The Impact of Covid-19 on International Trade in China-Industry Review in the YRD and the PRD

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Abstract. Since the Covid-19 pandemic raged on a global scale, the trade of various countries has been affected to varying degrees. China faces significant challenges as one of the top countries in international trade. Although the epidemic situation in most countries around the world has improved significantly and trade levels are gradually resuming, China's trade is still affected by the domestic 'Dynamic Covid-Zero' policy and cannot return to pre-epidemic levels. The Yangtze River Delta and the Pearl River Delta are the most representative economic zones in China, their import and export trade are greatly influenced. The authors examine various facts and information in order to solve concerns produced by Covid-19 and Chinese policy in a variety of industries in international trade, and they also give some solutions. In this paper, the authors focus on (1) the overall current state of international trade in China; (2) Chinese policy of the government responses to the Covid-19 (3) the current state of the textile industry in the Yangtze River Delta, data analysis, and internal and external challenges; (4) the current situation of the Pearl River Delta's electronics manufacturing business, data analysis, and internal and external challenges; and (5) possible solutions from the government perspective.

Keywords: International Trade; YRD; PRD; Covid-19.

1. Introduction

China has been the top exporter in the world and second in import trade for many years. According to the World Trade Organization, total merchandise exports were worth up to $2,499,457 (Million US dollars) in 2019. Although China's import and export trade is still among the highest in the world since the Covid-19 outbreak, domestic trading companies and factories are still being hit by the impact of the epidemic.

The "Dynamic COVID-zero" technique summarizes China's experience with Delta, Omicron, and other versions, which has advantages in terms of infection reduction[1]. The 'Dynamic COVID-zero' policy has effectively prevented the spread of the epidemic, but it has also led to an impact on import and export trade. With the COVID-19 pandemic sweeping the globe in 2020–2021, China's global trade has seen significant losses followed by rapid increases. Exports fell precipitously in February 2020 to just 60% of February 2019 [2]. Volumes of imports and exports from China have rebounded significantly since the global epidemic subsided, but China's international trade still faces many challenges based on its domestic epidemic control policies. Since the epidemic, most factories have shut down and are unable to complete orders on time. In addition, due to the control of international flights, the shipping speed has dropped significantly, resulting in a dramatic decrease in orders. As well as many other issues are the impact of the domestic epidemic policy.

The Yangtze River Delta (YRD) and the Pearl River Delta (PRD) are the most representative regions in China. Around 20% of China's total GDP and 39% of all foreign direct investment inflows occurred through the YRD in 2018 [3]. It is also notable since the Pearl River Delta has one of the most successful economies in the world. It surpasses Indonesia's GDP of more than $1.2 trillion. It has grown at an annual rate of 12% on average during the last ten years[4]. Both YRD and PRD have been playing an equally important role in China's economic development for many years. However, these two regions, which represent China's import and export trade, were extremely disrupted in the aftermath of Covid-19. Electronics manufacturing and textiles, the major industries in these two regions, each suffered from different degrees of industry shocks. This study mainly focuses on the electronics manufactory and textile industry of the Yangtze River Delta and Pearl River Delta regions as examples, trying to provide countermeasures from the government's perspective to restore China's foreign trade to pre-epidemic levels. In addition, this study will specifically define the current international trade status of these two areas, and analyze both internal and external challenges they are facing.

2. Literature Review

China endured a significant amount of damage in February 2020 due to widespread disease. The government decided to support various policies that would quickly stop the epidemic's spread to lessen the damage brought on by COVID-19. As a result of this and the experience, the Chinese government in August 2020 implemented a new policy known as "Dynamic COVID-zero"[5]. This policy's goal is to lessen the negative effects on society, the economy, and people's daily lives as quickly and cheaply as possible. Additionally, the government will employ big data to swiftly pinpoint close associates and high-risk populations, assisting in the implementation of targeted prevention and control measures [6]. The Chinese government seeks to reduce the epidemic's negative effects on the lives of China's citizens while also promoting economic and social advancement.

