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Research on the Current Situation and Solutions of the Transformation and Upgrading of Dongguan's Processing Trade

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Abstract

Dongguan is one of the earliest and most successful cities for processing trade development after China's reform and opening up. However, in recent years, with the gradual disappearance of demographic dividends, rising production costs and drastic changes in the international situation, the traditional processing trade industry at the bottom of the global value chain no longer has a comparative advantage, and the transformation and upgrading of processing trade in Dongguan has become a crucial issue that must be resolved immediately. This paper will describe the current state of Dongguan's processing trade, analyze its existing problems, and offer policy recommendations to aid in the transformation and upgrading of Dongguan's processing trade.

Keywords

Global value chain; Processing trade; Transformation and upgrading.

1. INTRODUCTION

Over the past 40 years of reform and opening up, China has grasped and followed the trend of economic globalization, adhered to an export-oriented economic development strategy, actively introduced foreign capital, and developed from a backward industrial country to a global manufacturing power. The Pearl River Delta, located on the southern coast of China, has rapidly developed into a world-renowned manufacturing base relying on its superior geographic location and abundant labor resources. The Pearl River Delta is centered on the two major cities of Guangzhou and Shenzhen, driving the economic development of neighboring cities such as Foshan, Dongguan, and Zhuhai. Dongguan is connected to Guangzhou in the north and Shenzhen in the south. The rapid economic development of Guangzhou and Shenzhen has benefited Dongguan a lot. In 2020, Dongguan's GDP was 965.02 billion yuan, ranking 4th in Guangdong Province and 24th in the country, with a population urbanization rate of 92.15%. Thanks to the development of processing trade, Dongguan's total foreign trade exports have been among the top cities in the country for many years, and the number of foreign investment attracted ranks among the top 50 cities in the country. Dongguan has formed a modern industrial system with five pillar industries including electronic information manufacturing, electrical machinery and equipment manufacturing, textile and clothing manufacturing, food and beverage processing manufacturing, and papermaking and paper products industry.

However, after the outbreak of the financial crisis in 2008, China's traditional processing trade industry is facing the challenge of transformation and upgrading. The Pearl River Delta urban agglomeration, which is the front line of reform and opening up, is even more affected. After the developed economies such as the United States and Europe suffered the impact of the financial crisis, their economic recovery was slow, investor confidence decreased, and market demand shrank sharply. As the trading partners of these countries, the export volume of the Pearl River Delta inevitably decreased, which affected the development of processing trade. The

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new crown pneumonia epidemic that broke out at the end of 2019 further hindered the recovery of the world economy, the unemployment rate increased sharply, and a large number of companies went bankrupt. In fact, the profitability of the processing industry at the low end of the global value chain is inherently weak. Due to the rising labor costs, resource constraints and increased inflation in recent years, the development of processing trade in the Pearl River Delta is struggling. The transformation and upgrading of the processing trade industry in the Pearl River Delta cities is imminent. How to promote the sound development of the processing trade in the Pearl River Delta and reshape the glory of the processing trade industry is an important issue that needs to be solved urgently for Guangdong Province.

This article will take Dongguan, a key city for the development of processing trade as a research representative, analyze the present situation and characteristics of its processing trade industry, find out its existing problems, and put forward corresponding policy recommendations. It will provide a useful reference for industrial upgrading and optimization of trade development methods in the Pearl River Delta, and help China's processing trade to get out of its predicament to a certain extent.

2. RELATED CONCEPTS AND THEORIES

Processing trade refers to a trade method that uses foreign resources for processing and assembling, and then sells products abroad. The development of processing trade is the most important factor that affects and promotes the level of China's intra-industry trade [1]. The transformation of processing trade and the upgrading of processing trade are two different concepts. Transformation refers to the change from a production-oriented enterprise to a production-management-oriented enterprise, which is of great significance for enhancing the vitality of the enterprise, reshaping the competitive advantage, and improving the economic efficiency of the enterprise [2]. Production-management-oriented enterprises pay more attention to the overall benefits of the enterprise than production-oriented enterprises, rather than only focusing on internal production. For example, the former pays more attention to the early market research, business forecasting and business decision-making, later product sales, transformation and utilization, especially the management control, talent and technology development in the entire production management process. According to Griffin (1999), upgrading is a process of improving the ability of enterprises or economies to transfer to more profitable or technologically advanced areas of capital and skill-intensive economy [3]. Transformation and upgrading reflect the simultaneous changes of the enterprise horizontally and vertically, that is, the simultaneous transformation of business methods and enterprise value, which is a process of continuously climbing the value chain.

