

Chapter 14

The Resilience of the Indo-Pacific Supply Chain and Taiwan's Role

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I. Introduction

In a globalized production system, countries provide their contributions at different stages of the product value chain due to the intra-sectoral specialization among nations resulting from comparative advantage. In the globalized production process, components and semi-finished products are manufactured in different countries, and it is no longer possible for an end-consumer product to be manufactured in only one country. As a result, supply chains often encounter problems such as delays in transportation (domestic and cross-border), delays in obtaining essential materials, or inability to obtain them again (e.g., spare suppliers and key suppliers from the same source or suppliers going out of business), and stock shortages, which often cause production line shutdowns, such as this year's (2021) shutdown of major car factories due to a shortage of automotive chips. The U.S.-China trade dispute and the COVID-19 pandemic have not only deepened supply chain security issues, such as restrictions on the movement of workers due to city closures, forced factory shutdowns, and port congestion, resulting in supply chain disruptions. Strengthening supply chain resilience is one of the hottest topics for 2020 and beyond.

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With 60% of the world's Gross Domestic Product (GDP) and a large young population, the Indo-Pacific region has become an important strategic area for the U.S. and its allies to counter China under the confrontation between the U.S. and China. In the face of the global supply chain restructuring, Taiwanese companies have not only relocated their production bases in China back to Taiwan due to the "order-transfer effect", but moved some of their production lines to Southeast Asia and India. The increase in the number of Taiwanese companies investing in the Indo-Pacific region has affected the overall layout of Taiwan's industrial supply chain and led to a reshuffling of the global supply chain, the importance of which should not be underestimated. This article analyzes the reasons for the changes in the supply chain in the Indo-Pacific region, the current situation, and the possible areas for Taiwan companies to focus on in the future.

II. U.S.-China Confrontation and the Impact of the COVID-19 on the Supply Chain

As the world's factories, China's production bases were primarily located in the southeast coast, but with the rising labor costs, some manufacturers, especially in traditional labor-intensive industries, have started to move their factories to regions where labor force is abundant, such as the inland provinces of China or Southeast Asian countries. The U.S.-China confrontation has deepened the concerns of China's manufacturers, and its impact on the supply chain can be divided into two stages: first, the U.S.-China trade war; second, the technology war.

1. The Impact of the U.S.-China Confrontation on the Supply Chain

After the Trump administration issued a memorandum on "China's Economic Aggression"¹ on March 22, 2018, imposing 25 percent tariffs on \$50 billion of Chinese imports, the Chinese government immediately retaliated by imposing tariffs on U.S. imports of similar value, and since then, the U.S. and China began a reciprocal tariff retaliation (see Table 14-1). Since most of the U.S. suppliers

¹ "Presidential Memorandum on the Actions by the United States Related to the Section 301 Investigation," *The White House*, March 22, 2018, <https://reurl.cc/WXq4gk>.

comes from China, the tariffs were almost entirely passed on to U.S. consumers because there are not enough suppliers from other countries available once the tariff war began.² According to a study, the U.S. tariff imposing on China resulted in a welfare loss of about \$7.8 billion (0.04% of U.S. GDP).³ While the U.S. side suffered from the trade war; it also caused the share of Chinese exports to the U.S. to decline significantly, resulting the share of Chinese exports to the U.S. in 2020 to be the lowest for the past 30 years. This has also resulted in “decoupling” and supply chain relocation. For example, most firms moving out of China have moved mainly to Vietnam, Thailand, and Taiwan, thus increasing the share of these countries’ exports to the United States. However, this phenomenon has varied over time.

Table 14-1 Amount of Commodities Affected by the Trade War between the U.S. and China

Time (Year/ month)	The U.S. to China		China to the U.S.	
	Impact Amount	Method	Impact Amount	Method
2018/3-4	US\$40 billion	Steel 25% tariff, aluminum 10%, not only for China	US\$3 billion	Waste aluminum and frozen pork (25%), nuts, fruits, dried fruits, wine (15%)
2018/6	US\$34 billion	818 items, including airplane parts, semiconductors, among others (25%)	US\$34 billion	Soybeans, wheat, electric vehicles, and seafood, among others (25%)

² Pablo Fajgelbaum, et al., “The Return to Protectionism,” *The Quarterly Journal of Economics*, Vol. 135, No. 1, February 2020, pp. 1-55.