The "Dynamic COVID-zero" program has had a significant positive impact on China's economy and population health. This practice reduced the rate of infection. According to the calculation, if China does not take any preventative steps to renounce its stringent dynamic zero policy, there is a chance of more than 1.5 million COVID-19 deaths and substantial harm to China's healthcare system[7]. The "Dynamic COVID-zero" strategy had positive effects on the Chinese people, who were protected and had fewer health hazards. Additionally, this strategy is beneficial to the economy. In 2020, China's economy was the only one to see positive growth[8]; by 2021, it had grown by 8.1 percent to 110 trillion yuan ($17.3 trillion).[9]. Thus, it is clear that COVID-19 had no huge impact on the Chinese economy.

It is true that the "Dynamic COVID-zero" policy greatly benefited China, but there were some unavoidable side effects as well. It has numerous detrimental effects on people. People in the neighborhood should adhere to the home quarantine guidelines when cases are discovered there. Even if staying at home can stop the spread of Covid-19, it reduces the productivity of the business and result in a shortage of human resources and potentially the shutdown of factories. Most businesses struggled to meet deadlines and often lacked workers for the workshop, which affected trade.

3. Covid-19 negative impact on different industries in international trade

3.1 The challenge of COVID-19

The world supply chains have fallen apart because of the COVID-19 epidemic, according to a public report from The White House in June 2021,which is the largest economy in the world, the United States indicates that the shortage of the supply chains is holding back business activity in some sectors, for example, key components including framing timber, wallboard, and roofing were in short supply, according to the National Association of Homebuilders. Since housing starts have been unstable for several months, it appears that homebuilders are partially responding to these shortages by delaying new development[10]. Homebuilders are just a very small piece of the puzzle, it reflects how bad the world supply chains are and the situations of all the businesses across the world by looking into the world's largest economy.

In the general global environment of the COVID-19 epidemic and the background of the "Dynamic COVID-zero" policy from the Chinese government, international trade in China was seriously affected. The challenges are both external and internal. The external challenge is the disruption of supply chains; the internal challenge is the shutdown of factories.

China's participation in global trade is significantly impacted by supply chain disruption.First, the raw materials that ship from other countries could be delayed or canceled by the strike of the epidemic; this puts the Chinese companies that rely on the import of raw materials in great danger. Second, the factories and companies of other countries could be shut down or inefficient because of shortages of workers and financial issues; this will affect the Chinese companies that have business in international trade. Third, the shipping costs will go much higher since the epidemic breaks out; this will increase the cost and lower profits.

The shutdown of factories is also the main reason for damaged international trade in China. Because of the "Dynamic COVID-zero" policy, companies and factories in China will shut down immediately when it city emerging infected population. During the shutdown time, the companies still have assumptions about the company's rents, workers' salaries, and other costs.

This seriously increases the cost and burden of company operations, and also makes companies' business uncertain, because you never know when your city will shutdown and your companies will shutdown, it's damaging to the normal business transactions of international trade companies.

The following is a detailed discussion of Chinese government policies. Examples from the Yangtze River Delta and the Pearl River Delta, two of China's most typical economic regions, are used to analyze the impact of Covid-19.

3.2 Yangtze River Delta

3.2.1 Yangtze River Delta (YRD) and textile industry

The Yangtze River Delta (YRD) was known as China's largest economic center, with one of the highest degrees of openness and activity in the country[11]. YRD is located in China's lower reaches of the Yangtze River, with a greater number of import and export ports. Furthermore, it was divided into four provinces (Jiangsu province, Zhejiang province, Anhui province, and Shanghai province) and 41 cities[12]. Furthermore, it is important in global manufacturing. For example, China is the world's largest manufacturer and exporter of textiles and apparel, and its textile industry is also one of its most labor-intensive and dependent on international trade sectors[13]. During the Ming dynasty, China created nine significant commercial, textile, and trading hubs, including Nanjing Jiangsu province, Hangzhou Zhejiang province, and others that are now playing a rising role in the YRD textile industry [14]. As an example, consider the province of Zhejiang. In antiquity, Zhejiang was renowned as "the home of silk," which contributed to creating its reputation in the textile industry [15]. The textile industry is Zhejiang Province's primary export sector, accounting for one-third of total exports[16].