2.1. Processing Trade and the Theory of Comparative Advantage

The theory of comparative advantage was put forward by Ricardo (1817). He believed that the basis of international trade is the relative difference of production technology, not absolute difference. A country should choose to focus on producing and exporting commodities with greater relative advantages and smaller relative disadvantages. In short, the division of labor between countries adopts the trade method of "taking the most important of the two advantages and the lesser of the two disadvantages", which saves social labor and can also improve the welfare of the two countries at the same time.

From the theory of comparative advantage, it can be known that processing trade is produced due to differences in production factors between countries. Countries join the international division of labor in accordance with the principle of comparative interest, and implement specialized production to develop trade with others. China has abundant labor resources, so it exports labor-intensive products; developed countries have advanced production technologies, so they export capital-intensive and technology-intensive products.

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2.2. Processing Trade and the Theory of Product Life Cycle

The product life cycle theory was proposed by Harvard University professor Raymond Vernon (1966). It describes the development trajectory of a capital-intensive new product gradually transformed into a labor-intensive product, focusing on analyzing the development trend of international investment and division of labor from the perspective of technological progress, technological innovation and technological dissemination. He divided the product life cycle into three stages: product innovation, product maturity and product standardization. In the product innovation stage, new products appear on the market for the first time, production is limited, and manufacturers have a monopoly position. Such monopoly companies are most likely to appear in developed countries such as the United States. In the product maturity stage, the products realize mass production and gradually stabilize the market share. In order to save transportation costs and tariff expenditures, American companies will invest in other nearby developed countries to set up factories to meet local market needs. In the stage of standardized products, production technology is gradually standardized, assembly lines are formed, costs are further reduced, and market demand tends to be saturated. Products from other countries have more price advantages in the international market, the US monopoly position is gradually disappearing, and transnational production is shifting more to underdeveloped regions.

Product life cycle theory vividly explained the phenomenon that developed countries such as the United States and Europe gradually transferred their capital-intensive industries that were about to decline to developing countries after the 1970s. When the product enters the mature or standardized stage, market competition is fierce and production costs increase. Multinational companies begin to allocate resources around the world, choose those areas with low prices of labor and land to invest and build factories, and arrange simple working procedures in these countries. Dongguan's processing trade has developed through this low-value-added processing and assembling service. At present, labor-intensive industries in which China has lost its labor advantage are also moving to Southeast Asian countries such as Vietnam, Laos, and Myanmar.

2.3. Processing Trade and the Eclectic Theory of International Production

The eclectic theory of international production is a comprehensive and internationally recognized theory of multinational corporations. This theory was put forward by Dunning (1977), a British scholar, in the article Trade Location of Economic Activities and the MNE: A Search for an Eclectic Approach. He believes that enterprises will choose international direct investment only when they have the advantages of ownership, internalization and location. Among them, the ownership advantage refers to the monopoly of intangible assets or tangible assets and economies of scale. Internalization advantage refers to the ability of multinational companies to use ownership to expand organizational capabilities or business activities and internalize these assets to reduce transaction costs. Location advantage refers to the advantages of preferential policies or factor endowments owned by the host country, which makes enterprises prefer to choose foreign direct investment rather than export. The combination of different advantages determines which international market entry mode enterprises adopt.

The development of processing trade is the performance of transnational corporations' foreign direct investment. Many multinational companies have separated the production links of products and redistributed them to subsidiaries in different regions. The international division of labor and cooperation is more manifested in the internal transactions between the parent and subsidiary companies of multinational companies, and the international business expansion of multinational companies is increasingly carried out in the form of processing trade. The rapid development of processing trade in China is closely related to China's massive attraction of foreign investment and undertaking industrial transfer in developed countries.

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Multinational companies use cheap Chinese labor to complete assembly, processing and production processes, and then export to other countries to earn high profits.

