

# ***The Impact of International Trade on Development Inequality in Developing Countries - Evidence from China***

**Xinyue Zhang**

*School of Business Administration, Zhejiang University of Finance and Economics, Hangzhou, China*

*sheryl050311@zufe.edu.cn*

**Abstract:** Development inequality has been a long-standing issue bothering the governments and many institutions, and is a problem that the United Nations Sustainable Development has been working with. It would lead to fierce phenomena like slow development speed and increasing crime rates. This research aims to explore the relationship between international trade and development inequality, using data from different regions in China as an example. The results suggest that international trade have negative effects on narrowing the development gap between the eastern coastal regions and the central and western regions in income level, living standards and consumption preference. This paper analyses possible reasons for the developmental inequality, such as comparative advantage based on the Heckscher-Ohlin theory and foreign direct investment. It also indicates that developing tourism industry and integrating intangible cultural heritage with souvenirs can boost local economic development in the central and western China. Meanwhile, improving social welfare system will eliminate negative effects caused by international trade.

**Keywords:** international trade, development inequality, foreign direct investment, social welfare

## **1. Introduction**

In the 21st century, cooperating with different countries have become extremely prevalent at an incredible speed. Globalization is a complex phenomenon with multiple dimensions and layers, including economic development, politics, culture and society, and the most significant impact is often considered to be economic integration. Economic integration consists various aspects, including international trade, market integration, outsourcing and offshoring, overseas investment, and labor mobility [1]. They all have both positive and negative effects on economic growth.

When it comes to China, international trade presents both benefits and drawbacks. Existing research suggests that the more a city exports its goods, particularly high-tech products, the higher its productivity efficiency will be [2]. Increased productivity efficiency refers to more output within the same time frame using the same amount of resources, or generating products of superior quality. In the long run, this leads to improved living standards for citizens and a booming economy. Studies from other countries have figured out some problems threatening their market after China has joined the World Trade Organization (WTO). The low prices and strong competitiveness of products manufactured in China have entered the US market, leading to a negative impact on the profits of US manufacturing industries, and some even had to reduce their productive scales [3]. Meanwhile,

suppliers that provide raw materials for US manufacturing companies are also impacted, leading to a 1.34% overall reduction in US manufacturing jobs from 2000 to 2007 [3]. This indirectly results in a decrease in employee wages and benefits, that the average income of the US manufacturing workers has decreased by 4.1% [3].

In summary, on the bright side, international trade can promote production and investment, enlarge the market scale, promote technological exchange and innovation, and improve labor efficiency and productivity. However, on the dark side, it increases unemployment rate, brings financial market instability, and further exacerbates economic inequality. Some countries have realized this problem and its long-lasting impact. Existing research has summarized the relationship between export of a certain category and income inequality, or the connection between imports and exports of a country and income inequality. For instance, sugarcane export has a negative impact on agriculture industries and an even fiercer impact on low-income people in Goias, Brazil [4]. Experts analyzing export exposure of Ecuador has also figured out that it has a positive impact on pro-rich and upper class [5]. Other studies in international trade have also reached similar conclusions. However, they fail to find a conclusion applicable to most regions that can work as a reference for developing countries.

This research is intended to generalize findings from various studies to draw a conclusion that is suitable for developing countries and provide deeper understanding and analyzing of the existing evidence. Through synthesizing situation of China, the study aims to identify common trends and patterns that can be applied more broadly. The ultimate goal is to enable policymakers and shareholders to have a more accurate insight on addressing various challenges.

## **2. Overview of regional income and export in China**

In the past 20 years, China has experienced significant transformations. In 2001, it joined the WTO and took an active part in international trade, expanding both its export and import scale. Meanwhile, it has further opened its domestic market to attract foreign investment, which contributed to and improved economic structure and revolution.

To gain further improvement, in 2013, China has established the Free Trade Zone (FTZ) pilot in Shanghai. The ultimate goal of the FTZ is to enhance China's position in the global industrial chain by offering trade facilitation, investment liberalization, and freedom of exchanging foreign currency to attract more foreign investment and companies. Up till now, China has established 21 pilot FTZs, and most of them are located in coastal areas.

