

Analysis on the Current Situation and Problems of Export Trade in Shandong Province

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Abstract: Based on the relevant data provided by the Statistics Bureau of Shandong Province, this paper analyzes the overall export situation of Shandong Province, the export situation of different trade target countries (regions), and the export situation of various cities in Shandong Province, and makes an inter provincial comparison. The results show that: trade protectionism brings more challenges to the sustainable and stable development of Shandong Province's export trade, and the export trade of Shandong Province is facing the problems of unbalanced structure and low product quality.

1. Introduction

At present, both the national measures of "promoting the high-quality development of foreign trade" and the deployment of "accelerating the transformation of new and old kinetic energy" in Shandong Province have put forward higher requirements for the development of foreign trade in various cities in Shandong Province, and it is imperative to continuously promote the high-quality development of foreign trade in Shandong Province. Therefore, it is necessary to fully understand the development of foreign trade in Shandong Province.

For this, domestic and foreign scholars have carried out specific analysis on the development of foreign trade from different dimensions. Domestic and foreign scholars have done a lot of research on foreign trade growth, mainly focusing on the relationship between foreign trade growth and economic growth. For example, Kwan and Kwok (1995) [1] used the relevant data from 1952-1982 to study the relationship between China's real national income and export trade, and introduced some influencing factors. The results show that export trade can promote the increase of a country's national income. Shan and Sun (1998) [2] took China as the research object to analyze the relationship between China's export growth and industrial output. Galina et al. (2004) [3] selected the economic and trade-related data of 86 countries from 1970 to 1990 to analyze the relationship between export trade and economic growth. Then, Maureen (2015) [4] conducted an empirical study on the relationship between trade and economic growth based on transnational data. The results show that trade has a positive impact on economic growth. However, from the perspective of different categories of countries, trade has had a significant positive impact on the economic growth of developed and developing countries, but the impact on the least developed countries is not significant.

Domestic scholars Li and Li (2017) [5] selected the relevant import data of Hubei Province from 2003 to 2016 to empirically study the relationship between import trade and economic growth in

Hubei Province. The research shows that the growth of import trade has promoted the economic growth of Hubei Province, and this promotion effect is more significant with the extension of time. Xing and Lei(2019) [6] used the quarterly trade data of 20 provinces and cities in China to evaluate the implementation effect of the free trade zones in Tianjin, Shanghai, Fujian and Guangdong. The results showed that the establishment of the four free trade zones promoted their economic growth through import, export and investment. Moreover, Guo(2020) [7] analyzes the foreign trade level of Shandong Province from the horizontal and vertical dimensions respectively, and believe that there are significant differences in different dimensions in different prefecture-level cities of Shandong Province. But on the whole, Shandong's foreign trade is stable, improving quality and reaching a new high (Li, 2022) [8].

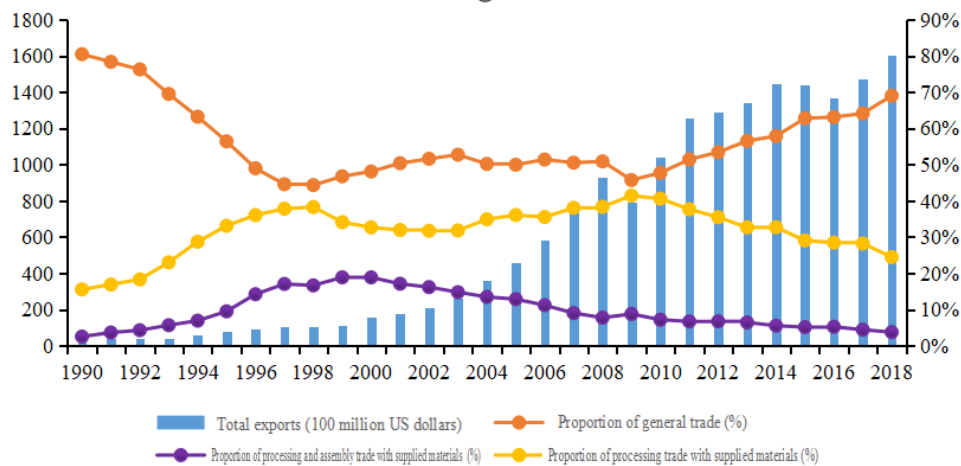
Therefore, in order to more fully understand the current level of foreign trade among various prefectures and cities in Shandong Province, so as to effectively provide effective decision-making reference for the Shandong Provincial Government and other governments at all levels, this paper mainly uses the comparative analysis method to discuss the level of foreign trade in different prefecture-level cities in detail, hoping to better and faster promote the healthy and sustainable development of foreign trade in Shandong Province.