3. ANALYSIS ON THE PRESENT SITUATION OF DONGGUAN'S PROCESSING TRADE

Dongguan is one of the earliest regions in China to develop processing trade. Since Taiping Handbag Factory, the first processing compensation trade enterprise in China, settled in Humen in 1978, there are more than 10,000 processing trade enterprises in Dongguan. The rapid development of processing trade in Dongguan has played an important role in promoting the industrialization and internationalization of Dongguan economy. In 2018, the actual utilization of foreign capital in Dongguan was $1,305.57 million, nearly 755 times that of 1979. From the end of 1980s to the beginning of 21st century, Dongguan's processing trade developed fastest, and the proportion of import and export processing trade was much higher than that of general trade, with the highest proportion reaching 98.84%. Processing trade has promoted the development of China's open economy, accelerated the process of industrialization, and helped establish China's status as a world trading power. Processing trade is the vitality and important feature of Dongguan's trade economy, and its trade development model has a leading and demonstrative role throughout the country.

3.1. Characteristics of Dongguan's Processing Trade

3.1.1. The proportion of processing trade is decreasing year by year

After the reform and opening up, Dongguan's processing trade has developed rapidly. From Figure 1, it can be seen that from the 1990s to the beginning of this century, processing trade became the most important mode of trade, accounting for more than 90% of the total export trade and more than 80% of the total import trade respectively. The total scale of processing trade has basically maintained a steady growth. In 2018, the total amount of processing trade was $ 54,076.02 million, an increase of more than 6 times compared with 1995. However, after 2005, the proportion of processing trade in import and export trade showed a downward trend year by year, and the growth rate of general trade was accelerated.

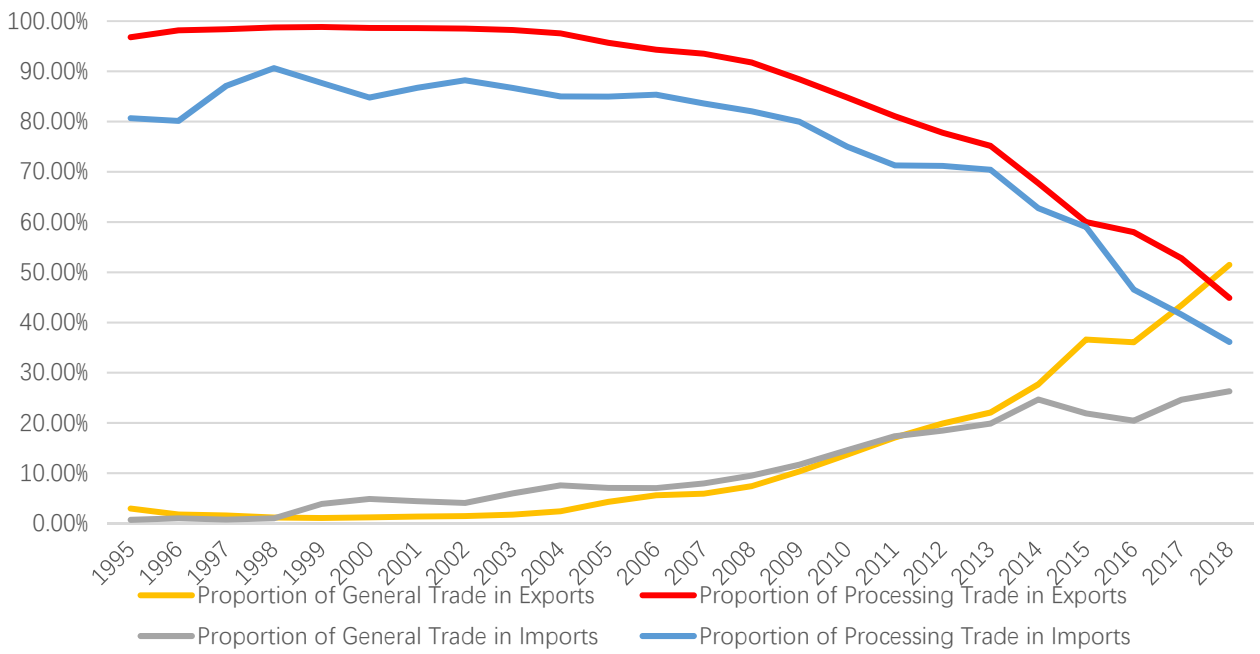

Figure 1. Changes in the structure of Dongguan's import and export trade from 1995 to 2018

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3.1.2. Processing with imported materials gradually replaces processing with supplied materials

