Review Article

# Where Does Globalization Go in the Outbreak of the Epidemic? —— Thinking based on Supply Chain Configuration in China

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Abstract - The COVID-19 epidemic has caused the global supply chain to break, especially the failure of epidemic prevention materials to enter the epidemic area, which urged countries to rethink the re-configuration of the supply chain and the local layout of the whole supply chain of public crisis emergency protection industry. There is no doubt that the anti-globalization and supply chain reconfiguration under the epidemic is quietly going on and changing the world. This article analyzes the operation logic of globalization from three perspectives of economy, value and rules, and investigates the current supply chain configuration in China. It is believed that the construction of themed industrial parks to form a supply chain cluster should attract more international capital with a cost advantage, and heavy investment in research and innovation of digital industry should combine closely with the mechanical optimization in the supply-side structural reform and upgrade China's digital industry with capital advantage to achieve high-quality development.

**Keywords -** Epidemic situation; globalization; anti-globalization; supply chain.

#### I. INTRODUCTION

At the beginning of the year, the COVID-19 epidemic raged on the land of China. In March, the epidemic spread to foreign countries. The countries have closed their doors, and the production has stalled. The global supply chain seems to be on the verge of breaking. The unemployment rate has soared. The economy has been hit severely. The COVID-19 epidemic created a world that was no longer open, prosperous and free. In response to this situation, the Politburo of the CPC Central Committee held a meeting on April 17, 2020, proposed to maintain the stability and competitiveness of China's industrial chain supply chain, promote the coordinated resumption of industrial chain with the production resumption, and closely follow the principal tasks of "six guarantees" — "ensuring employment".

With regard to the issues of globalization and supply chain, the academic community has accumulated abundant achievements. Globalization is not achieved overnight but is the result of process practice and negotiation [1]. Although economic benefits are the primary consideration for the global supply chain, ideology also affects the configuration of globalization and the transformation of social and institutional structures under globalization[2]. Don't try anti-globalization easily. Closing the door may lead to excessive competition, social stratification and inequality within a country [3]. Under normal circumstances, there are also divergent opinions on the standard of supply chain configuration[4]. Environmental sustainability[5], cost[6], efficiency, quality and profit [7], and customer satisfaction[8] all affect the global configuration of the supply chain. However, under extraordinary circumstances, the supply chain has the risk of interruption, such as this epidemic. Thus there should be a plan and emergency response system established in advance[9]. In addition, in the grand context of Industry 4.0, high technology can dominate the configuration of the global supply chain, such as the transfer of knowledge and innovation[10,11].

Seemingly, there are many factors that dominate globalization and supply chain configuration layout. But after carefully combing, we can find that the deep logic underlying the signs has always dominated globalization.

### II. THE DEEP-RUNNING LOGIC OF GLOBALIZATION

The signs of a broken global supply chain caused by the epidemic urge countries to reflect on the problem of supply chain reconfiguration and set off a wave of antiglobalization. In fact, the anti-globalization headed by the United States began as early as Trump took office, but the epidemic has accelerated this trend. The development trend of globalization in the future will depend on the prevention and control of the epidemic in the near future, and in the long run, it will also depend on the

comprehensive political, economic, and institutional responses of various countries. Under the epidemic situation, the relations between major powers may be adjusted or even reorganized. The international coordinated emergency cooperation mechanism may be deconstructed and reconstructed. The global supply chain configuration will also undergo structural adjustments. Where will globalization go?

#### A. Will Globalization End?

Globalization is the changing process of human beings from isolated regions, countries and nations to a global society. Looking back on world history, human society has experienced at least 6 globalizations.

The first time: 1600-1500 BC. Ancient Egypt's 17th and 18th dynasties were the world's top powers at that time. King Yahmos and his successors formed a regional division of labour and remote trade centred on the eastern Mediterranean through continuous external expansion. The prototype of globalization dominated by the first empire in world history (the Egyptian Empire) has basically taken shape. The first globalization ended with the decline of the Egyptian Empire.

The second time: After the Egyptians and Greeks, the Romans took the stage of the Mediterranean history and established the Roman Empire across Europe, Asia and Africa. Under its leadership, the trade division system was gradually formed. The Roman Empire and the Eastern Han Empire were called the poles of the world at that time. However, the expansion of the Roman Empire encountered bottlenecks, stalled development, and then collapsed, which directly led to the end of the second globalization.

The third time: In the 13th century, the woollen textile industry gradually emerged in Flanders. Geographically, the division of labour system linked the Mediterranean, Western Europe and Middle East regions and formed a Mediterranean trade zone spontaneously. Industrially, Italy started from the processing of cloth and woollen cloth in England and the Netherlands and gradually entered the peak of development. Funds, raw materials, and labour were closely dependent on the world market. However, the Westward Expedition of the Mongolian Empire brought the Black Plague and ended the third globalization.

The fourth time: In the geographical discovery at the end of the 15th century, the world trade had been further expanded geographically, and the transportation network had been gradually formed. Eurasia, Africa and the New American Continent were linked by trade and flourished unprecedentedly. At the end of the 17th century, the small ice age in Europe caused a food failure, which further exacerbated famine and competition for resources. The 30-year war that swept Europe covered entire Europe with death threats, and the fourth globalization ended.