2. Current Situation of Export Trade in Shandong Province

Since the reform and opening up, the export trade of Shandong Province has shown the following characteristics: Although the total volume fluctuates, it shows an upward trend; while the total export volume increases significantly, the trade mode of Shandong Province is becoming more and more reasonable; the export products are advanced, the import proportion of labor-intensive products decreases, the import proportion of resource-based products and technology intensive products increases; the trade objects are more diversified and concentrated Lower.

2.1. Overall Export Situation of Shandong Province

As can be seen from Figure 1 below, the total export trade of Shandong Province shows an upward trend in general. In 2019, the export amount of Shandong Province will reach 168.63 billion US dollars, an increase of 5.3% over last year. In particular, after China's accession to the WTO, Shandong Province's trade growth rate increased, with an average export growth of 17.4% from 2002 to 2014; under the influence of the economic crisis, the export growth rate decreased after 2008, but the absolute value still maintained growth except 2009; in 2015 and 2016, due to the slow global economic recovery and insufficient foreign demand, the export decreased, but in 2017, the export increased significantly, and the total trade volume was close to history from 2018 to 2019, the total export trade volume of Shandong Province continued to rise. At the same time, with the adjustment of industrial and foreign trade structure in Shandong Province, the proportion of various trade modes in Shandong Province has become more reasonable while the export amount has increased substantially. From the beginning of reform and opening up to 1997, the proportion of "processing with imported materials" and "processing with imported materials" in the export trade of Shandong Province has been increasing, while the proportion of general trade has been declining. After nearly ten years of development, the proportion of the three trade modes has changed since 2009, among which the proportion of general trade in the total export trade in 2018 is as high as 69%, see figure 1 for specific data comparison display.



Data source: calculated according to Shandong Statistical Yearbook in 2019.

Figure 1: Trade volume and export structure of Shandong Province since 1990

2.2. Export Situation of Trade Target Countries (Regions) in Shandong Province

The following two aspects of information can be obtained from the following figure 2 and figure 3, on the one hand, from the perspective of trade target countries, since the reform and opening up, with the increasingly close economic ties between China and other countries and the promotion of the national opening-up strategy, Shandong Province has gradually diversified its trade objects and reduced its dependence on a single economy. In 2002, the top three export countries of Shandong Province were Japan, the United States and South Korea. The total exports of these three countries accounted for 58.6% of the total exports of Shandong Province, with a very high degree of concentration. In 2018, although the top three export countries of Shandong province were still the United States, Japan and South Korea, the concentration ratio decreased significantly, and the proportion of the total exports of these three countries in the total exports of Shandong Province decreased to 39%.

