

# Construction of Traceability System of International Trade Logistics under the background of Epidemic Situation

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**Abstract:** The COVID-19 outbreak in early 2020 continues to spread around the world, casting a deep shadow over global economic growth. With the intervention of the Chinese government's powerful economic policies, the pace of China's market-oriented reform has continued to advance, making China the first country in the world to emerge from the epidemic. However, in the context of the global epidemic has not been effectively controlled, China's foreign trade is still facing huge risks and challenges. This paper analyzes the current situation of China's foreign trade in the context of COVID-19, discusses the risks and opportunities it faces, and then proposes feasible countermeasures for effectively dealing with the impact of COVID-19 on China's foreign trade.

**Keywords:** Epidemic Situation, Medical Materials, International Trade, Logistics, Big Data

## I. INTRODUCTION

On April 10, 2020, the Ministry of Commerce (MOFCOM) issued a response on the impact of the global spread of COVID-19 on China's exports. The Ministry of Commerce (MOC) spokesperson said that the COVID-19 has been spreading rapidly around the world, with more than 200 countries and regions having confirmed cases. The COVID-19 has had an impact on global economic development and market demand. According to customs statistics, since the outbreak of the epidemic, China's imports and exports, exports and imports in terms of RMB have decreased by 9.6%, 15.9% and 2.4% respectively in the period from January to February 2020. According to the World Trade Organization's "Global Trade Data and Prospects" released on April 8, 2020, global trade will shrink by 13 to 32 percent this year. Although WTO Director-General Roberto Azevedo stressed that the impact of COVID-19 on global supply chains does not necessarily lead to deglobalization, 81% of the world's 3.3 billion workers have already been affected by COVID-19 and their workplaces have been completely or partially closed, according to a report released by the International Labour Organization on 7 April. According to relevant statistics, in just two months from February 1 solstice to April 1, China cancelled or revoked 12 396 foreign trade companies. With the development of the epidemic in Europe and the United States, more foreign trade companies may close down in the future. China's foreign trade directly or indirectly drives more than 180 million people to work. Therefore, compared with the temporary impact on the economy and employment caused by shutdowns during the outbreak, the decline in foreign trade caused by the global spread of COVID-19 will certainly have a lasting and substantial impact on China's economy and employment.

As an indispensable force to promote China's development, the private economy has played an important role in the development of the international market. Affected by the epidemic, the import and export of the private economy showed

a trend of bucking the trend and played a significant positive role in the steady growth of foreign trade despite the overall decline of China's foreign trade. From January to July in 2020, the total import and export volume of private enterprises reached US \$1,128.8 billion, of which the import volume was US \$391.7 billion, up 3.7 percent year on year, and the export volume was US \$731.1 billion, up 2.8 percent year on year. This means that private enterprises have become the main force of China's foreign trade, and the quality of its foreign trade has been significantly improved.

Since the outbreak of COVID-19, China has taken a series of measures, such as suspension of production and so on, which have effectively controlled the spread of COVID-19, but at the same time caused a certain shortage of production capacity. Subsequently, countries all over the world have adopted different entry control measures, greatly increasing the time and transaction costs of foreign trade. It is accompanied by the decline of consumption power of China's traditional important trading partners (such as the United States, the European Union, BRICS countries, etc.) and the rise of trade protectionism, which seriously affects the development of China's foreign trade.

## II. THE PROPOSED METHODOLOGY

**Short-Term Impact of COVID-19 on China's Foreign Trade.** Under the influence of economic globalization, transnational cooperation in supply chain has become a normal state. Various countries and regions have formed a closely cooperative division of labor system according to their respective advantages. This has greatly reduced the overall cost of the supply chain and contributed to the rapid development of international trade. It is under the influence of economic globalization that China, with its low labor cost and open business environment, has gradually grown into the "factory of the world" and become the world's largest exporter. However, this system of supply chain division of labor has also been severely hit by the spread of COVID-19. On the one hand, the rapid spread of COVID-19 in developed countries such as the United States has made them realize that the division of labor in the supply chain will lead to the shortage of epidemic prevention materials and the decline of prevention and control ability, which will make them subject to the control of other countries. Therefore, the voices of anti-globalization in various countries continue to emerge. On the other hand, as the "factory of the world", China not only needs to import a large number of raw materials, agricultural products and key parts from abroad, but also needs to export finished products to other countries. Due to the global spread of COVID-19, many exporting countries of raw materials, agricultural products and key components have announced temporary suspension of exports, which not only affects the normal resumption of work in China, but also adversely affects the smooth realization of the food security goal. More importantly, the rapid spread of the epidemic in

