



ANALYSIS

THE USE OF ECONOMIC TOOLS TO DETER CHINESE MILITARY AGGRESSION AGAINST TAIWAN*

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Introduction

In the wake of Russia's brutal aggression against Ukraine, much commentary has focused on the lessons China is drawing from the conflict and how best to deter Beijing from seeking to resolve the Taiwan issue by military force. This can only be done by convincing China that the risks and costs of military action against Taiwan would exceed the costs and risks of enduring the continuation of the status quo on Taiwan.

Given the lack of a formal U.S. defense relationship with Taiwan, deterring Chinese military aggression against Taiwan is a daunting task, especially in light of China's military buildup in conventional and nuclear forces, the Chinese leadership's declared goal of integrating Taiwan with the mainland by 2049, and Chinese threats—including nuclear threats—against states that stand in Beijing's way. An effective victory denial deterrence policy requires an integrated strategy, involving all elements of state power. This includes using economic tools, as appropriate, in a measured and deliberate manner to convey to Chinese authorities that any use of force against Taiwan will carry consequences beyond potential military responses, which—when taken together—will outweigh any conceivable benefit China hopes to achieve. Economic prosperity is one of the imperatives for the Chinese Communist Party (CCP) to maintain legitimacy. Therefore, economic tools can be valuable elements of an integrated approach that helps to restore America's dominant position in the bilateral relationship and, in so doing, strengthen deterrence.

The United States has a plethora of economic, financial, trade, and investment tools, including the use of sanctions, that can be used to apply pressure in those areas where China's economy is vulnerable and to penalize China for aggressive behavior. Often, the United States employs these tools in a reactive manner—in other words, after actions are taken that the United States sought to prevent. However, transitioning from a reactive to a proactive approach could yield important deterrence benefits, clearly communicating U.S. intentions in advance and imposing economic penalties on Beijing before China engages in aggression, rather than after the fact.¹

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¹ Russia's invasion of Ukraine sparked a debate over the utility of preemptive sanctions as a deterrent, with some arguing that the imposition of sanctions before the invasion could have prevented Russian aggression and the Biden Administration arguing that imposing sanctions preemptively could prompt Russia to invade. As Pentagon press secretary John Kirby stated, "If it's a deterrent and you use it before the aggression is made or the transgression is made,



The Impact of Sanctions

The utility of sanctions as a tool to deter or punish unwanted behavior remains controversial. While the imposition of sanctions against Russia has had some effect, the threat of sanctions did not prevent Russian President Putin from invading Ukraine, nor did their imposition impose costs on the Russian economy sufficient to compel Putin to withdraw. Unlike Russia, China's economy is stronger and more resilient. Consequently, for sanctions to have a biting effect on China's decision making, they would probably need to be in effect for a prolonged period of time, most likely years. This could lead to "sanctions fatigue" among the United States and its partners and a desire to avoid extensive economic disruptions by abandoning sanctions before they have full effect. However, China's leaders must be convinced of U.S. seriousness and must not perceive sanctions to be a transitory phenomenon that will be reassessed, eased, or lifted by subsequent U.S. administrations. If the Chinese believe they face an indefinitely long sanctions campaign, where the United States can adjust the supply chain away from China, China's leaders will need to weigh the long-term impacts to China's economic growth and prosperity. This may be difficult given the ease of sanctions waivers and Chinese perceptions of the United States as unwilling to absorb significant economic hardship over the long term.

Recognizing its potential vulnerabilities, China has made moves to insulate its economy from possible Western penalties. For example, China recognizes its dependency on the U.S. dollar and is attempting to overcome that by internationalizing the yuan, or Renminbi (RMB), China's official currency. China is also seeking to use digital currency to decouple its economy from the U.S. dollar, potentially giving China the ability to mitigate the impact of economic sanctions.² As one analysis noted, "the long-term potential of the digital yuan will be its ability to subvert the power of the American dollar by enabling countries sanctioned by the United States, such as Iran, North Korea and possibly Afghanistan, to conduct greater business with China."³ However, China's digital currency will still depend on China's real economy, meaning the digital currency will still be just as weak as the Chinese RMB. As one analyst has argued, "the current low status of the RMB means that even a digitised version will find it difficult to budge the power of the mighty US greenback."⁴ In addition, because

then you lose your deterrent effect. If you punish somebody for something that they haven't done yet, then they might as well just go ahead and do it." See Ronn Blitzer, "Pentagon spox says threat of Russia sanctions has 'deterrent effect', but admits invasion may be 'days away'," *Fox News*, February 13, 2022, available at <https://www.foxnews.com/politics/pentagon-spox-kirby-us-not-considering-sanctions-against-russia>. Some Members of Congress, however, challenged this view. For example, Rep. Mike Waltz (R-FL) argued that "promising tough action... after an invasion will do very little" to deter aggression. See "US lawmakers urge pre-emptive sanctions, Ukraine arms to deter Putin," *Agence France-Presse*, December 15, 2021, available at <https://www.france24.com/en/live-news/20211214-us-lawmakers-urge-pre-emptive-sanctions-ukraine-arms-to-deter-putin>.