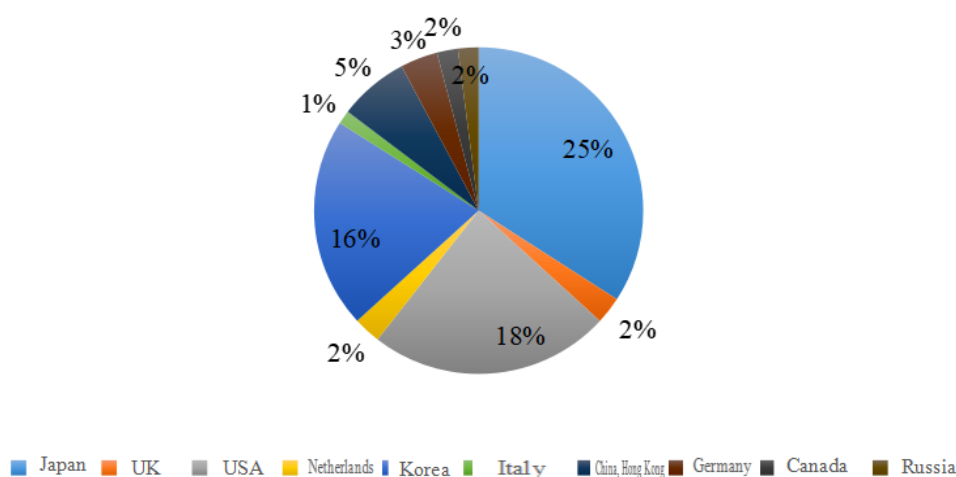
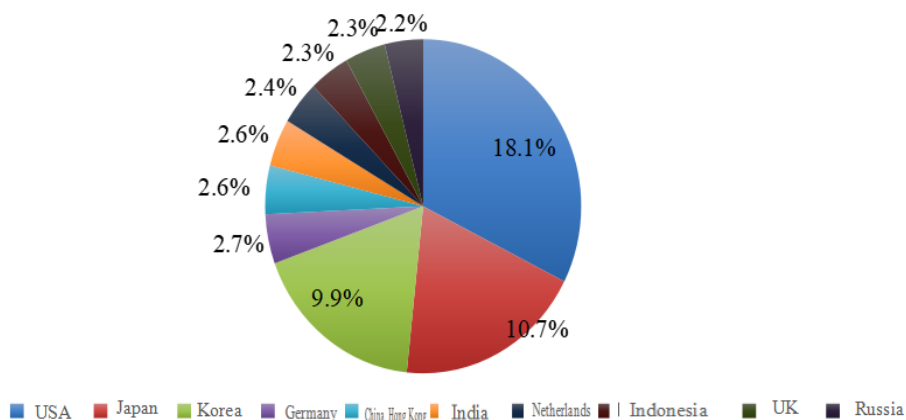


Figure 2: Top ten export destination countries of Shandong Province in 2002

The one belt, one road strategy has widened the scope of Shandong's export trade countries and increased the total volume of Shandong's export trade. One belt, one road, the ten largest export

destination countries in Shandong in 2002 and 2018, can be found in the list of ten major export destinations in India, Indonesia and Russia.

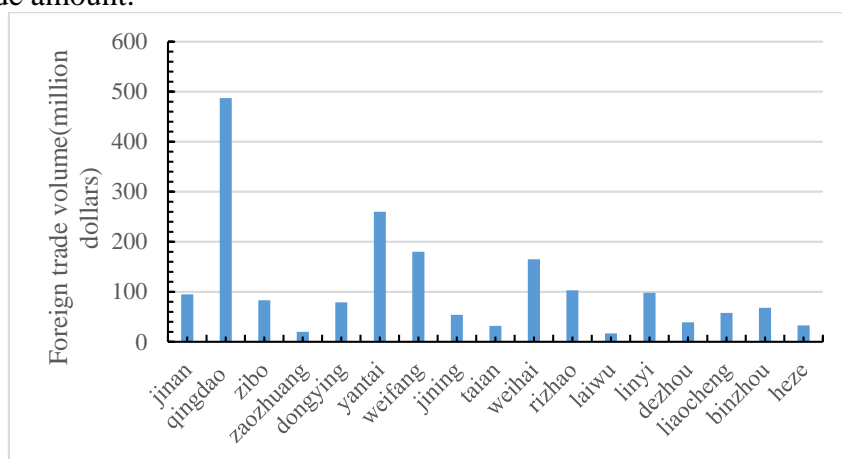


Data source: the data of 2002 are calculated according to the 2003 Shandong statistical yearbook, and the data of 2018 are calculated according to the website data of the Department of Commerce.

Figure 3: Top ten export destination countries of Shandong Province in 2018

2.3. Export Situation of Cities in Shandong Province

As can be seen from Figure 4, there is a big difference in the amount of export trade among cities in Shandong Province in 2018. Among them, the export trade of Qingdao, Yantai, Weihai and other coastal cities is relatively developed; the export trade performance of Jinan City, the provincial capital city, is not only far lower than that of Qingdao, Yantai, Weihai and other coastal cities, but also significantly lower than that of Weifang City. At the same time, the total export trade volume of each city in Shandong Province and its economy are also significantly lower than those of Weifang City. For example, Jining City and Heze City, whose economic level is relatively backward, have lower export trade amount.



Data source: Shandong statistical yearbook, 2019.

