Great Power Competition and the Restructuring of Global Supply Chains: An Analysis Based on the China-U.S. Trade War

Yiyan Xue

School of Foreign Languages & Literature, Shandong University, Jinan, China
202200073203@mail.sdu.edu.cn

Abstract. In recent years, competition among major powers has intensified. The China-U.S. trade war began in March 2018 and continued for seven years. The competitive dynamics between China and the United States have only increased in economic and technological fields, and conflicts over tariffs have also escalated. This situation not only profoundly impacts the economies of both countries but also triggers a trend of global supply chain restructuring. This paper aims to analyze the reasons, manifestations, and impacts of global supply chain restructuring in the context of the escalating China-U.S. trade war. It provides decision-making references for enterprises to adapt to supply chain changes and offers a basis for governments to formulate relevant policies. The study finds that economic and political factors are significant drivers of global supply chain restructuring, characterized by trends toward regionalization, diversification, and digital development upgrades. These changes have important implications for enterprises, other countries, and the global economic landscape, and they offer suggestions and prospects for addressing future shifts in the global economic situation.

Keywords: Reconstruction of Global Supply Chains, The China-us Trade War, Major Power Competition, Economic Landscape.

1 Introduction

Currently, the international situation is undergoing profound changes. Since the trade war between China and the United States has broken out in 2018, the competitive stance between the two countries has fully unfolded in the economic and technological fields. Economically, this is primarily reflected in the imposition of additional tariffs, which directly increase the trade costs for both parties. In the technological domain, the United States, through the "CHIPS and Science Act," has restricted the export of advanced process equipment below 14nm to China, resulting in a 37% decrease in China's semiconductor imports [1]. Meanwhile, China's control over rare earth processing technology poses a risk to 90% of the U.S.'s supply of permanent magnetic materials, creating a unique "technological mutual deterrence" scenario [2]. However, the intense trade war has triggered severe disruptions in the global supply chain, expanded national fiscal

M. M. Husin (ed.), *Proceedings of the 2025 International Conference on Financial Innovation and Marketing Management (FIMM 2025)*, Advances in Economics, Business and Management Research 353,
https://doi.org/10.2991/978-94-6463-874-5_75

deficits, exacerbated inflation, and significantly increased trade costs. Many American companies have begun relocating the production of critical components manufactured in China to other countries or regions to prevent losses from the expansion of tariffs. Big data, digital production, and manufacturing are examples of new technologies that have affected traditional production models and brought attention to the vulnerability of highly interdependent and intensive industries. The fierce competition in the economic and technological fields due to the China-U.S. trade war has inevitably had a profound impact on the global supply chain, making it restructuring an inevitable trend. Certain specific industries have no choice but to bear the immense pressure brought about by the restructuring of the supply chain.

Analyzing the intensifying trend of great power competition in the current international situation, particularly the competitive dynamics between China and the United States in economic and technological fields. This essay describes the wide-ranging effects of the Sino-US trade conflict on the world economy, with a focus on the problem of global supply chain reorganization.. The aim is to explore global supply chain restructuring in the context of the China-U.S. trade war, providing decision-making references for enterprises to cope with these changes and offering a basis for governments to formulate relevant strategies. This restructuring is not only a new trend and phenomenon in the development of contemporary economic globalization, but is also closely linked to enterprises' production, costs, and trade.

For enterprises, understanding the motivations and manifestations of supply chain restructuring helps in formulating more resilient and adaptive supply chain strategies, achieving creative transformation, and innovative development. For example, diversifying suppliers, enhancing digital capabilities, and strengthening regional supply chain cooperation help enterprises maintain competitiveness in the geopolitically turbulent international political and economic landscape.

For governments, analyzing the impact of supply chain restructuring on the world economy and national industries can provide a basis for formulating trade policies that enhance economic resilience, technological innovation, and geopolitical stability.

Finally, it will propose policy recommendations and future outlooks to address the challenges of supply chain restructuring.

2 Reasons Behind the Restructuring of Global Supply Chains Amid the China-US Trade War

2.1 Economic Factors, Trade Protectionism, Trade Friction

The rise of trade protectionism and the intensification of China-U.S. trade frictions are significant factors driving the restructuring of global supply chains. Zhang Rongnan believes that the mutual imposition of tariffs by the two countries not only sharply increases trade costs in the short term but also impacts the production decisions of multinational companies worldwide. This significantly raises costs of intermediate goods and supply chains, accelerates the reshoring and relocation of certain supply chains, and consequently triggers the restructuring of global supply chains [3]. Gao Jingyi believes that rising trade costs are prompting many companies to gradually seek alternative suppliers and production locations [4]. For example, many labor-intensive industries have shifted their procurement sources and workforce primarily from China to Mexico and Southeast Asia. Meanwhile, industries with higher capital and technology are gradually relocating to Japan, South Korea, and Europe. These transitions not only disrupt the original global supply chain layout but also give rise to new supply chain centers.