² Alex J. Rouhandeh, "China Could Curb Reliance on U.S. Dollar, Avoid Sanctions Through Digital Currency Apps," *Newsweek*, January 5, 2022, available at <https://www.newsweek.com/china-could-curb-reliance-us-dollar-avoid-sanctions-through-digital-currency-apps-1666116>.

³ Evan Freidin, "China's digital currency takes shape," *The Interpreter*, September 8, 2021, available at <https://www.lowyinstitute.org/the-interpreter/china-s-digital-currency-takes-shape>.

⁴ *Ibid.*

the Chinese own so many assets in the United States, the United States still has credible options to impose hardship on the Chinese economy, despite the potential for Chinese retaliation.

The effect of sanctions on China's financial sector can also be increased through the imposition of so-called secondary sanctions. This involves imposing penalties not only on Chinese companies but on domestic and foreign entities that do business with China. However, the United States should be prepared for a negative international reaction if it embarks on a unilateral sanctions campaign. Secondary sanctions often affect many parties, and therefore may be seen by some as counterproductive if other countries that trade and do business with China, including U.S. allies and strategic partners, find their own economic health and prosperity at risk as a result of U.S. actions. This risk may be mitigated, however, by a U.S. policy that encourages greater trade and economic ties with other countries that currently have strong economic ties with China.

Unilateral Versus Multilateral Approaches

The use of economic tools to impose costs on China (or any opponent for that matter) can have significant consequences. Those consequences can be enhanced if economic tools like sanctions are applied multilaterally rather than unilaterally. This can also mitigate the potentially negative effects on other countries of secondary sanctions. However, the United States would need to coordinate actions with its strategic partners, with the level of coordination dependent on the scope of the sanctions. Achieving concurrence among Asian allies and strategic partners on a strong approach to sanctioning China is complicated by regional political and economic dynamics. Nevertheless, although the United States has the ability to implement sweeping sanctions on China unilaterally, the effect of sanctions will be magnified if more U.S. allies and partners join in this approach.

Although a multilateral approach to sanctions would be useful, unilateral sanctions imposed on China by the United States could be just as useful, if properly applied. China relies heavily on exports to the United States, and this dependency on the U.S. market should be leveraged as part of a coordinated strategy to restore American dominance and bolster deterrence.

The imposition of preemptive sanctions may lead China to retaliate against U.S. companies. For many U.S. technology companies, for example, the Chinese market is seen as irreplaceable. As the U.S.-China Economic and Security Review Commission concluded, "Despite ongoing political frictions and concerns about discriminatory treatment, many U.S. companies remain committed to the Chinese market."⁵ Indeed, one estimate concludes that the level of U.S. investment in China likely exceeds \$1 trillion.⁶ Consequently, alternative

⁵ *2021 Report to Congress of the U.S.-China Economic and Security Review Commission* (Washington, D.C.: U.S. Government Publishing Office, 2021), p. 120, available at https://www.uscc.gov/sites/default/files/2021-11/2021_Annual_Report_to_Congress.pdf.

⁶ Derek Scissors, "American Funding of China Is Becoming Dangerous," American Enterprise Institute, December 2020, available at <https://www.aei.org/research-products/report/american-funding-of-china-is-becoming-dangerous/>.

approaches must be developed to satisfy U.S. importers and manufacturers so that the impact on U.S. industries from the loss of the Chinese market can be minimized to the greatest extent possible. However, should deterrence fail and China take military action against Taiwan, it should be expected that Beijing will seek to prevent or counter any U.S. response through a variety of actions, including taking actions to minimize its own economic vulnerabilities and denying the United States the option to use those tools in the long run and imposing costs on the U.S. economy by targeting U.S. companies that have strong economic ties to China. Therefore, the U.S. government—as part of an integrated strategy—should work with private sector entities in the United States and American companies operating abroad to mitigate in advance the impact of any Chinese retaliatory actions directed against U.S. economic interests. Doing so can help insulate the U.S. economy from the potential negative consequences of a Chinese reaction and, by minimizing U.S. economic vulnerabilities, can help strengthen the credibility of overall U.S. deterrent threats.

To have maximum deterrent effect, a sanctions campaign against China must target what the Chinese value. This may not be limited solely to traditional economic, financial, or trade entities but may also include key portions of the China's war-making enterprise, including China's nuclear, missile, space, cyber, and biotechnology sectors. Although the vulnerability of China's defense sector to outside pressure varies, such a comprehensive approach not only would demonstrate seriousness on the part of the United States but may be perceived by China as a more credible deterrent threat than military threats, particularly if sanctions are iron-clad, with no exemptions or waiver provisions.

Finance, investment, regulation, and trade are all areas where U.S. policies can be enacted in ways that degrade China's ability to attain its foreign policy goals and objectives. Trade and investment can be powerful near-term tools. The United States can limit U.S. investment in Chinese firms either through executive action or legislative mandate.