developed countries has greatly affected the orders of China's foreign trade enterprises. At the end of March, retail stores in the United States and Europe were closed due to the COVID-19 outbreak, leading to the cancellation of orders for a large number of foreign trade apparel companies in China. Many well-known FMCG brands, such as Zara and H&M, even cancelled their orders for May.

In recent years, with the popularization and application of the Internet, cross-border e-commerce, as a new form of foreign trade, has developed rapidly. In 2019, the global cross-border e-commerce sales volume has exceeded 3 trillion US dollars, accounting for 11.9% of the global total sales volume, an increase of 16.7% over 2018. As of 2019, the trade volume of cross-border e-commerce in China has taken up more than 25% of the total trade volume. However, it is undeniable that the traditional trade form mainly based on offline transactions still occupies a dominant position in foreign trade. The key problem lies in the barriers of system and language. Offline transaction By setting up overseas agents, the barriers of system and language can be overcome to a large extent and promote the development of foreign trade. However, the rapid spread of COVID-21 worldwide has brought great challenges to this traditional form of offline transaction. On the one hand, a large number of brick-and-mortar retail stores in importing countries have been forced to close, making it difficult for foreign consumers to buy goods through offline transactions. On the other hand, due to the impact of the epidemic, the Canton Fair, known as the "barometer" and "weather vane" of China's foreign trade, will not be held as scheduled. Although the 127th Canton Fair was successfully held online on June 15, 2020, the restrictions on offline trading represented by it will certainly have a negative impact on China's foreign trade in the short term.

Although the global spread of COVID-19 has brought a great impact on China's traditional manufacturing industry, such as the textile industry, it has also brought unprecedented and historic opportunities to China's export of medical protective equipment. To be specific, although the peak of the epidemic in China has passed, the epidemic prevention situation abroad is still very grim. Medical protective equipment, such as masks and protective suits, has become a global necessity in short supply, and the ventilator for the treatment of patients with severe COVID-21 has seen overcrowded orders and rising prices. At the same time, the quality of some exported medical protection products has also been complained of. In this regard, we must take full advantage of this opportunity to accelerate the restructuring of the global medical supply chain, while paying high attention to the quality and brand maintenance of medical protection products. More importantly, to truly defeat the epidemic, research and development of a vaccine must be accelerated. To some extent, whoever succeeds in developing a vaccine will be at the heart of the future medical supply chain. Therefore, although the shortage of medical protective equipment is beneficial to the prosperity and development of China's medical protective equipment industry in the short term, it is also beneficial to alleviate the downward pressure of export and economic growth. But its production and supply are only palliatives, and development and clinical trials of COVID-19 vaccines must accelerate if they are to take a central role in the global medical supply chain of the future.

**Opportunities Facing Foreign Trade.** Falling prices of basic products such as fossil fuels have brought opportunities to China's foreign trade products. Affected by the global spread of COVID-19, the prices of many kinds of international bulk commodities have experienced considerable fluctuations,

especially the prices of crude oil, coal, ore and so on. The crude oil price once appeared negative value. Although the fall in commodity prices is not conducive to the recovery of the world economy, it is undoubtedly an important historical opportunity for China's energy reserves, especially crude oil reserves. Increasing energy reserves is of great significance for safeguarding national security and opening up the domestic economic cycle.

