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Strengthening U.S. Supply Chains Through Trade: The Case of Taiwan

Case Study

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I. Introduction

Since the onset of the COVID-19 pandemic and the market disruptions that followed, a key focus of policymakers in Washington, D.C. has been on how markets failed due to their lack of resilience. Global and local supply chains struggled during the pandemic, but the primary shock to the market was caused by government-mandated shutdowns and intervention. Governments around the world made it nearly impossible for factories to remain open and for goods to cross borders, especially in the United States, where government subsidies for individuals drove up demand for goods and services.

This narrative and misrepresentation of the causes of market disruptions during the pandemic has led to the passage of legislation and consideration of additional bills that lawmakers claim would prevent future disruptions through new spending and subsidies to onshore and nearshore supply chains. Government regulations on factory locations are not market-driven, and subsidies to incentivize production in certain areas could further distort markets.

A newer term – friend-shoring – has emerged as a possible strategy for how to structure supply chains post-pandemic. The idea would be to move production to allies and countries with similar values to those of the United States through government intervention, mandates, and subsidies. While the term is new, the concept that trading more with countries that share U.S. values and norms makes for stronger supply chains has been a cornerstone of U.S. trade policy for decades. In the past, the United States has “friend-shored” by signing trade agreements with like-minded countries that eliminate tariff and non-tariff barriers to trade, thereby making it easier for goods, services, and capital to flow between them.

Instead of returning to this strategy, policymakers are using the post-pandemic economy to advance the same anti-market policies associated with onshoring and nearshoring. Rather than directly subsidizing domestic industries, free trade agreements are a proven model for friend-shoring in a pro-market way. This report will make that case from the perspective of a U.S.-Taiwan Free Trade Agreement.

II. Background

Between 2020 and early 2022, Americans experienced a variety of disruptions to supply chains, ranging from pandemic-related goods such as personal protective equipment to new automobiles. Some saw these disruptions as a reason to reduce reliance on imports, blaming globalization for the market failures that took place in 2020 and 2021.¹ Today policymakers are increasingly concerned about the security and makeup of private-sector supply chains, leading them to propose legislation to “secure supply chains” by increasing the government’s involvement in the private sector. By securing supply chains, lawmakers aim to reduce reliance on China as a manufacturing hub. While it is important for the private sector to properly calculate risk when investing in capacity abroad, expansive government involvement in these supply chains, especially for consumer goods, is largely misguided. The primary cause for market disruptions during the pandemic was government intervention here and abroad that caused widespread factory shutdowns, as well as government stimulus² that put billions of dollars in the hands of consumers. Members of Congress would do well to discern which disruptions were true security problems and exercise caution when considering government intervention.

Early in the pandemic, the shortage of semiconductors was largely due to automotive companies – such as Ford and General Motors – canceling semiconductor orders in anticipation of low consumer demand for new cars. Prior to the pandemic, the automotive sector in the United States was already experiencing a cyclical decline and automakers expected the trend to continue for the rest of 2020 and into 2021.³ As orders were canceled, semiconductor producers such as Taiwan Semiconductor Manufacturing Company (TSMC) had other customers to fill the excess capacity. TSMC shifted to supplying semiconductors for personal electronic companies for use in products such as the new Xbox and PlayStation consoles, which were in very high demand.⁴ Consumer demand for new and used vehicles bounced back in mid- to late-2020, much quicker than Ford and General Motors anticipated, which left customers waiting weeks to months for new vehicles.

