenting a total import and export value of 10,500 billion dollars. The total import and export value of China from 2002 to 2008 accounts for more than 71% of its total foreign trade in 60 years. Total export volume of China has reached 258.2 billion dollars by 2013, accounting for 45.39% of China's GDP. These reflect that China's foreign trade will play an increasing important role in its economy. The development trend and structural changes of China's foreign trade will surely affect its economic structure significantly.

2 Changes of China's foreign trade structure

2.1 CHANG OF CHINA'S FOREIGN TRADE STRUCTURE

China's export mainly focused on primary commodities and resource products for a long time. However, enhanced processing technologies after importing a series of technologies and labor advantages in China contribute rapid development of labor-intensive processing industries. With the increase of China's innovation capacity, industrial products have higher technical content and value added, thus strengthening their competitiveness significantly [2]. More than 80% of China's export before 1980s was primary commodities, but 46% export after 1990s was industrial products. At present, industrial products account for more than 95% China's export.

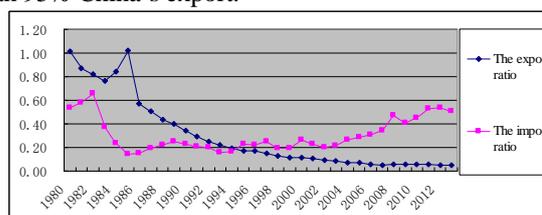


FIGURE 1 Primary products/industrial products ratio in China's foreign trade

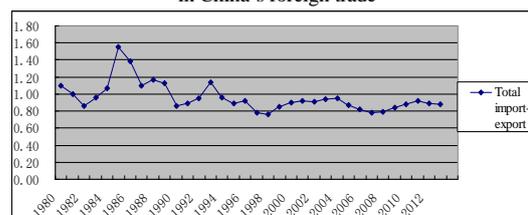


FIGURE 2 Total import-export ratio in China

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Continuous changes of commodity structure. Recently, mechanical and electrical products and new high-tech products become the main imports in China gradually. Now, China has become an import power of mechanical and electrical products from a big exporter. China's import of mechanical and electrical products has increased from 5.65 billion dollars to 538.7 billion dollars since the reform and opening up policy, increasing its proportion in China's total imports from 28.2% to 47.5%. China's import of new high-tech products increases to 341.9 billion dollars from 29.2 billion dollars in 1998, increasing its proportion in China's total imports from 20.8% to 30.2%. Such rapid import growth of mechanical and electrical products and new high-tech products not only offset resource and technical shortages for China's economic construction, but also create conditions for industrial restructuring and upgrading.

Rapid development of service trade. Service trade developed from nothing. A service trade pattern with diversified trade modes, rich content and wide coverage has been formed preliminarily. Before the reform and opening-up policy, China provided no services to foreign countries except for providing aid in construction and tourism services to some foreign friends. However, an integrated development pattern of service trade which is based on tourism and transportation services and takes emerging service trades (e.g. communication, insurance, finance, computer information service, consultation and advertisement) as growth points has been formed. Service trade has become an important component of China's foreign trade [3].

Continuous improvement of main trade structure. Overseas-funded enterprises take the dominant role in China's export, while state-owned enterprises contribute fewer and fewer exports gradually. China's exports to America, Japan and Europe reduce to less than 45% from 51% in 2005. On the contrary, China's import-export proportion to emerging market countries like India, Korea and Argentina increases significantly [4]. Viewed from the domestic perspective, although east China takes the dominant role in export, middle and west China achieved rapid development in recent years, showing strong growth momentum of export. The export contribution of middle and west China increases to 12% from 8% in 2005.