3.2.2 Textile export data in China and Zhejiang province

In 2021, the value of China's textile and apparel exports will exceed $300 billion; export growth will exceed $20 billion for the second year in a row, reaching 9%[17]. Zhejiang accounted for one-fifth of China's textile and clothing exports. Zhejiang's textile and apparel sector achieved a total industrial output value of $142.9 billion in 2021, a 17.5% increase over the previous year[18]. From January to July 2022, Zhejiang Province's textile and clothing export is 41.2 billion US dollars, up 20.9% year on year, and accounts for 28.7% of the total value of the nation's textile and apparel export, placing it first in the world in terms of scale. Furthermore, the national growth rate for textile and clothing exports reached 51.0%, ranking the country's capital first among all provinces and cities[19].

3.2.3 Covid-19 impact to Zhejiang

The textile industry in Zhejiang, which is one of the export-oriented industries, was severely impacted by COVID-19. First off, the lack of demand in Zhejiang's textile industry due to COVID-19 has caused a substantial decline in the value of export deliveries. In JiaXing, Zhejiang province, the annual growth rate fell in February, March, and April of 2020 by 23.4%, 12.3%, and 20.8%, respectively[20]. Additionally, the businesses sustained significant losses. For instance, the cost of raw materials grew dramatically, making it difficult for sellers to raise their asking prices; as a result, business earnings are minimal or even negative. What’s more, the Chinese government's "Dynamic COVID-zero" policy, which was created as a solution to the Covid-19 problem, has a detrimental effect on businesses. Such as business closures, logistics halts, and so on. In the end, businesses are unable to distribute goods efficiently or produce a significant amount of inventory.

3.3 Pearl River Delta

3.3.1 Pearl River Delta (PRD) Introduction

Pearl River Delta is one of the most heavily urbanized areas in the world. It is located on the Southern Coast of China, in Low-lying areas around the Pearl River Estuary. The three central regions of the Peral River Delta include Macau, Hong Kong, andGuangdong . Major communities are Guangzhou,Hong Kong Shenzhen,Foshan, , Hong Kong, Macau, Zhuhai, Dongguanand so on [20]. But the most outstanding cities are Guangzhou, Shenzhen, and . Furthermore, the busiest container port in the PRD is Shenzhen. It is also China's third largest container port after Shanghai and Ningbo-Zhoushan. After Shanghai, Singapore, and Ningbo-Zhoushan, this container port is the fourth largest in the world [21]. According to Shenzhen Customs statistics, in 2021, Shenzhen's goods trade import and export of 3.54 trillion yuan, a significant record scale, an increase of 16.2% over 2020. Among them, exports of 1.92 trillion yuan, the scale of the 29th consecutive year in the mainland's foreign trade cities, an increase of 13.5%; imports of 1.62 trillion yuan, an increase of 19.5%. 2021 December, the scale of imports and exports hit a single-month high since April 2013, reaching 385.62 billion yuan, an increase of 25.8%, which has been the 14th consecutive month to achieve positive growth [22].

3.3.2 High-tech industry in Shenzhen

The core of Shenzhen's economy and China's leader in the digital economy is the high-tech sector. Shenzhen is home to some of the biggest companies in the high-tech sector, including Huawei, Tencent, ZTE, and DJI. The spring of 2020 saw the effects of the COVID-19 pandemic, which caused industry closures, slowed shipping lanes, and decreased the demand of consumers.. Reserchers indicate that global commerce is facing an existential threat [24].

3.3.3 China’s high-tech industry statistics

The work-from-home policy and pandemic shutdown helped increase the demand in high-tech sales soar in the summer and fall. Exports from China, the world's largest high-tech manufacturer, fell to $54.5 billion in March, down 8.1 percent from $59.3 billion in March 2019."China's exports to the United States decreased by 21.7% to $7.5 billion in March. Not surprisingly, exports of cell phones decreased 7.8%% to $8.4 billion, data processors down 14.3%% to $6.9 billion, and routers decreased 12.9% to $3.2 billion.Additionally, according to trade data for 2020, high-tech equipment consumers in the US are shifting where they buy their products. China's imports decreased by 3.6% to $126.5 billion in the first 11 months, while imports from Vietnam increased by 24.1% to $24.7 billion and imports from the Republic of Korea increased by 9% to $18.2 billion [25].