To add insult to injury to these semiconductor disruptions, governments around the world shut down businesses of all kinds throughout 2020. In the United States, many state governments issued stay-at-home orders that forced manufacturing facilities to close.⁵ In Michigan, a hub for the automotive industry, factories closed for eight weeks due to such mandates.⁶ Moreover, China’s zero-COVID policy (as well as the Chinese Communist Party’s increasingly authoritarian behavior) caused uncertainty and decrease confidence in China

1. <https://www.nytimes.com/2022/10/17/opinion/neoliberalism-economy.html>

2. <https://thehill.com/opinion/campaign/552855-jobs-report-shows-more-stimulus-isnt-the-answer/?rl=1>

3. <https://www.wsj.com/articles/car-sales-boom-hit-the-brakes-in-2019-11578071698>

4. <https://www.motortrend.com/news/automotive-car-industry-semiconductor-chip-shortage-reasons-solution/>

5. <https://www.reuters.com/article/us-health-coronavirus-usa-industries/u-s-industries-scramble-for-exemptions-as-state-shutdown-orders-grow-idUSKBN21B1HL>

6. <https://www.reuters.com/article/us-health-coronavirus-usa-michigan-exclu/michigan-governor-allows-coronavirus-hit-manufacturers-to-reopen-on-may-11-idUSKBN22J2OG>

as a location for manufacturing supply chains.⁷ Semiconductor manufacturers in Taiwan generally remained open during the pandemic, though TSMC and other companies in their ecosystem instituted pandemic protocols to reduce disease spread in their factories, which shielded them to some extent from causing a more severe supply shock.⁸ Despite some ongoing challenges around the world, U.S. supply chains have largely recovered from the pandemic.

III. Proposed Solutions to Address Supply Chain Resilience

Many supply chain shocks seem to be working themselves out, yet lawmakers in Washington are still talking about supply chain resilience. Some are ostensibly concerned with preventing supply chain disruptions of this scale for essential goods from happening again should there be another global pandemic. Increasingly, however, the conversation is becoming more geared toward using supply chain resilience efforts to address the great power competition with China and onshore/reshore manufacturing.

For example, the CHIPS and Science Act of 2022 was signed into law by President Biden on August 9, 2022.⁹ It provides \$76 billion in funding for domestic semiconductor production (\$52 billion for subsidies and \$24 billion for tax credits). A version of this bill – the CHIPS for America Act¹⁰ – was originally proposed due to pandemic-related shortages of semiconductors. While Congress was considering this bill, the market was already responding to the original shortage, so the conversation turned more toward supply chain resilience. The White House said the CHIPS and Science Act “will secure domestic supply, create tens of thousands of good-paying, union construction jobs and thousands more high-skilled manufacturing jobs, and catalyze hundreds of billions more in private investment.” Yet private-sector investment in semiconductor production was already on the rise before this legislation, with nearly \$80 billion in new planned U.S. investment by 2025 and more than \$800 billion in spending globally over the next 10 years.¹¹ TSMC’s original investment in Arizona to build its first U.S. fabrication plant was estimated to be \$12 billion. In December, TSMC announced a second round of investment to build another facility, bringing its total investment in Arizona up to \$40 billion.¹²

The real consequences of the CHIPS and Science Act won’t be known for some time, but it is already spurring efforts by other countries to create their own semiconductor subsidies. China, for example, is planning to issue new semiconductor subsidies in 2023 for its domestic industry, with support estimated to be valued at more than \$140 billion.¹³ The European Union (EU) is also considering a “Chips Act” that would spend \$45 billion (made up of both public and private expenditures) to support the semiconductor industry in Europe.¹⁴

7. <https://www.cnbc.com/2022/11/30/economist-chinas-zero-covid-has-shaken-confidence-in-supply-chains.html>

8. <https://asia.nikkei.com/Business/Tech/Semiconductors/Taiwan-chip-supplier-halts-production-due-to-COVID-cluster>

9. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/>

10. <https://www.congress.gov/bill/116th-congress/senate-bill/3933/related-bills>

11. <https://www.americanactionforum.org/insight/hold-the-chips-the-private-sector-is-fixing-the-semiconductor-shortage/>

12. <https://pr.tsmc.com/english/news/2977>

13. <https://www.reuters.com/technology/china-plans-over-143-bln-push-boost-domestic-chips-compete-with-us-sources-2022-12-13/>

14. <https://www.consilium.europa.eu/en/press/press-releases/2022/12/01/chips-act-council-adopts-position/>

The massive pre-CHIPS private sector investment, plus new government investments, could cause a global oversupply of semiconductors in the next few years. Moreover, the U.S. subsidies could put domestic semiconductors at risk of facing countervailing duties abroad, further distorting the industry.¹⁵ Put simply, the CHIPS and Science Act responded to a shortage that the market had already resolved.