In the initial stage of the development of processing trade in Dongguan, processing with supplied materials was the main mode of trade. From 1998 to 2003, the share of processing with imported materials in import and export trade was basically the same. The ownership of commodities produced by processing trade with supplied materials belongs to overseas enterprises, while domestic enterprises can only charge processing fees and cannot earn sales expenses, and their profits are weak. Therefore, the government has successively adopted some policies to encourage the development of processing trade with imported materials, such as tax exemption for imported materials and VAT exemption for export of goods. Driven by these policies, the proportion of processing with imported materials in the total volume of import and export trade has gradually increased and exceeded that of processing with supplied materials. It can be seen from Figure 2 that after 2003, the proportion of processing with imported materials in Dongguan's import and export trade began to exceed that of processing with supplied materials. In 2013, the difference between them reached the largest, and in imports, the proportion of processing with imported materials exceeds that of processing with supplied materials by 51.59%, and in exports, the proportion of processing with imported materials exceeds that of processing with supplied materials by 44.47%. It can be seen that the transformation and upgrading policy of processing trade formulated by the state has produced obvious effects. The transformation of Dongguan's processing trade from processing with supplied materials of meager profits to processing with imported material of greater profits has basically been completed.

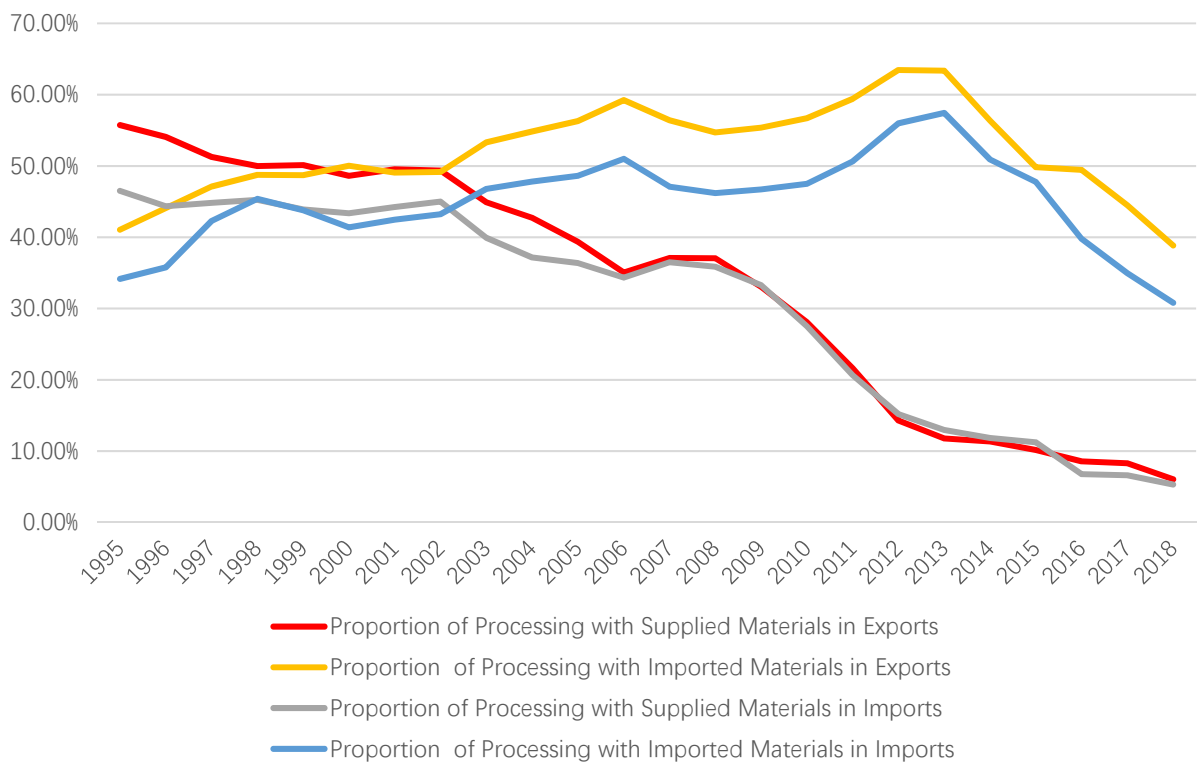

Figure 2. Changes in the proportion of two kinds of processing trade in Dongguan's import and export from 1995 to 2018

3.1.3. The import and export market structure is diversified

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Dongguan's processing trade market is constantly expanding. The United States, Hong Kong and Japan are its most important trading partners, and the actual exports to these regions in 2018 accounted for 21.6%, 21.7% and 6.1% respectively (Figure 3). Southeast Asian Association and European Union are the markets with the fastest export growth, accounting for 9.7% and 18.5% respectively. As for imports, Taiwan, South Korea and Japan are the main importing places, and the actual imports to these areas accounted for 18.5%, 19.7% and 9.6% respectively in 2018(Figure 4), among which Taiwan became the biggest deficit source in Dongguan, reaching 88.592 billion yuan in 2018.