The fifth time: The British Glorious Revolution in 1688 established a constitutional monarchy and the

capitalist state system and actively developed overseas colonies to become a "sunless empire". Besides, the industrial revolution a hundred years later laid a solid political, economic and technological foundation for the vigorous development of the capital. However, the two world wars in the first half of the 20th century greatly weakened the strength of the United Kingdom. The United States took over the position of the globalization leader from the United Kingdom in a timely manner and opened the sixth globalization. The fifth globalization led by the British Empire was announced to be ended.

The sixth time: namely, the current globalization dominated by the United States. Compared with the past, the form of globalization has quietly changed. The world is subverting the traditional trade pattern based on comparative advantage, replacing the regional competition of the traditional complete supply chain (or finished product) with the global division and cooperation of labour in the supply chain, and gradually changing from competition-orientation to cooperation-orientation. The supply chain is a light move in one part that may affect the whole situation. The worldwide shutdown led to the epidemic was a broken link in the supply chain. The broken chains were one after another. So a country as a part of the supply chain cannot resume work alone. It was also the reason that the resumption of production cannot be fundamentally solved. The world was inseparably linked or tied together by supply chains and became a community of destiny.

Throughout the six globalizations in the history of humankind, the first five times all have traces of colonial expansion. Non-sovereign states are all passive globalization. This time the globalization has changed the core nature, and the countries have actively joined, which are active globalization. Any globalization that has been frustrated by external forces in history will eventually regain its strength in a more rapid manner. The scale is larger than once, showing the rule that "the world will certainly unit after experiencing a long period of division and then divide after a long period of the union. It cycles again and again." It can be clearly recognized from the overall situation in a long-term perspective that in the long history of human society's evolution and progress, globalization is the general trend, and anti-globalization is just the formatting and reshuffling of the interesting pattern, which is a short-term adjustment. The current antiglobalization dominated by the United States does not require each country to close its doors to each other's development, but to weaken the economies that have comprehensive competitive strength and have the potential to challenge them, to form alliances to combat dissidents, to economically obtain interests from other countries, and to adjust the operation of globalization to a direction that is more beneficial to themselves.

Undoubtedly, globalization can bring economic benefits to the participating countries. This is also the most important reason why different countries are actively integrating into globalization. However, anti-globalization will weaken this benefit. So, in any case, anti-globalization is no good for the world economy. For some countries that have initiated anti-globalization, if they can readjust the pattern of interests in a way that "hurts one thousand enemies with eight hundred soldiers", then although the economic aggregate may become smaller, they will gain a larger share of it. At this time, looking at the behaviour of anti-globalization again, it seems to be rational. This is the true portrayal of group irrationality in practice caused by individual rationality.

However, globalization will also bring challenges to national sovereignty: First, cross-border cooperation, such as global supply chain, environmental pollution, pandemic, transnational crime and other issues, etc., requires coordination and cooperation of international organizations, which may also weaken traditional national sovereignty. The second is value assimilation, which is usually carried out by means of the value output in a silent and soft way. When the value of a country is not recognized by other countries, it may be subject to interference and pressure from other countries. The third is the conflicts in the rules. The political and economic system of the host country may be changed more or less due to the conflicts. This institutional change poses a challenge to the sovereignty of the host country to some extent.

## B. Mainstream Factors Affecting the Process of Globalization

As we all know, the development of things is often not determined by one factor but the result of the interaction of many factors, just like the vector sum of various external forces. The external force has direction and different magnitudes. Therefore, there are many factors dominating globalization, which are not only as simple as supply chain configuration and profitability but also more or less mixed with factors related to value and rules. Judging from the current characteristics of globalization, there are three mainstream factors that determine the development trend of globalization.

#### a. The globalization of the economic system

The spontaneous flow of the capital, labour, technology and other factors in the market links the world's most competitive supply chains together for common development. The division of labour and cooperation in the industrial chain makes the economies of each country more interdependent and integrated, with higher production efficiency and lower costs. In the past, the technical threshold and capital threshold required for a country to establish an entire industrial chain no longer constituted a ban on any link in the current supply chain. As long as it can complete a task in the entire supply chain, it can participate in globalization. Thus, it greatly drove the industrialization of the emerging developing countries.

#### b. Globalization of the value system

The members of the social community maintain inner cohesion by sharing beliefs and emotions, which are called "collective consciousness" and "common consciousness"

by French sociologist Durkheim[12]. Ideally, under globalization, the members of different ideologies and different cultural customs form a "common consciousness" in the process of continuous collision and integration. However, this process is long and difficult, and the result may not be successfully integrated into a whole. Sometimes, various civilization conflicts may occur, and the battle will follow.

#### c. Globalization of the rule system

The "head sheep" takes the lead in formulating common rules, and establishes a comprehensive coordination mechanism to ensure the orderly operation of the common rules [13]. The formulation of the common rules is more beneficial to the countries that believe in the same value system as the "head sheep" country, so the rule system has a distinct effect of value assimilation. The Congress of such a country will make the rule system infinitely close to that of the "head sheep" country in the rule system. From government to judiciary, from law compilation to implementation, every step of the legal system will be impacted and affected by common rules to varying degrees. This is an inevitable result of globalization [14].

Academically speaking, the authority of rule comes from the consent of the ruled, which is the most important source of legitimacy. The leading countries in globalization export a set of widely accepted economic systems, value systems and rule systems to the world, which requires a strong military, technological, capital, labour, order and other hard power to support, but also requires the cooperation of other soft power factors such as credibility and appeal.