³ Mary Amiti, Stephen Redding and David Weinstein, “The Impact of the 2018 Tariffs on Prices and Welfare,” *Journal of Economic Perspectives*, Vol. 33, No. 4, Fall 2019, pp. 187-210.

Time (Year/ month)	The U.S. to China		China to the U.S.	
	Impact Amount	Method	Impact Amount	Method
2018/8	US\$16 billion	279 items, including heavy oil products, lubricants, plastic products, steel and iron structures, photosensitive semiconductors, circuit protection devices, diodes (25%)	US\$16 billion	333 items, including medical equipment, energy products, transportation equipment (25%)
2018/9	US\$200 billion	5,745 items, including textiles, chemicals, furniture, among others (10%, increasing to 25% in 2019)	US\$60 billion	5,207 items, including cosmetics, jewelry, video games, among others (5% or 10% or)
2019/9	US\$110 billion	Agricultural products, apparel, kitchenware, among others (15%, post-agreement to 7.5%)	US\$25 billion	Crude oil (5%), agricultural products (additional 5-10%)

Source: Eric Martin, James Mayger, “U.S.-China Trade Booms as If Virus, Tariffs Never Happened,” *Bloomberg*, July 22, 2021, <https://reurl.cc/V5RagQ>.

The U.S.-China trade war has made manufacturers aware of the shortcomings of an over-reliance on outsourcing and the potential for sudden supply chain disruptions due to over-centralization of supply sources, thus increasing the need for supply chain resilience and multiple production sites, which, however, will reduce mass production efficiency and increase manufacturing costs.⁴

Although the trade war impact of the sharp tariffs increase between the U.S. and China, in some cases as high as 25%, has been significant, the global supply chain has suffered a setback but has not entirely disintegrated. Moreover, since Biden took office, the supply chain has received much attention on national

⁴ “Gartner Survey Reveals 33% of Supply Chain Leaders Moved Business Out of China or Plan to by 2023,” *Gartner*, June 24, 2020, <https://reurl.cc/emW5gm>.

security issues. While not explicitly targeting China, the review is part of the Biden administration's broader strategy to enhance U.S. competitiveness in the face of challenges posed by the world's second-largest economy.

The 2020 China Business Report, released by the American Chamber of Commerce in Shanghai (AmCham) in November 2020, found that there has been no significant relocation of U.S. businesses from China inland, even under the pressure of a rising trade war between the U.S. and China, and showed that the impact of the U.S.-China trade war on U.S. business investment intentions is less than that in 2019 (see Figure 14-1). While 14% expect to move their production activities from China to non-U.S. regions, 7% say they will move to other regions in China or out of China. Only 3.7% will return to the U.S. Of the 27.7% who will move out of China, only 1.8% will move all of their activities out of China, while the rest will move less than 30% of their activities out, indicating that China is still an important market for manufacturers, and they adopt a strategy to maintain their participation in various markets.

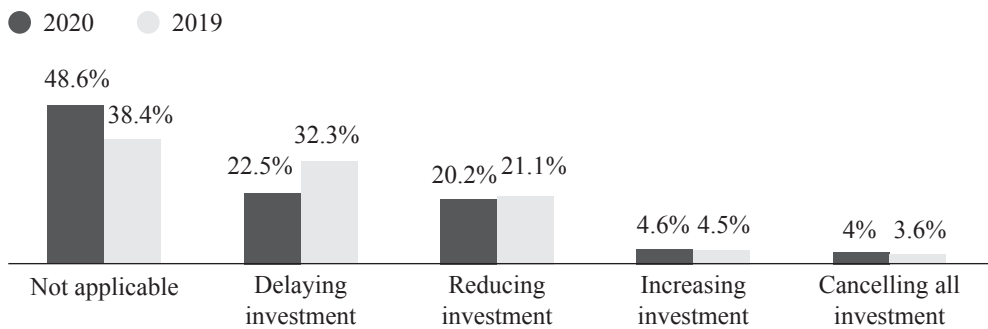


Figure 14-1 Impact of Tariffs and U.S.-China Trade Tensions on Investment Plans of U.S. Companies in Shanghai

Source: The American Chamber of Commerce in Shanghai and PwC China, 2020 China Business Report, November 2020, <https://www.pwccn.com/en/consulting/china-business-report-sep2020.pdf>, p. 23.