For example, in 2020, President Trump signed an Executive Order prohibiting U.S. investors from buying stock in dozens of Chinese companies that “directly support the

PRC's military, intelligence, and security apparatuses and aid in their development and modernization.”⁷ The Biden Administration expanded the list of Chinese entities and reportedly is considering additional restrictions on U.S. investments in China's technology sector, to include “high-end Chinese technologies that threaten U.S. national security,” such as the cyber, 5G, quantum computing, and artificial intelligence sectors.⁸

⁷ Executive Order 13959 of November 12, 2020, “Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies,” available at <https://www.govinfo.gov/content/pkg/CFR-2021-title3-vol1/pdf/CFR-2021-title3-vol1-eo13959.pdf>. Also see Geoffrey Seavey, “Ban to US investments in firms linked to Chinese military,” Mercer, (undated), available at <https://www.mercer.com/our-thinking/wealth/ban-to-us-investments-in-firms-linked-to-chinese-military.html>.

⁸ Gavin Bade, “Key lawmaker: Biden mulling broad prohibitions on U.S. investments in Chinese tech,” *Politico*, January 27, 2023, available at <https://www.politico.com/news/2023/01/27/biden-mulling-broad-prohibitions-investments-chinese-tech-00079995>. See also Nancy Marshall-Genzer, “Why the U.S. wants more limits on Americans' private investment in Chinese firms,” *Marketplace*, February 28, 2023, available at <https://www.marketplace.org/2023/02/28/us-wants-more-limits-on-private-investment-in-chinese-firms/>.

China's financial stability is heavily dependent on foreign investment, which is a vulnerability that can be exploited by cultivating alternatives to the Chinese market. One area to consider is Chinese intrusion into the European automobile manufacturing industry. China owns significant portions of automobile companies such as Daimler-Benz (20 percent)⁹ and is seeking to dominate the electric car sector. In fact, Mercedes-Benz has made China its "second home," has opened a major automotive technology and engineering center in Beijing, and has moved its design studio to Shanghai.¹⁰ U.S. automotive companies have also invested in China, with Tesla opening a showroom in Urumqi, the capital of Xinjiang—where China has been conducting a campaign of persecution and genocide against the ethnic Uighur population.¹¹

China's efforts to attract foreign investment as a means to accelerate its own economic growth can be countered through a sanctions strategy that provides disincentives for Western companies to invest in the Chinese market while offering prudent alternatives that cause greater economic discomfort to China than to Western companies. Canada, in particular, has sought to bolster its economic ties with Taiwan, with the country's International Trade Minister calling the island "a key trade and investment partner as Canada broadens its trade links and deepens its economic partnerships in the Indo-Pacific region."¹² Canadian Prime Minister Justin Trudeau accused China of "very cleverly playing us off each other in an open market competitive way," saying that China has sought to "play the angles and divide us, one against the other."¹³ Bolstering trade ties with Taiwan would also send an important political message to China.¹⁴

China is still dependent on overseas sources for metals and fuel. The oil industry is another area where sanctions can prove effective in imposing significant costs on China's economy. Chinese industry relies on substantial imports of foreign oil and China has become the world's biggest importer of crude oil, importing more than 10 million barrels of oil per

⁹ "Chinese carmakers may soon own a fifth of Daimler," *The Economist*, December 21, 2019, available at <https://www.economist.com/business/2019/12/18/chinese-carmakers-may-soon-own-a-fifth-of-daimler>.

¹⁰ Norihiko Shirouzu, "Home from home: Mercedes-Benz doubles down on China," *Reuters*, October 11, 2021, available at <https://www.reuters.com/business/autos-transportation/home-home-mercedes-benz-doubles-down-china-2021-10-10/>.

¹¹ Liza Lin, "Tesla Opens Showroom in China's Xinjiang, Region at Center of U.S. Genocide Allegations," *The Wall Street Journal*, January 4, 2022, available at https://www.wsj.com/articles/tesla-opens-showroom-in-chinas-xinjiang-region-at-center-of-u-s-genocide-allegations-11641214630?mod=hp_lead_pos4&eType=EmailBlastContent&eId=97a41203-73d6-41f3-8094-ec5249c1a164. (paywall)

¹² Statement of International Trade Minister Mary Ng, cited in Star Editorial Board, "With Taiwan talks, Ottawa is finally pushing back against Beijing," *Toronto Star*, January 11, 2022, available at <https://www.thestar.com/opinion/editorials/2022/01/11/with-taiwan-talks-ottawa-is-finally-pushing-back-against-beijing.html>.

¹³ Rachel Gilmore, "Canada working on new China strategy, Joly says as PM calls out Beijing's 'coercive diplomacy,'" *Global News*, January 9, 2022, available at <https://globalnews.ca/news/8496485/china-strategy-canada-joly-trudeau-beijing-coercive-diplomacy/>.

¹⁴ Kathleen C. Bailey, *Maintaining Taiwan's Democracy, Information Series No. 479* (Fairfax, VA: National Institute Press, February 11, 2021), available at <https://nipp.org/wp-content/uploads/2021/03/IS-479.pdf>.

day in 2019.¹⁵ Most of China's oil imports—some 55 percent—come from the Organization of Petroleum Exporting Countries (OPEC) member countries, with Russia as the largest non-OPEC supplier, supplying roughly 15 percent of China's oil imports.¹⁶ However, targeted sanctions against the Chinese oil industry, along with secondary sanctions that impose costs on supplier states, including Russia, may have economic consequences for China that could affect Beijing's deterrence calculus.

