

**IMPACT OF US-CHINA TRADE WAR ON MANUFACTURE INDUSTRY OF VIETNAM**Arif Wicaksa¹, Ahmad Jamaan², Ummunnisa Hidayati³¹²³ Faculty of Social and Political Sciences, Universitas Riau, Indonesia

Correspondence e-mail: arif.wicaksa@lecturer.unri.ac.id

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ABSTRACT

This article explores the significant transformations in Vietnam's manufacturing sector in the context of the US-China trade war and the broader restructuring of global supply chains. As China, the historical leader in global manufacturing, begins to relocate certain production sectors to countries like Vietnam, the latter has emerged as a critical beneficiary of this shift. The article delves into Vietnam's strategic policy adaptations, which include comprehensive reforms aimed at improving the investment climate, enhancing domestic industrial capacity, and expanding participation in multilateral free trade agreements. These reforms have not only attracted foreign direct investment but have also facilitated a notable increase in exports, particularly in medium- and low-tech industries such as textiles, footwear, furniture, and consumer electronics. The analysis further highlights the concept of trade diversion, illustrating how Vietnam has capitalized on the tariffs imposed by the US on Chinese goods, leading to a surge in Vietnamese exports to the US market. Additionally, the article discusses the relevance of the flying geese pattern, positioning Vietnam as the "next goose" in the industrial migration process. However, despite these advancements, challenges persist, particularly in enhancing domestic value-added production and fostering innovation within the manufacturing sector. The findings underscore the critical importance of Vietnam's ability to navigate complex geopolitical dynamics, maintain political stability, and implement effective domestic reforms to sustain its growth trajectory as an alternative manufacturing hub in Asia.

Introduction

Beginning in 2018, the trade war between the US and China has caused significant disruptions to the global economy. The effects are extensive and multifaceted, affecting several nations, particularly those in Southeast Asia. Three primary issues led to this conflict: first, the US-



China trade deficit, which hit USD 375 billion in 2017¹; second, China's alleged unfair trade practices, including industrial subsidies and intellectual property rights violations; and third, strategic competition for technological dominance. The US levied import taxes on Chinese goods totaling USD 360 billion in response to these issues.² Global supply chains were significantly altered as a result of China's retaliatory restrictions on the export of vital minerals.

After both nations came to a fairly strict deal, the trade war between the US and China came to a formal conclusion in 2020, during President Donald Trump's first term. However, the US economic relationship with China did not improve when Joe Biden was elected president in lieu of Donald Trump. Numerous trade restrictions and penalties against China were maintained by the Biden administration.³ This indicates that the trade war was just de-escalated rather than entirely resolved with the 2020 accord.

Donald Trump's second term as US president marked the beginning of a new phase in the US-China trade conflict. Unexpectedly, Trump levied tariffs on China and a number of his trading partners. The whole economy was rocked by his move. Trump's actions had an impact even on nations that had been close friends of the US for a long time, such as South Korea, Japan, and EU nations. Trump's trade policies have been openly criticized by these nations.⁴

Of course, China, a competing nation (at least a rival in international commerce), experienced much more severe and unexpected tariff blows if Trump's tariff policies were putting pressure on even the United States' longstanding allies. China's response, which did not falter but instead reacted by placing taxes on US exports, is an intriguing topic, though. One intriguing development that merits further examination amid the US-China trade war phenomenon and the global panic is the rise of Vietnam, which effectively established itself as the primary location for industrial relocation through a combination of structural factors and strategic policies.

¹United States Trade Representative (USTR), 2017 Report to Congress on China's WTO Compliance (Washington, DC: USTR, 2018), 12–15.

²Chad P. Bown, "US-China Trade War Tariffs: An Up-to-Date Chart," Peterson Institute for International Economics (PIIE).

³Mary Jane Bolle, US-China Phase One Trade Agreement: Overview and Implementation, Congressional Research Service (CRS Report R46549, 2021), 5–8.

⁴European Commission, Trade Policy Review: Impact of US Section 232 Tariffs (Brussels: EU Directorate-General for Trade, 2022), 10–12.



On the one hand, Vietnam had a number of advantages over China, including labor prices that were around 50% lower and a continuously increasing industrial infrastructure, even if it was not as developed as China's yet. Additionally, Vietnam's network of free trade agreements such as the CPTPP and EVFTA with the European Union made it more appealing. The relocation of Apple's AirPods and iPad production through Foxconn and Samsung's decision to move 60% of its smartphone manufacturing base to Vietnam, making it the world's second-largest smartphone exporter, both demonstrated Vietnam's metamorphosis into a "China+1" center.⁵ The effects on Vietnam's economy are contradictory. On the one hand, the nation saw a spike in FDI, which reached USD 20.1 billion in 2022; exports to the US increased by 129% over a five-year period⁶; and 4.5 million new jobs were created in the industrial sector. On the other hand, new vulnerabilities were brought about by the significant reliance on imported raw materials from China, which accounted for almost 30% of all industrial demands, as well as the possibility of US side-tariffs because of alleged "circumvention."⁷

This paper emphasizes the impact of the trade war on Vietnam, which emerged as an alternative economic hub, especially in the manufacturing sector. Empirically, it fills a gap in the literature about the indirect effects of the US-China trade war on third countries through a case study approach. Theoretically, this analysis tests the relevance of the Trade Diversion Effect model⁸ and the Flying Geese Pattern in the context of contemporary geopolitics. The findings are expected to offer new perspectives for policymakers in developing countries on how to manage the tensions between opportunities for industrialization and the risks of dependency in a global trading system that is becoming increasingly fragmented.