Domestic subsidies, specifically those that are not in line with the rules-based trading system, were on the rise during the COVID-19 pandemic. According to the World Trade Organization, one-third of new trade measures between March 2020 and July 2022 were trade-restrictive, and 82 percent of those were export restrictions.¹⁶ While many of these measures have been removed, they seem to be swapped in the United States for new trade-distortive subsidy programs such as the tax credits for electric vehicles in the Inflation Reduction Act¹⁷ or the semiconductor subsidies in the CHIPS and Science Act. This trend is unsustainable for several reasons, but primarily because subsidies of this kind are distortive, costly, and typically ineffective at achieving their goals. Governments often bet poorly when it comes to industrial policy, and taxpayers foot the bill for those mistakes. In a 2021 report, the Cato Institute's Scott Lincicome explained that U.S. industrial policy is often unsuccessful because of the government's inability to allocate resources, political interference, and existing market distortions that undermine the industrial policy, among other shortcomings.¹⁸

In addition to advancing industrial policy, the Biden Administration's solutions for addressing supply chain resilience include new trade negotiation frameworks and forums. In 2022, the administration announced the Americas Partnership for Economic Prosperity (APEP),¹⁹ as well as formally launched the Indo-Pacific Economic Framework (IPEF)²⁰ and the U.S.-Taiwan Initiative on 21st Century Trade.²¹ Few details have been released about the APEP; however, the IPEF has a pillar regarding supply chain resilience and the Taiwan Initiative touches on supply chains in the context of labor policy and digital trade. The United States also has the Economic Prosperity Partnership Dialogue and the Technology Trade and Investment Collaboration with Taiwan, which prioritize supply chain resilience.²²

While these kinds of regional frameworks can bear some fruit, they fall short of including market access provisions (namely tariff elimination and removal of non-tariff barriers) that create the kind of trade diversion that would meaningfully impact supply chains. Moreover, these frameworks lack implementation by Congress and binding enforcement mechanisms – key aspects of a trade agreement – which decreases their effectiveness and permanence.

15. <https://www.americanactionforum.org/daily-dish/senate-chips-bender/>

16. https://www.wto.org/english/news_e/spno_e/spno30_e.htm

17. <https://www.americanactionforum.org/comments-for-record/comments-on-credits-for-clean-vehicles-in-the-inflation-reduction-act/>

18. <https://www.cato.org/white-paper/questioning-industrial-policy>

19. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/08/fact-sheet-president-biden-announces-the-americas-partnership-for-economic-prosperity/>

20. The following countries are participants in the IPEF: Australia, Brunei, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Vietnam. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/fact-sheet-in-asia-president-biden-and-a-dozen-indo-pacific-partners-launch-the-indo-pacific-economic-framework-for-prosperity/>

21. <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2022/june/united-states-and-taiwan-announce-launch-us-taiwan-initiative-21st-century-trade>

22. <https://www.americanactionforum.org/insight/white-houses-new-initiative-with-taiwan-falls-short-of-a-free-trade-agreement/>

IV. United States Falling Behind on Trade Agreements

The approaches that the Biden Administration is pursuing are ostensibly intended to incentivize international supply chains to move to the United States, to North America, and to allied countries. Legislation in Congress has recently been motivated by these same goals and often falls into three categories: onshoring, nearshoring, or friend-shoring. Each term incorporates some form of government involvement or management of private-sector supply chains to change the location of production, be it through subsidies and tax incentives or sanctions and export controls. Onshoring is the concept of moving industry from overseas to the United States. Some also refer to this as reshoring following the debunked "China shock" paper²³ that claimed 1 million manufacturing jobs (and 2.4 million jobs overall)²⁴ were lost in the United States due to trade with China. Nearshoring is a similar idea, but is the moving of industry from one part of the world to a closer region. For the United States, that often means moving production to North America, which is brought together by a regional trade agreement dating back to 1994.