### **2.1. Trade value**

From some of the transformations that China had done when making policies, it is easy to figure out that China initially focused on the development of its coastal regions, for instance, encouraging foreign investment and cash flow. As a result, this research has collected data of total international trade value from the National Bureau of Statistics of China and classified into different locations. By simple calculation, a sharp comparison of total international trade value of coastal region, central region and western region manages to reflect the regional differences and impacts from China's international trade. Figure 1 shows that the difference in the three regions are relative huge with costal region having the highest import and export value while western region gaining the least. The most significant phenomenon is that coastal region enjoys nine times total import and export value compared to western region.

### **2.2. Disposable income**

After analyzing the differences in international trade value, data of disposable income in different regions have been collected from the year 2017 to 2023. Figure 2 illustrates that the gap between

western region and costal region is extremely large and over time, and the gap is growing wider and wider. It reflects that the issue of imbalanced development across different regions in China remains a more and more severe question.

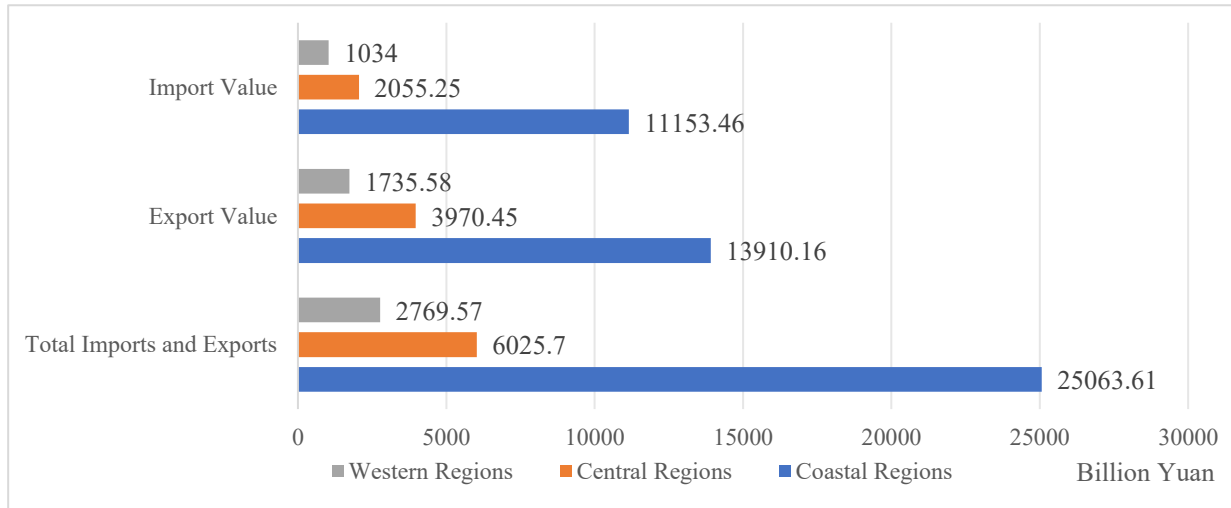


Figure 1: Total international trade value (data from: national bureau of statistics)

