# **Collective Resilience**

Victor D. Cha

Deterring China's Weaponization of Economic Interdependence

When Speaker of the

U.S. House of Representative Nancy Pelosi visited Taiwan in 2022 to meet with President Tsai Ing-wen, it was the response by the People's Republic of China (PRC)<sup>1</sup> in the form of military exercises that captured international attention.<sup>2</sup> Of equal significance, however, was a package of subtle economic measures against the island. The Chinese government banned imports from Taiwan of citrus fruits (grapefruit, lemons, and oranges) and fish, allegedly for "pest control" and "COVID-19 prevention." It also stopped exports of natural sand, which is a key component for producing semiconductor chips, a vital Taiwanese export. Finally, it suspended the licenses of about 2,000 (out of more than 3,000) Taiwanese food producers that export their goods to China.<sup>4</sup>

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- 1. The Chinese government's economic coercion against states and companies started around 2008, but this mercantilist strategy escalated under Xi Jinping. In this article, I therefore use "Xi Jinping regime," "Chinese government," and "Beijing" to identify the primary actor behind these policies, and in any other contexts I use "China."
- 2. See Chris Buckley et al., "Chinese Missiles Strike Seas off Taiwan, and Some Land Near Japan," New York Times, August 3, 2022, https://www.nytimes.com/2022/08/03/world/asia/taiwan-china-military-exercises.html; Vivian Wang, "Chinese Military Drills Aim to Awe, Both Abroad and at Home," New York Times, August 6, 2022, https://www.nytimes.com/2022/08/06/world/asia/china-exercises-taiwan.html.
- 3. Laura He, "China Hits Taiwan with Trade Restrictions after Pelosi Visit," CNN, August 3, 2022, https://www.cnn.com/2022/08/03/economy/china-suspends-imports-taiwan-products-intl-hnk/index.html.
- 4. See Amy Chang Chien, "First Pineapples, Now Fish: To Pressure Taiwan, China Flexes Economic Muscle," New York Times, June 22, 2022, https://www.nytimes.com/2022/06/22/business/china-taiwan-grouper-ban.html; Tim McDonald, "China and Taiwan Face Off in Pineapple War," BBC News, March 19, 2021, https://www.bbc.com/news/business-56353963; Amanda Lee, "Main-

The purpose of these trade sanctions is to remind the Taiwanese that the Chinese government under Xi Jinping could inflict considerable economic distress. The Chinese government's actions are discriminatory, they do not conform to World Trade Organization (WTO) rules, and they have become a regular tool of diplomacy since the 2010s. Indeed, the government's leveraging of China's market is a form of what I call "predatory liberalism" that weaponizes the networks of interdependence created by globalization.<sup>5</sup> This practice has been used against many Western and Asian countries, usually much smaller than China, and its economic toll is hundreds of billions of dollars.

The policy debate about how to contend with the predatory actions of this rising hegemon has centered largely on "de-risking" measures aimed at identifying economic security vulnerabilities, practicing trade diversification, and devising impact-mitigation measures. Newly created institutions such as the Quadrilateral Security Dialogue (or Quad), the Indo-Pacific Economic Framework, the Minerals Security Partnership, the Chip 4 alliance, and the Clean Network try to secure supply chains through "reshoring" and "friendshoring."6 These measures are designed to reduce dependence on China and thereby minimize vulnerability to its economic coercion.

But these policies are largely piecemeal and defensive. First, they provide protection in certain key sectors, but they do not stop or deter the Chinese government's economic predatory behavior overall. Second, fears of economic retaliation prevent many countries from willingly participating in building such supply chain networks outside China or restricting semiconductor technology

land China Bans Taiwan Wax and Sugar Apple Imports as Cross-Strait Relations Continue to Worsen," South China Morning Post, September 19, 2021, https://www.scmp.com/news/china/poli-

tics/article/3149339/mainland-china-bans-taiwan-wax-and-sugar-apple-imports-cross.

5. Victor Cha, "The NBA [National Basketball Association] and China's Predatory Liberalism," *Lawfare*, December 8, 2019, https://www.lawfareblog.com/nba-and-chinas-predatory-

<sup>6.</sup> Janet Yellen and Ursula von der Leyen use the terms "friend-shoring" and "de-risking." See Janet L. Yellen, "Remarks by Secretary of the Treasury Janet L. Yellen on Way Forward for the Global Economy," U.S. Department of the Treasury, April 13, 2022, https://home.treasury.gov/news/press-releases/jy0714; Finbarr Bermingham, "EU Racing to Devise New China Strategy with 'De-risking' at Its Core," South China Morning Post, April 29, 2023, https://www.scmp.com/news/china/diplomacy/article/3218859/eu-racing-devise-new-china-strategy-de-risking-itscore. On "reshoring," see Paolo Barbieri et al., "What Can We Learn about Reshoring after Covid-19?," Operation Management Research 13 (December 2020): 131-136, https://doi.org/10.1007/ s12063-020-00160-1; Weifeng Zhai, Shiling Sun, and Guangxing Zhang, "Reshoring of American Manufacturing Companies from China," Operations Management Research 9 (December 2016): 62-74, https://doi.org/10.1007/s12063-016-0114-z.

exports to China. No country can truly decouple from one of the largest economies in the world. What is needed is a strategy that can stop the Xi Jinping regime's economic predation, and not just insulate the world from its behavior.

"Collective resilience" is a peer competition strategy that promises a multilateral response in the trade space to the prospect of economic bullying by the Chinese government. What informs this strategy is the understanding that interdependence, even unbalanced interdependence, is a two-way street. Most targets of economic coercion are asymmetrically trade-dependent on China. But China is also highly if not fully dependent on some export items from these same countries. Original trade data presented in this article show that the previous and current targets of the Xi Jinping regime's economic coercion export over \$46.6 billion worth of goods on which China is more than 70 percent dependent as a proportion of its total imports of those goods. These countries also export over \$12.7 billion worth of goods on which China is more than 90 percent dependent as a proportion of its total imports of those goods. These states could band together and practice an Article 5-type of collective economic deterrence strategy by promising to retaliate should China act against any alliance member. Forcing China to either find a new supplier or pay a higher price for one item is, of course, not enough to change behavior. Thus, operating alone against China would be foolhardy. Yet sanctions on an aggregation of these high-dependence items would sufficiently inconvenience China that it might deter future predatory behavior. I define a highdependence item as an imported good that constitutes more than 70 percent of China's total trade in that good (measured in total value of trade). The barriers to collective action of this sort are undeniably high. But overcoming them is necessary if countries want to stop the Chinese government's economic bullying.

Dealing with the Xi regime's weaponization of interdependence is critical to competing successfully against China. The willingness of countries to join U.S.-led supply chain coalitions, challenge China's militarization of the South China Sea, safeguard against Huawei's access to domestic 5G markets, support Taiwan's defense, and speak out for democracy in Hong Kong or against genocide in Xinjiang ultimately depends on how fearful countries and companies are of China's economic retaliation. Economic decoupling is not a realistic solution because no country can completely sever its trade ties to the expansive Chinese market. A strategy of collective resilience could neutralize the Xi regime's coercive behavior without decoupling.

Collective resilience borrows from traditional deterrence theory and builds on the literature on the weaponization of interdependence.<sup>7</sup> The latter literature argues that globalized networks of finance, information, and trade can accentuate power differentials, especially for countries and companies that dominate key nodes in the network.<sup>8</sup> Although the Chinese government has weaponized trade interdependence, other actors in the network are not necessarily powerless. Indeed, even if they do not control a key node, they can exercise leverage over the hegemon if they: (1) hold something of value to the hegemon for which exit options are costly; and (2) band together in a multilateral, economic Article 5-type of defense framework that can shape the hegemon's behavior. I argue that collective resilience is a necessary competitive strategy to protect the liberal international order. Indeed, sometimes peer competition is illiberal. Collective resilience does not advocate starting a trade war or decoupling; instead, the strategy seeks to shape Chinese conformity with the liberal trading order.

47, no. 2 (Fall 2022): 135–176, https://doi.org/10.1162/isec\_a\_00447.
9. Daniel W. Drezner, "The Uses and Abuses of Weaponized Interdependence in 2021," Washington Post, March 2, 2021, https://www.washingtonpost.com/outlook/2021/03/02/usesabuses-weaponized-interdependence-2021/.

<sup>7.</sup> The term "collective resilience" first appeared in Eric Sayers and Brad Glosserman, "'Collective Resilience' Is the Way to Address China Challenge," Japan Times, August 14, 2020, https://www .japantimes.co.jp/opinion/2020/08/14/commentary/world-commentary/collective-resilienceway-address-china-challenge/. Their formulation of a strategy differs from the one offered in this article, both empirically and theoretically. Bonnie Glaser argues for a counter-sanctions strategy by victims of Chinese government coercion but largely as a symbolic measure and embedded in a broader strategy of challenging Chinese actions in the World Trade Organization (WTO), among other steps. See Bonnie S. Glaser, "Time for Collective Pushback against China's Economic Coercion," Global Forecast 2021 essay series, Center for Strategic and International Studies, January 13, 2021, https://www.csis.org/analysis/time-collective-pushback-against-chinas-economic-coercion. For deterrence theory, see Alexander L. George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice (New York: Columbia University Press, 1974); Patrick M. Morgan, Deterrence Now (New York: Cambridge University Press, 2003); T. V. Paul, Patrick M. Morgan, and James J. Wirtz, Complex Deterrence: Strategy in the Global Age (Chicago: University of Chicago Press, 2009); Robert Powell, "Nuclear Deterrence Theory, Nuclear Proliferation, and National Missile Defense," International Security 27, no. 4 (Spring 2003): 86–118, https://doi.org/10.1162/016228803321951108; Thomas C. Schelling, Arms and Influence (New Haven, CT: Yale University Press, 1966); and Robert Jervis, "Rational Deterrence: Theory and Evidence," World Politics 41, 122 (April 2003): 182-207, https://doi.org/10.2007/20104077 no. 2 (January 1989): 183–207, https://doi.org/10.2307/2010407. 8. Henry Farrell and Abraham L. Newman, "Weaponized Interdependence: How Global Eco-

nomic Networks Shape State Coercion," International Security 44, no. 1 (Summer 2019): 42-79, https://doi.org/10.1162/isec\_a\_00351; Anne-Marie Slaughter, "America's Edge: Power in the Networked Century," Foreign Affairs, January 1, 2009, https://www.foreignaffairs.com/articles/united-states/2009-01-01/americas-edge; Daniel W. Drezner, Henry Farrell, and Abraham L. Neuman, eds., The Uses and Abuses of Weaponized Interdependence (Washington, DC: Brookings Institution Press, 2021); Margaret M. Pearson, Meg Rithmire, and Kellee S. Tsai, "China's Party-State Capitalism and International Backlash: From Interdependence to Insecurity," International Security

I begin with an analysis of the Chinese government's predatory liberalism. Section two looks at how governments have responded to this challenge and why these de-risking measures, albeit necessary, do not deter future acts of economic coercion. Employing original data on China's trade vulnerabilities, I then build the theoretical and empirical argument for collective resilience and its application to two groupings: (1) past targets of the Chinese government's coercion, and (2) the Group of Seven and Australia (what I call "G-7 + A"). I conclude with policy implications of the collective resilience strategy.

