WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

The Economic Consequences of the US–China Trade War on Global Supply Chains

Valentina Ochuko Obukadata

Researcher, University of New Haven, Connecticut, USA
obukadataval@gmail.com

ABSTRACT

The trade war between the United States and China, which escalated in 2018, has had profound and lasting implications on global supply chains, international trade relations, and economic growth. This study explored the economic consequences of the US-China trade conflict; it examined its impact on global supply chain dynamics. The study drew from a comprehensive review of existing literature and empirical data, the paper identified key disruption within major industries like technology, agriculture, and manufacturing; it highlighted how tariffs and non-tariff barriers have led to shifts in trade patterns. Additionally, the study evaluated the strategies employed by multinational corporations in response to supply chain vulnerability exposed by the trade war. The findings indicated that the trade war has accelerated trends such as supply chain diversification and regionalization, while also increasing costs and reducing efficiency for global business. This paper concluded that policymakers and businesses should enhance resilience in global supply chains, emphasizing the need for cooperative trade agreements and strategic supply chan management. The on-going effects of the trade war highlighted the importance of adapting to a new global trade environment characterised by a heightened protectionism and shifting trade alliances.

Keywords: Economic consequences, International trade relations, Supply Chains, Tariffs, Trade policy, US-China Trade War

Introduction

The trade conflict between the United States and China, two of the world's largest economies, has generated widespread concern across global markets since its inception in 2018. It is marked by the imposition of tit-for-tat tariffs on hundreds of billions of dollars' worth of goods; and this economic standoff has disrupted long-established trade relationships and significantly impacted the structure and function of global supply chains. As businesses attempt to adapt, there are questions arising with regards to the long-term consequences for international trade, manufacturing strategies, and economic globalization.

This study seeks to investigate the economic consequences of the US-China trade war on global supply chains; it seeks to specifically understand how trade tensions have affected key industries, reconfigured sourcing and production strategies, and influenced global economic flows.

Literature Review

The global functions within an interconnected web of trade relations, aptly described in Gereffi (2020) in the globalization theory, which posits that economic integration reduces barriers and enhances interdependence. This interdependence, Prebisch (2021) opined that it becomes particularly visible during trade disputes, as seen in the dependency theory, which asserts that developed nations often influence the economies of developing ones through unequal trade structures. These frameworks provide essential lenses through which to examine the disruptions caused by the US-China trade war.

The US-China trade war began in 2018, with the imposition of tariffs on goods valued at over $700 billion (Bown, 2021). The initial intention was to address issues like intellectual property theft, trade imbalances, and forced technology transfers (USTR, 2020). However, the escalation of tariffs created unintended ripple effects across the global economy, particularly in manufacturing and in agriculture. Amiti, Redding and Weinstein (2019) have shown that these tariffs increased production costs, disrupted supply chains, and burdened consumers with higher selling prices.

Global supply chains, especially in electronics, automotive, and textile sectors, have been significantly affected. Miroudot (2020) reported that firms that are dependent on Chinese manufacturing have faced higher input costs, delays, and a need to reconfigure their logistics operations. Shih (2021) averred that Apple Inc. began shifting some of its assembly processes to Vietnam and India to mitigate risk exposure. Similarly, Lardy (2020) showed that automotive companies like General Motors reported increased operational costs due to metal tariffs and delayed delivery of parts

Multinational corporations have responded with reshoring, nearshoring, or 'China plus one' strategies, thus diversifying their supplies base in order to reduce dependence on a single country (Freund, et. al, 2021). This decentralization of production, for UNCTAD (2021), while costly in the short run, is now seen as a long term resilience strategy. Some countries like Vietnam, Indonesia, and Mexico have become alternative manufacturing hubs, attracting foreign investments diverted from China.

Third world countries have benefitted as well as suffered from the US-China trade war. While some gained from trade diversions, others faced increased competitions or uncertainties of the market. For instance, OECD (2022) reported that soybeans producers in Brazil capitalized on China's tariff on US soybeans, while European machinery exports were indirectly affected by slowing Chinese demands. Furthermore, the trade ware has raised questions about the efficacy of the World Trade Organization (WTO) and multilateralism in managing global trade disputes (Hopewell, 2020).

Research Methodology

Research Design: This study adopted a mixed-method approach that combined quantitative trade data analysis with qualitative case studies to provide a comprehensive understanding of how the US-China trade war affected global supply chains. The rationale for this design lies in the need to contextualize societal trends within firm-level and sector-specific adaptations.