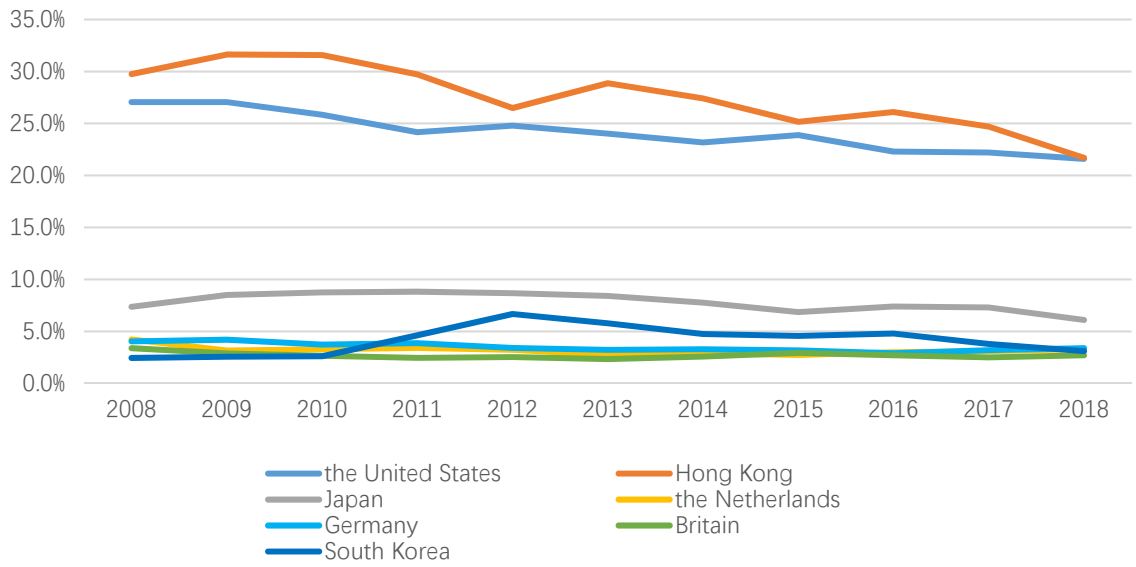

Figure 3. Changes in the proportion of Dongguan's main export markets from 2008 to 2018