Figure 4: Export trade volume of Shandong Province in 2018

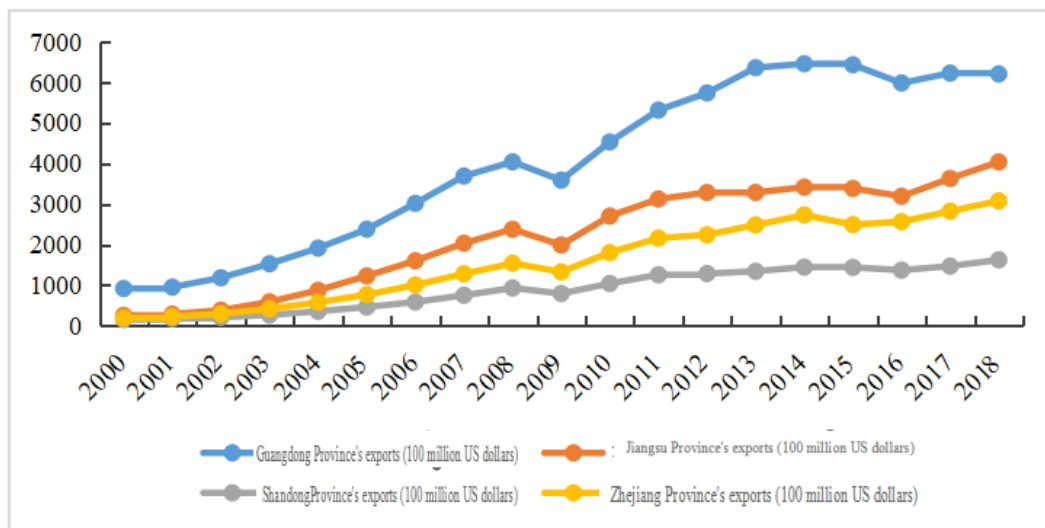
2.4. Provincial Comparison

According to the GDP data of 31 provinces (except Hong Kong, Macao and Taiwan) released by the National Bureau of statistics in 2018 (see Table 1), Shandong's GDP is still in the third place in

China. Although Shandong Province has an economic volume of 7.647 trillion yuan, far more than Zhejiang Province, which ranks fourth, it is far behind Guangdong Province and Jiangsu Province. In the past 20 years, the GDP of Shandong, Jiangsu and Guangdong is similar, but in the past decade, Shandong has gradually fallen behind. Although it is still ranked third, the gap between Shandong and the top two is growing. At the same time, compared with the total GDP of Shandong Province, its GDP growth performance is not so bright. The annual GDP growth of Shandong Province is only 5.02% in nominal terms and 6.40% in real terms, which is the lowest level in the top ten provinces of GDP. In 2018, the nominal GDP growth of Shandong Province is only 383.533 billion yuan, which is not only half of the 759.477 billion yuan of Guangdong Province, but also lower than the nominal GDP increment of 442.874 billion yuan in Zhejiang Province. This is a very dangerous signal. Behind this signal is the warning that Shandong Province has not made profound, rapid and responsible economic transformation and upgrading in the past five or ten years. Therefore, from the perspective of total export trade, this paper seeks the experience of Shandong Province's economic improvement to achieve higher quality economic development.

Table 1: Ranking of GDP related data of 31 provinces in 2018

Ranking of GDP	Provinces	Total GDP (trillion yuan)	GDP growth rate (%)	Ranking of GDP growth rate
1	Guangdong	9.728	6.8	6
2	Jiangsu	9.260	6.7	8
3	Shandong	7.647	6.4	10
4	Zhejiang	5.620	7.1	7
5	Henan	4.806	7.6	5
6	Sichuan	4.068	8	2
7	Hubei	3.937	7.8	3
8	Hunan	3.643	7.8	4
9	Hebei	3.601	6.6	9
10	Fujian	3.580	8.3	1



Data source: Statistics Bureau data of Guangdong, Jiangsu, Shandong and Zhejiang provinces.

Figure 5: Comparison of export volume of Guangdong, Jiangsu, and Shandong and Zhejiang provinces from 2000 to 2018

As shown in Figure 5, the export volume trend of Guangdong, Jiangsu, Shandong and Zhejiang provinces is basically the same. Due to the global economic downturn in 2015 and 2016, the export volume of each province showed a slight downward trend, but since 2017, the export volume of each province has resumed the growth trend.

Guangdong Province has obvious advantages in export volume, ranking first in China. Its total export volume increased from US \$91.919 billion in 2000 to US \$620.906 billion in 2018, with an average annual growth rate of 11.2%. This is mainly because one belt, one road and another, is responsible for the development of the international market, and the legislation of the intellectual property rights. It encourages enterprises to innovate, and keeps pace with the times and develops the market along the "one belt and one road" along the Guangdong.