The China-U.S. trade war has also underscored the risks faced by companies that are overly dependent on suppliers and concentrated production locations. Li Xinyu believes that a key driver for companies to enhance their adaptability in the evolving international landscape is to advance digital transformation. By utilizing advanced digital technologies, companies can improve supply chain visibility and develop technological systems that support the restructuring of global supply chains [5]. Furthermore, companies are increasingly adopting a diversified procurement strategy by collaborating with suppliers from various industries. This approach helps expand their inventory base and reduces the risks associated with supply chain restructuring.

2.2 Political Factors

Geopolitical conflicts and strategic competition between China and the United States are fundamentally altering the global supply chain landscape. Trade frictions between the two countries, as an external manifestation, extend into a contest over national security, technological dominance, and geopolitical influence. Their trade relations have been politicized, with trade policies and competition used as tools to achieve strategic objectives. Jiang Ling and Mao Ningchen argue that the United States employs trade wars to maintain its hegemonic status and curb China's development [6]. China's approach of leveraging government regulation to stabilize market economic development contradicts the U.S. model of a free market economy. The United States is gradually moving towards "unilateralism" and "protectionism" in its trade dealings, while China advocates for "bilateral" and "multilateral" trade models. The U.S.'s long-standing policies of borrowing and advanced consumption have expanded national debt, but the U.S. attributes these issues to changes in the international order and China's rise, which it claims seizes U.S. resources. Consequently, it insists on initiating a trade war to reshape the world trade system in a manner more favorable to the United States.

According to the June 2018 report released by the Trump administration, titled "How China's Economic Aggression Threatens the Technologies and Intellectual Property of the United States and the World," the United States seeks to ensure future economic growth by acquiring key technologies and intellectual property in high-tech and defense industries, thereby establishing a "chip" monopoly over China [7]. This situation has also driven China to accelerate the development of its core technologies, reduce reliance on external sources, support domestic industry growth, and protect national economic security.

From a geopolitical economic perspective, Liu Ying believes that the United States, a major player in economic globalization, holds a high-end position in the global industrial chain, while China is situated at the mid-to-low end. However, with China's rise and high-quality economic development, it has become a formidable competitor to the United States, prompting the U.S. to initiate a trade war to disrupt the existing supply chain structure [8].

3 Manifestations of Global Supply Chain Restructuring Amid the China-American Trade War

3.1 The Regionalization Trend of Global Supply Chains

One notable manifestation of global supply chain restructuring is the regionalization of supply chains. Following the China-U.S. trade war, companies that previously produced in China and exported to the United States began seeking alternative production bases, such as in Southeast Asia. For instance, Apple Inc. has divided its smartphone supply chain into the "China market" and the "U.S. market." Products sold in China are manufactured by Chinese enterprises, while production centers for sales outside the Chinese market are located in Vietnam and India. This reflects the mindset of local enterprises producing and selling locally [9].

Secondly, countries have begun to strengthen regional supply chain cooperation and enhance supply chain resilience, leading to the signing of various regional trade agreements. For instance, the “Comprehensive and Progressive Agreement for Trans-Pacific Partnership” (CPTPP) and the “Regional Comprehensive Economic Partnership” (RCEP) have played significant roles in promoting regional supply chain integration. Among these, RCEP includes China, Japan, South Korea, Australia, New Zealand, and the ten ASEAN countries, aiming to establish a unified regional market and strengthen supply chain cooperation among member countries [10]. This trend towards regionalization has driven the development of local enterprises' supply chains, encouraging the procurement of components and raw materials locally. This not only reduces transportation costs and saves transaction and shipping time but also enhances the supply chain's responsiveness to local market demands, thereby boosting market vitality.

3.2 Diversification Trends and Options in Global Supply Chains

Another aspect of supply chain restructuring is the diversification of supply chains and the selection of varied suppliers. Companies are no longer satisfied with relying on a single or just a few suppliers. For instance, in industries such as electronics and automotive, there is an active pursuit of multiple suppliers to mitigate risks like supply chain disruptions, product quality issues, and geopolitical tensions.