In the 18th century, Britain and France fought for hegemony. As the war required a lot of money, the imperial dictatorship in France was unable to cancel the tax privileges of the nobility and could not raise enough war funds. It could only issue the debts. Later, it not only defaulted quantities of public debts but also digested the debts left by the old French dynasty with high inflation. However, the development trajectory of the United Kingdom was quite different. Instead of tax looting, it decided to borrow without restrictions. It took a whole century of fiscal surplus to pay off the national debt. It used the fiscal surplus of almost a whole century to repay the states. The public debt processing of the United Kingdom in the 19th century was a classic case of the textbook level. The hegemony between the French and the British was not that Britain defeated France, but that the democratic system defeated the imperial dictatorship. The imperial dictatorship cannot bring security expectations to the capital. It was the capital that chose the United Kingdom and continuously contributed war funds to the United Kingdom [15].

We saw that the value systems and rule systems of Britain and France in the 18th century were very different, which resulted in the different fates of the countries. The International capital's understanding of the authoritarian and democratic system is much deeper than ours. The British Glorious Revolution and the French Revolution were the roads that their ancestors traversed in tears. The elite republic, market freedom, and power checks and balances have penetrated into the concept of the western world and become a belief. With the outbreak of World War I and World War II, capital and talents gradually left Europe, where war was raging, and flocked to the United States, and there were peace and no war, a safer and more stable place for capital, forming the sixth globalization led by the United States in the last century. Capital pursuing for-profit and security is an ever-changing truth. The value system will lead to conflicts in cooperation, and the rule system will lead to disordered cooperation. Therefore, the value system and the rule system will weaken globalization. But is the original intention of globalization to get products more efficiently and at lower costs?

The current status of the global supply chain layout (globalization of the economic system), common belief (globalization of the value system), and the supporting factors that support the operation order of globalization (globalization of the rule system) are three critical factors to be considered when deciding on the global investment layout of international capital. The decision-making process is difficult and complicated under the condition that other prerequisites are the same; the more complete the supply chain region, the better the profitability of the capital. For the host country has the same value system as that of the international capital, the cooperation is safer and more predictable. For the host country has the same rules system as that of the international capital, the cooperation is smoother. Therefore, for the current discussion on the reallocation of the supply chain, if we only talk about economic globalization and avoid value globalization and rule globalization, we may misjudge the trend of globalization and the reallocation of the supply chain. Blindly emphasizing that the "US imperialisms' wild ambition of destroying us has not disappeared yet." and continuing conspiracy theories, and ignoring the strong scale advantages and cost advantages of the current layout of the Chinese supply chain, it is not conducive for us to find the crux of the problem, learn from each other, retain and further attract International capital.

Therefore, we should not simply and mechanically judge the US anti-globalization strategy. We must look at the essence through phenomena, know what it is and why it is, recognize and clarify the deep operation logic of globalization from a broader perspective, and respond positively and precisely in a targeted manner.

## C. Why should the United States "de-sinicize" its global supply chain?

The United States is worried about China's growing economic and military power in recent years and is determined to initiate a "de-sinicize" anti-globalization act, which not only forcibly promotes the decoupling of Sino-US high-tech and intellectual property rights but also attempts to force the allies to follow and suit. In addition,

the long-term social and political pressure that international capital has imposed on the ever-increasing carbon emission reduction targets, coupled with the supply chain cut off by the epidemic, have begun to question the dependence on long-distance cross-border supply chains. Therefore, the COVID-19 epidemic may be the last straw to overwhelm economic globalization, forcing the governments, enterprises and society to improve their ability to cope with economic isolation in the long term. Certain de-sinization, anti-globalization and supply chain restructuring factors are quietly changing this world. The epidemic will not only aggravate the continued deterioration of Sino-US relations but also accelerate the decline of European integration. Against this background, it is almost impossible for the world to return to a state of mutual benefit and a win-win situation at the beginning of the 21st century. The future of globalization depends on the recognition, acceptance, and integration of the international capital in the economic system, value system, and rule system built by the United States. At present, although the US economy has been hit hard by this epidemic, its dominant position is still solid, and it continues to wave large shears to the world's wool to bail out the homeland.

Globalization has always been dominated by the western world and has incorporated other countries that want to integrate globalization incorporated into the economical, value, and rule systems of the dominant country. As a non-dominant country in globalization, China can only actively integrate into the general trend. However, how to avoid cutting the foot to fit the shoes is also a problem worthy of in-depth study. This article focuses on the discussion of how to integrate. The socalled active integration is a subjective attitude, and whether it is accepted objectively is not determined by the subjective attitude. Whether China will not be marginalized by the global supply chain in the future is not only an apparent economic issue but also a deeply political issue. Even if China has the prospect of investment profits that international capital is chasing, and it has a huge consumer market that any capital cannot bear to give up, China is still constrained by the United States on the road to globalization and cannot be bypassed. To make a more figurative metaphor, the contradiction between Europe and the United States is "the contradiction among the people" and is reconcilable economic differences, while the contradictions between Europe and us and the United States are "class conflicts" and contradictions difficult to reconcile in values and rules. Without China's presence, Europe and the United States will pinch each other because of interests. With China's presence, Europe and the United States will stand together and temporarily put aside their differences to deal with China that has different cultures, different colours, and different rules with them. Therefore, the ultimate confrontation caused by different value systems and rule systems is to disintegrate China's system of "uniting the power of the whole country". The European and American system is different from the Chinese system. The state rarely intervenes in the market. Different interest

groups or interest group alliances are vulnerable to the entire Chinese system. Fragmented interest groups and interest group alliances will eventually be broken down by the Chinese system. It is the cruelty of struggle. Developed economies are facing a China that can "lift the whole country's strength" with constant supply chain agglomeration and huge production capacity. They do believe that they have been equally and unfairly treated. When China's total economic volume exceeds 2/3 of their economic volume, the United States will be no longer calm and will be proactive. This is a war of interests, and it has nothing to do with justice.