In Japan, according to a survey conducted by the Japan External Trade Organization (JETRO) in 2019, about 2.8% of manufacturers chose to move

their production bases due to the impact of the U.S.-China conflict, mainly large companies. Only 4.4% of large companies choose to move out, while small and medium-sized enterprises only 2.5%.⁵

2. The Impact of COVID-19 on the Supply Chain

In early 2020, although many large companies recognized the need to reduce their reliance on Chinese suppliers to mitigate the impact of the U.S.-China trade war, progress has been slow, mainly due to the high cost of adjusting the supply chain. However, the COVID-19 outbreak in China in late December 2019 triggered mandatory global social isolation and travel restrictions, causing economic and social disruption in China, Europe and the U.S. in the first quarter of 2020 with further supply chain impacts. The supply chain impact of the COVID-19 pandemic depended heavily on the number of countries that initially implemented city closures, and the duration of the closures was more likely to cause supply chain losses than the stringency of the closures, with earlier, stricter, and shorter closures minimizing overall losses.⁶

As a result, many companies have found that shortening the length of the supply chain and bringing products closer to the end consumer market makes business operations less likely to be disrupted in the event of a lockdown. With many government subsidies for relocating production facilities out of China,⁷ companies are taking relocation back into consideration and spending capital on relocating production facilities. According to a Bank of America survey of 3,000 global companies, about 80 percent of companies have been affected by supply chain disruptions, and two-thirds have increased their production reshoring.⁸

⁵ “米中摩擦が組み替えるアジアのサプライチェーン,” *Japan External Trade Organization; JETRO* (日本貿易振興機構), April 3, 2020, <https://www.jetro.go.jp/biz/areareports/special/2020/0401/d798e2287994e498.html>.

⁶ Dabo Guan, et al., “Global Supply-chain Effects of COVID-19 Control Measures,” *Nature Human Behavior*, Vol. 4, No. 6, June 2020, pp. 577-587.

⁷ The governments of the United States, Japan and South Korea have different incentives for the relocation of production equipment out of China. For example, the United States is mainly based on tariffs, while Japan, Taiwan and South Korea are mainly based on rent taxes or other subsidies.

⁸ “The Price of Change,” *BofA Global Research*, <https://reurl.cc/6DLgx6>.

The Korea Chamber of Commerce and Industry (KCCI) survey of 300 Korean domestic manufacturers on “Global Value Chain (GVC) Restructuring Prospects and Responses” was released in September 2020. According to the survey, about 70% of the companies “feel the changes in the global value chain” or “expect” changes. The most significant factor affecting the restructuring of the value chain is the impact of the COVID-19 pandemic, which is cited by 72% of the companies. In comparison, the U.S.-China trade war accounts for only 7.7%, and the progress of Chinese manufacturing capabilities 16.9%, which is significantly higher than the U.S.-China trade war, indicating the impact of the rise of China's red supply chain.⁹

III. Current Supply Chain Adjustments in Major Indo-Pacific Nations

Before the U.S.-China confrontation and the COVID-19 pandemic, China was a global factory that produced and controlled many raw materials. However, this single, overly centralized production model has been severely challenged by restrictions on the movement of people and materials. Figure 14-2 shows that the U.S. increased imports from Southeast Asia and Taiwan to replace Chinese products in 2019. Therefore, a dual supply chain system or multi-source supply chain is now mainstream. The primary consideration is to avoid supply chain risks, whether it is the U.S., China, or other countries.

According to the World Investment Report 2020 published by the World Bank,¹⁰ the supply chain adjustment can be divided into four types: reshoring, diversification, regionalization, and replication. Reshoring refers to the relocation of overseas production bases back to the home country; replication refers to the duplication of the same or similar production capacity, supported by new

⁹ Jung Min-hee, “Most Korean Companies Regarding Global Value Chain Reshaping as Inevitable,” *BusinessKorea*, September 28, 2020, <https://reurl.cc/DZX1EN>; Shin Ji-hye, “Korean Firms Say Restructuring is Inevitable: Survey,” *Korea Herald*, September 27, 2020, <https://reurl.cc/bnG6g6>.

¹⁰ “World Investment Report 2020,” *United Nations Conference on Trade and Development*, June 2020, <https://unctad.org/webflyer/world-investment-report-2020>.