In the electronics industry, for example, many companies have started sourcing components from various regions, including Japan, South Korea, Taiwan, and Southeast Asian countries, to reduce the risk of supply chain disruptions caused by the U.S.-China trade war [5]. This diversification strategy offers companies more opportunities to optimize costs and quality, produce higher-quality products, and drive product innovation and iteration. Additionally, the diversification of supplier choices intensifies competition among companies, enhances corporate creativity, and improves production efficiency.

3.3 Digital Transformation and Enhancement of Global Supply Chains

The China-American trade war has accelerated the digital transformation and upgrading of global supply chains. An increasing number of enterprises are adopting advanced digital technologies, such as artificial intelligence, big data, blockchain, and the Internet of Things, to enhance supply chain visibility, traceability, and efficiency. These technologies allow companies to monitor and manage supply chains in real-time, reducing the risk of supply disruptions and improving overall supply chain performance. For instance, blockchain technology can be utilized to create transparent and immutable records of supply chain transactions, ensuring product authenticity and transaction traceability. The Internet of Things enables companies to track the transportation of goods in real-time, resulting in more efficient inventory management and logistics operations. The digital development of supply chains not only strengthens supply chain resilience but also supports enterprises in transitioning and upgrading towards digitalization, seizing new development opportunities.

4 Impact of Global Supply Chain Restructuring Amid the China-American Trade War

4.1 Impact on the Global Economy

In the context of the China-U.S. trade war, the restructuring of global supply chains has profoundly impacted the world economic landscape. The shift towards regionalization and diversification of supply chains may alter global trade patterns and the balance of economic power. Countries that can establish strong regional supply chain networks may gain a competitive advantage in the global economy, potentially leading to the emergence of new economic centers and the decline of traditional manufacturing models. According to Lei Shuangyu, this also facilitates changes in trade patterns, the decentralization of production processes, and the growth of service trade, with service components such as research and development, design, and marketing becoming important parts of international trade [11]. Some labor-intensive industries are relocating from high-cost countries to low-cost countries, while high-tech industries tend to concentrate in regions with superior innovation environments and abundant talent resources.

The digital transformation of supply chains may also further widen the gap between developed and developing countries. Nations with advanced science and technology are more likely to benefit from the digitalization of supply chains, whereas countries with less developed digital technologies will face various challenges in adapting to global supply chain restructuring, which may lead to an expansion of the global economic development gap.

4.2 For Other Countries

The restructuring of global supply chains has profoundly impacted other countries, presenting both challenges and opportunities. On one hand, countries that rely on exports to China and the United States have faced economic and trade disruptions amid the China-U.S. trade war. For instance, nations in Southeast Asia, which act as intermediate links in China's supply chain, are encountering significant challenges due to trade frictions. On the other hand, the regionalization and diversification of supply chains have also created new opportunities for these countries.

From the perspective of regional development, this encourages countries to strengthen bilateral or multilateral cooperation. According to the Asian Development Bank's 2024 Partnership Report [12], in 2024, the ADB collaborated with 12 bilateral partners, 8 multilateral partners, 6 global funds, and numerous other partners to undertake 171 sovereign projects and 63 non-sovereign projects, as well as technical assistance, programs, and transaction advisory services, establishing long-term cooperation with multiple international institutions.

In terms of supply chain diversification, this approach benefits countries in developing new trade partnerships. For example, some European countries are seeking to enhance cooperation with Asia-Pacific nations by signing the EU-ASEAN Free Trade Agreement. Notably, on January 20, 2025, the European Union and Malaysia resumed negotiations on the Free Trade Agreement (FTA), which aids the EU in boosting competitiveness and economic security. This development brings new business opportunities to both parties, strengthens the supply chain, and expands trade export potential [13].

4.3 For Enterprises

The restructuring of global supply chains presents both challenges and opportunities for transformation for enterprises. On one hand, companies heavily reliant on global supply chains face challenges such as rising costs and supply disruptions. On the other hand, trade wars provide an opportunity for companies to reassess their supply chain strategies and develop more resilient and adaptive supply chain models.

In terms of supplier diversification, many enterprises are implementing strategies to reduce dependence on a single supplier. Some multinational corporations are relocating production bases to countries with lower labor costs and more favorable trade policies, thereby enhancing the stability and flexibility of their supply chains by dispersing production layouts. For instance, certain manufacturing companies are moving parts of their production processes from high-cost regions to lower-cost areas such as Southeast Asia to optimize cost structures.