Methodology

Literature Review

One of the most significant events in the history of the global economy in the twenty-first century is the trade war between the United States and China, which started in 2018. Numerous

⁵Hiep Nguyen, "How Vietnam Became a Global Manufacturing Hub," *Journal of Southeast Asian Economies* 40, no. 2 (2023): 215–234.

⁶World Bank, *Vietnam's Macroeconomic Update: December 2023* (Hanoi: World Bank Group, 2023), 4–7.

⁷Vietnam General Statistics Office (GSO), *Annual Report on Import-Export Structure* (Hanoi: GSO, 2023)

⁸Jacob Viner, *The Customs Union Issue* (New York: Carnegie Endowment, 1950).



works of literature demonstrate that this conflict had a substantial impact on the global economic system, particularly Southeast Asia, in addition to the bilateral ties between the two biggest economies in the world. Vietnam is strategically situated as one of the nations most impacted by this, but it also has the opportunity to benefit from the changing nature of international investment and commerce.

According to Steinbock, the global economy is now deeply unsettled as a result of the US and China's tariffs increasing. He emphasized how the Trump administration's unilateral tariff policies and Beijing's retaliatory measures hampered international commerce, upset supply chain stability, and undermined the framework of multilateral economic cooperation. According to Steinbock's forecast, the trade war may lead to the two main economic powers being less connected. As a result of this decoupling, the once highly interconnected global value chains will become structurally separated, and new economic blocs based more on strategic and political alignments than on market efficiency will emerge. Alternative nations now have the chance to close the gap China created in global supply chains as a result of this decoupling phenomena. According to this paradigm, Vietnam was one of the nations that was able to strategically use the circumstances. Geographical closeness to China, political stability, comparatively cheap manufacturing costs, and active involvement in a number of free trade agreements, including the CPTPP and EVFTA, made Vietnam appealing. Foreign direct investment (FDI) increased in Vietnam, particularly in the furniture, textile, and electronics industries. For instance, to get around the hefty tariffs the US put on Chinese-made goods, big businesses like Apple, Samsung, and Panasonic either moved a portion of their operations to Vietnam or increased their manufacturing there. This signaled a change in strategy from an efficiency-based approach to a more robust geopolitical risk diversification plan.⁹

The effects of the US-China trade war on Vietnam were evident in export trends and the manufacturing sector's competitiveness in addition to the rise in foreign investment. Vietnam was able to greatly increase its exports to the US, particularly for items like textiles and electronics that China had previously controlled. Vietnam became one of the top five exporters to the US market in 2020 as its export value to the US increased significantly between

⁹Dan Steinbock, U.S.-China Trade War and Its Global Impacts, *China Quarterly of International Strategic Studies* 4, no. 4 (2018): 515–542



2018 and 2020. The two writers did, however, also highlight the contradictory nature of these advantages. While the increased demand for its products and the influx of investment were beneficial to Vietnam, the nation nevertheless confronted significant structural difficulties. For example, it was challenging for Vietnam to effectively supply the growing demand due to its inadequate industrial and transport infrastructure. Furthermore, Vietnam remained susceptible to changes in international supply chains due to its reliance on Chinese raw materials. In this regard, increasing local production capacity and broadening supply chains have become crucial to guaranteeing the long-term viability of Vietnam's post-trade war manufacturing sector expansion.¹⁰

A deeper fundamental examination of the literature also demonstrates that the effects of the trade war are inextricably linked to emerging nations' more comprehensive approaches to risk management in the context of globalization.¹¹ According to Steinbock, the trade war made the world trade climate more unstable and protectionist, necessitating deliberate policy adjustments from nations like Vietnam. In this sense, Vietnam is seen as having successfully balanced its foreign policy orientation by preserving positive ties with China while simultaneously increasing its strategic and commercial ties with the US and the EU. It is clear from the foregoing literature analysis that Vietnam faced both positive and negative effects from the US-China trade war. On the one hand, the war improved Vietnam's standing in the world supply chain and created new economic prospects. However, these prospects are short-lived and heavily reliant on Vietnam's ability to overcome internal challenges and enhance its institutional and industrial capabilities. Therefore, further study is required to determine how the effects of the trade war have changed over time and how long-term sustainability of Vietnam's gains is possible.