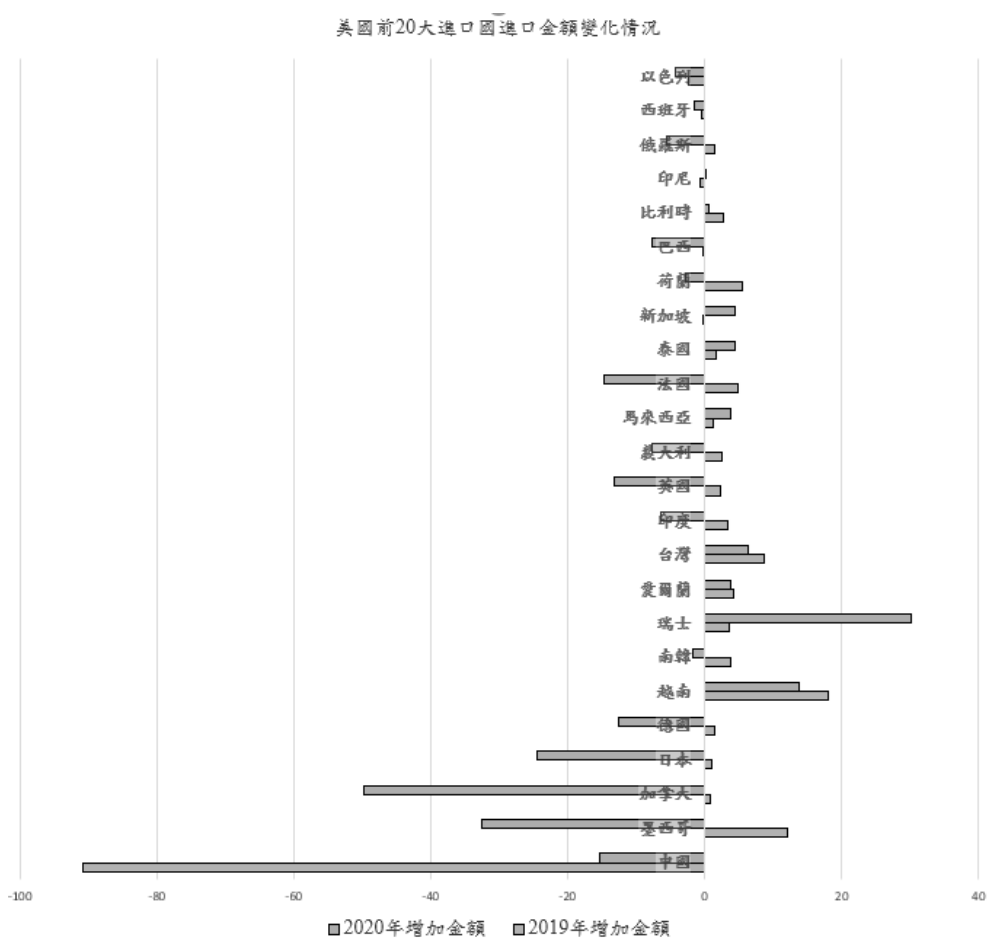


Figure 14-2 Change in Import Value of Top 20 U.S. Importers

Source: Trade Map, *International Trade Centre*, <https://www.trademap.org/Index.aspx>.

production technologies, near major consumer markets, but this approach is only applicable to products with relatively simple technologies. It can gain advantages in that particular market through customization. Diversification is the use of digital technology to transfer and outsource manufacturing to different locations and is suitable for service industries and manufacturing with complex value chains; regionalization is the result of the reduction of global production (multinational companies splitting global production and replicating it in different sub-regions) or the increase of production lines across national borders, with companies adjusting to the source of material supply, production, and delivery.¹¹ The most crucial concept in the rise of these four models is the supply chain shortening, i.e., production close to the market.

In terms of global surveys, in addition to the Bank of America survey mentioned above, a survey of 260 global supply chain leaders conducted by Gartner, Inc. from February to March 2020 found that 33% of companies have already moved their sourcing and manufacturing activities out of China or plan to do so within the next two to three years.

Concerning the individual country side, according to the U.S. Reshoring Initiative, about 60 percent of companies believe the most significant factor affecting U.S. companies in 2020 will be the outbreak of COVID-19, along with other factors such as supply chain disruptions, out-of-control and strained relationships with foreign manufacturers (meaning the tension between U.S. and China), carbon emissions and climate change.¹² However, the impact of the COVID-19 pandemic declines in 2021, while the Biden administration's stimulus packages gradually took place. The American Jobs Plan,¹³ America's Supply Chains,¹⁴ and Ensuring the Future Is Made in America, by All of American

¹¹ Ben Aylor, et al., "Designing Resilience into Global Supply Chains," *Boston Consulting Group*, August 3, 2020, <https://www.bcg.com/publications/2020/resilience-in-global-supply-chains>.