The application of digital technology has become crucial for enterprises to enhance supply chain performance and competitiveness. By effectively utilizing digital technology, companies can achieve precise data analysis, enabling them to predict market demand in real-time, optimize inventory management, and accurately schedule production plans. For example, in the e-commerce and consumer goods sectors, the use of reverse logistics has become a significant focus in the reform of distribution channels for multinational enterprises, with the optimization of return and recovery processes becoming key aspects of business operations [14]. Many multinational enterprises are establishing digital supply chain platforms to strengthen collaboration and information sharing with suppliers, distributors, and customers, quickly identifying potential risks in the supply chain and optimizing various segments.

In risk management and cost control, enterprises actively balance the trade-off between risk and cost, enhancing the transparency and controllability of the supply chain through digital means.By monitoring data from various stages of the supply chain in real-time, enterprises can proactively identify potential risks and take appropriate measures to minimize the likelihood of supply disruptions. Simultaneously, by optimizing procurement strategies and improving production efficiency, enterprises can effectively control costs, enhance the resilience and adaptability of the supply chain, and boost market competitiveness.

5 Conclusion

The China-American trade war has triggered a restructuring of the global supply chain, driven by both economic and political factors. This restructuring is characterized by regionalization, diversification, and digitalization. It has profound impacts on the global economic landscape, other countries, and enterprises. The shift towards regionalization and diversification of supply chains may alter global economic and trade patterns, disrupting the existing balance. For other countries, supply chain restructuring presents both challenges and opportunities, prompting them to adapt and strengthen regional economic cooperation. For enterprises, this restructuring compels them to reassess their supply chain strategies and develop more resilient and adaptable models to cope with global economic uncertainties.

In future developments, enterprises can adopt diversification strategies to mitigate the risks posed by supply chain restructuring, invest in digital technologies, advance the digital transformation of supply chains, enhance supply chain visibility, and strengthen cooperation with multiple suppliers to boost their market competitiveness. For governments, it is crucial to formulate policies that enhance supply chain resilience and innovation. This includes supporting the digital development of infrastructure, encouraging the adoption of advanced technologies, and promoting regional economic cooperation through bilateral and multilateral models. Governments should also focus on enhancing national economic security by vigorously developing core economic sectors and key technologies, rationally utilizing domestic resources, and promoting domestic industrial development.

Against the backdrop of the Sino-American trade war, the global supply chain may continue to evolve due to geopolitical tensions, technological advancements, and strategic competition. Nations and societies must find ways to respond to these changes to better position themselves within the global economic landscape.

References

1. Cao, S., Yu, L., Wang, J.: How does the resilience of semiconductor supply chain affected by major power competition? Advances in Engineering Technology Research **10**(1), 183 (2024)
2. Hwang, W., Paik, W., Lim, H.: The US-China competition, restructuring the global supply chain, and economic security. Journal of East Asian Studies **24**(3), 324–342 (2024)
3. Zhang, M.: The impact of the trade war on global value chains, industrial chains, and supply chains, and China's countermeasures. International Business Finance and Accounting (6), 3–5 (2019)
4. Gao, J.: The impact of the Sino-US trade war on the global supply chain: an empirical analysis of the mobile phone industry. University of International Business and Economics, (2020)
5. Li, X.: Research on enhancing supply chain resilience through digital transformation. E-commerce Review **14**(4), 1502–1508 (2025)
6. Jiang, L., Mao, Y.: The political economy analysis of Sino-American trade frictions. Journal of Hebei Normal University (Philosophy and Social Sciences Edition) **42**(4), 116–128 (2019)
7. USTR: Findings of the investigations into China's acts, policies, and practices related to technology transfer, intellectual property, and innovation under Section 301 of the Trade Act of 1974, (2018)
8. Liu, Y.: A geopolitical economic analysis of Sino-American trade frictions. Theoretical Journal (1), 66–77 (2020)
9. Qi, G., Yin, Z., Ma, L.: Strengthening the adjustment and reconstruction in response to global supply chain changes. International Business Finance and Accounting (5), 3–7 (2023)
10. ASEAN Secretariat: Consolidated RCEP agreement, (2020)
11. Lei, S.: Global supply chain restructuring: new challenges and opportunities in the international economic landscape. Public Investment Guide (27), 11–13 (2024)
12. World Economic Forum: Our partners partnership report, (2024)
13. He, J.: The EU-ASEAN FTA in the context of globalization. Southeast Asian Studies (5), 59–62+68 (2008)
14. Li, Z., Tang, J.: Analyzing the impact of global supply chain restructuring on multinational operations from the perspective of trade circulation. Business Economics (4), 70–72+149 (2025)