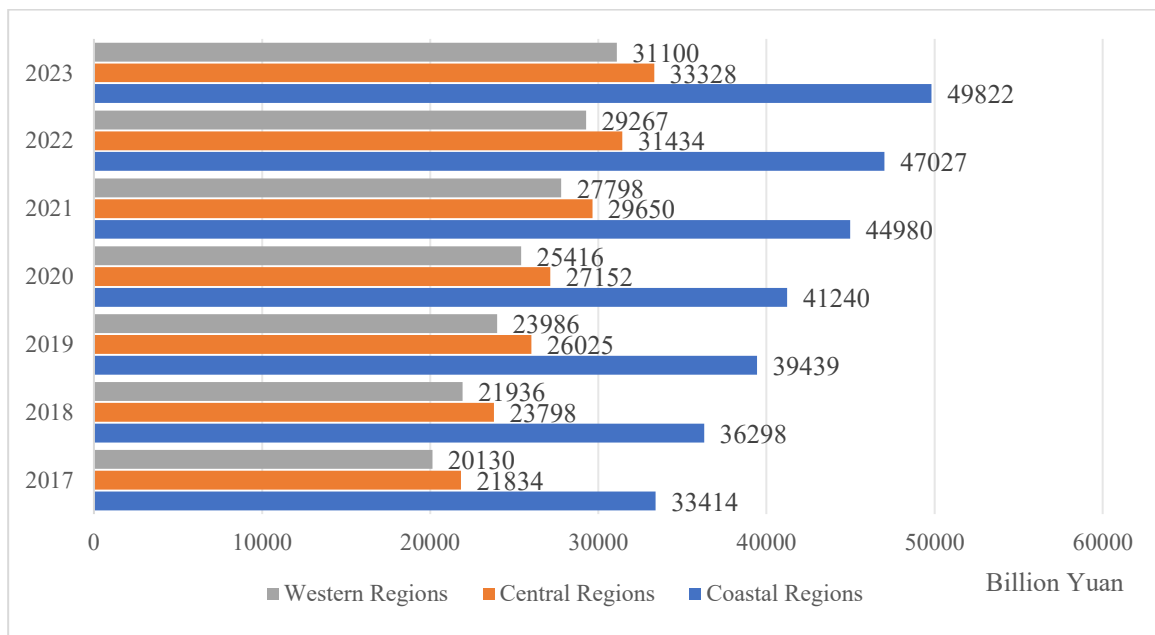


Figure 2: Disposable income across regions (data from: national bureau of statistics)

Through the analysis of foreign trade status and income levels in China's western, central, and coastal regions, this research has shown that international trade, mainly driven by China's policies, has promoted economic development in coastal areas. However, this has further exacerbated the issue of unbalanced development across different regions. The coastal regions have benefited significantly from open trade policies, leading to rapid economic growth and increased prosperity. In contrast, the inland regions, including both the central and western areas, have not enjoyed the same level of economic contribution, resulting in a gradually widening gap between the developed coastal areas and the less developed inland regions.

### **3. Reasons of development inequality**

#### **3.1. Comparative advantage**

Income inequality has been a long-standing issue in China, and the rise of international trade has exacerbated this problem. According to David Ricardo's theory of comparative advantage, each country should focus on producing the goods that have the highest productivity within its borders and trade them with other countries [6]. However, the production advantages across different regions in China are not the same. On the one hand, coastal regions benefit from the convenience of overseas transportation, while first-tier cities have advanced technology and more efficient production methods, which enable them to engage in international trade more effectively. On the other hand, some third-tier cities in China have low productivity and low-tech technology, with a primary focus on agriculture. These areas face high trade and transportation costs, which limits their participation in international trade.

Heckscher-Ohlin Theory also emphasizes comparative advantage brought by factor endowments, which suggested that countries should focus on exporting goods which utilize abundant resources domestically and import those that requires scarce resources [7]. In coastal region, manufacturing and high-tech industries are highly developed, and these two industries are where China's top exports stand [5]. While in central and western region, agriculture and energy are the main goals of its production, with the ultimate ambition of providing the country with abundant food, as well as coal and water resources. Different regions have different factor endowments, leading to various developing strategy. Coastal regions focus on foreign market development and globalization, while the other two regions concentrate on ensuring the basic living standards of Chinese citizens. Therefore, different developing strategies is another main factor for income inequality.

#### **3.2. Foreign direct investment**

Foreign Direct Investment (FDI), as its name has reflected, refers to a firm or an individual investor directly purchase a firm abroad. It usually contains having part of the firm's stocks and decision-making power, or establishing infrastructures or joint venture. Though foreign investors will bring cash flow and promote economic growth, they mainly focus on specific industries or areas, especially capital-intensive and technology-intensive industries [8]. Additionally, these areas tend to be located in coastal regions due to geographical advantage as this research has analyzed before. Meanwhile, foreign direct investors hire highly-skilled workers with high salary for their knowledge and expertise. On the contrary, ordinary workers have to require low salary when employing for a job so that they will maintain competitiveness in the market. As a result, the income gap will be further widened.