¹² "Reshoring Initiative 2020 Data Report," *Reshoring Initiative*, May 26, 2021, <https://reshorenow.org/blog/reshoring-initiative-2020-data-report/>.

¹³ "Fact Sheet: The American Jobs Plan," *The White House*, March 31, 2021, <https://reurl.cc/dxerAk>.

¹⁴ "America's Supply Chains," *Federal Register*, March 1, 2021, <https://www.federalregister.gov/documents/2021/03/01/2021-04280/americas-supply-chains>.

Workers,¹⁵ unveiled by President Biden since he took office, have provided incentives for companies to return to the U.S. in order to secure federal orders.

To help Japanese manufacturers improve the resilience of their supply chains, the Abe administration proposed two kinds of subsidies in March 2020. The first is for high value-added products that are highly dependent on a single country, for which it is recommended to move production back to Japan. The second is for those who are qualified for the first kind of subsidy, but in order to avoid over-relying on a single source of supply, for which the government will assist manufacturers to establish production lines in multiple countries, especially in the Association of Southeast Asian Nations (ASEAN). The Japanese government provided 220 billion yen for companies qualified for the first kind of subsidy to help them return to Japan and another 23.5 billion for the second.¹⁶ Since the subsidies are not limited to those who withdrew from China, as of September 2020, about 1,700 companies have applied for the first kind of subsidy, amounting to 1,760 billion yen.¹⁷ Vietnam has attracted the largest portion of Japanese companies invested in Vietnam, accounting for 24.5% of the total firms who moved out of China, followed by Thailand at 14.5%, and the proportion of Japanese companies choosing to move back to Japan and Taiwan each accounted for 6.9%.¹⁸ In the 2020 report, the proportion of those choosing to move their production base rose to 5.1%.

In Korea, although the Act on Assistance to Korean Offshore Enterprises in Repatriation, a repatriation policy promoted by Korea since 2013, has already resulted in the repatriation of 80 companies by August 2020, and the number of

¹⁵ “Ensuring the Future Is Made in All of America by All of America’s Workers,” *Federal Register*, January 28, 2021, <https://reurl.cc/r1ZIAb>.

¹⁶ “Council on Investments for the Future,” *Prime Minister of Japan and His Cabinet*, March 5, 2020, https://japan.kantei.go.jp/98_abe/actions/202003/_00009.html; “Japan Sets Aside ¥ 243.5 Billion to Help Firms Shift Production out of China,” *Japan Times*, April 9, 2020, <https://reurl.cc/Yjdlpo>.

¹⁷ “1,700 Japanese Firms Seeking Homecoming Subsidy Are Not All in China, JETRO Says,” *Yicai Global*, September 17, 2020, <https://www.yicai.com/news/1700-japanese-firms-seeking-homecoming-subsidy-are-not-all-in-china-jetro-says>.

¹⁸ “米中摩擦が組み替えるアジアのサプライチェーン,” *Japan External Trade Organization; JETRO* (日本貿易振興機構), April 3, 2020, <https://www.jetro.go.jp/biz/areareports/special/2020/0401/d798e2287994e498.html>.

repatriation has increased significantly after the COVID-19 pandemic. However, even with government subsidies, the number of Korean companies returning to homeland was still marginal.¹⁹

According to the Korea Chamber of Commerce and Industry report, 84.3% of Korean companies are not reducing their business in China.²⁰ However, some large Korean manufacturers, such as Samsung and Hyundai, did move their production bases to Southeast Asia or India.