# Predatory Liberalism

The Chinese government's practice of economic coercion weaponizes trade networks to compel the target state to either reverse or withhold actions deemed contrary to Chinese interests. Beijing uses economic coercion in two general ways. In the Global South, it uses financial capital to exercise influence through initiatives such as the Belt and Road Initiative (BRI). By funding the construction of seaports, railways, highways, stadiums, and other highprofile projects of cash-needy developing economies, China captures the loyalty of local political and business elites to ensure respect for Chinese interests. 10 The Chinese government complements its BRI strategy with extensive disinformation campaigns in Africa, Latin America, the South Pacific, and Southeast Asia to manipulate the public narrative in ways that favor China and criticize the West. 11

<sup>10.</sup> Xue Gong, "China's Economic Statecraft: The Belt and Road in Southeast Asia and the Impact on the Indo-Pacific," Security Challenges 16, no. 3 (2020): 39-46, https://www.jstor.org/stable/ 26924338; Henryk Szadziewski, "A Search for Coherence: The Belt and Road Initiative in the Pacific Islands," in Graeme Smith and Terence Wesley-Smith, eds., *The China Alternative: Changing Regional Order in the Pacific Islands* (Canberra: Australian National University Press, 2021), 283–318; Michael Clarke, "The Belt and Road Initiative: China's New Grand Strategy?," Asia Policy 24 (July 2017): 71-79, https://www.jstor.org/stable/26403204; Gerard M. Acosta, "China's One Road, One Belt Grand Strategy: Founded on the Weaponization of the Global Supply Chain," Defense Transportation Journal 76, no. 6 (2020): 17-22, https://www.jstor.org/stable/27054095; Sophie Wintgens, "China's Footprint in Latin America," European Union Institute for Security Studies, Brief 9, September 2022, https://www.iss.europa.eu/sites/default/files/EUISSFiles/Brief\_9\_China%20in%20 Latin%20America web.pdf.

<sup>11.</sup> Joshua Kurlantzick, Beijing's Global Media Offensive: China's Uneven Campaign to Influence Asia and the World (New York: Oxford University Press, 2022); Kenton Thibaut, Chinese Discourse Power: Aspirations, Reality, and Ambitions in the Digital Domain, ed. Iain Robertson (Washington, DC: Atlantic Council, 2022); Kechang Feng, "'Rumor-Debunking' as a Propaganda and Censorship Strategy in China: The Case of the COVID-19 Outbreak," in Herman Wasserman and Dani Madrid-Morales, eds., Disinformation in the Global South (New York: John Wiley & Sons, 2022): 108-122; Daniel Kliman et al., Dangerous Synergies: Countering Chinese and Russian Digital Influence Opera-

In the Global North, the Chinese government uses a different form of economic coercion. These countries are not as poor as developing economies and their media industries are not as easily penetrable, so Beijing instead weaponizes trade dependence to get what it wants. This weaponization could entail sudden stoppages of imports from a particular country, reduced flows of Chinese tourists to target states, consumer boycotts, embargoes on exports, or any number of nontariff barriers based on contrived health and safety standards.<sup>12</sup> Beijing does not discriminate among its targets, which range from states to private sector actors. In each case, its goals are rarely economic; instead, the Chinese government aims to achieve political and security goals. 13 While plaintiffs can take China to WTO arbitration for patent protection in Chinese courts, they have little recourse if tourists suddenly stop showing up in their country, or if the Chinese stop eating bananas for so-called health reasons. Table 1 depicts the widespread practices of the Chinese government's predatory liberalism.<sup>14</sup>

Beijing's predatory actions are carefully designed to inflict the greatest amount of damage on its targets. For example, the 2010 ban on Norwegian salmon over the awarding of the Nobel Peace Prize to the Chinese dissident Liu Xiaobo collapsed sales by over 60 percent year-on-year.<sup>15</sup> The 2016 targeted campaign against South Korean conglomerate Lotte (owner of the land where a U.S. missile defense system has been deployed) forced the corporation to close all its stores in China, resulting in more than \$7.5 billion in economic damage. The Chinese government also withheld group tours to Korea, causing an estimated \$15.6 billion loss to South Korea's tourism

tions (Washington, DC: Center for a New American Security, 2020); Vivian Marsh, Dani Madrid-Morales, and Chris Paterson, "Global Chinese Media and a Decade of Change," *International Communication Gazette* 85, no. 1 (2023): 3–14, https://doi.org/10.1177/17480485221139459.

<sup>12.</sup> For a full taxonomy of coercive economic practices by the Chinese government, see Fergus Hunter et al., Countering China's Coercive Diplomacy: Prioritising Economic Security, Sovereignty and the Rules-Based Order, Policy Brief 68 (Washington, DC: Australian Strategic Policy Institute, 2023), https://ad-aspi.s3.ap-southeast-2.amazonaws.com/2023-02/Countering%20Chinas%20coercive %20diplomacy\_1.pdf.

<sup>13.</sup> Audrye Wong, "How Not to Win Allies and Influence Geopolitics: China's Self-Defeating Economic Statecraft," *Foreign Affairs*, April 20, 2021, https://www.foreignaffairs.com/articles/china/ 2021-04-20/how-not-win-allies-and-influence-geopolitics.

<sup>14.</sup> Victor D. Cha and Andy Lim, "Flagrant Foul: China's Predatory Liberalism and the NBA," Washington Quarterly 42, no. 4 (2019), 23-42, https://doi.org/10.1080/0163660X.2019.1694265.

<sup>15.</sup> In contrast, the Xi regime did not impose such controls on Scottish salmon. See Mark Lewis, "Norway's Salmon Rots as China Takes Revenge for Dissident's Nobel Prize," Independent, October 6, 2011, https://www.independent.co.uk/news/world/europe/norway-s-salmon-rot-aschina-takes-revenge-for-dissident-s-nobel-prize-2366167.html.

Table 1. Chinese Government's Predatory Liberalism (selected list)

Year	Target	Type of Chinese government economic coercion	Issue (noneconomic)
2008	France	street demonstrations and public boycott (against Carrefour)	Tibet (pro-Tibet activists disrupted Paris leg of Beijing Olympic torch relay)
2010	Japan	export embargo (rare earth minerals)	sovereignty dispute (Senkaku/ Diaoyutai)
2010	Norway	import embargo (salmon)	human rights (Nobel Prize awarded to Chinese dissident)
2011	Estonia	import embargo (dairy)	human rights (Dalai Lama visit)
2012	Philippines	import embargo (bananas)	sovereignty dispute (Scarborough Shoal)
2016	Mongolia	nontariff actions (new border fees on commodity imports from Mongolia; cancellation of loan negotiations)	human rights (Dalai Lama visit)
2016	South Korea	discriminatory regulations; other nontariff actions (against Lotte)	political (emplacement of U.S. missile defense system in Korea)
2017	Palau	nontariff actions (tourism ban)	Taiwan (Palau refuses to break its diplomatic ties)
2019	Czech Republic	nontariff actions (cancellation of Prague Philharmonic tour)	Taiwan (sister-city agreement)
2019	National Basketball Association	discriminatory actions (ban on sale of merchandise; ban on streaming)	Hong Kong (support of democracy)
2019	New Zealand	nontariff actions (tourism ban; withdrawal of tourism partnership agreement)	political (exclusion of Huawei from market)
2019– 2020	Sweden	nontariff actions (cancellation of trade talks); discriminatory actions (Ericsson 5G contract awards reduced)	human rights (Tucholsky Prize to dissident Gui Minhai jailed in China); political (exclusion of Huawei and ZTE from market)
2020	Australia	discriminatory tariffs (barley, beef, wine, and other exports)	COVID-19 (Australia calls for independent investigation); political (exclusion of Huawei from 5G market)
2020	Canada	nontariff actions (detention of two Canadian citizens); import embargo (soybeans, canola seed, and meat)	political (Canadian arrest of Huawei executive)
2020	Germany	import embargo (pork)	human rights (Xinjiang)
2021	Lithuania	import embargo (all EU imports with parts made in Lithuania)	Taiwan (opening a representative office)
2022	Estonia and Latvia	action undefined	Russia (leaving the China-CEEC Cooperation)
2022	Taiwan	import embargo (fruits, fish); discriminatory regulations (suspension of export licenses); export embargo (natural sand)	Taiwan (Pelosi visit)
2022	Walmart	discriminatory regulatory action	Xinjiang (removal of Xinjiang- sourced merchandise from website)
2023	United States	export controls on gallium and germanium (for making semiconductors); ban on use of U.Sbased micron chips in China infrastructure projects	Chip 4 alliance

industry. 16 In 2018, the Xi regime forced more than forty airlines, including major U.S. international carriers, to remove references on their websites to Taiwan as a separate country.<sup>17</sup> The regime sanctioned online merchandising and game broadcasts of the National Basketball Association's Houston Rockets because a team staff member tweeted support for Hong Kong democracy in 2019. 18 The Chinese government instituted a five-year ban on Columbia Tristar Pictures after it released "Seven Years in Tibet" (starring Brad Pitt) because the movie's portraval of government suppression "hurt the feelings of the Chinese people." 19 After Taiwan opened a representative office in Vilnius in 2021, Lithuania's exports to China dropped by 91 percent.<sup>20</sup> In 2022, the Xi government put Walmart under regulatory investigation because it allegedly removed Xinjiang-sourced items from "the virtual shelves of its local Sam's Club app" in China.<sup>21</sup> Xi Jinping has even leveraged China's beloved pandas as a tool of coercion.<sup>22</sup>