After carefully studying American history, especially the history of nearly half a century, we found that there was a consistent theme in American politics conservatism, which is flourishing. Implemented in the economic system and rule system, it is a neo-liberalism that advocates maximum market freedom. Implemented in the value system, it is neo-conservatism that contends against the totalitarian system and is based on the pragmatism of Jewish Christian theology [16]. The epidemic has provided an excuse for the US to "decinisize". The US actively seeks allies to jointly marginalize China in the name of the globalization of the value system and continues to challenge China with the globalization of the rule system, but it underestimates the power of the globalization of the economic system. At the initial stage of the epidemic, the United States and its allies may be more inclined to nationalism, but in the long run, democratic countries will gradually get rid of the predicament and find a new kind of pragmatism and protective internationalism. This is because globalization is no longer traditionally the competition of similar products in various countries. Countries are linked to the global economic system by the front, and rear processes of products or the upstream and downstream of the supply chain, and the deconstruction and establishment of the layout of the global supply chain cannot be finished in one day. After the reform and opening up, especially after China's entry into the WTO, the breadth and depth of the integration of Chinese companies into the global supply chain destined that it will be very difficult for the US to "de-cinisize". But we should also be soberly aware that even so, there will certainly be some international capital moving out of China while the epidemic supply chain breaks down.

## III. CHINA'S DOMESTIC SUPPLY CHAIN CONFIGURATION LAYOUT

The essence of the globalization of the economic system lies in the orderly division of labour and cooperation between the upstream and downstream of the entire supply chain. Countries rely on their own endowment advantages to do things that they are relatively good at. They have become a link (s) in the global supply chain, and only a few strong countries will build a complete supply chain.

## A. China is deeply embedded in the global supply chain already.

Under globalization, the leading companies that can lead the global supply chain configuration are responsible for product development, design, production, sales, and branding, while non-leading companies combine their own resources and capabilities to join the division of labour and cooperation according to the requirements of leading companies, and are responsible for component production or product assembly.

China has been the biggest beneficiary in the prosperity and development of the global supply chain in the past 30 years. Since joining the WTO in 2001, it has actively integrated into the global supply chain. In this process, a large number of Chinese companies have gained capital accumulation, brand influence, technology upgrades, product innovation, and the wholesale and retail network spillover effects brought by the global market. More and more Chinese local companies have successfully entered the international market without going abroad, creating Chinese export performance and driving rapid economic growth.

In 2001, China's import and export surplus was RMB 186.5 billion Yuan. In 2019, the import and export surplus was already RMB 2,918 billion Yuan. The total accumulated import and export surplus during the 19 years of accession to the WTO was RMB 3,145.1billion Yuan. From a statistical perspective, exports have made great contributions to China's economic development. As a factory", "world China has the largest, comprehensive and most complete manufacturing supply chain system in the world, and the output of more than 220 industrial products ranks first in the world. As a world market, China has a huge consumer group and constantly upgraded personalized consumer demand, which makes the international capital "difficult to give up". As a manufacturing country, the 20-year entrance examination expansion of the colleges and universities has trained a large number of excellent engineers and mature industrial, skilled workers for China. These advantages have attracted international capital to continue to gather in China to present the Matthew effect. The more concentrated the upstream and downstream of the supply chain is, the more it will attract longer chains. Recently, a survey by the China American Business Association revealed that more than 60% of the companies surveyed said that they would still consider increasing investment in China in 2020. In the tense atmosphere in which Sino-US relations have been fragile in the past two years, Tesla and Mobil have suddenly made large investments in mainland China to build foreign investment ultra-large-scale single-factory. This is a very typical case.

Currently, China has gone beyond the stage of relying solely on the advantage of cheap labour costs and gradually upgraded from the downstream to the midstream of the high-end supply chain. According to statistics, in 2019, China's share in the longer global supply chain and

higher value-added links has increased to nearly 60%. With the R & D and innovation of its own brands, China is moving towards a technology-intensive and capital-intensive high-end supply chain and has achieved great achievements in the fields of integrated circuits, new energy vehicles, electricity, photovoltaics, communications, medical equipment and other fields. However, even if China's supply chain layout is booming, it still cannot be blindly optimistic. Miao Wei, Minister of the Ministry of Industry and Information Technology, pointed out in a comprehensive interpretation of Made in China 2025 that the current global manufacturing industry has basically formed a four-tier echelon development pattern, China is ranked in the third echelon, and it is very difficult for China to upgrade to the second echelon in the near future.

#### B. China's Role of Division in the Global Supply Chain

After nearly 30 years of unremitting efforts, China has actively participated in the division of labour in the global supply chain. At present, it not only has a full industrial chain of the labour-intensive low-end supply chain (hereinafter referred to as low-end supply chain) but also participates in the component production (midstream participation) and assembly (downstream participation) of the capital-intensive and technology-intensive high-end supply chain (hereinafter referred to as high-end supply chain).