In Taiwan, according to a survey conducted by the Chung-Hua Institute for Economic Research in 2019, the majority of Taiwanese companies are taking a wait-and-see approach in responding to the impact of the U.S.-China trade war, with 70% to 80% of them “not changing” or “still evaluating” their investments in various regions of the world. In terms of the regions with increased investment, the new southbound countries are the most favored destination, at 29.6%, with Vietnam being the most popular, and up to 30% of firms assessing the possibility of investment in the new southbound countries; Taiwan ranks as the second largest region with increased investment, at 24.5%.²¹

If we compare the changes between 2019 and 2018, we can see that the percentage of “increasing investment in China” has slightly decreased, and the percentage of “decreasing investment in China” has also increased, indicating that Taiwanese companies are indeed willing to decrease their investment in China. Furthermore, the “increased investment in new southbound countries” decreased significantly (57.32% to 29.56%). However, at the same time, the proportion of “increased investment in Taiwan” increased significantly, and the proportion of “difficult to judge” also decreased significantly, indicating that although new southbound countries are still essential regions for Taiwanese businesses to invest in, reshoring has also become a vital investment direction for Taiwanese

¹⁹ Min Hyeoki, “Reshoring Korean Companies and Plans for Improvement,” *Korea Institute for Industrial Economics and Trade*, September 3, 2020, https://eng.kiet.re.kr/kiet_eng/?sub_num=209&state=view&idx=11639.

²⁰ Shin Ji-hye, *ibid.*

²¹ Zhong Fuguo, Liu Mengjun, etc., “2020 Survey and Analysis Report on the Operation of Overseas Investment Businesses,” *Investment Review Committee of the Ministry of Economic Affairs*, December 2020, <https://www.moeaic.gov.tw/news.view?do= data&id=1490>, p. 86.

businesses.

Table 14-2 Impact of the U.S.-China Trade War on Taiwan Businesses' Investment Intentions

	2018				2019			
	Increase	No change	Decrease	Unjudgable	Increase	No change	Decrease	Unjudgable
Investment in Mainland China	3.61	68.03	13.32	15.5	2.09	62.17	16.83	18.92
Investment in the United States	4.08	71.63	1.88	22.4	3.2	67.87	3.89	25.03
Investment in Taiwan	1.41	73.67	1.25	23.67	24.48	58.14	2.23	15.16
Investment in New Southbound Countries	57.32	32.93	4.27	5.49	29.56	37.74	1.66	32.04
(Unit: %)								

Source: Chung, F. K., Liu, M. J., et al. "Survey Analysis of the Operation Status of Overseas Investment Business in 2020 (Survey Year: 2019)," *Investment Review Committee, Ministry of Economic Affairs*, December 2020, <https://reurl.cc/951nGX>, p. 86; Chung, F. K., Liu, M. J., et al. "Survey Analysis of the Operation Status of Overseas Investment Business in 2019 (Survey Year: 2018)," *Investment Review Committee, Ministry of Economic Affairs*, December 2019, <https://reurl.cc/951nGX> 15ZYov, p. 87. 2018," Investment Review Committee, Ministry of Economic Affairs, December 2019, <https://reurl.cc/15ZYov>, p. 87.

IV. Taiwan's Role in Supply Chain Adjustment in the Indo-Pacific

The U.S.-China trade war and the new pneumonia epidemic have disrupted the global supply chain, forcing manufacturers to adjust their manufacturing bases to ensure stable production and sales by diversifying their procurement methods (in terms of geographic location and suppliers). In addition to traditional risks such as trade protectionism, changes in the business environment (system and policy changes), exchange rate changes, natural disasters, and epidemics, climate change and geopolitical risks have become essential factors affecting the supply chain.

Taiwan plays an essential role in the international industrial structure, mainly in OEM for international major brands, especially in the information and communication industry, from assembly, intermediate component manufacturing, and design to high-end wafer foundry. Given that the Indo-Pacific region will become the most critical region for global economic development in the future, especially at a time when Southeast Asia and India's manufacturing potential is on the rise, how Taiwan can remain an indispensable part of the global supply chain under the current transformation of the U.S.-China supply chain decoupling is not only crucial for Taiwan's economic development but also affects Taiwan's national security. There are two areas for Taiwan to focus on in the Indo-Pacific regional supply chain:

1. Strengthen Taiwan's Partnership in the Indo-Pacific Regional Supply Chain Through Dual Supply Chains

Since China is still the primary source of economic growth in the world and is the primary source of supply of components and raw materials, most companies from different countries maintain their production scale in China but place their new investments outside of China, and few companies completely withdraw from the Chinese market. For example, in September last year, Australia, India, and Japan proposed the Supply Chain Resilience Initiative (SCRI) to strengthen the supply chain through digital technology and trade and investment diversification will eventually lead to strong, sustainable, balanced and inclusive economic growth in the region. The three countries officially launched the Supply Chain Resilience Initiative at the end of April 2021 and will meet once a year and may consider expanding the Supply Chain Resilience Initiative when time is appropriate. Japan, Australia, and India have poor relations with China, with Japan and India having territorial disputes with China and Australia being subject to Chinese economic sanctions. Therefore, the Supply Chain Resilience Initiative can be considered a competition under the Regional Comprehensive Economic Partnership (RCEP)