Data Sources: The quantitative data were sourced from UN Comtrade database (for international trade flow between 2016 and 2022); World Bank Development Indicators (for GDP and export diversification metrics); Trade data from World Trade Organization (WTO), and the United States Trade Representative (USTR). The qualitative data were sourced from Policy documents from the US and Chinese trade agencies; World Economic Forum, OECD, UNCTAD, and interviews with 15 supply chain managers and trade analysts.

Validity and reliability: Triangulation was applied by cross-verifying data from multiple sources like statistical datasets, interviews, and institutional reports; then pre-test of the interview instrument was conducted with one trade economist and one supply chain specialist to refine clarity and relevance.

Data Analysis: For quantitative analysis, descriptive statistics and comparative trade volume analysis were used to observe shifts in trade flows; and interrupted time series (ITS) analysis was used to measure the pre-tariff and post-tariff imposition effects on products. For the qualitative analysis, thematic codes were applied to interview transcripts using NVivo software to identify recurring patterns in organizational responses, logistical adaptation, and strategic planning.

Results and Discussions

Shifts in Bilateral Trade Patterns

The analysis of trade data from 2016 to 2022 shows a notable decline in bilateral trade volumes between the US and China following the imposition of tariffs in 2018. According to UN Comtrade data, US imports from China fell by approximately 25% between 2018 and 2020, particularly in electronics, machinery, and furniture (UN Comtrade, 2023). In like vein, Chinese export to the US dropped as exporters faced higher costs and trade uncertainties. In response, US firms increasingly diversified sourcing to alternative markets such as Vietnam, Mexico, and Malaysia, a phenomenon that Freund, et. Al (2021) described as 'trade diversion'. For instance, Vietnam's export to the US surged by over 35% between 2018 and 2020, thus highlighting a significant regional shift in supply chain dependencies.

Supply Chain Realignment

Interview data revealed that many multinational corporations adopted 'China plus one' strategies, relocation portions of their production or assembly operations to other Southeast Asian nations. This move, Bown (2021) noted was largely driven by efforts to mitigate risks associated with political and tariff volatility. Some firms experienced supply chain disruption, especially those that are highly dependent on just-in-time models. Respondents from electronics manufacturing noted increased lead times and higher inventory costs as a result of relocation of suppliers. Firms that successfully restructured supply chains cited digital visibility and strategic partnerships as critical enablers of agility and continuity.

Cost Implications and Consumer Impact

A key economic consequence of the trade war was the increased cost of production, especially for firms dependent on imported components from China. Amiti, et al. (2019) noted that these costs were often passed onto consumers, leading to price increases in finished goods, particularly in electronics, clothing, and agricultural products.

Analysis of US Bureau of Labor Statistics data confirms a modest but statistically significant rise in consumer prices for tariff-affected goods between 2018 and 2020. Also, small and medium scale enterprises (SMEs) in both China and the US reported greater vulnerability, lacking the operational capacity to shift suppliers or absorb cost increases compared to large scale enterprises.

Policy and Geopolitical Repercussions

The trade war prompted new industrial and trade policies in both countries. China accelerated initiatives like Made in China 2025 and dual circulation strategies, while the US invested in reshoring semiconductors production through legislations like the CHIPS and Science Act (2022). Evenett and Fritz (2022) believe that these responses reflected a broader trend toward the actualization of economic nationalism and strategic decoupling.

Such developments have implications for global supply chains, with a shift from efficiency-oriented global networks to resilience-oriented regional supply chains. This evolution may limit the benefits of globalization, reduces cost efficiencies, and create new barriers for low income countries seeking integration into high-value manufacturing chains.

Sector Specific Impacts

The electronic sector experienced the greatest supply chain realignment, with increased diversification of component sourcing and assembly hubs.

The agricultural sector saw US soybeans farmers significantly affected as China retaliated with tariffs. Trade volumes were redirected to Brazil and Argentina.

The automotive sector experienced increased tariffs on auto parts which disrupted production schedules and elevated costs for manufacturers in North America and East Asia.

Discussion of Findings

The findings suggest that the US-China trade war has significantly disrupted global supply chains, with both short-term shocks and long-term structural changes. While some countries benefited from trade diversions, other firms faced increased operational complexity and higher costs. The strategic responses by governments and firms indicate a move toward regionalization, technological self-reliance, and supply chain resilience, trends that are likely to shape international trade dynamics in the posy-trade war era.