In order to fully comprehend the indirect effects of the trade war between the United States and China on the development of Vietnam's manufacturing sector between 2018 and 2024, this study employs a qualitative-descriptive methodology. This method aims to describe Vietnam's economic adaptation process in response to intricate and geopolitical external

¹⁰Didik Gunawan dan Yenni Arfah, "Dampak Perang Dagang Amerika-Tiongkok Terhadap Integrasi Pasar Modal Global," *Prosiding Seminar Nasional Kewirausahaan 1*, no. 1 (2019): 76–85

¹¹Destri Sambara Sitorus, "Perang Dagang Amerika Serikat dan Tiongkok: Bagaimana Dampaknya Bagi Perekonomian Indonesia Tahun 2017–2020?" *Jurnal Pendidikan Ekonomi Undiksha* 13, no. 1 (2021): 187–196



dynamics, rather than merely quantifying the impact through statistics data. Vietnam serves as the primary analytical unit in this single case study research design. Vietnam was chosen based on theoretical and empirical factors rather than at random. In theory, Vietnam is a perfect illustration of a developing nation that can handle the possibilities and challenges brought about by the reorganization of the international economic system. According to empirical statistics, Vietnam saw a sharp increase in FDI, a notable expansion in exports to the US, and the relocation of production by multinational corporations that had previously been headquartered in China. As a result, Vietnam offers a pertinent example for evaluating theories about trade diversion and the evolving East Asian industrial landscape.

The Trade Diversion Effect and the Flying Geese Model are the two primary conceptual frameworks upon which this study is based. The first framework describes how a third country that is not directly engaged in the dispute may see new trade flows as a result of changes in tariff policy between two large nations. Vietnam is regarded in this sense as the third nation that benefits from the trade and investment diversion brought about by US tariffs on Chinese goods. Vietnam is currently taking a new position as the "next goose" in the production chain that continues to travel southward throughout Asia, according to the Flying Geese Model, which is used to analyze the movement of production centers from highly industrialized countries to developing countries.

Data were gathered using a secondary literature review strategy in order to address the study topics. Additionally, this study was constructed using scholarly material from journals. The US-China trade war, global value chain restructuring, Vietnam's industrial modernization, and the political-economic dynamics in the Asia-Pacific area are all examined in the literature. This study arranges arguments using both inductive and deductive methods, drawing on scholarly sources and documentary facts. Qualitative analysis is the method employed in this study to find narrative patterns, correlations between variables, and the processes of change taking place in Vietnam's manufacturing industry. The years 2018–2024, which are seen as a crucial stage in Vietnam's industrial development, are the subject of this study. Since President Donald Trump's administration imposed tariffs on Chinese goods in 2018, the year 2018 is used as the beginning point since it signifies the official escalation of the US-China trade war. Since 2024 represents the post-COVID-19 era and the formation of new supply chains, including new



dynamics in regional trade agreements like RCEP and CPTPP, it has been chosen as the ending point. This period of time offers enough analytical room to examine Vietnam's early reactions as well as the subsequent years' processes of consolidation and adjustment. With this framework and methodology, the study is anticipated to serve as a useful resource for policymakers in developing nations attempting to negotiate the increasingly complicated and fragmented global economic landscape, in addition to contributing to scholarly discussions on globalization and industrial transformation

Discussions

a. Vietnam's Increasing Trade Flow to the US

The change in patterns of international economic interactions, particularly in the trade connection between the US and Southeast Asian nations, is one of the most obvious effects of the trade war between the US and China that has been going on since 2018. The traditionally China-centered trade flows changed, with Vietnam emerging as a key benefactor. The increase in Vietnam's exports to the US between 2018 and 2024 is a glaring example of this. Vietnam's exports to the United States saw a significant boost in value beginning in 2018, according to data from the General Department of Vietnam Customs. Vietnam exported goods worth around USD 41 billion to the US in 2017. However, it had increased to over USD 61 billion by 2019, only a year after the trade war started. Up to 2023, Vietnam's exports to the US have risen to about USD 96 billion. As a result of this phenomena, the United States surpassed China to become Vietnam's top export partner.¹²

Vietnam had notable growth in three key sectors: textiles, home products, and electronics and their components. China used to dominate the US market for these goods, but as a result of the Trump administration's high tariffs and other protectionist policies, businesses started looking for alternatives from other nations. Vietnam emerged as a popular travel destination due to its perceived affordable pricing and comparatively stable political environment.

¹²Baldwin, Richard. "The Globotics Upheaval: Globalisation, Robotics and the Future of Work." *Oxford Review of Economic Policy* 35, no. 3 (2019): 397-412.



Vietnam's exports of mobile phones and related parts to the US have grown dramatically in the electronics industry. Vietnam is now the primary production facility in Southeast Asia for Samsung, one of the biggest foreign investments in the country. Vietnam was able to export high-tech goods to the US on a massive scale because to Samsung's investment.¹³ Vietnam had been a major participant in the textile industry for a while, but the trade war led to an even greater increase in exports to the US. According to data, between 2018 and 2020, Vietnam's textile exports to the US rose by more than 20%.¹⁴ The transfer of production contracts from US corporations that had previously operated facilities in China to Vietnam, as well as incentive programs from the Vietnamese government that promoted manufacturing exports, were some of the causes contributing to this surge. Vietnam's exports of furniture and home items also increased significantly. Taiwanese and Hong Kong-based businesses that had previously been based in China started moving their manufacturing operations to Vietnam. Vietnam's furniture exports to the US therefore increased significantly. Vietnam surpassed China as the world's second-largest furniture exporter to the US by 2022.