For instance, Yangtze River Delta have become one of the most popular regions for foreign investors owing to its geographic advantage [9]. This area has a variety of transportation means including high-ways for cars, rail-ways and ships for long distance transportation. Meanwhile, Chinese government has provided supports for foreign investments by decreasing tax rates and offering preferential policies. In Shanghai, the government allows certain amount of cross-border cash for FDI and tax incentives for foreign firms to lower costs. In Jiangsu province, foreign invested manufacturing industries can enjoy a discount on rent for land and equipment. Meanwhile, foreign firms tend to choose Shanghai and other first-tier cities for investment because they have more international influence and can have better management in Asia-Pacific Region [9]. Compared to these regions with geographical advantages, policy supports and even international influences, central and western regions have merely no advantages to attract foreign investment.

In a word, areas with abundant resources, highly-skilled labors and advanced technology will benefit from FDI, while other areas find it hard to enjoy the merits, forming structure inequality.

#### 4. Impacts of development inequality

Development inequality has been a long-standing issue bothering the governments and many institutions, and is a problem that the United Nations Sustainable Development has been working with.

Initially, development inequality is set to outpace economic growth. When inequality has been intensified, a series of negative impacts on the economy start to emerge and one of the most notable issues is slow economic growth. With income inequality, low-income groups have low disposable income to purchase food and living necessities; therefore, the consumption capacity is restricted. Meanwhile, high-income groups receiving high disposable income has relatively low marginal propensity to consume, meaning that though their income increases, their purchasing power remains unshifted and prefer to save money in banks to receive interest payments. This action leads to weak consumer market, further suppressing economic growth [9].

Additionally, it has brought social concerns affecting development and sustainability of the whole country. The most significant problem is the rising price of the real estates. Rich people want to push up the price of the houses to earn more money, and this is a kind of investment for them. However, as a living place for ordinary people, the price is unaffordable and they have to work hard for their whole life to have their own house.

Also, when the gap between low-income groups and high-income groups increases, social contradictions arise. Some people enjoy most of the social resources easily while others have to fight for the other little resources, or some can live a luxury life while some workers have to work hard to make a living. This will lead to psychological imbalance and can further transition into acts of social unrest, for instance, robbery, theft and even more fierce actions. The social happiness and safety index of China will decrease, creating a bad reputation in the world and attracting less foreign investment and fewer firms. As a result, the goal of globalization and a series of policies issued for achieving it tend to be useless.

In first-tier cities, parents fight for better education resources. They purchase school district homes for better primary and secondary schools, send their children to extra-curricular classes to learn more knowledge and require them to develop various habits. They even send their kids abroad for better education. Therefore, the teaching quality in these cities are high because they have various potential consumers, and they are forced to improve the quality of their services to attract more consumers with loyalty. In the meantime, kids in rural districts have few schools and teachers, teaching them basic knowledge. They are expecting for higher education quality, but due to income and developmental difference, talented people are reluctant to stay in less-developed regions.

Also, highly developed cities enjoy better social welfare and policies and receive economic advantages due to geographical locations and more advanced technologies. Situation will not be improved unless uneven distribution of resources can be solved.

#### 5. Policy solutions

The government has come up with several solutions to cope with development inequality. Some are targeted on individuals, for example, increasing social welfare and social insurance benefits for low-income households [10]. Others are macroeconomic policies, targeting on economic development, for example, China Western Development, Revitalization of Northeast China and Rise of Central China.

The gap between coastal regions and western and central regions has been narrowed under these measures but coastal regions still occupy most of the resources and advantages, and the remaining regions require more effective and fast solutions.

Tourism is one of the fastest and most effective ways to boost economic growth and income because they are mutually reinforcing each other [11]. Some local government has cooperated with local tourism department to present their hometown. By utilizing the Internet, they manage to develop more potential tourists by remaining highly active on the Internet. Meanwhile, by cooperating with social influencer, they can introduce the beautiful tourist attractions, unique food and warm services to people all around the world with lowest advertisement cost. Its high return and low investment make it attractive for local government. While promoting the tourism industry, local retailers can design some cultural and creative items so that while the tourists pay a visit to a new place, they can buy something as souvenir. The local culture can also be introduced while local economy grows.