On the whole, the export volume of Jiangsu Province maintained a good growth trend, increasing from US \$25.77 billion in 2000 to US \$404.044 billion in 2018, with an average annual growth rate of 16.52%. The growth of Jiangsu's export volume is mainly due to its good geographical advantages. First of all, Jiangsu Province has good port advantages, including Nantong and Lianyungang, two hundred million ton port cities; it is located in the prosperous economic zone; it has convenient transportation, which can meet the needs of various industries; it is rich in educational resources, with many 985 and 211 universities, accumulating high-quality human resources; at the same time, Jiangsu Province has a large number of 985 and 211 universities, which has accumulated high-quality human resources. With the support of national policies, the establishment of Jiangsu pilot free trade zone is more conducive to the development of Jiangsu's export trade.

Shandong Province is located in the eastern coast of China, with a long coastline, which is very suitable for the development of marine transportation and other marine undertakings. Among them, Qingdao port, Yantai port, Rizhao Port and other ports are of high quality, which play a huge role in promoting the development of export trade. As can be seen from Figure 5, the export volume of Shandong Province was basically the same as that of Jiangsu Province and Zhejiang Province in 2000, but since 2004, the export volume of Shandong Province began to lag behind that of Jiangsu Province and Zhejiang Province. In 2018, the gap between Shandong Province and Zhejiang Province expanded to 145.374 billion US dollars, the gap with Jiangsu Province expanded to 241.434 billion US dollars, and the gap with Guangdong Province expanded to 4582.96 Billion dollars. Therefore, Shandong Province should reflect on the gap between its own export volume and other coastal provinces, and gradually increase the export of independent brands and intellectual property products.

The export value of Zhejiang Province increased from 19.443 billion US dollars in 2000 to 307.984 billion US dollars in 2018, with an average annual growth rate of 16.59%, surpassing Guangdong Province and Jiangsu Province as the province with the highest average annual export growth rate. This is mainly due to the favorable business environment, convenient transportation and good port advantages of Zhejiang Province. Zhoushan port in Ningbo, Zhejiang Province has the largest total cargo throughput in the world.

3. Existing Problems in Shandong Province's Export Trade

3.1. Trade Protectionism Brings More Challenges

In recent years, with the sluggish world economic growth and the increase of domestic unemployment caused by excessive globalization, more and more countries begin to pay attention to the development of domestic manufacturing industry and take a series of anti-globalization measures represented by trade protection and separation from the organization.

3.1.1. The Impact of Sino US Trade Friction

The Sino US trade frictions starting from 2018 will be permanent. Although the current Sino US trade frictions tend to ease in the difficult and long-term negotiation process, Shandong Province is located in the forefront of China's reform and opening up, and Sino US trade friction is bound to have an important impact on this region.

3.1.2. The Impact of Brexit

The Brexit incident, which has attracted worldwide attention, has inevitably affected the opening degree and export trade development of Shandong Province. The concrete performance is as follows: on the one hand, the impact of Brexit on the economy of Britain and the European Union will undoubtedly bring certain challenges to the international exchange and cooperation of Shandong Province; on the other hand, when the reverse globalization caused by Brexit spreads in the world, it will inevitably affect the process of economic globalization and lead to the stagnation of world economic integration, which will also have an impact on the international trade of Shandong Province. Flow and cooperation have a serious impact.

3.1.3. Serious Trade Barriers

In recent years, trade barriers have become a major obstacle to the export trade of Shandong aquatic products, which has seriously affected the growth of Shandong's export trade. Technical barriers to trade, green barriers, anti-dumping and other trade barriers have become the problems that eastern provinces must face when exporting to Japan, South Korea and the United States. EU and other countries and regions have taken trade barriers as the technical indicators of entering domestic products. This forced the export enterprises of Shandong Province to spend a lot of testing, evaluation, inspection and special equipment purchase costs, and paid a huge price. As a result, the export company's cost increases, the company's profit decreases, and the competitive advantage in the international market greatly affects the export pace of Shandong Province. For example, Japan has strengthened the inspection of imported products through laws and regulations, resulting in a decline in the export volume of Shandong products to Japan.

