CNAS

APRIL 2020

A New Arsenal for Competition

Coercive Economic Measures in the U.S.-China Relationship

Elizabeth Rosenberg, Peter E. Harrell, and Ashley Feng

America Competes

About the Authors

Elizabeth Rosenberg is a Senior Fellow and Director of the Energy, Economics, and Security program at the Center for a New American Security (CNAS). Previously, she served as a Senior Advisor at the U.S. Department of the Treasury on international illicit finance issues, helping senior officials develop financial sanctions and formulate anti–money laundering and counterterrorism financing policy.

Peter E. Harrell is an Adjunct Senior Fellow at CNAS, advises companies on sanctions compliance matters, and previously served as the Deputy Assistant Secretary for Counter Threat Finance and Sanctions at the U.S. State Department.

Ashley Feng is a research associate in the Energy, Economics, and Security program at CNAS, where her work focuses on U.S.-China economic competition and the intersection of trade and investment controls and national security. Previously, she was a research associate for China Studies at the Council on Foreign Relations.

Acknowledgments

The authors would like to thank Loren DeJonge Schulman for her review of this report and Johnpatrick Imperiale for his research support. They also thank Aaron Connelly, Zack Cooper, Bonnie Glaser, David Rank, Derek Scissors, and Martijn Rasser for their valuable ideas and feedback during the drafting of the report. Finally, they would like to acknowledge Melody Cook and Maura McCarthy for their assistance with the production of the report.

About the Energy, Economics & Security Program

The Energy, Economics & Security Program analyzes the changing global energy and economic landscape and its national security implications. From the shifting geopolitics of energy to tools of economic statecraft, such as trade and investment policy and sanctions, the program develops strategies to help policymakers understand, anticipate, and respond. This program draws from the diverse expertise and backgrounds of its team and leverages other CNAS experts' strengths in regional knowledge, technology, and foreign policy to inform conversations at the nexus of markets, industry, and U.S. national security and economic policy.

America Competes 2020

America Competes 2020

America Competes 2020 is a Center-wide initiative featuring cutting-edge CNAS research, publications, events, and multimedia aimed at strengthening the United States' strategic advantages at home and abroad.

TABLE OF CONTENTS

01 Executive Summary

04 Introduction

09 Trends in U.S. Coercive Economic Measures Against China

22 Trends in China's Use of Coercive Economic Measures Against the United States

35 The Place of Economic Coercion in the U.S.-China Strategic Competition

39 Policy Recommendations

52 Conclusion

Executive Summary

The United States and China have long used coercive economic measures to advance both economic and foreign policy objectives. In recent years, however, both countries have turned to coercive economic measures as mainstream instruments of foreign policy and national security policy, and increasingly have deployed coercive economic measures against each other.

For the United States, China's economic scale and global interconnections make it a fundamentally different type of target for coercive economic measures than the comparatively smaller and less sophisticated economies that have been primary targets of U.S. economic coercion in the past. The United States cannot simply isolate China from the global economy. Instead, it must adopt a more strategic focus on limiting Chinese actions in areas significant to U.S. national security and shoring up economic and technology arenas where the United States maintains lasting leverage.

Over the past several years, the United States has deployed an array of coercive economic measures against China. The most prominent of these have been the tariffs on approximately two-thirds of U.S. imports from China. The tariffs remain largely in place despite implementation of the Phase One trade deal that the United States and China signed in January 2020. But the United States also has developed and deployed an increasingly sophisticated set of other coercive economic tools that will play a prominent role in U.S.-China relations over the years ahead, regardless of whether the United States and China fully implement the Phase One deal and reach a broader Phase Two trade agreement. Those other coercive economic tools include export controls, restrictions on U.S. imports to secure U.S. supply chains, heightened scrutiny of Chinese investment in the United States, sanctions, and stepped-up law enforcement measures against Chinese intellectual property (IP) theft and other Chinese activities in the United States. This expanding set of measures serves a broadening array of U.S. policy goals, including economic objectives, foreign policy goals, and the maintenance of America's technological edge.

The U.S. record of success in the use of these coercive economic measures has been mixed. While tariffs and other measures have succeeded in putting some macroeconomic pressure on China, they have not extracted fundamental concessions from Beijing. Targeted sanctions and law enforcement measures similarly have had economic impacts on some Chinese companies, but other Chinese companies have demonstrated an ability to weather U.S. economic coercion. To be effective in translating economic coercion into policy change by China, the United States needs to better integrate its coercive measures with each other and with other policies, better signal intentions and escalation, more rigorously assess impacts and costs, and galvanize allied support and coordinated action.

For its part, China appears to recognize a balancing act between limiting economic ties with foreign partners in some domains and maintaining them in others. China has sought to distance certain Chinese economic sectors, particularly high-tech manufacturing, from the United States in some areas, investing heavily in domestic capacity development. In other areas where China must rely on foreign partners for technology, IP, or manufacturing, or where China does not appear to see a clear interest in severing trade, Beijing has sought to keep trade and investment flows moving in an unencumbered fashion. As for the United States, this is a dynamic policy environment.

In recent years, both the United States and China have turned to coercive economic measures as mainstream instruments of foreign policy and national security policy and increasingly have deployed coercive economic measures against each other.