2.2 CHANGE OF FOREIGN TRADE MODE

Foreign trade mode mainly changes from processing trade to general trade. Mode of China's foreign trade from 1949 to 1978 adopted spot trade which prevails on the world market. During this period, China's foreign trade was mainly generally trade. Due to the trade development with western countries and third world countries since 1978, China threw great endeavors to general trade development and adopted flexible diversified modes of trade, including processing with supplied materials, processing with supplied samples, assembling with provided parts, compensation trade and processing with imported materials. Various modes of technical foreign trade were used, such as technology license, counselor, technical services and cooperative production. Moreover, it launched counter trade with developing countries and border trade with

neighboring countries. All of these facilitate the development of China's foreign trade. Among various new modes of trade, processing trade achieves the most outstanding development. In 1981, processing trade only occupied 6% in China's total volume of foreign trade and generally trade occupied 93.5%. However, general trade declined gradually, while processing trade increased annually after 1981. Processing trade proportion in China's total volume of foreign trade exceeded 50% (reaching 50.6%) for the first time in 1996 and further increased to 53.4% in 1998. Later, it decreased slowly and reduced to 41.1% in 2008. Processing trade developed from small scale to the main mode of China's foreign trade in short 30 years. It plays an important role in facilitating China's foreign trade and economic development.

Additionally, China's processing trade shifts attention from labor-intensive industrial products to capital-intensive and technology-intensive products, which is important to improve structure of imports and exports and accelerate upgrading of an industrial structure. Processing trade becomes an important channel for China to make use of foreign investment. It is positive to develop international market and participate in international production.

2.3 REGIONAL STRUCTURE OF FOREIGN TRADE

With continuous progressing of the reform and opening-up policy, China attracts increasingly diversified trade partners. At early years of new China when adopting self-fettered policy, China only made foreign trades with her allied nations (former Soviet Union and some socialist countries). In the early stage of the reform and opening-up policy, China began to import abundant foreign capitals and technologies. She began to open its door to developed countries. Excited by the market diversification policy, China achieved breakthroughs in foreign trade in 1980s. She carried out trade communications with developed countries and regions, such as Europe and America. The number of China's foreign trade partners increases from more than 40 in 1978 to more than 200, covering almost all countries in the world [5]. This demonstrates that China has developed a worldwide trade structure. Currently, America, Europe and Japan have become the main foreign trade partners of China. Moreover, China made great progress in developing foreign trade partnership with emerging ASEAN regions and countries.

3 Development trend of China's foreign trade structure

3.1 CONTENT AND DEVELOPMENT OF FIVE FORCES MODEL

Five Forces Model is proposed by Porter. Its structure is shown in Fig.1. It believes that there are five forces that determine competition scale and degree of an industry, and influence the attraction of industries together. It is an effective tool to analyze competitive features of enterprises in the relative industry. Five forces are threat from new entrants, threat from substitutes, suppliers' power, buyers' power and power of other stakeholders. Industrial

attractiveness is the primary and fundamental determinant of enterprise profitability.

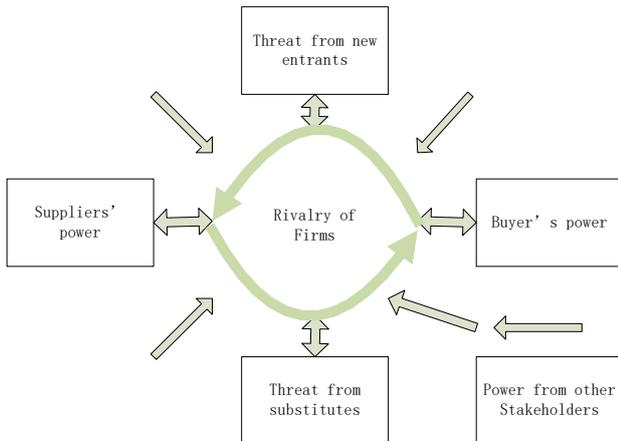


FIGURE 3 Structure of Five Forces Model

Five macro forces instead of above five micro ones shall be used in order to make the Five Forces Model applicable to development trend analysis of foreign trade structure. These five macro forces are China's economic structure and changes, China's economic policy adjustment, foreign economic structure and changes, foreign economic policy adjustment and world trade demand. If these five forces are viewed as five influencing factor, each will be influenced by other influencing factors:

$$X_{l+1} = X_l(x_1, x_2, \dots, x_n);$$

Where X is China's economic structure and changes and x is its influencing factors. This is the internal cause of China's foreign trade structural changes. Since it is impossible for regional trade structure to make big adjustment in a short, regional trade structure is viewed as relatively invariant. However, some changes still will happen. For example, foreign trade value of specific industries will change.