3.2. Unbalanced Export Trade Structure

3.2.1. The Structure of Export Products is Unbalanced

Although the industrial products of Shandong Province are the main export products, the proportion of related products is very uneven. The export growth of mechanical and electrical products is relatively fast, but the proportion is still very low. The export of high-tech products is growing rapidly, but the overall scale is relatively low, accounting for only a small part of the country. Although remarkable achievements have been made in the diversity of export commodities, the industrial manufactured goods still account for the majority of the export commodities, among which mechanical and electrical products account for a large proportion.

3.2.2. The Export Region is Unbalanced

This paper shows the imbalance between the concentration of export market and regional distribution in Shandong Province. Exports are mainly concentrated in Asia, Europe and North America, among which Japan, South Korea, the United States and Europe are the main trade partners of Shandong Province. The first degree of dependence is close to 30%, and the first market

degree is about 1.5. The export development of emerging markets such as South America, Africa and CIS is not obvious.

3.2.3. The Mode of Export Trade is not Balanced

The development of general trade is faster than that of processing trade, but its proportion is still lower than the development of intra industry processing trade, which is the most important way of high-tech products export in Shandong Province. However, the problems of processing trade are still serious: the distribution of processing areas is not balanced, the business development is not balanced, the high cost mode of export mode and the expansion of growing enterprises have not changed, the lack of independent intellectual property rights, and the brand and marketing technology and R&D capacity need to be improved.

3.2.4. The Contribution of Enterprises is Unbalanced

Foreign funded enterprises are one of the most important export companies in Shandong Province. They play an important role in improving the export trade structure and supervising trade in Shandong Province. The share of mechanical and electrical products in the export of foreign manufacturers decreased, and the proportion of resource intensive products and labor-intensive products increased; most of the exports were low value-added products. Among them, foreign companies in Shandong Province high-tech products import and export in the forefront.

3.3. Product Quality Needs to be Improved

3.3.1. The Inspection System of Provincial Government Departments Needs to Be Improved

Entry exit inspection and quarantine plays a very important role in the development of national economy, the elimination of technical barriers to trade and the protection of consumers' interests. At the same time, improving the quarantine system can effectively improve the quality of products, help to better adapt to the regulatory technical standards of foreign commodities, enhance the friendly trade relations between countries, and help Shandong Province increase exports. To carry out inspection and quarantine, strengthen product quality control, mainly: regular inspection of branches of industrial and Commercial Administration Corporation. In the inspection mode, the relevant government departments can use batch processing inspection mode, sampling inspection mode and inspection exemption mode. Despite the existence of these inspection systems and models, there are still some defects in the isolation system, such as fewer monitoring points, too many inspection systems, but insufficient management, serious restructuring among departments, resulting in unclear responsibilities, inconsistent quality inspection and large inspection differences.

3.3.2. Low International Recognition of Brands

Taking agricultural products as an example, most of the agricultural products exported by Shandong Province have low popularity, few products, insufficient high-end brand products and lack of competitiveness. The main reason is the lack of research on independent brands, no innovation of independent brands, fixed-point production has always been the main export mode, and the export of independent brands is very few. Export companies only seek high-speed export, rely heavily on processing and OEM production trade, ignore the cultivation of their own brand, and have no high awareness of R&D investment. They only rely on OEM production and trade, which consumes a lot of market funds. At the same time, there is little investment in R&D resources for independent brands, and export companies rarely have well-known brands. These brands are at a

disadvantage in the international market, which is very harmful to the export and development of Shandong agricultural products. In the evaluation of "Shandong Agricultural and sideline products", there are only a few famous Shandong products, such as Yantai apple, Jinan green onion and Laiyang pear, which shows that the brand building process of Shandong characteristic agricultural products is not ideal.

4. Conclusions and Policy Recommendations

Based on the existing research, this paper discusses the export trade of Shandong Province. Firstly, this paper analyzes the current situation of Shandong Province's export trade with different caliber, describes and analyzes the overall export situation, the main export classification, the main export destinations and the export situation of various cities in Shandong Province, so as to systematically show the export trade status of Shandong Province. Then it analyzes the problems of Shandong Province's export trade from various aspects: unbalanced export product structure, unbalanced export region, unbalanced export trade mode and other trade imbalances; serious trade barriers; weak product safety awareness; product quality needs to be improved.

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