The Semiconductor Challenge

Because the United States currently relies heavily on semiconductor imports from China, and the imposition of strong sanctions would cause a major disruption to the semiconductor market, China may not take this potential U.S. threat seriously and may believe that China has greater retaliatory power over semiconductor imports from the United States. If China restricts semiconductor exports to the United States it would likely impact U.S. industry negatively. Moreover, a number of U.S. companies have reportedly been investing in China's semiconductor industry. A recent analysis indicates that "U.S. venture-capital firms, chip-industry giants and other private investors participated in 58 investment deals in China's semiconductor industry from 2017 through 2020, more than double the number from the prior four years."¹⁷

Working to stem the flow of U.S. investment in China could lead to retaliatory action by Beijing that may be directed against other U.S. technology sectors, as well as financial institutions that have assets in China. In fact, the Biden Administration recently imposed greater restrictions on the export of semiconductor technology to China, leading China to assert that, "It will not only damage the legitimate rights and interests of Chinese companies but also affect American companies' interests."¹⁸ In addition, the CHIPS and Science Act of 2022 is intended to "boost American semiconductor research, development, and production, ensuring U.S. leadership in the technology that forms the foundation of everything from automobiles to household appliances to defense systems."¹⁹ And in January 2023, the United States, Japan, and the Netherlands jointly agreed to limit the export to China of certain chip

¹⁵ Jeff Barron, "China's crude oil imports surpassed 10 million barrels per day in 2019," U.S. Energy Information Administration, March 23, 2020, available at <https://www.eia.gov/todayinenergy/detail.php?id=43216>.

¹⁶ Ibid.

¹⁷ Kate O'Keeffe, Heather Somerville and Yang Jie, "U.S. Companies Aid China's Bid for Chip Dominance Despite Security Concerns," *The Wall Street Journal*, November 12, 2021, available at <https://www.wsj.com/articles/u-s-firms-aid-chinas-bid-for-chip-dominance-despite-security-concerns-11636718400>.

¹⁸ Christopher Hutton, "China bashes Biden crackdown on chip tech exports as economic rivalry intensifies," *Washington Examiner*, October 10, 2022, available at <https://www.washingtonexaminer.com/policy/foreign/china-slams-new-biden-chip-export-restrictions>.

¹⁹ The White House, "FACT SHEET: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China," August 9, 2022, available at <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/>.

manufacturing equipment.²⁰ However, Taiwan is also a lead manufacturer of semiconductor chips, producing more than 60 percent of the world's supply compared to only 16 percent supplied by China,²¹ and expanded trade with Taiwan in this area could mitigate supply chain issues resulting from the loss of the Chinese chip market. As one analyst noted, "Democracy coupled with chips is a winning formula in Europe."²² Moreover, Taiwan's largest semiconductor chip manufacturer, TSMC, which reportedly manufactures roughly half of the semiconductors in the world today and approximately 90 percent of the most advanced chips,²³ signed a deal to begin manufacturing advanced 5-nanometer chips in 2024 at a new \$12 billion plant being built in Phoenix, Arizona.²⁴ In December 2021, the United States and Taiwan agreed to work together to "strengthen critical supply chains," including semiconductor supply chains.²⁵ As a U.S. defense official noted, "Indeed, our economy—like many others around the world—has come to count on Taiwan as a critical supplier of high-technology, including semiconductors."²⁶ Therefore, a Chinese takeover of Taiwan could have significant consequences for the United States.

The relationship between Taiwan's semiconductor industry and foreign economies has been referred to as a "silicon shield" that will help deter Chinese aggression against the island.²⁷ As TSMC's chairman Mark Liu stated, "the world all needs Taiwan's high-tech industry support. So, they will not let the war happen in this region because it goes against

²⁰ Jing Zhang, Tamer A. Soliman, Paulette Vander Schueren, Jennifer L. Parry, Ellen L. Aldin, and Dr. Dylan Geraets, "Japan and the Netherlands Agree to New Restrictions on Exports of Chip-Making Equipment to China," Mayer Brown, February 28, 2023, available at <https://www.mayerbrown.com/en/perspectives-events/publications/2023/02/japan-and-the-netherlands-agree-to-new-restrictions-on-exports-of-chipmaking-equipment-to-china#:~:text=In%20a%20January%2027th%20meeting,China's%20access%20to%20advanced%20technologies>.

²¹ Caitlin McFall, "China could win 'trump card' over global economy by taking over Taiwan semiconductor manufacturing," *Fox News*, December 3, 2021, available at <https://www.foxnews.com/politics/china-taiwan-semiconductor-manufacturing>.

²² Qin and Erlanger, op. cit.

²³ Charlie Campbell, "Inside the Taiwan Firm That Makes the World's Tech Run," *Time*, October 1, 2021, available at <https://time.com/6102879/semiconductor-chip-shortage-tsmc/>.