$$Y_{l+1} = Y_l(y_1, y_2, \dots, y_n);$$

Where Y is China's economic policy adjustment, y is its influencing factors, and l is year.

$$Z_{l+1} = Z_l(z_1, z_2, \dots, z_n);$$

Where Z is foreign economic structure and changes, and z is its influencing factors.

$$T_{l+1} = T_l(t_1, t_2, \dots, t_n);$$

Where T is foreign economic policy adjustment and t is its influencing factors.

$$W_{l+1} = W_l(w_1, w_2, \dots, w_n);$$

Where W is world trade demand and w is its influencing factors.

Therefore, the combined effect of five forces is:

$$Q_{l+1} = X_l(x_1, x_2, \dots, x_n) + Y_l(y_1, y_2, \dots, y_n) + Z_l(z_1, z_2, \dots, z_n) + T_l(t_1, t_2, \dots, t_n) + W_l(w_1, w_2, \dots, w_n)$$

To understand the development trend of China's foreign trade structure, the combined effect of five forces on China's foreign trade structure has to be analyzed. Actually, they have different acting directions and some may be opposite. For example, China's economic policy adjustment direction differs from that of foreign economic policy adjustment.

China's economic policy may focus on export of technical products and import of resource products, while foreign economic policy may emphasize on technical export and resource import. Under this circumstance, China's economic policy adjustment and foreign economic policy adjustment couldn't complement each other. This is just like two enterprises in the same market adopt same marketing strategy for same products. Even China's economic structure and changes may have different acting direction from China's economic policy adjustment due to the significant economic strategic adjustment.

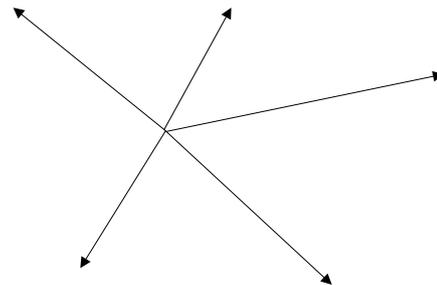


FIGURE 3. Possible acting directions of Five Forces Model

3.2 DEVELOPMENT TREND ANALYSIS OF CHINA'S FOREIGN TRADE STRUCTURE

Directions and strengths of these five forces have to be considered when analyzing China's current foreign trade structure.

China's economic structure and changes. China's economy is at stable development stage and the development slows down gradually. However, economic development strategy mainly concentrates on economic restructuring. It will shift attention from labor-intensive industries (quantity) to capital-intensive and technology-intensive industries (quality). With respect to the development structure of three industries, proportion of tertiary industry will be increased continuously, while primary and secondary industries will focus on increasing their technical level. Viewed from consumption perspective, China's economic strategy of promoting domestic demand will lead to continuous growth of domestic product consumption. To sum up, China's economic structural changes have positive effect on trade structure. Higher technical level of the industrial structure can increase quality of competitiveness of domestic made products, while promotion of domestic demand can facilitate resource and technology imports, and decrease trade friction.

China's economic policy adjustment. Any economic policy will influence trade structure directly or indirectly. Currently, China's economic policies focus on: 1) accelerating urban-rural economic integration; 2) enhancing industrial economic development in middle and west China to narrow regional gap; 3) emphasizing on sustainable economic development and harmony between environment and economic development. The first two policies will contribute continuous growth of foreign trade, but the third policy may cause adverse effect on foreign trade. This is because a lot of foreign polluting enterprises were admitted in the past, but now these polluting enterprises are kept off

from China. Furthermore, China's import structure will change with the continuous technological development. The continuous promotion of domestic demand will change consumption level and thereby changes import structure.