The whole industrial chain of the low-end supply chain. Although China ranks in the third echelon in the global manufacturing industry, it still has a dominant position in the low-end industrial chain. As a supplier of leading enterprises based on contracts, it participates in traditional labour-intensive industries such as clothing, shoes, hats, furniture, and toys. There are currently about 50,000 suppliers, especially supplying Wal-Mart, the world's largest retailer. The exported low-value products were approximately US \$50 billion annually, which was about 10% of China's share of exports to the United States. The low-end supply chain is characterized by low technology content, low capital threshold, labour-intensive and short supply chain. Because it is relatively easy to make the entire supply chain, it is not too difficult to transfer, relocate and copy, and it is extremely replaceable.

Production of the components in the high-end supply chain (midstream participation). The demographic dividend of New China, the expansion of college entrance examinations, the popularization of vocational and technical education, and the accumulation of reform and opening-up have trained a large number of skilled engineers and front-line industrial workers. The R&D and design capabilities of China's manufacturing industry have continued to increase from the initial downstream participation to the midstream participation in the high-end supply chain and from the initial assembly of products for foreign leading companies to providing foreign leading companies with higher value-added components. 60% of China's 650 billion US dollars' high-tech exports are to reprocess and assemble the foreign core components,

which are then sold in overseas markets through OEM labelling. The United States is the only first-tier echelon country in the international manufacturing industry, and it is upstream of the high-end supply chain. It has been dedicated itself to linking the R&D and innovation of advanced technology, including the native human intelligence, quantum sciences, etc., with manufacturing industry, which has been provided with various subsidies, tax reductions and policy supports. Meanwhile, it restricts the export of core technologies to China and curbs the development of China's science and technology. Currently, China can only take the path of independent research and development in the high-end original field, and it is more difficult than ever to upgrade upstream from the midstream to the upstream of the highend supply chain. If China's technology is stagnant, this part of the industry will continue to shrink.

Assembly of the components in the high-end supply chain (downstream participation). As cooperative enterprises in a supply chain, China participates in the assembly of core components in a high-end supply chain by virtue of labour cost advantage, which is also the initial stage of China's participation in the global supply chain. In order to minimize the cost of the high-end supply chain, the assembly of less important components in the high-end supply chain is placed in the cost depression. Due to the technical threshold for the education requirements of frontline production workers and the cost advantage brought by the supply chain agglomeration, it is difficult for the downstream industries of China's dominant low-end supply chain to reconfigure globally in the short term. This broken epidemic makes transnational production encounter unprecedented challenges, such as high freight rates, the indefinite extension of shipping time, and bankrupt enterprises or broken links brought by the epidemic in various places, which have caused the various countries to rethink the configuration of the supply chain. The rearrangement of the entire local industrial chain will be the policy guide for the countries in the post-epidemic era.

As a member of the third-tier echelon in international manufacturing, generally speaking, the situation is not optimistic for China. In low-end supply chains with short chains, labour-intensive, low technology and low capital, China occupies a leading position and has leading enterprises while in high-end supply chains with long chains, technology-intensive and capital-intensive, China is still in the middle and downstream positions, under the control of international capital, lack of dominance and even often suppressed by upstream companies. Vigorously developing the upstream industry of high-end supply chains with technological breakthroughs should become a major strategic force for China's future supply chain layout. Under the urgent situation of global reconfiguration of the supply chain, which is caused by the superposition of epidemics, the supply chain will inevitably undergo structural adjustments. There will be both roll-in and rollout. The challenges and opportunities will also coexist.

#### C. The impact of global reconfiguration of the supply chain on China under both the epidemic situation and anti-globalization

Since the global outbreak, COVID-19 has continued to suppress the economic activity and intensify tensions between countries, which are likely to severely hurt the global economic output capacity. The risks caused by this chaos have a particularly great impact on newly emerging industrialized countries and their industrial workers and may lead to unstable and extensive conflicts within and between countries. The global supply chain will definitely be reorganized.

The Sino-U.S. trade friction, which began in the spring of 2018, appears to reduce China's huge trade surplus with the United States, but in essence, it is the United States seeking to weaken China's development strength in all directions, which may evolve into other forms such as financial friction or technological friction in the future. It aims at eliciting China's "colour revolution" or de-cinisizing. In the past few years, the United States has used more moderate appeasement methods. After Trump took office, he began to de-cinisize openly. Taking the opportunity of the epidemic, which has caused serious damage to the global economy, he tried to deconstruct the economic globalization participated by China, constructed the globalization of the same value, exported the globalization of common rules, and gradually disintegrated China's powerful system of "exert6ing the power of the whole country", curbed China's development, eliminated China's potential challenges to the United States, and continued to steadily maintain its position as a global leader. The current epidemic has caused China to be controversial on many international occasions. The United States uses this opportunity to call for Japan and Europe to build an anti-China alliance, jointly shape the global strategic coordination of the supply chain, and accelerate de-civilization in disguise. If the United States succeeds, Europe, Japanese, and the United States will jointly deploy a de-cinisized global supply chain that will have a significant and far-reaching impact on the world's manufacturing pattern, and will also send bad signals to the capital market and completely change the investment or relocation strategy of international capital. It will disintegrate China's existing supply chain layout and have the following negative impact on the Chinese economy.