²⁴ See Katie Schoolov, "Inside TSMC, the Taiwanese chipmaking giant that's building a new plant in Phoenix," *CNBC*, October 16, 2021, available at <https://www.cnbc.com/2021/10/16/tsmc-taiwanese-chipmaker-ramping-production-to-end-chip-shortage.html>. Also see Yen Nee Lee, "2 charts show how much the world depends on Taiwan for semiconductors," *CNBC*, March 15, 2021, available at <https://www.cnbc.com/2021/03/16/2-charts-show-how-much-the-world-depends-on-taiwan-for-semiconductors.html>, and Caitlan McFall, op. cit.

²⁵ Department of Commerce Press Release, "Secretary of Commerce Gina M. Raimondo holds introductory call with the Taiwan Minister of Economic Affairs Mei-hua Wang," December 6, 2021, available at <https://www.commerce.gov/news/press-releases/2021/12/secretary-commerce-gina-m-raimondo-holds-introductory-call-taiwan>.

²⁶ Huileng Tan, "Taiwan, the world's biggest chip-maker, just set up a new trade framework with the US amid tensions with China," *Business Insider*, December 9, 2021, available at <https://www.businessinsider.com/taiwan-sets-up-trade-framework-with-united-states-chip-maker-2021-12>.

²⁷ The term "silicon shield" is first attributed to Craig Addison, who wrote in 2000 that Taiwan's growth in fueling the world's digital economy would be "a deterrent against possible Chinese aggression." See Joyce Huang, "Can Taiwan's Silicon Shield Protect It against China's Aggression?," *Voice of America*, May 10, 2021, available at <https://www.voanews.com/a/east-asia-pacific-can-taiwans-silicon-shield-protect-it-against-chinas-aggression/6205660.html>.

interest of every country in the world.”²⁸ China itself relies heavily on semiconductor chips produced by TSMC and, despite efforts to increase domestic production, less than 6 percent of semiconductor chips used in China in 2020 were manufactured domestically.²⁹ Moreover, since 2005, China has imported more semiconductor chips than any country in the world and, according to its own data, spent more in 2020 on the importation of chips than on oil.³⁰ Hence, a Chinese desire to control the supply of Taiwanese chips—as well as to deny them to the West—could make an invasion scenario appear attractive to the Chinese leadership. This risk may be heightened due to a decline in the number of chips imported by China in early 2023 as a result of U.S. sanctions. According to Chinese customs data, the volume of Chinese chip imports declined by 27 percent in January and February of this year and the total value of these imports declined by more than 30 percent.³¹ As part of a cost-imposition strategy to deter Chinese aggression against the island, Taiwan could threaten to destroy its own TSMC facilities if China attacks Taiwan, essentially immobilizing China’s high-tech industries as part of what some analysts have referred to as a “broken nest” approach that would impose severe, long-term economic costs on China.³²

Imposing Costs on China While Hedging Against Retaliatory Actions

While it is true that China is likely to retaliate against any U.S. penalties that negatively impact its economic development and growth, China still has significant dependencies on the United States. In addition, China’s economic growth—once seen as a juggernaut of success—has been slowing, and its official Gross Domestic Product (GDP) has been in decline since 2007.³³ One recent analysis has highlighted China’s economic vulnerabilities, including its significant debt burden.³⁴ Other analyses have cited the problems with Evergrande—a major

²⁸ Ibid.

²⁹ Wei Sheng, “China made 6% of chips it used in 2020: report,” *TechNode*, February 19, 2021, available at <https://technode.com/2021/02/19/china-made-6-of-chips-it-used-in-2020-report/>.

³⁰ Wei Sheng, “China spends more importing semiconductors than oil,” *TechNode*, April 29, 2021, available at <https://technode.com/2021/04/29/china-spends-more-importing-semiconductors-than-oil/>.

³¹ Ann Cao, “Tech war: China’s chip imports slump 27 per cent in the first 2 months of 2023 as US sanctions bite,” *South China Morning Post*, March 7, 2023, available at <https://www.scmp.com/tech/big-tech/article/3212677/tech-war-chinas-chip-imports-slump-27-cent-first-two-months-2023-us-sanctions-bite>.

³² Jared M. McKinney and Peter Harris, “Broken Nest: Deterring China from Invading Taiwan,” *Parameters*, vol. 51, no. 4 (Winter 2021-22), pp. 30-31, available at <https://press.armywarcollege.edu/cgi/viewcontent.cgi?article=3086&context=parameters>. Former U.S. National Security Advisor Robert O’Brien has suggested that the United States and its allies might destroy Taiwan’s chip-making facilities in the event of a Chinese invasion of the island, stating, “The United States and its allies are never going to let those factories fall into Chinese hands.” If China got control of TSMC, he stated, “they’d be the new OPEC of silicon chips and control the world economy.” See Robert O’Brien interview with Steve Clemons of Semafore, posted at https://twitter.com/SCClemons/status/1635310566884376576?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Etweet.

³³ Derek Scissors, “Chinas Growth Spurt Ends. What’s Next?,” American Enterprise Institute, November 2021, available at <https://www.aei.org/research-products/report/chinas-growth-spurt-ends-whats-next/>.

³⁴ Ibid.