Of course, China is not the only country that uses these methods. The weaponization of economic interdependence is an outgrowth of globalization and the creation of information and finance networks that can be leveraged as a source of power by actors with dominant access and control over key hubs. In 2009, scholars such as Anne-Marie Slaughter suggested that these networks gave the United States a distinct advantage in shaping the global agenda, setting the networks' rules, and unlocking innovation and growth.<sup>23</sup> Yet when the United States started to enact financial sanctions and other "smart sanctions" to counter terrorism and the proliferation of weapons of mass destruction, some observed that these globalized networks were not just benign generators

<sup>16.</sup> See Victoria Kim, "When China and U.S. Spar, It's South Korea That Gets Punched," Los Angeles Times, November 19, 2020, https://www.latimes.com/world-nation/story/2020-11-19/southkorea-china-beijing-economy-thaad-missile-interceptor; "THAAD Row with China Costs S. Korea Dear: Report," Yonhap News Agency, September 15, 2017, https://en.yna.co.kr/view/AEN2017

<sup>17.</sup> Sui-Lee Wee, "Giving In to China, U.S. Airlines Drop Taiwan (in Name at Least)," New York Times, July 25, 2018, https://www.nytimes.com/2018/07/25/business/taiwan-american-airlineschina.html.

<sup>18.</sup> Cha and Lim, "Flagrant Foul."

<sup>19.</sup> Sharon Waxman, "China Bans Work with Film Studios," Washington Post, November 1, 1997.

<sup>20.</sup> Dominique Patton and Andrius Sytas, "China Suspends Lithuanian Beef, Dairy, Beer Imports as Taiwan Row Grows," Reuters, February 10, 2022, https://www.reuters.com/world/china/ china-suspends-lithuanian-beef-imports-taiwan-row-grows-2022-02-10/.

<sup>21.</sup> Pete Sweeney, "Walmart Gets Taste of the Lotte Treatment in China," Reuters, January 7, 2022, https://www.reuters.com/breakingviews/walmart-gets-taste-lotte-treatment-china-2022-01-07/.

22. Matej Šimalčík and Adam Kalivoda, "Sister-City Relations and Identity Politics: The Case of Prague, Beijing, Taipei, and Shanghai," *Diplomat*, February 25, 2020, https://thediplomat.com/2020/02/sister-city-relations-and-identity-politics-the-case-of-prague-beijing-taipei-and-shanghai/. 23. Slaughter, "America's Edge"; Farrell and Newman, "Weaponized Interdependence."

of cooperation among trading states or levelers of income differentials among rich and poor economies.<sup>24</sup> As some scholars argue, weaponization of interdependence has long been a trait of U.S. policy.<sup>25</sup> Recent examples include the widespread Western sanctions against Russia for invading Ukraine in 2022, and U.S. financial sanctions against North Korea and Iran for their nuclear proliferation. But U.S. sanctions are transparent, they have a clear legal basis, and the United States is generally unambiguous about the targets and the behaviors that it sanctions. Even the 2022 U.S. call for export controls on certain technologies to China, as anathema as they may appear to free-traders, is legally justified and clear about its purpose.<sup>26</sup>

By contrast, the Chinese government's economic coercion is opaque and does not conform to WTO rules, and it is not based on any legal and legitimate authority. At best, Beijing obfuscates the purpose of the measures, citing unsubstantiated health or safety standards. For this reason, table 1 probably underestimates the extent of Beijing's coercive measures. Beijing is probably taking other actions against countries and companies that are afraid to report such predation for fear of escalation. Moreover, the Chinese government uses economic coercion as a regular tool of diplomacy to achieve its foreign policy goals rather than as a sanction against threatening behaviors such as war, illicit activities, or nuclear proliferation.

As table 1 shows, Chinese predation in all cases since 2008 was triggered by political objectives rather than trade or commercial disputes. Studies show a direct correlation between Chinese foreign policy goals and Beijing's weaponization of trade interdependence. For example, Andreas Fuchs and Nils-Hendrik Klann find that the Xi regime's punitive actions against countries whose leaders met with the Dalai Lama caused their exports to decline.<sup>27</sup> A

<sup>24.</sup> Daniel W. Drezner, "Introduction: The Uses and Abuses of Weaponized Interdependence," in Drezner, Farrell, and Neuman, The Uses and Abuses of Weaponized Interdependence; Thomas Wright, "Sifting through Interdependence," Washington Quarterly 36, no. 4 (2013): 7-23, https://doi.org/ 10.1080/0163660X.2013.861706; Mark Leonard, ed., Connectivity Wars: Why Migration, Finance and Trade Are the Geo-Economic Battlegrounds of the Future (London: European Council on Foreign Rela-

<sup>25.</sup> Juan C. Zarate, Treasury's War: The Unleashing of a New Era of Financial Warfare (New York: PublicAffairs, 2013); Drezner, "Introduction," 4; Pete Harrell and Elizabeth Rosenberg, Economic Dominance, Financial Technology and the Future of U.S. Economic Coercion (Washington, DC: Center for a New American Security, 2019).

<sup>26.</sup> Michael Schuman, "Why Biden's Block on Chips to China Is a Big Deal," Atlantic, October 25, 2022, https://www.theatlantic.com/international/archive/2022/10/biden-export-controlmicrochips-china/671848/.

<sup>27.</sup> Andreas Fuchs and Nils-Hendrik Klann, "Paying a Visit: The Dalai Lama Effect on International Trade," Center for European Governance and Economic Development Research Paper 113 (Göttingen, Germany: Center for European Governance and Economic Development Research,

2022 study by the Mercator Institute for China Studies identifies 123 cases of coercion since 2010, finding that the Chinese government follows a twopronged strategy: It uses popular boycotts targeting products and services against private companies; and against governments, it uses a combination of restrictions on trade and tourism.<sup>28</sup> Whether it is through tariffs, nontariff barriers, embargos, or other discriminatory actions that are inconsistent with WTO rules, Beijing has practiced predatory liberalism against many targets for territorial gain, national security goals, and to isolate Hong Kong and Taiwan. The Chinese government denies that its actions violate global trading norms, and it remains unapologetic about and undeterred from continuing its predatory practices.

Beijing's weaponization of interdependence is a source of power for four reasons. First, leveraging access to China's expansive market is a tool of coercion. Second, all of China's trade partners are asymmetrically dependent on its market. Third, China executes its strategy dyadically to maximize its advantage over any one target government or company. Fourth, China's illiberal political system allows the government to implement directives restricting the public's trade or tourism with little pushback from consumers or civil society.

The purpose of the government's economic coercion is to achieve what scholars call the "third face of power" by shaping how states view their own interests.<sup>29</sup> That is, Beijing's economic punishments may not always succeed at changing the target state's behavior. Over time, however, this bullying creates "an environment of self-censorship" among government and corporate leaders.<sup>30</sup> Beijing's actions set a precedent that other potential targets of coercion can anticipate so that they avoid retaliation. But given the size and importance of the Chinese market, there is little that these targets can do on their own but accept the regime's threat of economic coercion as the new reality.

Predatory liberalism, from Beijing's perspective, is working. For example, democracies such as South Korea and Germany remained silent and did not

University of Göttingen, October 20, 2010), https://papers.srn.com/sol3/papers.cfm?abstract \_id=1694602.

<sup>28.</sup> Aya Adachi, Alexander Brown, and Max J. Zenglein, "Fasten Your Seatbelts: How to Manage China's Economic Coercion," Mercator Institute for China Studies, August 25, 2022, https:// merics.org/en/report/fasten-your-seatbelts-how-manage-chinas-economic-coercion.

<sup>29.</sup> Steven Lukes, Power: A Radical View, 2nd ed. (London: Red Globe Press, 2005). See also David A. Baldwin, "Power Analysis and World Politics: New Trends versus Old Tendencies," World Politics 31, no. 2 (January 1979): 161-194, https://doi.org/10.2307/2009941; Michael Barnett and Raymond Duvall, "Power in International Politics," World Politics 59, no. 1 (Winter 2005): 39-75, https://doi.org/10.1017/S0020818305050010.

<sup>30.</sup> Hunter et al., Countering China's Coercive Diplomacy, 2.

advocate sanctions when China passed the 2020 National Security Law of Hong Kong suppressing democracy.<sup>31</sup> Germany also apologized for Foreign Minister Heiko Maas's meeting with a Hong Kong democracy activist.<sup>32</sup> Brazil did not exclude Huawei from its 5G auction for fear of losing billions in business. 33 To preempt Chinese sanctions, The Gap Inc. clothing company issued a public apology in 2018 and stopped selling a t-shirt design with a map of China that did not include Taiwan and Tibet. 34 The Marriott International hotel chain also preemptively issued a public statement against separatism in China and took down its website that listed Hong Kong, Macau, and Taiwan as separate countries.<sup>35</sup> After the salmon ban in 2010, Norwegian leaders refused to meet with the Dalai Lama when he visited in 2015. Hollywood will not produce films that cast China in a negative light.<sup>36</sup> In the case of the ban on the Houston Rockets, the team's then star player, James Harden, refused to speak out about Hong Kong, saying that he would "stay out of it." China seeks deference by routinely warning countries about what it can do to them. The remarks by China's ambassador to New Zealand in 2022 are typical: "An economic relationship in which China buys nearly a third of the country's exports shouldn't be taken for granted."38

In each of these cases, actors justify their choices to act in deference to China as rational economic decisions. But these choices are only deemed rational be-

<sup>31.</sup> Chris Buckley, Keith Bradsher, and Tiffany May, "New Security Law Gives China Sweeping Powers over Hong Kong," New York Times, June 29, 2020, https://www.nytimes.com/2020/06/29/ world/asia/china-hong-kong-security-law-rules.html.