The whole industrial chain of the low-end supply chain. The United States announced that it would impose a 25% tariff on Chinese exports worth the US \$ 250 billion. This is to completely uproot made in China from Wal-Mart, and the tariff will almost completely offset China's cost advantage. What is more serious is that if the products exported to the United States contain a large number of foreign imported parts, these parts will also face a 25% tariff. Therefore, due to the low capital and technology threshold, short supply chain, and strong substitutability, it is a high probability that this part of capacity will move to a more cost-effective area. Most of such capacity is currently concentrated on the southeast coast. As for

whether to move out of China, it depends on the cost comparison between China and foreign countries. It depends on whether China has a region with more cost advantages than foreign countries. Under the premise of ensuring safety, profit-seeking is the priority of the capital. International capital will inevitably flow to cost depressions. The US tariffs only accelerate the flow of low-end supply capacity to cost depressions.

Production of the components in the high-end supply chain (midstream participation). In 2017, the tax reform Trump lowered the US corporate tax rate from 35% to 20%. American high-tech companies represented by HP, Intel, IBM, etc., began to return to the United States. Other large multinational companies such as South Korea's Samsung, LG, Foxconn, China Haier and others have also decided to invest and build factories in the United States. After the Sino-U.S. Trade friction, the United States has frequently shot against China, investigated Chinese hightech enterprises in the name of "national security", sent supervisors to Chinese high-tech enterprises, restricted exports of high-tech products to China, and coerced European allies to abandon Huawei 5G mobile network development plan. The upstream of the high-end supply chain is the R & D and innovation capabilities of technology, which can spontaneously attract the main force of international capital. Therefore, we say that the upstream layout of the high-end supply chain is the vane of international capital, and we lack the dominance of the layout of the high-end supply chain. It can also be said that if we rely solely on the spontaneous adjustment of the market, the current technological level of China cannot affect the layout of the international high-end supply chain. Our advantage lies in the system. The state has taken the initiative to invest in the high-end supply chain with the "national strength", which is supplemented by various subsidies and preferential policies, and increased the application of high-end supply chain products to stimulate international capital to invest in China. And this is precisely what we have been criticized by Europe and the United States. We must bear in mind that to ensure the safety and stability of international capital, the nature of capital-for-profit is not governed by any country but only followed up with the investment of real money.

Assembly of the components in the high-end supply chain (downstream participation). The vast consumer markets with cost advantages are important reasons for the international capital to invest in China. The Goldman Sachs research report shows that the production cost of Apple smartphones in China accounts for 25% to 35% of the total cost, of which about 15% is the labour costs invested in the part processing (midstream participation of high-end supply chain) and final assembly (downstream participation of high-end supply chain). If all the production and assembly of iPhone China is moved to the United States, its production cost will increase by at least 37% (it can be seen that although the United States reduced corporate tax in 2017, China still has a cost advantage). Even if Apple replaces labour with machines,

the price of iPhone finished products will rise by 15%. Therefore, the migration of the iPhone from China back to the United States lacks practical operability, but recently Apple announced that it had transferred 10-15% of its production capacity in China to ASEAN, which shows that ASEAN is currently a less mature cost depression. The downstream link of the high-end supply chain is limited by the number of mature, skilled workers in the immigration country and the current status of the supply chain layout. It will not move away immediately, but it will form a gradual relocation trend. It is worth noting that ASEAN has already diverted our industrial chain. If China does not respond in time to reverse this trend, then this part of the supply chain will gradually move away from China with the wave of anti-globalization.

In addition, the sudden COVID-19 epidemic will prompt countries to rethink the relevant issues of the local distribution of the entire supply chain of the public crisis emergency protection industry. Subsequently, the countries may introduce a series of preferential policies and even coercive measures to urge the public crisis emergency protection industry to return to the country. As for whether to move back all production capacity, or only part of the production capacity that guarantees local consumption, it depends on the cost comparison of the countries after subsidies. It is impossible to make a conclusion now.

## IV. CHINA SHOULD GUIDE THE LAYOUT OF THE SUPPLY CHAIN IN A PRAGMATIC AND CRITICAL WAY

There is no economy that is not mixed with political factors, nor politics that is not mixed with economic International capital will make considerations when making investment decisions, which will consider both the capital gains and the safety and smoothness of cooperation; that is, compared with the profits, the capital pays more attention to safety. As mentioned earlier, the status quo of supply chain allocation (economic globalization), common belief (globalization of values), and supporting factors that support the operation order of globalization (globalization of rule systems) are the most important factors that need to be weighed by international capital before investment. Therefore, we must devote great efforts to the supporting factors of supply chain configuration, de-politicization, and global order of operation. Not only must we gather and extend the supply chain as much as possible, but we must also strive to climb up the supply chain.

#### A. To attract more international capital investment with the cost advantages of supply chain aggregation

Globalization enables companies to organize production globally by participating in the supply chain and putting products on the market in a timely manner, thereby reducing storage costs. The production, supply and marketing of the products are circulated around the world after careful market research, planning and design. Under the epidemic situation, the entire real-time production system in the world was destroyed, and the upstream and

downstream supply chains were cut or even cut off due to the scattered configuration and could not be operated normally. The world's real economy has been blocked, which shows that "resuming work cannot resume production". In ordinary times, capital flow, information flow, and logistics operations are in an orderly manner, but in extraordinary times, such as during the epidemic, space barriers can completely cut off the supply chain. This phenomenon urgently requires the world to rethink the configuration and layout of the supply chain.

The previous global supply chain layout lacks a global perspective to a certain extent. It is fragmentally scattered around the world, resulting in long transportation distances and time-consuming. Unsynchronized localities require coordination. Inconvenient transportation will also increase storage costs, which hinders the smooth operation of the supply chain. The loose and fragile supply chain layout may also have the risks of broken chains. Increasing the stickiness of the supply chain through chain aggregation will be the key for us to think about the configuration and layout of the supply chain in the future.