Chinese real estate developer that has been declared in default and is facing collapse under a crushing debt of \$300 billion—as indicative of larger economic challenges.³⁵ These problems may make economic pressure on China much more effective and useful as a deterrent. Although China may seek to insulate itself from similar downward economic trends in the future, exploiting China’s vulnerability here might help shift China’s focus away from Taiwan.

China’s economic weaknesses reportedly have been exacerbated by the policies implemented by Xi Jinping. Though not a universally shared view, one analyst has noted, “an economic meltdown is a potential threat to the implicit social compact in China between authoritarian rulers and a quiescent population.”³⁶

Assessing China’s Economic Resilience

Despite the economic difficulties China faces, Beijing is making extensive efforts to insulate the country’s domestic economy from the potentially negative effects of sanctions and penalties that could disrupt China’s supply of needed foreign goods. From foodstuffs to technology to energy production, China is seeking to become more self-sufficient and less dependent on foreign sources of supply. As President Xi reportedly stated, “The Chinese people’s rice bowl must be firmly held in their own hands at all times, and the rice bowl must mainly contain Chinese grain.”³⁷ More recently, Xi reiterated this sentiment, telling the National People’s Congress, “China should work to achieve greater self-reliance and strength in science and technology, promote industrial transformation.”³⁸ Nevertheless, despite China’s extensive moves to decouple its economy from the West, there are indications that China’s efforts are falling short. As one analysis suggested, “China is likely to be the biggest loser from the technological and economic decoupling under way” between it and the United States. In half a dozen critical areas—including mRNA vaccines, semiconductors, civil

³⁵ See, for example, Weizhen Tan, “China’s embattled developer Evergrande is on the brink of default. Here’s why it matters,” *CNBC*, September 16, 2021, available at <https://www.cnbc.com/2021/09/17/china-developer-evergrande-debt-crisis-bond-default-and-investor-risks.html>. Also see Andrew Galbraith and Clare Jim, “Evergrande teeters on edge of default as \$148 mln payment falls due,” *Reuters*, November 10, 2021, available at <https://www.reuters.com/business/investors-await-evergrandes-overdue-148-mln-payment-amid-contagion-fears-2021-11-09/>; Alexandra Stevenson and Cao Li, “China Evergrande Defaults on Its Debt. Now What?,” *The New York Times*, December 9, 2021, available at <https://www.nytimes.com/2021/12/09/business/china-evergrande-default.html>.

³⁶ Thomas J. Duesterberg, “The Slow Meltdown of the Chinese Economy,” *The Wall Street Journal*, December 20, 2021, available at <https://www.wsj.com/articles/slow-meltdown-of-china-economy-evergrande-property-market-collapse-downturn-xi-cewc-11640032283>. (paywall)

³⁷ Lingling Wei, “China Looks to Secure Supplies as Strains With U.S. and Its Allies Grow,” *The Wall Street Journal*, January 13, 2022, available at <https://www.wsj.com/articles/china-looks-to-secure-supplies-as-strains-with-u-s-and-its-allies-grow-11642075381>. (paywall)

³⁸ CK Tan, “Xi urges China to advance tech self-reliance, Taiwan unification,” *Nikkei Asia*, March 13, 2023, available at <https://asia.nikkei.com/Politics/China-People-s-Congress/Xi-urges-China-to-advance-tech-self-reliance-Taiwan-unification>.

aerospace, computer operating systems, agrochemicals, and payments networks—“self-reliance is some way off.”³⁹

China may be able to retaliate against American economic pressure, but in ways that would be detrimental to China as well. Although retaliatory actions by China would not cause devastating or permanent economic damage to the United States, a sound U.S. economic strategy would nevertheless seek to cushion the impact of such retaliatory measures and act as a buffer by encouraging the development of alternate supply chains that reduce dependence on Chinese sources.⁴⁰

China is involved in numerous supply chains beyond the semiconductor industry that affect U.S. companies and the American consumer. China is now the dominant supplier of solar panels and is looking to duplicate its success in the clean hydrogen energy market.⁴¹ Another area is lithium, and China is the world’s largest producer of lithium batteries, which are key components in electric vehicles. As sales of electric vehicles increase due to a growing desire to transition from fossil fuels, as well as U.S. and European policies that seek to increase the use of electric vehicles,⁴² China occupies an advantageous position as the world’s main supplier of relatively low-cost lithium batteries.⁴³ However, Australia, Chile,

³⁹ “China wants to insulate itself against Western sanctions,” *The Economist*, February 26, 2022, available at <https://www.economist.com/business/china-wants-to-insulate-itself-against-western-sanctions/21807805?giftId=d6059b83-4163-4186-a290-0a572855ab94>. (paywall)