<sup>32. &</sup>quot;China Scolds Germany over Meeting with Hong Kong Activist," Voice of America, September 11, 2019, https://www.voanews.com/a/east-asia-pacific\_china-scolds-germany-over-meetinghong-kong-activist/6175623.html.

<sup>33.</sup> Jamie McGeever, "Brazil's Bolsonaro to Allow China's Huawei in 5G Auctions: Newspaper," Reuters, January 16, 2021, https://www.reuters.com/article/us-brazil-huawei-tech/brazilsbolsonaro-to-allow-chinas-huawei-in-5g-auctions-newspaper-idUSKBN29L0]M; Anthony Boadle and Lisandra Paraguassu, "Brazil Regulator Approves 5G Spectrum Auction Rules, No Huawei Ban," Reuters, February 25, 2021, https://www.reuters.com/business/media-telecom/brazilregulator-approves-5g-spectrum-auction-rules-no-huawei-ban-2021-02-26/.

<sup>34. &</sup>quot;Gap Sorry for Selling T-Shirt with 'Incorrect' Map of China," Guardian, May 14, 2018, https:// www.theguardian.com/world/2018/may/15/gap-sorry-t-shirt-map-china.

<sup>35.</sup> Benjamin Haas, "Marriott Apologizes to China over Tibet and Taiwan Error," Guardian, January 12, 2018, https://www.theguardian.com/world/2018/jan/12/marriott-apologises-to-chinaover-tibet-and-taiwan-error.

<sup>36.</sup> Aynne Kokas, Hollywood Made in China (Berkeley: University of California Press, 2017).

<sup>37.</sup> Matt Eppers, "Rockets' James Harden on NBA-China Dispute: 'I'm Staying Out of It,'" USA Today, October 13, 2019, https://www.usatoday.com/story/sports/nba/rockets/2019/10/13/ james-harden-nba-china-dispute/3971503002/.

<sup>38.</sup> Stephen Wright, "China Warns New Zealand against Squandering Trade Ties," Wall Street Journal, June 2, 2022, https://www.wsj.com/articles/china-warns-new-zealand-againstsquandering-trade-relationship-11654147681.

cause (1) China's market is immense, and (2) weaponized interdependence has been accepted as the price of doing business with China. China exercises power without having to wield it. China's third face of power is a threat to the liberal international order.

# The New Imperative of Economic Security

Countries have responded to weaponized interdependence in four ways. First, they have prioritized economic security and developed capabilities to detect disruptions in advance. For example, China-induced urea shortages caught South Korea by surprise in November 2021, paralyzing its retail, shipping, transport, and construction industries.<sup>39</sup> Everyone was caught by surprise when the pandemic-induced lockdown in China led to worldwide shortages of critical personal protective equipment (PPE) such as surgical masks, hospital gowns, gloves, respirators, and face shields. 40 Governments have created new point people and early warning systems for such economic disruptions. In October 2021, Japan established a new cabinet position for economic security and enacted new legislation to guard critical supply chains and technologies. 41 Korea activated an early warning system for nearly four thousand key industry materials and created a new economic security position in the presidential office. 42 In March 2023, the European Union announced a new plan to secure critical raw materials against unforeseen disruptions and shortages.<sup>43</sup>

<sup>39.</sup> Urea is used in fertilizers and for emission control in diesel vehicles, which account for most of South Korea's cargo trucks and buses. See Kim Da-sol, "Korea's Urea Crisis," Korea Herald, November 9, 2021, https://www.koreaherald.com/view.php?ud=20211109000809; Steven Borowiec, "Urea Shortage Threatens to Paralyze South Korea's Economy," Nikkei Asia, November 17, 2021, https://asia.nikkei.com/Economy/Urea-shortage-threatens-to-paralyze-South-Korea-s-economy. 40. Chad P. Brown, "How COVID-19 Medical Supply Shortages Led to Extraordinary Trade and Industrial Policy," Asian Economic Policy Review 17, no. 1 (2022): 114-135, https://www.ncbi.nlm .nih.gov/pmc/articles/PMC8441910/.

<sup>41.</sup> Mary Hui, "Japan Minted a New Economic Security Minister to Fix Supply Chain Disruptions," Quartz, October 8, 2021, https://qz.com/2070498/japan-has-a-new-economic-security-chief-to-secure-supply-chains/; "Japan Passes Economic Security Bill to Guard Sensitive Technology," Reuters, May 11, 2022, https://www.reuters.com/world/asia-pacific/japan-passeseconomic-security-bill-guard-sensitive-technology-2022-05-11/; Sheila A. Smith, "Japan Turns Its Attention to Economic Security: Japan's Economic Security Legislation Has Been Passed," Asia Unbound (blog), Council on Foreign Relations, May 16, 2022, https://www.cfr.org/blog/japanturns-its-attention-economic-security.

<sup>42.</sup> Yonhap, "S. Korea Launches 'Early Warning System' on Supply Chains of 4,000 Key Industry Items," Korea Herald, November 26, 2021, https://www.koreaherald.com/view.php?ud=2021 1126000471; Kim Sung-hoon and Minu Kim, "Korea's Yoon Gov't to Create Presidential Secretary for Economic Security Affairs," Pulse, April 22, 2022, https://pulsenews.co.kr/view.php?year= 2022&no=358656.

<sup>43. &</sup>quot;Critical Raw Materials: Ensuring Secure and Sustainable Supply Chains for EU's Green

The second way that countries have responded to weaponized interdependence is by practicing trade diversification. When China disrupts trade with the target state, the target state finds alternative export markets for those same goods. This strategy has seen some success. When the Chinese government embargos imports of certain goods from country X, China must meet domestic demand by sopping up the international supply of that good in other markets, thus allowing country X to backfill the global supply displaced by China's demand. When the Xi regime enacted tariffs against Australian barley, beef, and wine because of Canberra's calls for an independent inquiry into the origins of the COVID-19 virus, Australia redirected these goods to the rest of the world. 44 Although China's sanctions were expected to cost Australia more than \$19 billion, it lost just \$1 billion in these sectors by relying on alternative export markets.<sup>45</sup> When the Xi regime restricted rare earth mineral exports to Japan because of a territorial dispute in 2010, Japan diverted its sourcing of critical minerals to other suppliers and reduced its dependence on China from 90 percent to 58 percent in a decade by investing more in domestic seabed exploration.<sup>46</sup>

Third, countries have opted for reshoring and friend-shoring, moving key elements of the production chain out of China or from places where China exercises inordinate influence. The supply chain is either brought home or directed to trusted partner economies. One example of friend-shoring is the Quadrilateral Security Dialogue, or Quad (Australia, India, Japan, and the United States), which concentrates on building resilient supply chains for COVID-19 vaccines, semiconductors, emerging and critical technologies, as

and Digital Future," European Commission, March 16, 2023, https://ec.europa.eu/commission/ presscorner/detail/en/ip\_23\_1661.

<sup>44.</sup> For China's tariffs on Australian goods, see Su-Lin Tan, "Explainer: What Happened over the First Year of the China-Australia Trade Dispute?," South China Morning Post, October 28, 2020, https://www.scmp.com/economy/china-economy/article/3107228/china-australia-relationswhat-has-happened-over-last-six. For data on Australian exports after Chinese actions, see Roland Rajah, "The Big Bark but Small Bite of China's Trade Coercion," Interpreter, Lowy Institute, April 8, 2021, https://www.lowyinstitute.org/the-interpreter/big-bark-small-bite-china-s-trade-coercion. 45. Daniel Hurst, "How Much Is China's Trade War Really Costing Australia?," Guardian, October 27, 2020, https://www.theguardian.com/australia-news/2020/oct/28/how-much-is-chinastrade-war-really-costing-australia; Michael Smith, "China's Sanctions against Australia Have Been a Spectacular Failure," Australian Financial Review, opinion, December 21, 2022, https://www.afr .com/world/asia/china-s-sanctions-against-australian-have-been-a-spectacular-failure-20221220-

<sup>46.</sup> Roni Dengler, "Global Trove of Rare Earth Metals Found in Japan's Deep-Sea Mud," Science, April 13, 2018, https://www.science.org/content/article/global-trove-rare-earth-metals-foundjapans-deep-sea-mud; Mary Hui, "Japan's Global Rare Earths Quest Holds Lessons for the U.S. and Europe," *Quartz*, April 23, 2021, https://qz.com/1998773/japans-rare-earths-strategy-haslessons-for-us-europe/.

well as for clean energy.<sup>47</sup> In May 2022, the Joe Biden administration also launched the Indo-Pacific Economic Framework to build a resilient economy among member countries by "establishing an early warning system, mapping critical mineral supply chains, improving traceability in key sectors, and coordinating on diversification efforts."48 Launched in June 2022, the Minerals Security Partnership aims to reinforce critical mineral supply chains, including nickel, lithium, and cobalt. 49 Japan, South Korea, Taiwan, and the United States are formulating a Chip 4 alliance to consolidate the semiconductor supply chain.<sup>50</sup> Even though these measures raise production costs and lower efficiency gains, they are necessary to be protected from the Chinese government's predatory practices.

The fourth response to weaponized interdependence includes mitigation measures (i.e., ad hoc trade support, monetary assistance, and investment funds) to blunt the impact of economic coercion against smaller countries. After Lithuania was targeted by the Xi regime in 2021 with undeclared sanctions, its Central Bank estimated that it could lose up to 1.3 percent of its gross domestic product (GDP) in 2023. In response, the European Union and the United States provided a €130 million support package and a \$600 million export credit agreement, respectively, to support Lithuanian firms.<sup>51</sup> According to Melanie Hart, a senior State Department official working on countering

<sup>47. &</sup>quot;Fact Sheet: Quad Leaders' Summit," White House, September 24, 2021, https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/24/fact-sheet-quad-leaders-summit/; "Quad Joint Leaders' Statement," White House, May 24, 2022, https://www.whitehouse .gov/briefing-room/statements-releases/2022/05/24/quad-joint-leaders-statement/.

<sup>48. &</sup>quot;Fact Sheet: In Asia, President Biden and a Dozen Indo-Pacific Partners Launch the Indo-Pacific Economic Framework for Prosperity," White House, May 23, 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/fact-sheet-in-asia-presidentbiden-and-a-dozen-indo-pacific-partners-launch-the-indo-pacific-economic-framework-forprosperity/.