A change in Vietnam's place in the global supply chain is also reflected in the phenomena of the country's increased exports to the US. At first, Vietnam mostly served as a source of components or semi-finished items that were shipped to China for assembly before being exported to other nations. However, Vietnam's involvement has grown since the start of the trade war to include direct market distribution, packaging, and assembly. This shift suggests that the value contributed in Vietnam's industrial processes has increased.¹⁵

However, the increase in Vietnam's exports to the US should be viewed as both a fresh opportunity and a source of difficulties. The US government has begun to keep a closer eye on the flow of goods coming from Vietnam. Additionally, the risk of economic dependency is increased when exports are concentrated in a single dominating market, like the US. If trade policies change in the future (for example, by imposing additional non-tariff barriers) this dependency can become a danger. Vietnam's capacity to diversify its export markets and

¹³Nguyen, Duc-Tho dan Hang To. "Global Value Chains and the Missing Links: Cases from Vietnam." *Journal of Southeast Asian Economies* 37, no. 2 (2020): 178-195.

¹⁴Tran, Thi Bich Ngoc dan Kiyoyasu Tanaka. "Trade War and Textile Industry: Evidence from Vietnam." *Developing Economies* 59, no. 3 (2021): 145-165.

¹⁵Kowalski, Przemyslaw dkk. "China's Belt and Road Initiative and the Changing Global Trade Landscape." *OECD Trade Policy Papers* No. 242 (2021).



strengthen its economic ties with other trading partners will thus be crucial to the durability of this growth, even if the country has successfully expanded its export flows throughout the trade war.¹⁶

b. Increasing Foreign Direct Investment (FDI) in Vietnam's Manufacturing Industry

The rise of foreign direct investment (FDI) in Vietnam's manufacturing sector was another effect of the US-China trade war on Vietnam, in addition to the increase in export value. Many multinational corporations, particularly those from the US, Japan, South Korea, and Taiwan, began searching for alternate destinations to diversify their supply chains after the trade war broke out in 2018. Vietnam swiftly emerged as their primary migration option. The overall amount of FDI climbed dramatically, according to data from Vietnam's Ministry of Planning and Investment. Prior to the trade war, Vietnam's foreign direct investment was valued at around USD 35.9 billion in 2017. But by 2019, it had increased to almost USD 38 billion. FDI inflows into Vietnam were comparatively steady, despite the COVID-19 epidemic slowing down global FDI.

Companies like Samsung, which has long been a significant investment in Vietnam, provide tangible evidence of this migration phenomena. Samsung increased its investment by constructing new plants in Bac Ninh and Hanoi as well as a research and development (R&D) center. Samsung established Vietnam as its primary manufacturing location for exporting electronic components and smartphones. However, businesses like Apple, which have traditionally relied on China as their primary production location through partners like Foxconn and Pegatron, started shifting some of its AirPods, iPad, and MacBook production lines to Vietnam in 2020. Apple made this move to lessen the effects of US tariffs and to lower Beijing-related risks.

The growth of FDI resulted in the creation of more jobs in the manufacturing sector; in fact, FDI in Vietnam created more than 300,000 new jobs between 2018 and 2022, particularly in the northern and central regions of the country. This expansion of investment not only increased the country's production capacity but also had a multiplier effect on the local

¹⁶Doan, Thi Thanh Ha dan Steven M. Jaffe. "Export Diversification in Vietnam: Patterns and Determinants." *Asian Development Review* 38, no. 1 (2021): 1-28.



economy. But this increase in FDI also brought with it a number of difficulties. First, reliance on foreign investors is a source of concern. The second is a labor skills gap. Vietnam's labor, education, and training systems have not yet been able to meet the expectations of the high-tech industries that are entering the country, which call for competent and trained personnel. Third, regional development disparity has also resulted from the concentration of investment in particular areas. While the central and mountainous northern regions continue to be largely undeveloped, areas like Hanoi, Bac Ninh, and Ho Chi Minh City have emerged as the primary destinations for foreign direct investment.

The Vietnamese government implements a number of strategic measures to solve some of those issues. Using the National Investment Information System to streamline the licensing and investment processes is one of them. Through a number of free trade agreements, including the CPTPP, EVFTA, and RCEP, the Vietnamese government also enhances economic cooperation, opening up new markets for Vietnamese goods and boosting investor confidence in the country's business environment.

c. Changes in Vietnam's Manufacturing Industry Structure

In addition to increasing export volume and production capacity, the US-China trade war has caused a boom in trade and foreign direct investment (FDI) flows to Vietnam, which has resulted in substantial structural changes in the country's manufacturing sector. These shifts are evident in a number of important areas, including the manufacturing sector's GDP contribution, the labor structure's evolution, and the more uneven spatial distribution of sectors among regions.