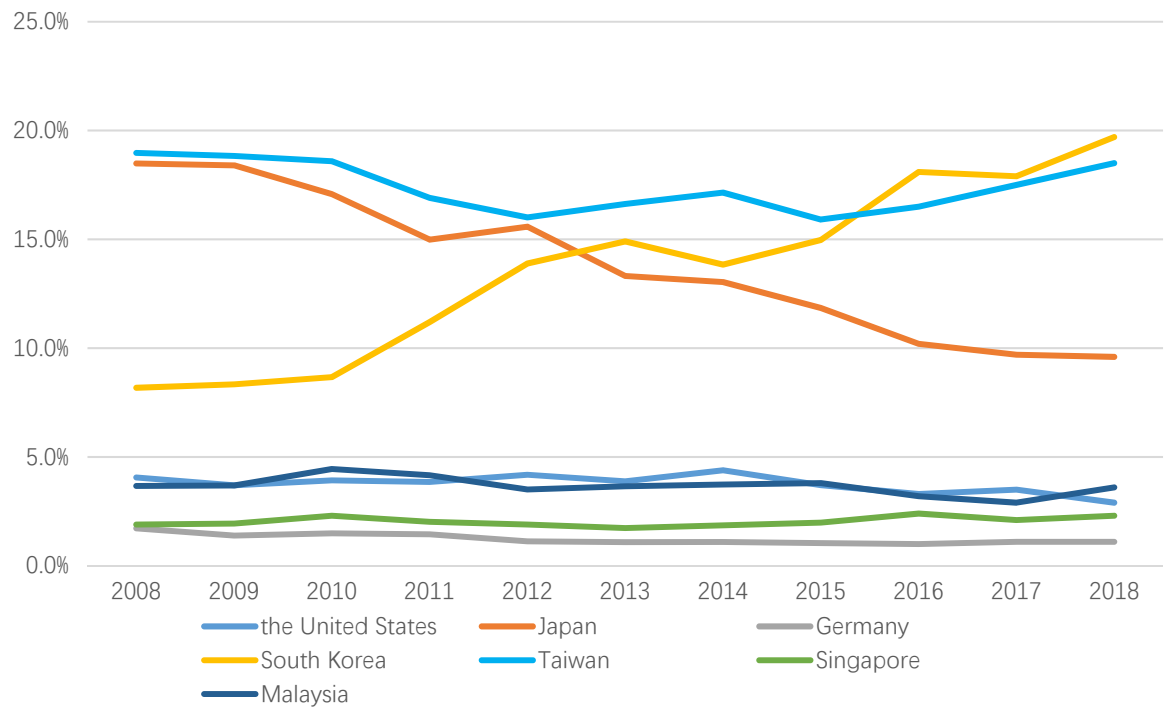

Figure 4. Changes in the proportion of Dongguan's main import markets from 2008 to 2018

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3.1.4. The export commodities are mainly mechanical and electrical products

In 2009, the total export of mechanical and electrical products in Dongguan accounted for 76.1% of the total export of processing trade in the same period, an increase of 40.6% compared with that in 1993. Since then, mechanical and electrical products have been in the leading position of processing trade export, and become an important export item of Dongguan. In 2018, Dongguan's main export commodities were mechanical and electrical products, high-tech products, telephones, cultural products, automatic data processing equipment and its components, etc. Among them, the total export value of mechanical and electrical products increased by 14.72% and that of high-tech products increased by 18.94% compared with last year, while the export value of traditional export industries such as shoes, furniture, toys, textile yarns, plastic products did not change much.

3.2. Problems of Dongguan's Processing Trade

3.2.1. Low product added value

Although after the reform and opening-up, Dongguan's main commodity exports have rapidly shifted from agricultural products and textile products to mechanical and electrical products and high-tech products. It seems that technology-intensive and capital-intensive products have gradually replaced labor-intensive products, and the industrial structure has been optimized and upgraded. However, due to the lack of advanced technology and experience, Dongguan's processing trade is still at the bottom of the global value chain. Enterprises do not have independent research and development capability, and can only rely on purchasing foreign core components or advanced equipment to produce products for sale abroad, and the profit margin has been greatly reduced. If enterprises continue to ignore independent R&D and technological innovation, blindly pursue to earn meager processing profits, and finally increase their income only by reducing labor costs, this will not only be detrimental to the development of processing trade, reduce the market competitiveness of products, but also have a serious impact on the local environment, ecology, economy and society.

3.2.2. Weakening comparative advantage

Product competition in developing countries mainly focuses on price. At the early stage of processing trade development, Dongguan attracted a large number of foreign-funded enterprises with low labor and land costs. They turned the cost advantage into price advantage, quickly occupied the international market, created a large amount of foreign exchange income and promoted the rapid development of local economy. After the financial crisis, foreign market demand decreased, inflation intensified, the pressure of RMB appreciation increased, the labor cost and raw material price denominated in local currency continued to rise, coupled with the soaring land rent, the original cost advantage of Dongguan processing trade industry was continuously weakened, and the development of enterprises was in trouble. According to the statistics of Dongguan Bureau of Statistics, the average annual salary of employees in Dongguan was only 16,108 yuan in 2010, but it increased to 63,655 yuan in 2019, which was 8.4% nominal increase compared with 53,446 yuan in 2018 and 4.7% real increase after deducting the price factor. In addition, in the past ten years, the average rent of factories in Dongguan has increased from the original 8 yuan per square meter to nearly 30 yuan per square meter, and the production cost of enterprises is constantly rising. It can be seen that the cost of labor and land will keep rising steadily in the future. Dongguan no longer has the advantages of cheap labor and land, the profit margin of processing trade enterprises is narrow, and the survival pressure of processing trade enterprises that rely on exporting labor-intensive products is increasing. There has been a trend that some factories are transferred to Vietnam, Laos, Cambodia and other countries with lower costs.