<sup>49.</sup> The Minerals Security Partnership is a coalition between Australia, Canada, Finland, France, Germany, Japan, South Korea, Sweden, the United Kingdom, the United States, as well as the European Commission. See "Minerals Security Partnership," press release, U.S. Department of State, June 14, 2022, https://www.state.gov/minerals-security-partnership/. Also see Doina Chiacu, "U.S. and Partners Enter Pact to Secure Critical Minerals Like Lithium," Reuters, June 14, 2022, https://www.reuters.com/markets/commodities/us-partners-enter-pact-secure-critical-mineralslithium-2022-06-14/.

<sup>50.</sup> You-kyung Lee and Debby Wu, "U.S., Asian Partners Discussed Supply Chains in 'Chip 4' Talks," Bloomberg, February 25, 2023, https://www.bloomberg.com/news/articles/2023-02-26/usasian-partners-discussed-chip-supply-chain-reports-say.

<sup>51.</sup> Andrius Sytas, "Lithuania to Get U.S. Trade Support as It Faces China Fury over Taiwan," Reuters, November 19, 2021, https://www.reuters.com/business/lithuania-get-us-trade-supportit-faces-china-fury-over-taiwan-2021-11-19/; Jonas Deveikis, "China Sanctions vs Taiwan Investments: Lithuania's Central Bank Weighs Economic Impact," Lithuanian Radio and Television,

Beijing's economic coercion, the United States also organized business meetings between Lithuanian and U.S. companies and activated embassy posts in the Indo-Pacific region to assist Lithuania in discovering new supply chains. As a result, "Lithuania's GDP grew 2.2 percent [in 2022], and currently less than 0.5 percent of Lithuania's exports go to China. They have replaced the China gap by expanding their trade relationships and their exports to other partners."52

Yet these de-risking measures are largely defensive. They do not aim to change or shape Chinese behavior. Supply chain resilience and ad hoc mitigation measures insulate certain lines of production from the Chinese government's economic coercion but do not stop it. Securing the supply of one product (e.g., PPE) does not prevent Beijing from finding another economic sector through which to coerce its targets. Backfilling precipitous drops in a country's exports to China with trade diversification helps the targeted country, but it imposes no costs on the Chinese government's use of the predatory practice against the next target. Indeed, many countries' enthusiasm for participating in such mitigation measures is circumscribed by fears that Beijing will find new areas to enact more economic coercion.

For example, South Korea initially hesitated to join the Chip 4 alliance in part because it was concerned that Xi Jinping would retaliate against South Korea's consumer goods, tourism, and education like it did in 2017 over the Terminal High Altitude Area Defense (THAAD) missile system. Similarly, countries that have improved the resiliency of their supply chains for PPE and for memory chips by reducing reliance on China and working more with likeminded countries may still be timid to speak out on behalf of Taiwan or Hong Kong to avoid being targeted by the Chinese government in other, unprotected sectors. While certain supply chains can be protected, no country or group of countries can fully decouple from one of the world's largest economies. Supply chain resilience, trade diversification, impact mitigation, and reshoring are effective only if they are complemented by a competitive strategy to shape and deter Beijing's predatory behavior.

January 21, 2022, https://www.lrt.lt/en/news-in-english/19/1593215/china-sanctions-vs-taiwaninvestments-lithuania-s-central-bank-weighs-economic-impact.

<sup>52. &</sup>quot;Economic Security: U.S. and Korean Perspectives," Center for Strategic and International Studies, February 23, 2023, YouTube video, 2:20:50-2:21:47, https://www.youtube.com/watch?v =AtgntHb5Iro.

## Collective Resilience

Collective resilience is a peer competition strategy that rests on the threat of a multilateral response in the trade space to deter economic coercion. It can be practiced by any group of countries that want to protect the liberal international trading order from subversive economic bullying. Collective resilience uses the threat of punishment with trade retaliation to impose significant and unacceptable costs on China if it attempts to coerce others economically. The purpose of collective resilience is not to advocate a trade war. Rather, its purpose is for a collective of states to credibly signal that it will carry out the punishment if and when China acts against any of the states in the collective. Like deterrence theory, collective resilience operates in the realm of non-action. It tries to elicit a non-action from China (no economic predation) with the threat of certain retaliation. Only if the deterrent fails would the collective resilience partners impose sanctions on China.

To be successful, collective resilience requires both capabilities and political will. No one country on its own can deal with and decouple fully from the Chinese economic behemoth. Every country is asymmetrically dependent on China in its trade balance. China accounts for 23.9 percent (South Korea), 20.3 percent (Japan), 25.9 percent (Australia), and 13.9 percent (United States) of each country's share of global trade in 2022. China's share of global trade in 2022 for these same four countries was 5.9 percent, 5.8 percent, 3.6 percent, and 12.3 percent, respectively.<sup>53</sup>

Economic interdependence—even asymmetric interdependence—still requires give-and-take. Even though countries such as South Korea and Australia may export less to China than they import from China, China values and relies inordinately on a subset of this trade. In the words of Robert Keohane and Joseph Nye, China experiences "vulnerability interdependence" with these imports, in the sense that it would be sensitive to price changes or would need to seek alternative suppliers if those goods were embargoed by the exporting country.<sup>54</sup> The Chinese government sanctions Australian beef

<sup>53.</sup> United Nations Statistics Division, UN Comtrade Database, https://comtrade.un.org/data. The percentage for South Korea is based on 2021 UN Comtrade numbers, as 2022 self-reported trade data for South Korea were not available as of May 2023.

<sup>54.</sup> Robert O. Keohane and Joseph S. Nye Jr., Power and Interdependence (Cambridge, MA: Harvard University Press, 1972); David A. Baldwin, "Interdependence and Power: A Conceptual Analysis," International Organization 34, no. 4 (Fall 1980): 417-506, https://doi.org/10.1017/S002081830

and barley, for example, but it will not sanction Australian iron ore imports because in 2022 China was over 65 percent dependent on this source as a fraction of its total iron ore imports. This dependence potentially gives Australia leverage.

Original data presented in this article show that China is highly dependent on hundreds of exported items from countries that Beijing targets with economic coercion. Collective resilience is the threat of retaliatory sanctioning on China's high-dependence items to deter future coercion. Part of the Chinese government's hubris in bullying its trade partners is its confidence that the targets would not dare to counteract with sanctions. But as Bonnie Glaser argues, economic coercion has become such a pronounced practice by the Chinese government that countries' de-risking efforts to reshore or fortify supply chains are insufficient; instead, they need to impose costs on China for its predatory economic behavior.<sup>55</sup> Contrary to conventional wisdom, these trade partners of China have the tools to do so.

#### **CAPABILITIES**

China is far more dependent on its trade partners than most people realize. Australia, Japan, and South Korea, for example, are like-minded U.S. democratic allies in Asia whose primary trade partner is China. In addition to the United States, they constitute almost 30 percent of China's total global trade. Each has been subject to harsh economic coercion by the Chinese government, costing billions of dollars. Yet each country exports a wide variety of goods on which China is highly dependent. Recall that I define a high-dependence item as a good that China imports from a country that constitutes more than 70 percent of its total trade in that good (measured in total value of trade). While 70 percent is an arbitrary threshold, it is a fair indicator of Chinese trade dependence. For example, as noted above, China's dependence on Australian iron ore is 65 percent. The 70 percent threshold is therefore a reasonable metric. Table 2 summarizes China's high-dependence trade with the eighteen countries in this study that have been targets of the Chinese government's coercion in 2022: Australia, Canada, the Czech Republic, Estonia, France, Germany, Japan, Latvia, Lithuania, Mongolia, New Zealand, Norway, Palau,

Table 2. China's High-Dependence Imports from Its Targets of Economic Coercion (2022)

	Total number of import items	Total value of imports (US\$)
70% dependence 80% dependence	412 279	\$46,650,985,373 \$30,933,223,864
90% dependence	169	\$12,789,682,384

SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org.

NOTE: The eighteen selected countries in this study are Australia, Canada, the Czech Republic, Estonia, France, Germany, Japan, Latvia, Lithuania, Mongolia, New Zealand, Norway, Palau, the Philippines, South Korea, Sweden, the United Kingdom, and the United States. Taiwan is excluded from this summary.

the Philippines, South Korea, Sweden, the United Kingdom (UK), and the United States.<sup>56</sup>

These data are derived from the UN Comtrade Database, a UN-based repository of official international trade statistics. It is accessed through WITS (World Integrated Trade Solution), which is administered by the World Bank. Percentage dependence by China on a particular import from a given country is taken as a percentage of total imports (e.g., the value of the imports from Australia of good X as a fraction of the total value of the imports of good X by China). The import data used are based on nomenclature (HS 1988/92) and all 6-digit harmonized system (HS) codes.<sup>57</sup>

In total, targets of the Chinese government's economic coercion export 412 items to China on which it is more than 70 percent dependent in its total imports of those items. The total value of this trade is more than \$46.6 billion. These countries export 279 items worth more than \$30.9 billion on which China is 80 percent dependent, and 169 items valued at more than \$12.7 billion with 90 percent Chinese dependence. According to these data, these countries have substantial leverage in dealing with Beijing's bullying. Japan, for example, exports 124 items worth more than \$4.9 billion on which China is more than 70 percent dependent as a percentage of total imports for those goods. China is more than 90 percent dependent on an additional 49 items from Japan

<sup>56.</sup> Taiwan is not included as one of the eighteen countries in this study that have been targets of economic coercion.

<sup>57.</sup> The World Customs Organization's Harmonized System (HS) uses code numbers to define products. The World Integrated Trade Solution website can be accessed at https://wits.worldbank .org/Default.aspx?lang=en.