The future restructuring of international supply chains is possible. The outbreak of the epidemic has made all countries in the world realize that the existing international division of labor may reduce their own ability to respond to emergencies and make them subject to other countries. At the same time, due to the rise of logistics costs, high-end manufacturing in Europe and the United States may return to China. China's strong response to the epidemic and rapid economic recovery have made it possible for China to replace the United States and Europe as a consumer power. At the same time, the epidemic is changing people's consumption habits and the way they work. Online transactions are gradually replacing offline transactions. The development of big data and artificial intelligence makes it possible to restructure the international supply chain. The outbreak of the epidemic will quickly promote the transformation of China from a "manufacturing power" to a "manufacturing power".

Trade demand in the medical protection industry has soared. While COVID-19 has had a significant impact on global trade, not all categories of goods have been adversely affected. The trade demand of food and light industrial products is adversely affected, but the trade demand of medical protection industry brings unprecedented opportunities to China's foreign trade export. The domestic epidemic has been effectively controlled, but the epidemic prevention situation abroad is still very grim, there is a possibility of further deterioration, medical protective equipment has become a global shortage of protective equipment.

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**The Challenge of the Reconstruction of Global Value Chain led by the United States.** In the short term, the United States will further introduce technology control measures to suppress China's high-tech enterprises, and coerce its allies to boycott some of China's leading high-tech products or services, or affect the overseas layout of China's high-tech industry. In order to promote the return of manufacturing industry and curb China's economic and technological development, the United States has successively imposed "sanctions" on ZTE, Huawei and other Chinese high-tech companies, and formulated a list of export control entities for Chinese high-tech enterprises and research institutions. Since the outbreak of this epidemic, the United States has stepped up its crackdown on China's high-tech companies, such as cutting off the global supply chain of Huawei chips, including TSMC, and banning the application of tiktok and other software for security reasons, which will have a significant impact on the overseas layout of China's enterprises.

The implementation of American industrial strategy will promote the regionalization of North American value chain, and the global production network will present a tripartite pattern of North American value chain, East Asian value chain and European value chain. Affected by this, the United States will accelerate the decoupling of some industrial chains between China and the United States, and reduce the dependence of global production networks on China. On the one hand, the high-tech industries between China and the United States will be partially decoupled, in order to form a new American production system, and at the same time, combat China's competitiveness in the high-end position of the global value chain. On the other hand, affected by the shortage of epidemic prevention materials during the epidemic period, the United States will vigorously develop the industrial chain of medical and health supplies and other necessary materials, and strengthen the proportion of sovereign economy. In order to achieve this goal, the United States may introduce a series of direct investment restriction policies or indirect control measures to hinder the flow of new investment to China, and promote the outward transfer of existing production capacity from China, so as to reduce its dependence on China's manufacturing capacity.

It is of great significance to stabilize the basic economic mask of our country to stabilize the basic foreign trade market. It is an important way to build a higher level open economy and promote reform and development through opening up, which is an important way to promote the stable foreign trade and smooth the external circulation. China should take this epidemic as an

opportunity, promote reform and development through opening up, and provide smooth channels for stabilizing foreign trade. First, one belt, one road, and the high quality construction will promote the construction of a new pattern of opening up to the outside world. Second, we will actively promote the improvement of the multilateral trading system, facilitate the liberalization and facilitation of trade and investment, actively promote the signing of regional comprehensive economic partnership agreements, promote free trade negotiations such as China, Japan and South Korea, and promote the construction of higher-level international economic and trade rules. Third, taking Hainan free trade port construction and reform deepening of free trade pilot zone as an opportunity, we should actively explore and improve the policy guarantee mechanism of high-level opening.

## CONCLUSION

The novel corona virus pneumonia has increased the pressure of China's industrial migration, and has also challenged China's attraction of foreign investment. Stabilizing foreign capital is the key to stabilize the economic main body, industrial chain and supply chain. It is suggested that we should continue to strengthen the reform and opening up, improve the business environment, enhance the convenience, fairness, stability, transparency, efficiency and legal system of China's business environment, and enhance the attractiveness of China's trade environment. Build high-end regional industrial chain clusters of advantageous industries, and effectively connect with regional markets such as Japan, South Korea to reduce business risks.

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