⁴⁰ One expert has noted that “Beijing derives so much leverage from this dependency, which in some case borders on addiction, that supply chain diversification, selective de-coupling, and a consistent demand for real reciprocity in market access must become a clarion call.” See Heino Klinck, *Deterring The Dragon – What China’s Neighbors Can Do To Hem In Its Adventurism And Aggression*, MEMRI, January 12, 2022, available at <https://www.memri.org/reports/deterring-dragon-%E2%80%93-what-chinas-neighbors-can-do-hem-its-adventurism-and-aggression>. Nevertheless, the Biden Administration has rejected calls to decouple the U.S. economy from China. For example, Treasury Secretary Janet Yellen stated that the United States is not seeking to stifle China’s economic progress or to decouple America’s economy from China’s and that doing so would be “disastrous for both countries” and “destabilizing for the rest of the world.” See “U.S. Doesn’t Want to Decouple from China but Will Still Pursue Friendshoring, Yellen Says,” Sandler, Travis & Rosenberg *Trade Report*, April 26, 2023, available at <https://www.strtrade.com/trade-news-resources/str-trade-report/trade-report/april/u-s-doesn-t-want-to-decouple-from-china-but-will-still-pursue-friendshoring-yellen-says>. In addition, U.S. National Security Advisor Jake Sullivan has declared that “we are for de-risking and diversifying, not decoupling.” See The White House, “Remarks by National Security Advisor Jake Sullivan on Renewing American Economic Leadership at the Brookings Institution,” April 27, 2023, available at <https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/04/27/remarks-by-national-security-advisor-jake-sullivan-on-renewing-american-economic-leadership-at-the-brookings-institution/>. Also see Christina Lu, “Washington Doesn’t Want You to Call It Decoupling,” *Foreign Policy*, April 27, 2023, available at <https://foreignpolicy.com/2023/04/27/us-china-economy-technology-sullivan-yellen/>.

⁴¹ “China’s Solar Giants Make a Bid to Dominate Hydrogen Power,” *Bloomberg News*, December 12, 2021, available at <https://www.bloomberg.com/news/articles/2021-12-12/china-s-solar-giants-make-a-bid-to-dominate-hydrogen-power>.

⁴² For example, President Biden has stated that “we have hundreds — we have thousands and thousands of vehicles in the federal fleet. They’re going to all go electric — all of them — down the road, supporting electric transit systems, electric school buses.” See Blog Post, “2021 Congressional Activity & Anticipated 2022 Action,” *Amentum*, December 7, 2021, available at <https://www.amentum.com/blog/2021-congressional-activity-anticipated-2022-action/>. Also see The White House, “FACT SHEET: The Biden-Harris Electric Vehicle Charging Action Plan,” December 13, 2021, available at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/13/fact-sheet-the-biden-harris-electric-vehicle-charging-action-plan/>.

⁴³ Amrith Ramkumar, “Lithium prices soar, turbocharged by electric-vehicle demand and scant supply,” *The Wall Street Journal*, December 13, 2021, available at <https://www.wsj.com/articles/lithium-prices-soar-turbocharged-by-electric->

and Argentina are the world's largest suppliers of lithium⁴⁴ and restricting the supply of lithium to China could provide useful leverage as part of an overall economic strategy to bolster deterrence, although Chinese economic investment in Australia and South America could complicate this strategy.⁴⁵

In addition, China has a near-monopoly in rare earth minerals such as dysprosium and neodymium, which are key components of electric vehicle motors.⁴⁶ Rare earth minerals are also critical elements in consumer electronics like smartphones as well as military equipment, including missile defense systems.⁴⁷ In February 2021, the Biden Administration issued an Executive Order requiring the Secretary of Defense to report on supply chain risks for rare earth elements and how to mitigate them.⁴⁸ The report was submitted in February 2022 and notes that "For those supply chains that are critical for national defense, the U.S. is committed to ensuring reliable production access within the defense industrial base, both domestic and allied."⁴⁹ A White House report in June 2021 noted that China's policies, including massive subsidies to producers, have created "a distorted supply chain landscape" and noted, "Given the similar history of Chinese non-market intervention in the solar and rare earth industries... there is cause for concern that, without a proactive response from the United States, this growing field will face those same challenges."⁵⁰ Consequently, the report recommended that the United States "increase the resilience of strategic and critical material supply chains."⁵¹ China has hinted that it may retaliate if the United States takes

vehicle-demand-and-scant-supply-11639334956?reflink=share_mobilewebshare (paywall) and <https://www.foxbusiness.com/markets/lithium-prices-soar-turbocharged-by-electric-vehicle-demand-and-scant-supply>.

⁴⁴ Emmanuel Latham and Ben Kilbey, "Lithium supply is set to triple by 2025. Will it be enough?," S&P Global, October 24, 2019, available at <https://www.spglobal.com/en/research-insights/articles/lithium-supply-is-set-to-triple-by-2025-will-it-be-enough>.

⁴⁵ For example, China operates a lithium plant in western Australia and China's Tianqi Lithium Corporation recently recorded record quarterly profits as a result of high lithium prices. See "China's Tianqi Lithium posts best profit in almost 3 yrs," *Reuters*, October 29, 2021, available at <https://www.reuters.com/world/china/chinas-tianqi-lithium-posts-best-profit-almost-3-yrs-2021-10-29/>. Also see *Ibid.* Chinese companies have also invested approximately \$4.5 billion in lithium ventures in Mexico and South America over the past three years. See Clifford Krauss, "Green-Energy Race Draws an American Underdog to Bolivia's Lithium," *The New York Times*, December 16, 2021, available at <https://www.nytimes.com/2021/12/16/business/energy-environment/bolivia-lithium-electric-cars.html>.