framework.²² In addition, Japan and Australia are actively strengthening their supply chain cooperation with ASEAN, hoping to win the competition with China for ASEAN countries' support. On the other hand, India is actively pursuing investment in high-tech manufacturing through the Production Linked Incentive (PLI), and some Taiwanese companies such as Hon Hai and Wistron have already achieved some results.²³

“The Supply Chain Resilience Initiative (SCRI)” is still in the development stage but is currently being enriched. The Quadrilateral Security Dialogue (QUAD) held its first face-to-face leaders' meeting in Washington, D.C., on September 24 this year and proposed two initiatives to address international supply chain issues—the Semiconductor Supply Chain Initiative (SSCI) and the Green-Shipping Network.²⁴ Both semiconductor and maritime transport are important industries for Taiwan. If Taiwan can join the “Supply Chain Resilience Initiative” or the “Quadrilateral Security Dialogue,” it will benefit Taiwan's economy and trade.

2. Assume the Role of Supply Chain Manager

After two waves of southbound policies, Taiwan has gradually established a significant production base in Southeast Asia. In the past ten years, Taiwanese companies in the electronics industry have invested nearly US\$14 billion in Vietnam, Indonesia, Thailand, and the Philippines, with the most considerable amount in Vietnam at US\$8.73 billion, followed by Thailand at US\$2.26 billion, Indonesia at US\$1.53 billion and the Philippines at US\$1.46 billion. In the past 30 years, Taiwanese companies have played the hub between brand customers and downstream supply chain manufacturers, but Taiwan should no longer be complacent with the assembly. However, it should use the different resources of the Indo-Pacific region, such as industrial clusters, human resources, or natural resources, to build a traditional supply chain across the Indo-Pacific and further leverage the digital supply chain to grasp more links its customer supply chain

²² Although India is not a member of the Regional Comprehensive Economic Partnership.

²³ Danish Khan, “Apple iPhone Makers Foxconn, Wistron on Track to Achieve PLI Targets, Pegatron to Take Time,” *Economic Times*, September 20, 2021, <https://reurl.cc/yemyX6>.

²⁴ “Fact Sheet: Quad Leaders' Summit,” *The White House*, September 24, 2021, <https://reurl.cc/73j2ml>.

manager and integrator.

In particular, Taiwan and Japan have a long history of economic cooperation, and the two countries have been cooperating closely in the supply chain. Moreover, since Japan has been operating in Southeast Asia since the colonial era before World War II, it has a deep business network, understands the local resources, and has established a complete supply chain system. Therefore, if we can use the existing business foundation of Taiwan and Japan, we can strive to enter the supply chain system of Japanese companies in Southeast Asia and jointly develop the market, which may be a shortcut for Taiwanese companies to expand their supply chain in Southeast Asia.

V. Conclusion

The U.S.-China trade war and the Newcastle pneumonia epidemic have affected global production and consumption, resulting in supply chain disruptions, but their impact on supply chain restructuring and the withdrawal of companies from China is different. Although major industrialized countries have made efforts to assist manufacturers in relocating their production bases, the results have not been significant. In addition to the fact that mainland China remains an important market, manufacturers' conditions, such as where the sales market is, whether their products are affected by tariffs, how easy it is to move production lines, and the ability to pass on price increases, all affect the urgency of their relocation of production bases. However, to stabilize the production line's supply capacity, new investment in China should be reduced in the future, and new production lines should be moved elsewhere.

Taiwan manufacturers face a high degree of uncertainty in the general environment, and dual supply chains may be the way forward. In addition to maintaining supply chain capacity in China, new investments in new southbound countries will help Taiwan companies to develop a deeper supply chain in ASEAN countries. In addition, Taiwan can also join hands with other like-minded

countries, such as the U.S. and Japan, to establish supply chain cooperation in third places, stabilize and expand Taiwan's position in the Indo-Pacific supply chain. In the future, Taiwan should strengthen its participation in regional supply chain cooperation to enhance its position in the supply chain and strive to become the manager and integrator of the supply chain in the Indo-Pacific region.