As we all know, global supply chain layout and capital are mutually causal and mutually supplementary. The longer the upstream chain of the supply chain, the more it gathers, the more it can attract capital investment, which is a cost advantage. While the more capital investment, the more the supply chain gathers and the longer the chain, the easier it is to occupy the upstream chain, which is the advantage of the capital. To this end, the industrial parks that have already formed a supply chain in China and the surrounding new parks will become the key areas for attracting international capital investment. In the future, the construction of parks with themed industries will set off a wave of upsurge. UNCTAD's World Investment Report 2019 emphasizes that the construction of high-tech industrial parks has become an important investment policy tool for economic transformation and upgrading and may become an engine for future international capital to follow up investment and drive economic growth. The state can actively guide and encourage the construction of high-tech industrial parks in terms of favourable policies such as taxation and subsidies and provide basic services for gathering and extending high-end supply chains.

The location of industrial parks is particularly critical. It must take into account factors such as logistics hubs, mature upstream and downstream industrial chains, comparative advantages in production costs, sufficient industrial workers and engineers, business-friendly political ecology, and a livable natural environment. "A good bird chooses a tree to rest in", and "planting phoenix trees attracts golden phoenix".

There must be a theme in the construction of industrial parks. Identify a leading enterprise in the industry as the centre, and the supporting enterprises of other link chains will follow, gradually forming the scale effect of chain aggregation and production management, and extending

the chain as much as possible. Economic globalization is always the primary factor in consideration of international capital investment. Helping it maximize the economic benefits should become the core of the host country's investment attraction.

The operation of industrial parks must be depoliticized. The globalization of value systems should be respected, and international capital must be assured. For international capital, even if you can make more money in China, if there is no guarantee, everything is equal to zero. Warwolf diplomacy, large-scale organized boycotts of Japanese capital (due to Diaoyu Island) and Korean capital (due to Sade missile), and the lack of evidence-based conspiracy theories will greatly enhance the worry of international capital investment in China. Divestment is largely a helpless move for some companies.

The management of industrial parks must be in line with the world, the business environment of the rule of law, internationalization and marketization must be guaranteed, and the globalization of the rule system must be maintained and strictly observed. In the past, we have been paying attention to the globalization of the economic system, focusing on the supply chain layout, and often not paying enough attention to the globalization of the value system and the rule system. At present, although some high-tech enterprises will bear some economic losses due to their moving out of China, they still resolutely move out of China. There are indeed some places in which we deserve to think deeply.

According to the estimates by global manufacturing consulting company Kearney, China-US trade frictions in 2018 led to a decline of US \$ 90 billion in Chinese exports to the US that year, of which the US \$ 31 billion was diverted to lower-cost Southeast Asian countries. The reality was cruel and grim. We know that the supply chain layout cannot be completed in an instant, which is a gradual adjustment process. China's supply chain pattern today is the fruit accumulated in the process of reform and opening up in the past 40 years. Taking advantage of the lack of technical training for industrial workers, the uncompleted infrastructure and the upstream and downstream supply chain facilities needing to be replenished in neighbouring countries, we must start as soon as possible to build an industrial park that can support supply chain aggregation, retain the existing supply chain and attract more international capital investment in China. Once the supply chain agglomeration is formed, the Matthew effect will make a region's comprehensive cost advantage more obvious, the supply chain will be longer, and the supply capacity will be stronger.

Recently, the Central Committee of the Communist Party of China announced that Hainan would legislate separately to become the largest free trade port in the world. This is not only the freedom of taxation and trade but also the freedom of institutional arrangements, demonstrating China's courage, determination and strength to open to the outside world. Sovereign differences such as the globalization of the value system and the globalization of the rule system, which were difficult to resolve in the inland areas, will be resolved in the free trade port. In addition, Hainan is the nearest coastal province to Southeast Asia. In recent years, the Asia-Pacific economies have become a new growth point for the world economy. The formation of supply chain agglomeration towards the growth point is both an urgent need for the globalization of the economic system and the needs of the development of the times.

## B. The Strategy of maintaining the midstream to strive for upstream in High-end supply chain

The US sanctions against high-tech companies such as Huawei and ZTE are not just to curb China's development of digital technology but to firmly occupy the upstream of the high-end supply chain to guide international capital investment. Technology is the most important and also the only element in determining the configuration of the global high-end supply chain. Therefore, China's R&D and innovation capabilities of digital technology are the key factors that determine whether the high-end supply chain moves out of China. Independent research and development have become the only way for Chinese manufacturing to climb to the second-tier echelon.

#### a) R&D breaks through technical bottlenecks.

The vast majority of Chinese companies are currently embedded in the midstream and downstream of the global high-end supply chain at a low cost and are in the low value-added link of manufacturing and assembly. If there is no breakthrough in the R&D and innovation of the core key technologies upstream of the supply chain, and the technical difficulties cannot be overcome in the short term, the independent industrial development pattern cannot be achieved, and a new approach is needed. Relevant companies can use the global patent library data shared by various countries to query the R&D and patent holder information of such technologies in a targeted manner and actively carry out technical cooperation with the actual technology controller. This is n shortcut to upgrade from the midstream to the upstream of the supply chain.