First, the manufacturing sector consistently grows in GDP contribution and starts to play a major role in the Vietnamese economy's structure. According to information from Vietnam's General Statistics Office, the manufacturing sector made up around 16.7% of the country's GDP in 2017. But since the start of the trade war, this percentage has risen gradually, reaching almost 25% in 2023.¹⁷ The manufacture of domestic items, textiles and clothing,

¹⁷Pham, Thanh and Hiep Nguyen. "Industrial Transformation in Vietnam: From Agrarian to Manufacturing Economy." *Journal of Asian Economics* 78 (2022): 101456.



technology components, and electronics subsector expansion are the main drivers of this increase. Vietnam is now viewed as a manufacturing nation focused on exports and becoming more integrated with the global market, rather than just an agrarian or low-wage economy.

Second, the dynamics of the national labor force are likewise impacted by this shift in industrial structure. The distribution of job sectors is also changing significantly as a result of the industrial sector's growing demand. Prior to 2018, the bulk of Vietnamese workers were still employed in the unorganized sector and in agriculture. However, the manufacturing sector saw a sharp growth in employment between 2018 and 2024, particularly in capital-intensive industries like electronics and automotive as well as labor-intensive industries like textiles and footwear. The percentage of workers in Vietnam's manufacturing sector rose from 16% in 2018 to over 22% in 2023, according to data from the International Labour Organization (ILO).¹⁸

Third, the connection between local and international enterprises is also affected by the change in the industrial structure. Foreign businesses are taking over Vietnam's manufacturing sector as FDI rises, particularly in the technology and export manufacturing sectors. The dominance of multinational corporations also raises the possibility of limited local value capture, even as it speeds up capital accumulation and technology transfer. Many small businesses only serve as suppliers of inexpensive labor, packaging, and logistics since they are unable to join the supply chains of international enterprises. Vietnam runs the risk of becoming trapped in a low position in the global value chain if measures are not made to increase the capacity of the domestic sector.¹⁹

The Vietnamese government has responded to this structural shift in a number of ways. These include creating new industrial zones outside of heavily invested areas, improving industrial upskilling programs, and offering incentives to local small and medium-sized businesses (SMEs) to collaborate with international businesses. To build a robust and sustainable industrial structure, the government is also enforcing stronger environmental

¹⁸Tran, Anh and Mark Beeson. "Labor Market Changes in Vietnam's Manufacturing Sector." ASEAN Economic Bulletin 39, no. 1 (2022): 45-67.

¹⁹Nguyen, Thang and John Reilly. "Foreign Direct Investment and Industrial Upgrading in Vietnam." World Development 158 (2022): 105967.



regulations, improving worker rights, and fortifying the legal framework that facilitates technological transfer.²⁰

Fundamental shifts in the direction and standing of the national economy are reflected in the evolution of Vietnam's manufacturing structure between 2018 and 2024. Vietnam is now transitioning from an economy that relied on the export of raw materials and inexpensive labor to one that is focused on manufacturing and has a higher added value. In addition to demonstrating the efficacy of governmental responses to the possibilities and difficulties brought about by the global trade war, this shift enhances Vietnam's standing in the regional and international manufacturing environment.²¹

d. Challenges and Obstacles for Vietnam

Vietnam has been able to increase the growth of its manufacturing sector by taking advantage of the momentum created by the US-China trade war, but this accomplishment has not been without challenges. As trade and investment flows have increased and industrial structure has changed, a number of external and internal issues have surfaced that, if poorly handled, may hinder Vietnam's future economic development sustainability.

First, relying on Chinese imports for raw materials is one of the biggest problems. Many of Vietnam's industrial sectors remain depend on importing parts, raw materials, and production inputs from China, despite the country's successful efforts to boost finished goods exports to the US and other nations. For instance, about 40% of the raw materials used in the textile and electronics sectors are still imported from China.²² This reliance makes the supply chain extremely vulnerable to interruptions, whether they are brought on by pandemics, geopolitical unrest, or other causes like growing logistical expenses. This circumstance demonstrates that although trade diversion helps Vietnam, the nation has not yet established a completely self-sufficient local supply chain. As Vietnam's reliance on outside inputs restricts

²⁰Fujita, Mai and Truong Dang Thuy. "Industrial Zones and Regional Inequality in Vietnam." *Economic Geography* 98, no. 3 (2022): 234-258.

²¹Vu, Khanh and David Dapice. "Vietnam's Industrial Policy in the Trade War Era." *Journal of Southeast Asian Economies* 40, no. 2 (2023): 189-212.

²²Le, Thai-Ha and Quan-Hoang Vuong. "Vietnam's Economic Duality: Export Growth vs. Import Dependence." *Journal of Asian Business and Economic Studies* 29, no. 2 (2022): 123-140.



its capacity to raise the added value of its own manufacturing, this might eventually constitute a barrier to the strategy of advancing up the value chain.