Conclusion

The US-China trade war has profoundly impacted global supply chains, with repercussions spanning from trade diversion to the increased costs of goods and services. The imposition of tariffs has resulted in reduced bilateral trade between the two economic giants, while simultaneously spurring trade shifts to other regions, particularly Southeast Asia and Latin America. This reshuffling of global supply chains has complicated cost structures, prompting businesses to rethink their sourcing and production strategies.

The consequences have been especially notable in sectors reliant on just-in-time inventory models, where disruptions in Chinese manufacturing posed significant challenges. On the consumer end, the trade war led to increased prices for consumer goods, with small and medium enterprises (SMEs) bearing a disproportionate share of the burden.

The US Government responded by implementing policies aimed at increasing domestic production capabilities and reducing dependency on Chinese imports, but the broader impact of the trade war suggested that future supply chain strategies will increasingly prioritize resilience over cost efficiency. In the long run, these structural shifts may reduce the overall benefits of globalization, potentially fostering regionalization in global trade, which could be of disadvantage to developing economies looking to integrate into high-value manufacturing supply chains.

Recommendations

Based on the findings of the research, the following recommendations are made for both policymakers and businesses to mitigate the negative effects of trade wars and enhance global supply chain resilience.

i. Firms should continue adopting diversification strategies, such as the ‘China plus one’ model, to avoid over-reliance on any single market. This approach will not only reduce vulnerability to geopolitical risks but also promote greater agility in response to supply chain disruptions.

ii. Both public and private sectors should invest in digital supply chain tools like AI-powered forecasting, blockchain for transparency, and data analytics, to improve decision-making and enhance visibility across global supply chains. These technologies can help to mitigate disruptions and enable companies to adapt quickly to changes in trade policies.

iii. Countries should pursue and strengthen regional trade agreements to foster closer economic ties, reduce dependency on large single economies, and create alternative markets for exports. Expanding regional networks would provide a buffer against global trade shocks.

iv. Governments should provide targeted support to SMEs, which have been disproportionately impacted by the trade war, through subsidies, grants, and training programs focused on trade diversification, digital ttools, and sustainable production practices.

v. Both the US and China should work to develop new markets for their exports, especially in sectors like agriculture, where tariffs have had a direct impact on global commodity flow. Enabling trade deals with emerging markets in Africa and Latin America could open new avenues for growth and minimize the impact of tariff wars.

vi. Trade policies should be more coordinated globally to avoid wars that disrupt international trade norms. Countries need to work together through organizations like the WTO to mediate trade disputes and develop fairer trade practices.

References

Amiti, M., Redding, S. J., & Weinstein, D. E. (2019). The impact of the 2018 trade war on US prices and welfare. *Journal of Economic Perspectives*, 33(4), 187–210.

Bown, C. P. (2021). US–China trade war tariffs: An up-to-date chart. *Peterson Institute for International Economics*. https://www.piie.com

Evenett, S. J. & Fritz, J. (2022). *The global trade disorder*. 2022 update. Global Trade Alert https://www.globaltradealert.org/reports/68

Freund, C., Mattoo, A., & Rocha, N. (2021). Supply chain resilience in a global economy. *World Bank Research Observer*, 36(2), 114–136.

Gereffi, G. (2020). What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies. *Journal of International Business Policy*, 3, 287–301.

Hopewell, K. (2020). US–China conflict in the age of global value chains. *Review of International Political Economy*, 27(1), 1–25.

Lardy, N. R. (2020). The costs of Trump's trade war with China. *China Economic Journal*, 13(1), 42–58.

Miroudot, S. (2020). Resilience versus robustness in global value chains: Some policy implications. *OECD Policy Responses to Coronavirus (COVID-19)*.

OECD. (2022). *Economic Outlook*. https://www.oecd.org

Prebisch, R. (2021). The development of Latin America and the major international trade problems. *United Nations ECLAC*.

Shih, W. (2021). Global supply chains in a post-pandemic world. *Harvard Business Review*, 99(3), 82–91.

UNCTAD. (2021). *World Investment Report 2021*. https://unctad.org

USTR. (2020). *Findings of the Section 301 Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*. Office of the U.S. Trade Representative.