3.2.3. Over-reliance on foreign capital

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Known as the "world factory", Dongguan has a high degree of industrial agglomeration and strong logistics capacity, attracting a large number of foreign enterprises to invest and set up factories in Dongguan. As foreign-funded enterprises are superior to domestic-funded enterprises in technical level, management experience and marketing ability, foreign-funded enterprises will soon become the main body of processing trade in Dongguan, and their foreign trade volume and industrial added value account for more than 60% of the city's total. In addition, it is difficult for domestic commercial banks to raise funds, which is also an important reason why domestic-funded enterprises cannot achieve transformation, upgrading and development. Although the introduction of foreign-funded enterprises has promoted the development of Dongguan's export trade and brought advanced production technology and knowledge, the internal personnel flow and purchasing behavior of foreign-funded enterprises can not bring significant technology spillover effect, and to a certain extent, it also occupies local resources and affects the establishment of local enterprises' own brands.

4. POLICY SUGGESTIONS ON THE TRANSFORMATION AND UPGRADING OF DONGGUAN'S PROCESSING TRADE

4.1. Optimize the Policy Environment and Encourage Independent Research and Development and Design of Enterprises

If China's processing trade does not take the initiative to climb to the high end of the value chain, and there is no breakthrough in the high-tech industry, once other countries form a monopoly, its international competitive advantage will be lost. According to the Statistical Bulletin of National Science and Technology Investment issued by the National Bureau of Statistics, the proportion of China's R&D expenditure in GDP increased from 1.75% in 2010 to 2.15% in 2017, but there is still a big gap between China and Finland, Israel and other developed countries, which is close to 4%. Enterprises account for more than 75% of this cost, and the proportion of scientific research projects in major universities is paltry. Colleges play a central role in China's high-end technical personnel training system. The government should create more favorable policies to encourage school-enterprise cooperation, give full play to the comparative advantages of various institutions, achieve the integration of Industry-University-Research, and smoothly promote the transformation of technological innovation from upstream theory to downstream products.

Essentially, the products exported by processing trade in Dongguan are mainly low-tech capital-intensive products and labor-intensive products, which have relatively low added value. The government should strengthen the protection of intellectual property rights, create a good financing environment to help small and medium-sized technology-based enterprises, and promote the formation of regional economies of scale, so as to expand the overseas market share of technology-based products, and realize the transformation of export industry from quantity to quality. Only by optimizing the trade structure and mode can we improve the position of local products in the global value chain.

4.2. Deepen Economic Cooperation in Guangdong-Hong Kong-Macao Greater Bay Area

Dongguan, located in the core area of Guangdong-Hong Kong-Macao Greater Bay Area's construction, is an important gateway for Guangzhou-Shenzhen economic development and scientific and technological innovation corridor. Its superior geographical location has laid a good foundation for Dongguan's development. Government departments should seize the opportunity of strategic development, speed up the pace of economic cooperation in Guangdong-Hong Kong-Macao Greater Bay Area, build an "one-hour economic circle in the Bay Area", promote the rapid flow of economic development factors such as people flow and logistics, and realize regional resource sharing; Make full use of the advantages of Dongguan's

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existing manufacturing industry, strengthen the cooperation of science and technology innovation between Dongguan, Hong Kong and Macao, support the construction of national high-tech industrial development zones, and accelerate the transformation of urban innovation achievements; Promote urban upgrading with high standards, and form a new economic pattern of high-level linkage development with the three international cities of Guangzhou, Shenzhen and Hong Kong, so as to contribute to the construction of Greater Bay Area.

4.3. Encourage Local Enterprises to Develop Processing Trade

In the past, Dongguan formed an export-oriented economic model of raw material import, domestic processing and assembly, and product export by virtue of its comparative advantages. It quickly organized modern commodity production, greatly improved production efficiency, and became increasingly close to the economies of other countries in the world, forming a prosperous and open global market. Processing and assembly has indeed made great contribution to the economic development of Dongguan. However, in recent years, with the continuous increase of production costs and the rapid changes in the international situation, the profit margin of processing trade has been continuously compressed, and at the same time, the uncertainties and unstable factors have obviously increased.

The government can take some measures to encourage the cultivation of domestic-funded enterprises to participate in international competition: strengthen the connection between banks and enterprises, open up investment and financing channels for domestic-funded enterprises, optimize the entrepreneurial environment and cultivate leading enterprises; Reduce the market barriers of private enterprises entering technology-intensive industries and provide necessary policy support for local processing trade enterprises; Deepen the export tax rebate policy, reduce the domestic raw material procurement cost, and mobilize the enthusiasm of export enterprises.

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