Second, Vietnam's infrastructure for energy and logistics is limited. The need for ports, highways, railroads, electrical networks, and energy infrastructure has grown as a result of the spike in foreign direct investment and industrial growth. Infrastructure development, however, hasn't always kept up with the industry's rate of expansion. Limited port capacity, electrical supply limitations, and logistical congestion are all problems in several of Vietnam's main industrial zones, both in the north and the south. For instance, the volume of cargo at Hai Phong Port in the north and Cat Lai Port in Ho Chi Minh City has increased, resulting in longer unloading times and higher logistical expenses. Strategic infrastructure development has emerged as a top priority, but it needs substantial financial resources and sustained funding. These infrastructure obstacles might make Vietnam less competitive in luring new investors and preserving its standing as a substitute manufacturing hub for China if they are not removed quickly.²³

Third, there is pressure on labor and environmental norms as a result of the increasing industrial expansion. The need for qualified workers is increasing due to the manufacturing sector's fast expansion, but Vietnam's educational and vocational training system is still not entirely up to speed with the demands of high-tech enterprises. For instance, a large number of employees in the electronics and automotive industries continue to hold jobs requiring fundamental abilities, which might eventually lead to a stagnation in production.²⁴ However, industrial growth without proper environmental control has resulted in a rise in industrial waste, air pollution, and the strain on natural resources. Pollution cases involving foreign corporations, like the 2016 Formosa Steel marine pollution event in Ha Tinh province, serve as a warning that fast development without stringent environmental regulations can lead to civil unrest and jeopardize a company's image abroad.²⁵

²³Truong, Cam Van et al. "Logistics Challenges in Vietnam's Industrial Zones." *Transportation Research Part A: Policy and Practice* 158 (2022): 234-251.

²⁴Nguyen, Anh and John Middleton. "Skills Mismatch in Vietnam's Electronics Sector." *International Journal of Educational Development* 89 (2022): 102541.

²⁵Do, Thuy and Philip Hirsch. "Industrial Pollution and Community Response: Lessons from Formosa." *Journal of Environmental Management* 301 (2022): 113889.



Fourth, there is a chance that trade tensions between the US and Vietnam may worsen. US trade officials are paying more attention as a result of the dramatic rise in shipments to the US market. The US administration accused Vietnam at the end of 2019 of manipulating its currency to boost exports. Furthermore, claims of transshipment practices (in which Chinese goods are marginally altered in Vietnam before being sent to the US to evade tariffs) have also drawn attention. The US may thus threaten to implement protectionist trade restrictions on Vietnamese goods, undermining the momentum that has been built up for exports. Vietnam has enhanced rules of origin inspection procedures, expanded bilateral communication with the US, and enacted monetary policy adjustments to lessen pressure on the Dong currency in anticipation of this. However, a strategic risk that must be controlled via market diversification is the substantial reliance on a single large export market.²⁶

Fifth, regional differences in development have become a growing problem at the domestic level. The wealth disparity between central and northern Vietnam's rural locations has grown as a result of the concentration of infrastructure development and investment in major industrial districts. In the future, this disparity may erode national cohesiveness and lead to internal social problems. Although the Vietnamese government is aware of this difficulty and has started creating regional development plans, issues with cross-sector cooperation and institutional capability continue to hinder their implementation.²⁷

Given the numerous obstacles written above, it is evident that a more well-rounded long-term development plan is required to support Vietnam's achievements in luring foreign investment and boosting exports following the trade war. Accelerated industrialization is necessary for Vietnam's economic development, but so is adherence to social fairness, sustainability, and risk-resilience. Deeply ingrained structural flaws might erode Vietnam's advantage as a new manufacturing location if proper remedial and preventative actions are not taken.

e. Adaptation of Vietnamese Government Policy

The Vietnamese government has put in place a number of flexible policies to optimize economic gains while lowering related risks in response to the possibilities and difficulties

²⁶Vu, Minh and Steven Khoo. "Vietnam's Currency Manipulation Controversy." *Asia Pacific Policy Studies* 10, no. 1 (2023): 45-63.

²⁷World Bank. *Climbing the Ladder: Vietnam's Development Disparities*. Washington, DC: World Bank, 2023.



brought about by the US-China trade war and the swift change of the country's industrial sector. Three key areas are the focus of this policy adaptation: increasing participation in multilateral free trade agreements, bolstering domestic industrial capacity, and changing the investment and trade climate.

First, the Vietnamese government has implemented significant trade and investment reforms to boost the country's appeal to international investors and improve the business environment. Streamlining licensing processes has emerged as a major concern. Vietnam has simplified the process of managing industrial licenses, registering enterprises, and applying for investment permits through programs like the National Investment Information System and an online one-stop service platform. The goal of these measures is to improve bureaucratic openness and reduce administrative processing times, two things that have frequently been barriers to investment. In addition, the government has expanded fiscal incentives for critical manufacturing sectors, including low-cost industrial site leasing facilities, exemptions from corporate income tax for the first five years, and exemptions from import levies on raw materials and machinery. Vietnam hopes to establish itself as a major substitute for China in the global industrial supply chain by implementing these measures. However, the amount of investment is not the sole aspect of these reforms. By focusing expenditures on high-value industries like information technology, automotive, electronics manufacturing, and renewable energy, the government is starting to take a quality-based strategy. This tactic is a component of a longer-term initiative to encourage industrialization based on innovation as opposed to just labor-intensive output.²⁸

Second, the Vietnamese government understands the need of increasing local businesses' participation in international supply chains as part of its efforts to boost domestic industrial capacity. The establishment of the Supporting Industry Development Program is one tangible step that has been taken. Its goal is to improve the managerial skills, technical competencies, and quality certification of regional Small and Medium Enterprises (SMEs) so that they can become important suppliers to global firms.²⁹ The National Innovation Center

²⁸Vu, Khanh and David Dapice. "Vietnam's Regulatory Reforms in the Shadow of the US-China Trade War." *Journal of Southeast Asian Economies* 39, no. 3 (2022): 345-362.