⁴⁶ Robert Bryce, "The Electric-Vehicle Push Empowers China," *The Wall Street Journal*, December 23, 2021, available at <https://www.wsj.com/articles/the-electric-vehicle-push-empowers-china-rare-earths-mining-motors-rivals-11640290395>. (paywall)

⁴⁷ Keith Zhai, "China Set to Create New State-Owned Rare-Earths Giant," *The Wall Street Journal*, December 3, 2021, available at <https://www.wsj.com/articles/china-set-to-create-new-state-owned-rare-earths-giant-11638545586>. (paywall)

⁴⁸ The White House, "Executive Order on America's Supply Chains," February 24, 2021, available at <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/02/24/executive-order-on-americas-supply-chains/>.

⁴⁹ Department of Defense, *Securing Defense-Critical Supply Chains: An action plan developed in response to President Biden's Executive Order 14017*, February 2022, p. 3, available at <https://media.defense.gov/2022/Feb/24/2002944158/-1/-1/1/DOD-EO-14017-REPORT-SECURING-DEFENSE-CRITICAL-SUPPLY-CHAINS.PDF>.

⁵⁰ The White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth*, June 2021, pp. 92-93, available at <https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf>.

⁵¹ *Ibid.*

actions that “hurt China’s interests,”⁵² threatening that “if China is severely hurt, its powerful revenge will be inevitable.”⁵³

Pharmaceuticals is another major area of concern. Even if the medications themselves are manufactured outside of China, the Chinese supply the precursor ingredients needed to manufacture them. Animal feed is similar case in point, and Chinese actions could disrupt the U.S. agriculture industry, at least until alternative sources of supply are procured. Although Chinese actions would not be detrimental to the U.S. economy as a whole—which remains hugely productive and robust despite the impact of a global pandemic⁵⁴—prolonged supply shortages that affect Americans personally could occur.

In the interim, shortages may impact the American consumer due to supply chain vulnerabilities. Given the American penchant for instant gratification and consumer satisfaction, such disruptions may trigger greater near-term hardship to the American consumer than to the Chinese population and may be seen by Americans as unacceptable. Tariffs on Chinese imports will also affect consumer prices. In certain areas, U.S. policies are creating greater dependencies on China. But the United States should take action in advance to prepare for such disruptions and to convince China’s leaders that such market disruptions will be more painful for Beijing than for Washington. Some of these actions could include the use of legislative tools like the Defense Production Act and the Trade Expansion Act of 1962 that could be useful in restricting the amount of Chinese content in imported products, including those used by the U.S. military.⁵⁵

Conclusion

The use of economic tools can augment the other tools of statecraft—military, political, and diplomatic—to enhance the prospects for success of a victory denial deterrent. The United States has a plethora of economic, financial, trade, and investment tools, including the use of export controls and sanctions, that can be used to apply pressure in those areas where the Chinese economy is vulnerable and to penalize China for aggressive behavior. A proactive rather than reactive approach to these tools could yield important deterrence benefits.

In sum, the United States must think in terms of making the consequences of Chinese aggression towards Taiwan more intolerable than enduring a continuation of the political status quo on Taiwan. In other words, it should be possible to make Chinese behavior the United States seeks to deter more fraught with greater risk and cost than continuation of the

⁵² GT Staff Reporters, “China not targeting US in rare-earth exports, but option remains,” *Global Times*, February 17, 2021, available at <https://www.globaltimes.cn/page/202102/1215758.shtml>.

⁵³ Hu Xijin, “Whether China plays ‘rare-earth card’, there will be no winner in China-US decoupling,” *Global Times*, February 17, 2021, available at <https://www.globaltimes.cn/page/202102/1215748.shtml>.

⁵⁴ Martin Crutsinger and the Associated Press, “U.S. economy is bigger than it was pre-COVID after quarter of booming consumer spending,” *Fortune*, July 29, 2021, available at <https://fortune.com/2021/07/29/us-economy-bigger-than-pre-covid-quarter-booming-consumer-spending/>.

⁵⁵ Derek Scissors, “Partial Decoupling from China: A Brief Guide,” American Enterprise Institute, July 2020, p. 4, available at <https://www.aei.org/wp-content/uploads/2020/07/Partial-decoupling-from-China.pdf?x91208>.

status quo. In addition to the measures mentioned above, the United States could impose harsher penalties on China for its theft of intellectual property and restrict the influx of Chinese students to American universities. Mapping the economic interests of those who are part of the Chinese leadership and tailoring sanctions and economic tools to those individuals and their personal economic interests may also lead to pressure on President Xi to avoid actions that could be detrimental to China's elite. As one former U.S. State Department official stated, "The most powerful weapon America has to reverse Xi Jinping's march to global domination is economic."⁵⁶

Above all, the United States must formulate an approach that capitalizes on the strength and resiliency of the U.S. economy, which remains a more productive engine of economic, technological, and social progress than that of China. An economic strategy that combines the various measures discussed above with elements of an integrated approach to deterrence may prove valuable in restoring the U.S. deterrence position and thereby preventing Chinese military action against Taiwan.

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⁵⁶ Khodorkovsky, quoted in Gordon G. Chang, *op. cit.*