Foreign economic structures and changes. Developed countries suffered heavy unemployment after the financial crisis. Many developed countries represented by the United States began to shift attentions to manufacturing industry. They emphasized on re-industrialization and returning to real economy. However, they are still dominated by technical and service economy. Their industries fall behind those of developing countries. Europe who attaches high attention to service industry but has poor real economic development also becomes aware of the importance of industrial real economic development in the future. With the continuous updating of science and technology, the world economy will develop new growth points in three fields in the future: 1) wide application of digital equipments; 2) manufacturing industry will make worldwide revolutionary reform due to the progressing of mechanical and intelligent production means; 3) continuous development energy industries in the world. In a word, China's manufacturing export demand will reduce gradually. Viewed from consumption structure, proportion of service export in China's foreign trade will increase. This is caused by increasing service demand with the development of world economy. Meanwhile, the sharp slowdown emerging economies of developing countries represented by BRICS forces emerging economies to adjust economic structure.

Foreign economic policy adjustment. The core of Europe's 2020 Strategy is to change traditional economic growth pattern, achieve smart growth, sustainable growth and inclusive growth, increase employment and labor productivity as well as enhance social cohesion. Smart growth, or known as intelligent growth, aims to build an economy based on knowledge and innovation. The "re-industrialization" of America means to revitalize manufacturing industry at a higher starting point instead of returning to traditional manufacturing industry simply. It has two main development directions: 1) clean energy industry with characteristics of low carbon and environmental protection; 2) energy-intensive industrial cluster. The "Revitalization strategy of Japan" includes industrial revitalization plan, strategic market development plan and international development strategy. The industrial revitalization plan is the basis of the "Revitalization strategy of Japan", which covers various fields, such as industrial metabolism, talent training, technological innovation, IT development and application, improving core competitiveness, etc. Re-industrialization and industrial restructuring of developed countries will bring new changes to the world manufacturing industry. China may enjoy fewer and fewer advantages in manufacturing export to these developed countries.

World trade demand. China is the "world's factory" in the global trade. She mainly imports parts and raw materials from other economies within the region and processes them into products which will be exported to Europe and America. However, the financial crisis disclosed the overdependence of Asian developing economies on

European and American markets. China's role shift in global trade may be further accelerated. Although China's demand can only drive global economic growth to a limited extent at present, it is important to note that Chinese market still has great potentials that haven't been explored. In the future, China is not only a main goods supplier, but also an important consumer market in the world. In the long run, export couldn't be the main driving force of economic growth of Zhejiang Province any more if global economy recovers slowly and recovery of world market demand still depends on supports of economic stimulus. As a result, world trade demand will reduce continuously and countries will depend more and more on self-sufficiency. Generally, world trade demand change is against China's foreign trade development.

To sum up, development trend of China's trade structure includes: 1) technical level of imports and exports will increase; 2) domestic demand will increase imports, while foreign industrial development will slow down China's export development. This will change China's trade deficit pattern gradually; 3) China will slow down its resource and product export growth, but achieves rapid development in service export; 4) the overall foreign trade growth will slows down; 5) east China will make fewer contributions to total volume of foreign trade, while middle and west China will make more contributions.

4 Conclusions and suggestions

According to the analysis results, big changes of world economic structure and trade pattern will take place after financial crisis. To improve China's foreign trade structure and facilitate continuous foreign trade and economic development, China is suggested to:

- (1) Pay close attention to changes of world economy situations, make more efforts on technological innovation, and increase competitiveness of domestic products in world trade. Except for technological advantage, comparative advantage is another important advantage of foreign trade. Only developing foreign trade industries according to foreign economic structure can promote the development of China's foreign trade.
- (2) Learn lessons of industrialization from developed countries, promote manufacturing development positively, and strengthen technological innovation and industrial upgrading of the manufacturing industry. Developed countries (e.g. the United States) have made great endeavors in deindustrialization, but now they adopt the "re-industrialization" strategy. This indicates the necessity and importance of industry.
- (3) Promote economic restructuring vigorously, give full play to structural advantages, and open wider to the outside world according to international trade pattern. Meanwhile, China shall pay attention to resource-oriented economic deficiency in China's economic development. She shall implement import strategy actively and make full use of foreign resource market to develop industrial economy.

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