²⁹Nguyen, Anh and John Rand. "Local Firm Upgrading in Vietnam's Manufacturing Sector." *World Development* 158 (2022): 105967.



(NIC), which focuses on research and development (R&D) for important industrial sectors, was also established in Vietnam. In order to boost the national innovation ecosystem and expedite technology transfer, the NIC was founded in 2020 with the goal of encouraging cooperation between the public and business sectors as well as educational institutions. Improving industrial efficiency, lowering reliance on imported inputs, and strengthening Vietnam's place in the global value chain all depend on this action. Through the Vocational Education and Training (VET) program, the government is also investing more in workforce training. To satisfy the demands of the quickly expanding high-tech manufacturing sector, the emphasis is on technical skills training in automation, electronics, mechatronics, and information technology.³⁰ This endeavor is designed to alleviate the skills gap in the labor force and boost Vietnam's competitiveness in the period of the Fourth Industrial Revolution.

Third, Vietnam is aggressively increasing its involvement in a number of free trade agreements (FTAs) in the context of global commerce. Strategic moves to open up new markets, lessen reliance on established markets like the US and China, and improve global economic integration include the signing and ratification of the EU-Vietnam Free Trade Agreement (EVFTA) in 2020 and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in 2018. Furthermore, Vietnam's involvement in the Regional Comprehensive Economic Partnership (RCEP) broadens its trade network throughout the Asia-Pacific area and opens up new avenues for diversifying its trading partners. Under the framework of the world's largest free trade agreement, the RCEP, which went into force in 2022, links Vietnam with 14 other nations, including China, Japan, South Korea, Australia, and New Zealand.³¹ In addition to increasing market access, active participation in multiple FTAs pushes Vietnam to raise its domestic standards in areas like labor protection, environmental protection, and intellectual property rights. This is in line with the government's initiatives to improve Vietnam's reputation as a hub for ethical and superior manufacturing. Amid worries about currency manipulation and transshipment tactics, the Vietnamese government is also stepping up economic diplomacy to preserve positive ties with the US in

³⁰Tran, Thi Lanh. "Skills for Industry 4.0: Vietnam's VET System Transformation." *International Journal of Training Research* 20, no. 2 (2022): 134-152.

³¹Hiratsuka, Daisuke. "Vietnam's FTA Diplomacy in the Indo-Pacific." *Asian Economic Policy Review* 18, no. 1 (2023): 78-96.



addition to these actions. To guarantee adherence to international trade regulations, Vietnam is strengthening control of the provenance of export products and regulating the Dong exchange rate more transparently. Vietnam hopes to preserve key market access while upholding the confidence of its strategic partners with this strategy.³²

The Vietnamese government's policy changes demonstrate a high degree of responsiveness to shifts in the international environment. Vietnam has been able to exploit the possibilities presented by the trade war and fortify its industrialization roots over the long run by combining internal reforms with strong economic diplomacy. The success of this adaptation highlights how crucial the state is in directing a country's economic transition in the face of international geopolitical unpredictability. The capacity to handle changing external problems, the uniformity of cross-sector policies, and the durability of local implementation are still necessary for these policy changes to be effective. Vietnam has a great deal of potential to maintain its industrialization trajectory and solidify its place in the increasingly competitive global economy with the correct policy framework in place.

f. Analysis of Trade Diversion and Flying Geese Pattern

In addition to increasing exports, investments, and changing the country's manufacturing structure, Vietnam's trade and industrial dynamics after the US-China trade war also show how theoretical ideas like trade diversion and the flying geese pattern translate into real-world geopolitical practice. In this regard, Vietnam appears to be the main beneficiary of the fundamental changes in the architecture of international commerce and production. According to Jacob Viner, trade diversion is the shift in trade flows brought about by changes in tariff policies, wherein importing nations move their purchases from trading partners with high tariffs to other trading partners that provide comparable goods at cheaper prices. The US's tariffs on Chinese goods during the trade war compelled many importers and multinational corporations to look for other sources of supply. Vietnam emerged as a top option in this diversion process due to its advantageous location near China, cheap production prices, and free trade agreements.

³²Le, Hong Hiep. "Vietnam's US-China Balancing Act." *Contemporary Southeast Asia* 44, no. 3 (2022): 423-445.