3.3.4 Covid-19 impact to Shenzhen

While Chinese high-tech imports and exports are falling, the other countries' imports and exports are growing. During the epidemic, the Chinese government has strict anti-epidemic measures and policies to prevent COVID-19 virus. Such as the Dynamic COVID-zero policy. When Shenzhen has 1 Covid patient, the whole city will have to shut down, and all the high-tech factories need to stop operating; all the workers can not work until Shenzhen have no Covid patient. This affects the work progress and puts the company's finances at risk.

3.4 Challenges in the textile industry and high-tech industry

As argued in the previous sections, the Covid-19 program and the Chinese government's "Dynamic COVID-zero" policy have tremendous impact on the textile industry and high-tech industry in the

YRD and the PRD. In this section, authors would analyze the internal and external challenges faced by international trade in China.

3.4.1 External challenges

The devastating force of COVID-19 has had a tremendous global impact. Zhejiang's textile industry and ShenZhen's high-tech industry are dominated by exports. However, the consequences of the epidemic have disrupted the industry's supply chain. Many consumers canceled their orders, resulting in a significant drop in demand. Besides, because Covid-19 exacerbates trade protectionism and de-globalization trends, more and more countries prefer domestic production over foreign investment and trade, and this is also causing global economic instability. What's more, there was also a substantial influence on the global economy. For example, the uneven nature of the global monetary system aided inflation. As a result, the cost of transportation and raw materials skyrocketed. Such as the cost of shipping a 40-foot container from China to the western United States has risen from $2,000 to $20,000[26].

3.4.2 Internal challenges

The Chinese government implemented a "Dynamic COVID-zero" policy in order to mitigate the impact of Covid-19 in China. However, it has a negative impact on enterprises. When people are quarantined owing to Covid-19 cases detected in the area, businesses lose labor resources and may possibly be forced to shut down. People are only permitted to follow government policies and stay at home for several days. Due to a lack of labor resources, enterprises will miss deadlines or even reject all orders, labor expenses will skyrocket and it will take longer to accomplish all products. And capital challenges will arise as a result of little profit while still needing to cover the company's costs.

4. Conclusion

The present article analyses the current status of international trade in China under Covid-19 from two representative regions in China (the Yangtze River Delta and the Pearl River Delta). Both regions are facing similar challenges due to the global epidemic and the domestic 'Dynamic Zero-Covid' policy. Because of the epidemic, more and more countries are preferring domestic production to import and export, which has caused a significant drop in China's export trade orders. In addition, inflation and increased transportation costs have caused order prices to soar, leading to a situation where other importing countries will no longer want to choose Chinese exports. However, the 'Dynamic Zero-Covid' policy is the main challenge for China's import and export trade. It is the fact that 'Dynamic Zero-Covid' has successfully controlled the spreading of the domestic epidemic. But this also comes at the expense of an optimistic picture of China's international trade. Factories need to keep shutting down for the epidemic prevention and control policy, which greatly reduces productivity and, in more serious cases, even faces cancellation of orders from customers due to short supply. The massive loss of revenue due to order cancellations and the necessity to pay staff salaries and other factory maintenance costs while facing revenue difficulties has put factories in all types of domestic industries in China under the threat of closing down. In order to address and mitigate the challenges of China's import and export trade, this study provides the following possible solutions. (1) Macro-control by the government. Strengthen the support for trade enterprises to help them relieve the pressure in terms of capital. It is recommended to reduce, defer taxes, or increase subsidies to enterprises. Strengthen the support for trade enterprises to help them relieve the pressure in terms of capital. Suggest reducing, deferring taxes, or increasing subsidies for businesses. This will allow the companies to cooperate with the epidemic protection and at the same time not confront huge economic pressure. (2) Increase international cooperation. It is suggested to introduce policies to support and encourage domestic trade enterprises to cooperate overseas. Greater opening of customs ports to attract foreign investment and increase the volume of trade orders. (3) Encourage technological innovation and industrial upgrading. In the case of global pandemics, science and technology innovations such as medical devices or seeds and food can be enhanced, creating more opportunities for international business cooperation. Moreover, the authors recommended upgrading the existing commodities and enhancing the competitiveness of the commodity business as a way to strengthen the advantages of China's international trade.

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