The newest term is friend-shoring, which some also call ally-shoring.²⁵ During an April 2022 event at the Atlantic Council, Treasury Secretary Janet Yellen defined friend-shoring as:

A group of countries that have strong adherence to a set of norms and values about how to operate in the global economy and about how to run the global economic system, and we need to deepen our ties with those partners and to work together to make sure that we can supply our needs of critical materials.²⁶

While the specific term is new, the concept of friend-shoring is not. In fact, U.S. trade policy has traditionally sought to strengthen economic ties between the United States and other democracies. Foreign policy objectives have historically been factors in determining the countries with which the United States negotiates trade agreements, as shown by the United States' first free trade agreement (FTA) signed with Israel in 1985. A 2004 book published by the Peterson Institute for International Economics observed that the agreement "provided the United States a means to display its strong support for Israel without providing additional financial assistance."²⁷ The same book also suggested that the negotiations with Israel "may have had some effect in pressuring [other countries] to move forward on multilateral trade negotiations." Economic factors also play an important role, but using trade agreements to increase economic engagement with our friends is common practice.

23. <https://www.wsj.com/articles/the-truth-about-the-china-trade-shock-1491168339>

24. <https://dspace.mit.edu/handle/1721.1/101757>

25. <https://www.brookings.edu/blog/the-avenue/2021/06/08/rebuilding-americas-economy-and-foreign-policy-with-ally-shoring/> and <https://www.fdd.org/analysis/2020/07/13/check-china-abroad-rebuild-economy-at-home/>

26. <https://www.atlanticcouncil.org/news/transcripts/transcript-us-treasury-secretary-janet-yellen-on-the-next-steps-for-russia-sanctions-and-friend-shoring-supply-chains/>

27. https://www.piie.com/publications/chapters_preview/375/03iie3616.pdf

In recent years, however, the United States has fallen behind the rest of the world in utilizing new trade agreements to impact global trade flows and help U.S. companies access new markets abroad. The United States has 14 FTAs, whereas Japan has 18, the EU has 44, South Korea has 20, and the United Kingdom has 36. The last trade agreement to go into force in the United States was the United States-Mexico-Canada Agreement in 2020, but it was an update to the North American Free Trade Agreement (NAFTA), not a new FTA. The last new U.S. FTA was the U.S.-Panama Trade Promotion Agreement, which went into effect in 2012.

Absent new FTAs, the United States not only has less access to other markets but also less influence over the rules of trade. The prime examples of this waning influence are the Regional Comprehensive Economic Partnership (RCEP) and the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP). The United States was a principal architect of the Trans-Pacific Partnership (the original name of the CPTPP), but it backed out of negotiations in 2016. The remaining 11 participants went forward without the United States and the CPTPP went into effect in 2018. The U.K. is on track to be the first non-original member to join the CPTPP soon. China is not in the CPTPP, but it is one of the major players in the RCEP, which has much lower standards than the CPTPP. These are some of the most crucial new trade agreements in the world, especially in Asia, and the United States has little to no influence on their rules and will have no impact in how supply chains will develop in the region.

v. U.S.-Taiwan Free Trade Agreement Can Strengthen Supply Chains

The best way to incentivize companies to shift supply chains out of China is to create alternative markets for them that are economically viable and help them mitigate rising security concerns in China. Trade agreements are a key tool to achieve this goal. NAFTA helped create one of the strongest regional economies in the world by eliminating trade barriers in North America. The Biden Administration's efforts to do this through regional frameworks fall short of the proven economic benefits associated with free trade agreements for the United States and its partner countries.