Table 3. China's High-Dependence Imports by Country (2022)

Country	Number of items (> 70% dependence)	Total value of imports (US\$)
Japan	124	\$4,960,038,430
United States	87	\$11,548,305,886
Germany	64	\$827,620,276
South Korea	28	\$5,354,364,494
France	27	\$2,490,927,512
New Zealand	20	\$3,918,283,198
Canada	18	\$5,090,898,875
Australia	14	\$10,562,817,896
Norway	7	\$544,501,211
United Kingdom	6	\$480,259,062
Philippines	5	\$185,491,811
Sweden	5	\$270,750,988
Mongolia	4	\$409,607,128
Czech Republic	3	\$7,118,606
Estonia	0	\$0
Latvia	0	\$0
Lithuania	0	\$0
Palau	0	\$0
Totals	412	\$46,650,985,373

SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org/Default.aspx?lang=en.

worth \$1.3 billion. The United States exports 87 items worth \$11.6 billion on which China is more than 70 percent dependent, and 38 items worth \$2.8 billion with greater than 90 percent Chinese dependence (see table A1 in the online appendix). Table 3 summarizes China's high-dependence imports from the eighteen countries in this study targeted by Beijing's economic coercion.<sup>58</sup> Six of the eighteen countries targeted by economic coercion each export over \$3 billion worth of high-dependence goods to China.

### STRATEGIC VALUE AND SUBSTITUTABILITY

Not every high-dependence item is costly to China. For example, China is over 86 percent dependent on imports of ballpoint pens (HS Code 960810; trade value \$104.1 million) from Japan, and over 88 percent dependent on suitcases

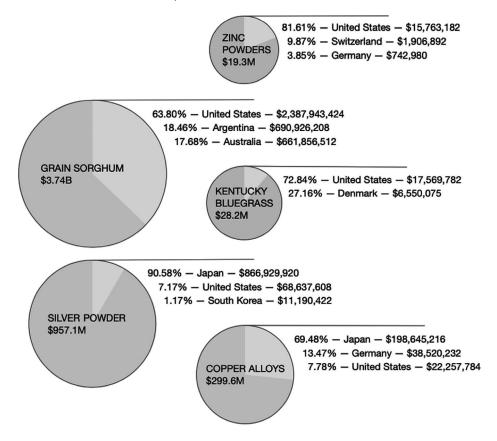
<sup>58.</sup> Table A1 in the online appendix includes summary statistics for China's high-dependence goods (measured at 70, 80, and 90 percent) for each of the eighteen countries targeted by economic coercion. Table A2 in the online appendix includes itemized lists of all China's high-dependence goods for each country.

(HS Code 420219; trade value \$24.4 million) from Germany. But cutting off these items would not alter Chinese behavior. For China to experience vulnerability interdependence, the items targeted in a collective deterrence strategy must meet two criteria: (1) the good must have some strategic value (i.e., it is an intermediary good, an end-product good, or a luxury good); and (2) the good must have low substitutability (i.e., China lacks alternative suppliers). I measure substitutability by determining whether the next one to three suppliers of the good to China are like-minded partners of the collective resilience coalition.

The trade data show many items that meet these two criteria. Table 4 provides a representative selection of items that could be incorporated in a collective economic deterrence strategy. If China were unable to import these items from its top three or four suppliers, finding alternative sources could create significant transaction costs.<sup>59</sup> For example, China is over 90 percent dependent on the supply of silver powder (HS Code 710610) and nearly 70 percent dependent on the supply of copper alloys (HS Code 741012) from Japan. Silver powder is a critical intermediary good for producing solar panels, and copper alloys are used in the construction sector. 60 As figure 1 shows, the next two major suppliers of silver powder to China are the United States (7.17 percent of China's total imports) and South Korea (1.17 percent). These three countries provide about 99 percent of China's global supply of silver powder. The three major suppliers of copper alloys to China are like-minded partners: Germany (13.47 percent), the United States (7.78 percent), and Japan together constitute more than 90 percent of China's dependence on this intermediary good. The United States constitutes more than 72 percent of China's grass seed imports (Kentucky bluegrass, HS Code 120924), which are used for soccer fields, more than 81 percent of zinc powders (HS Code 790390), which are used for anticorrosion coating on metals, and almost 64 percent of China's grain sorghum imports (HS Code 100700), which are used to produce the popular Chinese liquor baijiu. The next major suppliers of these goods to China are mostly like-minded countries: Denmark is the second-largest supplier of bluegrass seed (27.16 percent), and Australia is the third-largest supplier of sorghum (17.68 percent). Switzerland (9.87 percent) and Germany (3.85 percent)

<sup>59.</sup> Table A3 in the online appendix is an expanded list of China's high-dependence items. 60. Silver powder (HS code 710610) is an ingredient in photovoltaic/electronic conductive paste that is used to make solar panels in China. Copper alloys (HS code 741012) are used for wiring, locks, doors, and electric sockets in the construction sector.

Figure 1. Substitutability of China's High-Dependence Goods from Lead Suppliers (United States or Japan, 2022)



SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org/Default.aspx?lang=en.

NOTE: Substitutability is measured by determining whether the next one to three suppliers of the good to China are like-minded partners of the collective resilience coalition. To highlight the difficulty of substitutability for China by showing that secondary suppliers (e.g., Australia, Germany) are like-minded partners of the lead supplier (i.e., the United States or Japan), this figure shows China's second- and third-largest suppliers of key high-dependence goods.

Table 4. China's Vulnerability Interdependence (2022, selected list)	ndence (2022, selected lis	st)		
COUNTRY + product (HS code)	% China dependence (trade value US\$)*	Substitute suppliers (% China dependence)†	Replacement ratio‡	Description
AUSTRALIA nickel powders/flakes (750400)	72.77% (\$570,073,792)	Canada (6.69%) United Kingdom (6.54%)	0.17	rechargeable battery production; water treatment; other electrical components
CANADA lobsters, nonfrozen (30622)	84.03% (\$516,260,096)	United States (15.66%) United Kingdom (0.31%)	0.00	luxury good
FRANCE champagne, sparkling wine (220410)	71.94% (\$62,565,932)	Italy (19.12%) Spain (5.58%)	0.03	luxury good
FRANCE spirits (220820)	99.25% (\$1,406,637,952)	Spain (0.20%) Australia (0.19%)	0.04	strong distilled liquor (brandy); largest imported alcohol in China (in trade volume)
JAPAN iron or non-alloy steel (720823)	82.17% (\$467,804,576)	South Korea (15.12%) Kazakhstan (1.41%)	2.22	for projects that do not require precision and perfect surface finishing; automotive, shipbuilding
JAPAN silver powder (710610)	90.58% (\$866,929,920)	United States (7.17%) South Korea (1.17%)	0.02	photovoltaic/electronic conductive paste for solar panels
JAPAN copper; foil of alloys (741012)	69.48% (\$198,645,216)	Germany (13.47%) United States (7.78%)	0.28	copper alloy strips used in construction sector for locks, wiring, doors, and electrical sockets
JAPAN nickel oxides/hydroxides (282540)	90.57% (\$65,481,516)	Cuba (5.32%) Thailand (1.64%)	17.72	used to produce stainless steel and nickel- cadmium batteries
MONGOLIA fine animal hair (510210)	98.68% (\$361,391,296)	Peru (0.55%)	0.01	used for clothing, textiles, makeup brushes
NEW ZEALAND milk and cream (40221)	83.83% (\$2,566,065,664)	Australia (6.98%) Uruguay (3.84%)	0.00	essential food

PHILIPPINES nickel ores/concentrates (260400)	57.08% (\$2,589,049,344)	Australia (9.53%) Russia (9.14%) New Caledonia (7.85%)	0.00	essential element in battery cathodes used in the electric vehicle industry
SOUTH KOREA salts; of inorganic acids (284290)	93.17% (\$4,366,731,776)	Japan (4.65%) United States (0.97%)	1.08	acid used to manufacture products (e.g., fertilizers, paints)
UNITED KINGDOM whiskeys (220830)	83.32% (\$465,080,416)	Japan (8.87%) United States (3.55%)	0.07	luxury good
UNITED STATES bovine semen (51110)	90.62% (\$88,579,720)	Germany (3.69%) United Kingdom (2.51%)	0.00	for artificial insemination of Chinese cattle
UNITED STATES maize (100590)	74.44% (\$5,284,035,584)	Ukraine (23.24%) Myanmar (0.92%)	0.00	essential food
UNITED STATES grain sorghum (100700)	63.80% (\$2,387,943,424)	Argentina (18.46%) Australia (17.68%)	0.00	used to produce traditional Chinese alcohol ( <i>baijiu</i> )
UNITED STATES acyclic hydrocarbons (290110)	97.25% (\$2,036,988,544)	Spain (1.23%) Russia (0.57%)	0.04	chemical compound used in lubricants and polyethylene (plastic bags)
UNITED STATES zinc powder/flakes (790390)	81.61% (\$15,763,182)	Switzerland (9.87%) Germany (3.85%)	0.27	used for anti-corrosion coatings in metals, steels, alloys
UNITED STATES Kentucky bluegrass seed (120924)	72.84% (\$17,569,782)	Denmark (27.16%)	0.00	cool-season grass seed for turf/athletic fields

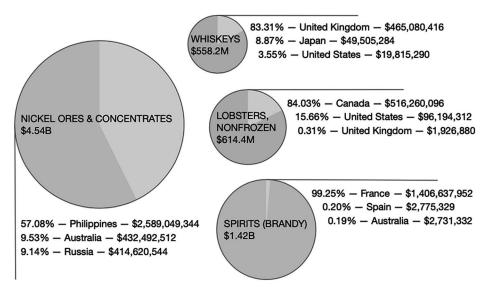
SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https://wits.worldbank.org/Default.aspx?lang=en.

<sup>\*</sup> Measures China's dependence on the source country for a good as a percentage of total global imports of that good.

<sup>†</sup> Measures China's dependence on the next-largest source country for a good (after the primary source) as a percentage of global imports of that good.

<sup>#</sup> Measures the amount of domestic production of a good, using reported Chinese exports of the good as the proxy variable. The replacement metric is the exports/imports ratio. A number greater than 1 suggests a strong capacity to replace a loss of imports with domestic sources by diverting exports to fill demand.

Figure 2. Substitutability of China's High-Dependence Goods from Lead Suppliers (Canada, France, the Philippines, or the United Kingdom, 2022)



SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org/Default.aspx?lang=en.