Meanwhile, infrastructure development is vital for solving income inequality problem in different regions. It can promote economic growth by establishing transportation, energy, communication, and can also provide more job opportunities for local residents. Advanced technology can be delivered to rural areas. With the support and encouragement of policy benefits and some basic development to guarantee the basic quality of life, many college students will choose to return to less-developed areas after graduation. By migrating to poorer places, the young talents manage to bring better education and advanced technology they learned in high-tech cities to their hometown to narrow the gap of educational attainment between rural areas and highly-developed provinces. Therefore, government can establish some policies to encourage migration to poorer regions. For instance, the government can provide annual allowances for those who choose to come back to support hometown development or give cheaper price for them when purchasing real estates.

## 6. Conclusion

With the process of globalization, most of the countries have witnessed economic growth and social development. However, development inequality has emerged due to uneven resource allocation across regions. This research has focused on the relationship between international trade and economic growth, mainly studying on income inequality caused by it, using China as an example. Through previous study, existing researchers have provided some causes and effects, which this research manages to generalize common issues and come up with solution suitable for most of the developing countries.

By analyzing the economic indicators of different regions, the research finds that coastal regions have nearly twice the amount of trade value of western and central regions, meaning that coastal regions enjoy better economic situation and environment. After figuring out the existing problems China is facing, the research discusses the causes of development inequality by giving two theoretical frameworks to build a basic logical frame and how FDI affects income inequality. After that, social concerns brought by inequality have been further examined. Finally, some solutions, mainly focusing on tourist attraction development are expressed.

This research is limited in quantitative analysis. In recent years, new policies have been issued to cope with income inequality. However, it takes time to see whether these policies have positive effect on development inequality or not. Further evaluation is required to fully understand the long-term effects of these policies.

## References

- [1] Hill, C.W.L. and Hult, G.T.M. (2024) *Global Business Today: 2024 Release ISE*. New York: McGraw-Hill US Higher Ed ISE.
- [2] Sun,P, and Heshmati, A. (2010) *International Trade and Its Effects on Economic Growth in China*. *China Economic Policy Review*, 1(2), 35-60.
- [3] Wang Z., Wei, S., Yu, X. and Zhu K. (2018) *Re-examining the Effects of Trading with China on Local Labor Markets: A Supply Chain Perspective*. National Bureau of Economic Research (NBER) Working Paper No.24778.

- [4] Polacko, M. (2021) *Causes and Consequences of Income Inequality-An Overview*. *Statistics, Politics and Policy*, 12(2), 341-357.
- [5] Da Cruz, T.V. and Machado, R.L. (2024) *The Impact of Sugarcane By-Product Exports on Income Inequality: How Sustainable Is This Relationship?* *Sustainability*, 16, 3966.
- [6] Ricardo, D. (1817) *The Principles of Political Economy and Taxation*. London: John Murray.
- [7] Heckscher, E.F. (1919) *The Effect of Foreign Trade on the Distribution of Income*. Stockholm: Almqvist & Wiksell.
- [8] Duong, K.D., Nguyen, S.D., Phan, P.T.T. and Luong, L.K. (2022) *How Foreign Direct Investment, Trade Openness and Productivity Affect Economic Growth: Evidence from 90 Middle-Income Countries*. *Scientific Papers of the University of Pardubice, Series D, Faculty of Economics and Administration*, 30(3), 1615.
- [9] Zheng, M. Q., Xie, Y. Z., Mai, Y. H. and Yang, C. L. (2023) *Spatial Evolution Characteristics and Upgrading Path of Singapore-invested Enterprises in China Coastal Areas*. *Economic Geography*, 43(6), 45-53.
- [10] Liu, J., Lai, M.-Y. and Liu, Z.-S. (2022) *Trade liberalization, domestic reforms, and income inequality: Evidence from Taiwan*. *Review of Development Economics*, 26(3), 1286–1309.
- [11] Wijesekara, C., Tittagalla, C., Jayathilaka, A., Ilukpotha, U., Jayathilaka, R. and Jayasinghe, P. (2022) *Tourism and economic growth: A global study on Granger causality and wavelet coherence*. *PLoS One*, 17(9), e0274386.