#### b) Go out to embrace the world.

Chinese companies must look at the world, actively implement the strategy of "going out", closely track the supply chain, especially the capital movements, restructuring trends and strategic trends of the leading companies in the high-end supply chain, actively strengthen their linking, supporting and outsourcing relations with the leading companies, and transfer part of the production capacity in a timely manner to the location of the leading enterprises to facilitate upstream and downstream links, especially invest in key parts and raw materials enterprises in the upstream and upstream of the high-end supply chain. The Chinese companies should actively invest in R&D and cooperation and then master core technologies. At present, our strategy is to strengthen and consolidate the Chinese chain in the global supply

chain by using capital investment as a link while ensuring the midstream position of the high-end supply chain, and strive to gradually catch up with the world's first-class technology and move to the second-tier echelon of the global manufacturing industry.

#### c) China – Japan - Korea co-prosperity circle

The China-Japan-Korea Free Trade Agreement urgently needs to be signed and implemented as soon as possible, making it a link that connects the fate of the three countries. This move can consolidate not only China's position in the global supply chain but also alleviate the crisis of China's manufacturing industry brought by the anti-globalization initiated by the United States to a certain extent. It can also form a strong attraction to international capital. However, it is not optimistic that in the division of labour in the supply chain of China, the leading position of the upstream supply chain of core technology product R&D and design is still occupied by Japan and South Korea, and China is in the process of assembly and processing of products with low added value, that is, the midstream and downstream of the supply chain. Therefore, in the process of future cooperation, we must continuously improve our technological R&D and innovation capabilities, firmly grasp the opportunity of climbing to the upstream of the supply chain, and continue to advance towards the upstream of the supply chain.

#### d) Taking advantage of the new infrastructure

In March and April 2020, the Political Bureau meeting of the CPC Central Committee successively proposed to accelerate the pace of new infrastructure construction. This measure is conducive to complementing the disadvantage of being unable to spontaneously guide the deployment of high-end supply chain layouts due to the lack of scientific and technological strength. The new infrastructure with a volume of 30 trillion Yuan will provide a broad application market for high-end supply chain products and services, which will help not only Chinese companies climb from the midstream to upstream of the high-end supply chain but also guide international capital to follow up the investment layout to extend the chain configuration of the high-end supply chain. It should be emphasized that for the above-mentioned ways to main the midstream and strive for upstream, only the new infrastructure is not restricted by objective factors, and the rest of the methods must be limited by various external factors. It is not easy to predict to what extent can it be achieved in the end, so the new infrastructure appears to be especially important. According to the research and calculation of the China Academy of Information and Communications Technology, China's digital economic aggregate accounted for 34.8% of GDP in 2018, and its contribution rate to GDP growth has reached 67.9%. In terms of driving employment, it will contribute about 540,000 jobs in 2020. In 2025, it will contribute about 3.5 million jobs, and in 2030 it will provide more than 8 million jobs. The prospect of the new infrastructure is broad, and the future is predictable.

Practically speaking, China's manufacturing upgrading will be an arduous and systematic project and a time-consuming battle. It is related to the success or failure of high-quality development. We must continue to face the difficulties and step forward unswervingly. Under the epidemic, the unemployment rate has soared, and traditional infrastructure has been put back on the agenda to alleviate the current unemployment problem. This is a short-term trade-off of national strategy, and it is understandable. But if we want to truly realize industrial upgrading, we still have to invest huge funds in actively building China's digital industry, which is the country's medium- and long-term strategy[17]. We should not use short-sighted "economic accounts" to judge the country's major development strategies. Today's endurance of hardship is to accumulate energy for tomorrow's development and to make great strides for tomorrow. Only if we truly master the cutting-edge core technology of the digital industry can we occupy the leading position in the upstream of the high-end supply chain, and relevant enterprises in China can be regarded as the head enterprises of the high-end supply chain. Thus, we can truly dominate the global configuration of the high-end supply chain and attract international capital investment. There is no need to worry about employment by then. The combination of traditional infrastructure and new infrastructure is an organic combination of the national short-term strategy and the medium- and long-term strategy. The traditional infrastructure is used to solve the urgent need for employment, and the new infrastructure is used to continuously accumulate energy to expand future employment.

#### V. CONCLUSION

Like the collapse of the Berlin Wall and the Lehman Brothers, the COVID-19 epidemic is a sudden event that shocked the world. Its far-reaching consequences can only be imagined today. But one thing is certain, it will have a profound impact on politics, economy, and society, and the world will make adjustments to deal with this sudden disaster. Relevant issues such as globalization and supply chain reconfiguration have become hot spots due to the epidemic. The mainstream views of China's business, academia, and politics are roughly divided into two opposites. The pessimistic view is that the global supply especially the production capacity corresponding to China's consumer market, will move away from China gradually. The optimistic view is that the supply chain will gather in China after the epidemic. We believe that no matter whether there is an epidemic or not, industrial transformation and upgrading will inevitably bring about structural adjustments to the supply chain configuration. The epidemic situation will only speed up the adjustment speed but cannot subvert the adjustment trend. China should completely abandon the dualism of black and white. Globalization is not only as simple as the profit on the economic account. The globalization of the value system and the rule system must be highly valued, comprehensively analyzed, carefully studied, and actively responded so as to strive to make up for shortcomings,

strengthen the weaknesses and consolidate the advantages. We should seize the opportunities of reform and open up to welcome challenges, take the greatest common divisor of the globalization of economic system, value system and rule system to make a balance, and work with all countries to promote the inherent win-win spirit of globalization. This is the "certainty" that China must grasp and handle well in the face of various "uncertainties".

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