NOTE: Substitutability is measured by determining whether the next one to three suppliers of the good to China are like-minded partners of the collective resilience coalition. To highlight the difficulty of substitutability for China by showing that secondary suppliers (e.g., Australia, Spain) are like-minded partners of the lead supplier (e.g., Canada, France), this figure shows China's second- and third-largest suppliers of key high-dependence goods.

make up the rest of zinc powder suppliers to China. Together, these likeminded partners constitute 90–100 percent of China's supply of these goods.

The electrical vehicle battery market is very important to China, but China is dependent on the Philippines and Australia—countries that the Xi regime has routinely coerced—for nearly 70 percent of its global supply of nickel ores and concentrates (HS Code 260400). These materials, used to produce battery cathodes, amount to a trade value of over \$3 billion (see figure 2). China does not export these minerals, which suggests high vulnerability and replacement costs to find alternative sources. Moreover, many luxury goods meet the vulnerability interdependence criteria. China is almost 100 percent dependent on lobster (HS Code 30622) from Canada and the United States. It is 96 percent

dependent on whiskeys (HS Code 2208301) from the UK, Japan, and the United States, and China is over 99 percent dependent on France for its supply of brandies (HS Code 220820).

Two relevant points emerge regarding a collective resilience strategy. First, China could respond by practicing trade diversification, locating alternative foreign suppliers for one, two, or a handful of these items. But if a large coalition of countries threaten to act on an array of these goods (table 4 is only a selective list) in response to Beijing's coercion against any country, the increased costs of trade diversification may alter Chinese behavior. Second, countries that participate in the collective resilience coalition would need to threaten action on only one or two items that meet the vulnerability interdependence criteria (i.e., high-dependence, strategically important Chinese goods that exhibit low substitutability). For example, Japan would not be required to sanction all 124 high-dependence items that it exports to China; instead, it might be called on to threaten to act on only two critical exports—silver powder and copper alloys—to signal credible deterrence to discourage the Chinese government's economic coercion of others. The upshot is that the targets of economic coercion can make credible threats to retaliate against and thus deter China's bullying.

#### POLITICAL WILL

Having the capabilities to deter economic coercion is only half the strategy. The other half is political will. Like deterrence in the security realm, collective resilience is only as effective as it is credible. Such credibility requires targets of the Chinese government's economic coercion to make an Article 5-type of commitment to the cause—if Beijing sanctions any one country in the group, this will elicit a collective response from the others against China's highdependence items.

Admittedly, this strategy could be difficult to implement. Collective resilience members would have to address several challenges. First, they would have to agree on both how to define economic coercion, which can take many different forms, and what would be the trigger for collective action. Disputes over trade that could be decided by the WTO would not meet the threshold. Instead, deterrence would focus on China's politically motivated trade actions.

Second, coalition members would need to reassure smaller powers that they would not be abandoned when Beijing threatens sanctions to pressure them to leave the coalition. This requires key members such as the United States or

Japan to commit to trigger actions if Beijing bullies any other member, even if it is economically costly to the patrons; otherwise, collective resilience will have little credibility.

Third, the incentives to free ride among the group would be high. Larger powers would need to provide early and tangible signs of their commitment to underwrite the coalition and create confidence. Partners might invest in a collective fund to compensate smaller members for losses or offer alternative export or import markets to divert trade in response to Chinese sanctions. Otherwise, the temptation to defect from the collective resilience coalition when another was being coerced by the Chinese government would be high.

Fourth, all members would need to build support at home for the strategy, which will not be easy because it may cause some economic hardship. A company in the United States, for example, may not be willing to sacrifice its quarterly earnings from China's exports to cooperate with the strategy, especially if it is on behalf of a country on the other side of the world being coerced by China. Contrary to the collective resilience strategy, some companies may even see opportunity in economic coercion. When the Xi regime sanctioned the import of Norwegian salmon, for example, Scottish salmon exporters profited handsomely. Thus, some mix of industrial policy, legislation, and incentives to promote public-private sector partnerships would be needed to support the strategy. China is not a democracy, and therefore it faces fewer political obstacles to enacting a competing strategy of economic coercion. It can decree that society bears the costs of any blowback from its coercive strategies.

Despite these challenges, what would hopefully motivate each party to stay the course is the desire to escape the dilemma of trading with China and being subject to Beijing's economic coercion, which has deleterious effects on the liberal international order. Knowing that this strategy works better as a collective effort, given the combined capabilities of the economies, should create incentives to band together. Each party's political commitment to the collective is critical for the deterrent strategy to be effective. Any one country practicing this policy alone would do nothing to change the Chinese government's behavior. But a group of countries working together would create problems for Beijing. The larger the coalition of countries, the more credible the deterrent threat.

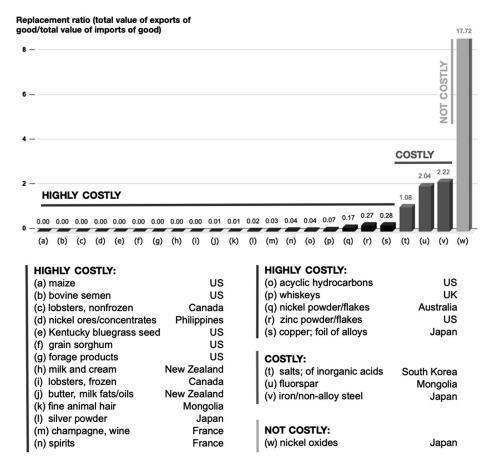
#### WOULD THE XI REGIME CARE?

Even though China's high-dependence goods are a small percentage of its overall trade, threats to leverage such goods would alarm Beijing. China presumably tolerates its dependencies on these goods because doing so is optimal in terms of price and efficiency. Beijing also assumes that no single trade partner would dare retaliate in what would amount to self-inflicted economic difficulty. The Chinese government mostly targets low-dependence, easily substitutable sectors. 61 Beijing rarely employs sanctions on its highdependence goods. For example, China will not sanction TSMC or Samsung because it depends on these memory chip suppliers. Likewise, China will not leverage its imports of Australian iron ore. If Beijing is unwilling to locate alternative sources at this level of dependence, then greater sensitivity to dependence levels of 70 percent or higher would be expected. Moreover, the Chinese government usually targets those sectors that matter more to the exporting country than to China. For example, the Xi regime's ban on Canadian soybeans in 2019 over the detention of a Huawei executive cost Canada more than \$1 billion but constituted only 3 percent of China's total trade in that product. China was only 36-40 percent dependent on Australian wines and only 19 percent dependent on Australian barley when the Chinese government banned them in 2020.

Would China be able to replace a cutoff of these high-dependence goods with domestic production? This is possible, but not without incurring significant costs. The fourth column in table 4 shows the "replacement ratio." This measures the amount of domestic production of the good by using Chinese exports of the same good as a proxy variable. The replacement metric is the exports/imports ratio. A value less than 1 (i.e., China exports less of the good than it imports) suggests that China would have little or no capacity to replace external dependence with domestic production (i.e., what I call "highly costly" replacement). A value close to 1 (i.e., China exports about an equal amount of the good as it imports) suggests "costly" replacement, because it would require a significant diversion of China's exports to domestic need. A value exponentially higher than 1 (i.e., China exports more than it imports of the good) suggests "not costly" replacement capacity. Figure 3 categorizes China's capacity to replace imported high-dependence goods with domestic production (values are for the representative list of goods in table 4 and the expanded list of high-dependence goods in table A3 in the online appendix).

As figure 3 shows, China could mitigate the impact of a collective resilience action on only 1 of the 23 items on the high-dependence list: nickel oxides (HS Code 282540) from Japan. China's exports of nickel oxides are seventeen-

Figure 3. China's Capacity to Replace High-Dependence Goods with Domestic Production (2022)



SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org/Default.aspx?lang=en.

NOTE: The replacement metric is the exports/imports ratio. A number greater than 1 ("costly" or "not costly") suggests a strong capacity to replace a loss of imports with domestic sources by diverting exports to fill demand. A value less than 1 is "highly costly" replacement (i.e., China would have little or no capacity to replace external dependence with domestic production).

fold higher (replacement ratio of 17.72) than its imports from Japan, suggesting that it could relatively easily divert exports of the good to domestic need if external sources dried up. The other 22 high-dependence goods are not easily substituted by domestic production. China would experience "highly costly" replacement for 19 items (a replacement ratio of exports over imports of 0.28 or less). There are 11 items for which China has no replacement capacity (i.e., replacement ratio of 0.00 or 0.01). These data indicate that China would feel the impact of a collective resilience strategy. Chinese leaders would certainly prefer to avoid such a situation, which would add to China's ongoing problems of a failed COVID-19 lockdown, tensions with Taiwan, and the economic slowdown.

#### OVERCOMING THE COMMITMENT TRAP: GROUP OF SEVEN PLUS AUSTRALIA

Critics might argue that this collective resilience strategy faces a commitment trap. There are two aspects to this trap. First, the Chinese government will intimidate the weakest countries in the coalition. While many countries are unhappy with Beijing's bullying, few may be up to challenging China in this way. After all, some countries, particularly in Asia, have large Chinese expatriate communities, many are deeply penetrated by the Chinese government's disinformation narratives, and many distrust one another and the United States. Second, it will be harder to build a coalition around countries that are not likeminded and that do not share the same threat perceptions of China.

One way of circumventing the commitment trap would be to build coalitions around like-minded groupings. I propose the Group of Seven plus Australia (G-7 + A in tables 5 and 6) because these countries: (1) want to preserve the liberal order against economic coercion; (2) are medium-to-large countries that cannot be easily bullied by Beijing; (3) already participate in the European Union's anti-coercion efforts or have already confronted Beijing's coercion; and (4) have the collective resilience capabilities to leverage China's vulnerability.

As tables 5 and 6 show, the G-7 + A countries have 395 items on which China is 70 percent dependent with a trade value of more than \$37 billion (2022), and 153 items valued at \$7.5 billion on which China is 90 percent dependent. To deter further economic coercion against any members, Australia and Canada could threaten to act on their exports of nickel powders (HS Code 750400) to China. These two countries make up almost 80 percent of China's global supply, and China's replacement costs for alternative sources of nickel powder would be "highly costly" (replacement ratio of 0.17). For luxury

Table 5. China's High-Dependence Imports from G-7 + A (summary, 2022)

	Total number of import items	Total value of imports (US\$)
70% dependence	395	\$37,172,756,418
80% dependence	268	\$22,160,627,838
90% dependence	153	\$7,531,449,278

SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org/Default.aspx?lang=en.