The increase in Vietnam's exports to the US between 2018 and 2024 provides empirical support for this trade diversion phenomena. Vietnamese-made goods started to replace things like textiles, shoes, furniture, and light electronics that were previously mostly exported from China. Vietnam rose to rank among the top five nations with the fastest growth in exports to the United States during this time, according to data from the US Census Bureau. Furthermore, according to a 2020 research by the Peterson Institute for International Economics, Vietnam benefited greatly from trade in industries like home appliances and information technology that were the focus of the US's highest tariffs on China. It is crucial to remember that Vietnam benefits from a reciprocal trade diversion. Vietnam's exports to the US rose, but so did its exports to China, especially for manufacturing components and semi-finished items. This suggests that Vietnam is participating in a complicated reorganization where manufacturing integration in the East Asian area continues, but in a more varied pattern, rather than completely replacing China's place in the global supply chain.³³

The Flying Geese Pattern, a concept put out by Kaname Akamatsu to describe how industrial production leadership moves from one nation to another in a formation like flying geese, is also relevant in light of these developments. According to this paradigm, more developed nations initially create certain industries, which they subsequently relocate to nations with cheaper production costs when production costs increase or structural changes take place.

As the 'leader of the flying geese formation' in global manufacturing for the last 20 years, China has started to move some of its production sectors to nations like Vietnam in the context of the trade war and the restructuring of Asian manufacturing. This is especially noticeable in medium- and low-tech industries like consumer electronics, furniture, textiles, and footwear. In other words, China's place in the global market is being largely replaced by Vietnam, which is assuming the position of the "next goose" in the pattern of industrial migration. Data on investment flows and production relocation support the flying geese pattern's suggestions in the Vietnamese setting. Many multinational corporations from China, Japan, South Korea, and Taiwan are beginning to construct new facilities in Vietnam.³⁴ These

³³Bown, Chad P. "US-China Trade War and Southeast Asian Trade Diversion." *Asian Economic Papers* 21, no. 2 (2022): 78-101.

³⁴JETRO. *Survey of Japanese Manufacturing Companies in Asia 2023*. Tokyo: JETRO, 2023.



firms traditionally had their primary manufacturing bases in mainland China. Furthermore, this industrial migration process is being accelerated by Vietnam's cheaper labor costs than China as well as the government's pro-investment policies.³⁵

It is noteworthy, therefore, that in the classic flying geese pattern, nations that 'graduate' in the production hierarchy also tend to see a rise in value-added production. This is the point at which Vietnam faces a problem. A large portion of Vietnam's output is still at the final assembly stage, with very little domestic value added, even if the manufacturing industry has grown. Vietnam must thus strengthen its ability for innovation, advance technology-based industrialization, and establish a domestic input industry base if it is to fully benefit from its newfound place in the flying geese pattern. However, it is also necessary to consider this occurrence in light of current geopolitics. Global political factors, including the strategic tensions between the United States and China, shifting consumer preferences in developed nations, and the shifting orientations of multinational corporations towards supply diversification and geopolitical risks, all have an impact on the trade diversion and flying geese pattern that benefits Vietnam. As a result, Vietnam's potential to remain a hub for alternative manufacturing hinges significantly on its ability to manage its foreign policy, preserve political stability, and carry out ongoing changes at home.

Overall, Vietnam has shown unequivocally that it is the main beneficiary of trade diversion and that it is the next in line in the flying geese pattern that followed the US-China trade conflict. Vietnam's standing as a key component of Asia's new industrial architecture is strengthened by this change. Vietnam must, however, continue its structural reforms, raise the caliber of its industries, and strengthen its economy's resistance to the constantly shifting global dynamics in order to preserve and grow this position

Conclusion

Vietnam has strategically taken advantage of the chances created by the US-China trade war to establish itself as a key participant in the world manufacturing market. Significant economic benefits have come from the nation's proactive approach to policy change, which is typified by

³⁵Kojima, Kiyoshi. "Revisiting the Flying Geese Model in the Post-Trade War Era." *Journal of Asian Economics* 85 (2023): 101591.



initiatives to improve the business climate, draw in foreign investment, and support domestic businesses. Driven by the movement of manufacturing from China, Vietnam has successfully adapted to the changing global trade landscape, as seen by the growth in exports, especially to the US. Vietnam has made progress in attracting investment and increasing production, but much of its manufacturing is still focused on low-value assembly processes. To improve its position in the global supply chain, Vietnam needs to concentrate on increasing the domestic value-added component of its products, fostering innovation, and building a strong ecosystem for high-tech industries. Nevertheless, the road ahead is full of obstacles that Vietnam must overcome to fully realize its potential as the next leader in the flying geese pattern. Furthermore, it is impossible to ignore the geopolitical environment in which Vietnam functions. Broader political variables, such as US-China ties and the strategic objectives of multinational firms, impact the dynamics of trade diversion and the flying geese pattern. Therefore, Vietnam's ability to navigate the complexity of international trade policy while maintaining steady and positive relationships with important trading partners will be essential to its long-term success. Vietnam's dedication to ongoing structural changes, human capital investment, and the development of a robust industrial base will ultimately determine its viability as an alternative manufacturing powerhouse in Asia. Vietnam can improve its competitiveness and play a significant role in determining the direction of manufacturing in the region and beyond by tackling these issues and leveraging its strategic advantages.

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