There may not be much bipartisan agreement in Congress, but there is bipartisan support for a bilateral trade agreement with Taiwan, and it is stronger than ever. Former Speaker of the House Nancy Pelosi's visit to Taiwan in August 2022 led to several additional delegations from Congress and from states to the island nation in 2022, where both Republicans and Democrats expressed their support for deeper economic and security ties between the United States and Taiwan. Moreover, during a House Ways and Means Committee hearing in September 2022, there was near unanimous support for a U.S.-Taiwan FTA by members from both sides of the aisle.²⁸ Members questioned the effectiveness of the Biden Administration's new Taiwan initiative, favoring a full-on trade agreement instead. The National Defense Authorization Act for Fiscal Year

²⁸ <https://waysandmeans.house.gov/legislation/hearings/future-us-taiwan-trade>



2022 also included new provisions “to promote the security of Taiwan, deter People’s Republic of China aggression against Taiwan, and foster even closer cooperation between the United States and Taiwan.”²⁹

A trade agreement with Taiwan could incorporate the supply chain resilience aspects of the Initiative, make substantive changes to tariff and non-tariff barriers, and make any trade rules enforceable within the agreement. It is the removal of these barriers to trade that would shift trade flows, and thereby shift supply chains. An April 2022 report utilized the Global Trade Analysis Project and a computable general equilibrium model to estimate the potential effects of a U.S.-Taiwan free trade agreements.³⁰ An agreement of this kind that eliminates all tariffs and reduces non-tariff barriers on agricultural, textile, and automotive products would increase trade between the United States and Taiwan.

Specifically, the study estimated that total trade would increase by \$6.2 billion for the United States and by \$3.8 billion for Taiwan. U.S. exports to Taiwan would increase by 16 percent and Taiwanese exports to the United States would increase by 13 percent. Gross Domestic Product (GDP) would increase by \$246 million for the United States and by \$641 million for Taiwan.

	United States	Taiwan
Gross Domestic Product	\$246 million	\$641 million
Total Trade	\$6.2 billion	\$3.8 billion
Exports to FTA Partner (% increase)	16 percent	13 percent

Table 1: Change in Trade and GDP Under U.S.-Taiwan FTA

29. <https://www.foreign.senate.gov/press/dem/release/chairman-menendez-announces-historic-inclusion-of-taiwan-legislation-in-annual-defense-bill>

30. The author of this report was a primary author for the economic model cited here. <https://www.heritage.org/trade/report/us-taiwan-free-trade-agreement-the-economic-case>

Perhaps most relevant for the objective of supply chain resilience, a U.S.-Taiwan FTA would decrease total trade and GDP for China. It would specifically decrease trade between the United States and China, as well as between Taiwan and China. U.S. exports to China would decrease by \$189 million and Taiwanese exports to China would decrease by \$1.8 billion. U.S. imports from China would decrease by \$775 million and Taiwanese imports from China would decrease by \$323 million.

Gross Domestic Product	- \$112 million
Total Trade	- \$1.1 billion
Imports from United States	- \$189 million
Export to United States	- \$775 million
Imports from Taiwan	- \$1.8 billion
Export to Taiwan	- \$323 million

Table 2: Economic Impact on China Under U.S.-Taiwan FTA

By reducing tariff and non-tariff barriers, the United States and Taiwan can improve their trading relationship for both economies. These arrangements affect not only the movement of goods as demonstrated above, but also the movement of capital, and change the ways companies decide to invest that capital. By lowering trade barriers, it often becomes easier to exchange capital because the investment climate is more stable and secure. Tools such as investor-state dispute settlement and state-to-state dispute settlement allow for businesses and governments to resolve conflicts if a party is not living up to its FTA commitments. These tools ensure the just and unbiased enforcement of the trade agreement, thereby further increasing confidence in the investment climate.

VI. Conclusion

Free trade agreements are a proven tool for increasing trade in goods, services, and capital between partner countries. These agreements have been historically used to reduce tariff and non-tariff barriers to trade, which incentivizes trade within the agreement and impacts supply chains. Trade agreements are more effective tools than regional frameworks and forums for impacting supply chains because they are implemented by Congress and contain enforcement mechanisms. A U.S.-Taiwan Free Trade Agreement would increase total trade and gross domestic product for both countries, as well as reduce U.S. and Taiwanese trade with China.



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