Table 6. China's High-Dependence Imports from G-7+A (by country, 2022)

Country	Number of import items >70%	Value of imports (US\$)
Japan	124	\$4,960,038,430
United States	87	\$11,548,305,886
Germany	64	\$827,620,276
Italy	55	\$1,211,888,481
France	27	\$2,490,927,512
Canada	18	\$5,090,898,875
Australia	14	\$10,562,817,896
United Kingdom	6	\$480,259,062
Totals	395	\$37,172,756,418

SOURCE: Original table derived from UNSD Commodity Trade (UN Comtrade) trade database at the World Bank's analytical tool WITS (World Integrated Trade Solution), https:// wits.worldbank.org/Default.aspx?lang=en.

goods, Canada and the United States could leverage their exports of nonfrozen lobster (HS Code 30622), and France and Italy could act on their supply of champagne (HS Code 220410). These two pairs make up nearly 100 percent and over 90 percent, respectively, of China's imports of these luxury goods, which would be "highly costly" for China to replace (replacement ratio of 0.00 for lobster and 0.03 for champagne). In addition to silver powder exports by Japan discussed previously, Japan and Germany provide more than 82 percent of China's imported supplies of alloyed steel ingots, used for shipbuilding (HS Code 722410). China has no alternative domestic supply for this product (replacement ratio of 0.00). Or the United States and the UK could act on their supplies of cobalt materials (HS Code 810590) to China, used for battery production. Beijing would have a hard time replacing its 73 percent dependence on its Anglo-American suppliers (replacement ratio of 0.11). Table A4 in the online appendix includes an itemized list of high-dependence, lowsubstitutability strategic/luxury items for the G-7 + A group. This G-7 + A grouping is already highly cohesive, making it more feasible for it to enact collective action and to exhibit a stronger political will than an ad hoc coalition of victims of Chinese economic coercion. As chair of the G-7 in 2023, and as the country with which China exhibits the highest vulnerability interdependence, Japan would be well positioned to introduce a collective resilience strategy to the group.

## Conclusion

Experts and officials disagree over the claim that the People's Liberation Army will be ready to take Taiwan by force by 2027.62 There is full agreement, however, that the Chinese government will use economic coercion against other actors by this same date. The Chinese government's weaponization of trade is a menace to the international system because it causes self-censorship among all actors that trade with China; it compels governments and companies to defer to China's illiberal interests; and it erodes trust in the multilateral trading order. From supporting democracy in Hong Kong to joining secure technology and biomedical production supply chains outside the Chinese orbit, governments are afraid to act for fear of being targeted by Beijing's economic coercion.

In this article, I have introduced novel data and a strategy of pursuing collective resilience to deter future coercion by the Chinese government. Collective resilience rests on two bodies of theory in international security and international political economy. It borrows from traditional deterrence theory

62. Hal Brands and Michael Beckley, "The Coming War over Taiwan," Wall Street Journal, August 4, 2022, https://www.wsj.com/articles/the-coming-war-over-taiwan-11659614417; Amy Hawkins, "Taiwan Minister Warns of Conflict with China in 2027," Guardian, April 21, 2023, https://www.theguardian.com/world/2023/apr/21/taiwan-foreign-minister-warns-of-conflictwith-china-in-2027; Miya Tanaka, "Ex-US Commander Sticks to 2027 Window on Taiwan Attack," Kyodo News, January 23, 2023 https://english.kyodonews.net/news/2023/01/018a26a02962-exus-indo-pacific-commander-sticks-to-2027-window-on-taiwan-attack.html; Timothy R. Heath, "Is China Planning to Attack Taiwan? A Careful Consideration of Available Evidence Says No," War on the Rocks, December 14, 2022, https://warontherocks.com/2022/12/is-china-planning-toattack-taiwan-a-careful-consideration-of-available-evidence-says-no/; J. Tedford Tyler, "China Isn't Ready to Invade Taiwan," National Interest, December 11, 2022, https://nationalinterest.org/ feature/china-isn%E2%80%99t-ready-invade-taiwan-206006.

and builds on the literature on weaponization of interdependence. In the latter case, the strategy shows that actors without a dominant hold on key nodes of an embedded network can still exercise power by banding together and holding something of value to the stronger actor, especially if the stronger actor lacks exit options. I have shown that past targets of Beijing's economic coercion have significantly more leverage than they think. I have argued that countries need to mobilize around the understanding that economic interdependence, even asymmetric dependence, is a two-way street. These countries supply strategic and luxury goods to China on which Beijing is highly or fully dependent. If countries can cooperate to overcome collective action problems, they can send a credible deterrent message to the Chinese government that its continued economic predation will incur high costs.

Collective resilience is not a strategy that advocates escalating a trade war with China; it is better thought of as a strategy of great power competition. First, collective resilience could succeed not by actually using sanctions, but by credibly signaling to threaten such actions. If the Chinese government under Xi Jinping does not coerce other states, then there is no need to act on the threat. Second, the purpose of this strategy is not to target all Chinese economic behavior. As one of the world's largest economies, China will have trade disputes with its partners. These should be resolved and negotiated bilaterally and through WTO adjudication. What collective resilience aims to deter are acts of economic coercion that do not conform to WTO rules and that aim to achieve goals not related to trade. Retaliating against Norway for awarding the Nobel Peace Prize to a Chinese dissident, sanctioning South Korean companies for deploying a missile defense system, and embargoing imports from certain countries for speaking out against suppression of democracy in Hong Kong are the types of coercive actions that need to be thwarted. Third, collective resilience should supplement rather than replace de-risking measures such as trade diversification, impact mitigation, and supply chain resilience. Hopefully even more like-minded countries would participate in these strategies once the threat of economic bullying by the Chinese government is deterred.

A strategy of collective resilience would start with policy leaders explicitly acknowledging and condemning Beijing's practices. For example, then UK foreign secretary Liz Truss stated in January 2022 in Australia: "[The Xi regime] is using its economic muscle to attempt to coerce democracies like Australia and Lithuania. . . . We will stand up for our economic security. That means calling out China when it blocks products from Lithuania or imposes punitive tariffs

on Australian barley and wine."63 The May 2023 G-7 leaders' statement also formally declared a willingness to counter economic coercion: "We express serious concern over economic coercion and call on all countries to refrain from its use. . . . We will use our existing tools, review their effectiveness and develop new ones as needed to deter and counter the use of coercive economic measures. . . . We will use early warning and rapid information sharing, regularly consult each other, collaboratively assess situations, explore coordinated responses, deter and, where appropriate, counter economic coercion, in accordance with our respective legal systems."64 This study takes a step toward meeting the need for a universal mapping of high-dependence exports to the Chinese market. Building political commitment to a norm of collective resilience could be undertaken in groupings such as the Indo-Pacific Economic Framework, the Quadrilateral Security Dialogue, U.S.-Japan-South Korea trilaterals, and European Union or other Indo-Pacific and Euro-Atlantic forums. Incentives to implement sanctions (e.g., when the Chinese government is sanctioning another country in the group) would need to be established, such as having members of the collective sanction a handful of strategic highdependence items, which might reduce the temptation to free ride. Another incentive would be for the big powers to promise impact-mitigation measures for those targeted by coercion, as the United States has done for Lithuania.

The threshold for what would constitute triggering behavior by China would need to be established and communicated to allies and to China. The legal implications of such a counter-coercion strategy would need to be investigated. Initial work in the European Union suggests that it would be an exception to WTO rules on grounds of national security.<sup>65</sup> Furthermore, if col-

<sup>63.</sup> Liz Truss, "Foreign Secretary Liz Truss' Speech to the Lowy Institute," UK Foreign, Commonwealth & Development Office, January 21, 2022, https://www.gov.uk/government/speeches/ foreign-secretarys-speech-to-the-lowy-institute.
64. "G7 Leaders' Statement on Economic Resilience and Economic Security," White House,

May 20, 2023, https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/20/g7leaders-statement-on-economic-resilience-and-economic-security/. Also see the anti-economic coercion statement in the April 2023 leaders' statement from the United States and South Korea: "Leaders' Joint Statement in Commemoration of the 70th Anniversary of the Alliance between the United States of America and the Republic of Korea," White House, April 26, 2023, https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/26/leaders-joint-statement-incommemoration-of-the-70th-anniversary-of-the-alliance-between-the-united-states-of-americaand-the-republic-of-korea/.

<sup>65.</sup> See Anders Fogh Rasmussen and Ivo Daalder, "Memo on an 'Economic Article 5' to Counter Authoritarian Coercion" (Chicago: Chicago Council on Global Affairs, June 2022), https://www .thechicagocouncil.org/sites/default/files/2022-06/CCGA%20Economic%20Article%205%20 Brief\_vF\_0.pdf.

lective resilience is framed as a reciprocal action that is executed only in response to coercion by the Chinese government, then the strategy might comply with WTO signatories' nondiscrimination obligations. 66 Domestic support would have to be built for the policy, not least among firms that would withstand the worst of the actions. Governments in consultation with the private sector would need to devise a suite of industrial, tax, and related policies. China would almost certainly use both carrots and sticks to try to persuade individual countries not to join the alliance. Beijing might retaliate against any collective action by escalating to a trade war. But an effective collective resilience strategy requires that steadfast partners recognize the increasing threat of the Chinese government's weaponization of interdependence and endure the political and economic costs of Beijing's economic retaliation.

Globalists might find a strategy of collective resilience to be anathema to the very liberal order that they are trying to protect. But they must treat it as a peer competition strategy necessary to save that order. It has been over three decades since the United States engaged in great power peer competition. Some may have forgotten that high-stakes competition against another great power can be backhanded and hypocritical, such as when the United States had to countenance illiberal practices at times to protect the Western order during the Cold War. Hopefully, the threat of collective resilience would never have to be exercised. In that sense, it is like deterrence in the security realm. It requires both the capabilities and the political will of all involved to signal to the Chinese government that it can no longer use economic coercion as a tool of diplomacy that threatens the liberal international order.