Meanwhile, China has been evolving its use of economic coercion against the United States and its allies. While China generally has been restrained in its use of coercive economic measures directly against the United States or U.S. targets, China increasingly has targeted U.S. allies, including for supporting U.S. policy priorities. For example, China imposed trade restrictions on Canada following its detention of Huawei Chief Financial Officer Meng Wangzhou in 2018, and on Australia in 2019 in response to rising tensions over several issues, including Australia's decision to ban Huawei from Australian 5G telecommunications networks. China also has threatened economic coercion, including through downgraded economic and trading ties, against other countries that are considering whether to ban Huawei from 5G networks. Chinese coercive economic measures increasingly target individual companies and individuals in addition to countries. An example is the suspension of broadcasts in China of

National Basketball Association (NBA) games last year after a prominent team official criticized China's policy in Hong Kong.

So far, China's record in the use of economic coercion is mixed. It has caused some of its targets to change their policies to be more favorable to Beijing's preferences, and in other instances the targets of China's coercion have proved relatively more resilient. Clearly, Beijing is rapidly innovating, testing different sources of leverage and modalities of economic coercion, and learning across cases. With the expanding range of circumstances in which China deploys economic coercion, the United States needs to systematically assess its vulnerabilities and develop a coherent set of policy responses.

Beijing is rapidly innovating, testing different sources of leverage and modalities of economic coercion, and learning across cases.

This report makes a number of key recommendations for U.S. policymakers in the executive branch, Congress, and the private sector. At a basic level, the United States needs to ensure that it is making key investments domestically to maintain the U.S. competitive edge. But it also needs to strengthen the coercive U.S. economic tool kit including by improving assessments of U.S. vulnerabilities to Chinese economic coercion and of the impacts of U.S. measures, by being clearer about U.S. objectives, and by signaling U.S. policy both to China and to allies. The United States needs to strengthen the government institutions that develop and deploy coercive economic measures and continue to modernize the tool kit available to policymakers. Finally, the United States needs to strengthen cooperation with allies and with the U.S. private sector, both of which are essential to the long-term success of U.S. coercive economic measures against China.

Introduction

KEY TAKEAWAYS

- Both the United States and China use coercive economic measures as a central tool of foreign policy, and coercive economic measures play an increasingly important role in the bilateral U.S.-China relationship.
- U.S. coercive economic measures directed at China include not only the tariffs that President Donald Trump has imposed on approximately two-thirds of U.S. imports from China, but also a range of export controls, import restrictions, limits on investment, and targeted measures against individual companies.
- Coercive economic measures have the potential to dramatically impact the bilateral economic and strategic relationship, regardless of the Phase One U.S.-China trade deal.

The United States and China have long used coercive economic measures to advance national interest and policy aims. In recent years, however, both countries have turned to coercive economic measures as mainstream instruments of foreign policy and national security policy, and, increasingly, have deployed coercive economic measures against each other.

For both the United States and China, market power, financial flows, and supply chains provide fundamental sources of leverage that undergird economic coercion. As China has emerged as the United States' leading strategic competitor, it comes as no surprise that policy leaders in Washington and Beijing increasingly are deploying their economic muscle to advance policy goals and engage one another. China's enormous consumer market, purchasing power, role in supply chains, and ability to provide capital afford Beijing significant sources of coercive leverage. For Washington policymakers, the size of the U.S. market, the preeminence of U.S. capital markets, a technology edge, and the U.S. role in the international financial system are vital areas of economic advantage. Policy elites in the two countries have honed in on these dynamics, which give the burgeoning bilateral competition and coercion its distinctively economic and high tech character.

This report defines coercive economic measures as restrictions—on trade, investment, and financial flows—intended to impose economic costs on a target in pursuit of strategic objectives or to influence a foreign government, group, or individual to offer policy concessions.[1] These restrictions often complement, but are distinct from, positive economic inducements that are also used to sway policy and cultivate political leverage, such as foreign aid, development projects, and preferential trade agreements.[2]

Over the past three years, the United States has deployed coercive economic measures against China in pursuit of economic objectives, notably the tariffs that President Trump has imposed on approximately two-thirds of all U.S. imports from China. Those tariffs enabled the United States to gain leverage for the recently concluded Phase One trade deal, and the Trump administration hopes to leverage the tariffs to reach a broader Phase Two deal in the future. But the United States also has increasingly deployed a range of other coercive economic measures against China, including trade controls, investment restrictions, and targeted sanctions, in pursuit of foreign policy and national security objectives, as well as part of a campaign to maintain U.S. preeminence across a range of critical

President Donald Trump and Chinese Vice Premier Lui He signed agreements of the Phase One trade deal between the United States and China, which cuts some U.S. tariffs imposed last year and commits China to purchases of U.S. farm, energy, and manufactured goods while addressing aspects of disputes over intellectual property and market access. (Mark Wilson/ Getty Images)

high technologies while blocking Chinese dominance of global 5G networks. These objectives advance both U.S. economic and national security goals.

Between the end of the Second World War and approximately a decade ago, China deployed economic coercion primarily in pursuit of its economic ambitions, while largely adhering to a stated policy that sanctions and other economic tools deployed for foreign policy reasons should be done only in a multilateral context. Over the past decade, however, China has increasingly begun to deploy economic coercion to advance Chinese national security goals. This trend appears to have grown across the past several years.[3]

Both the United States and China have employed experimentation and creativity in their recent use of economic coercion. They have expanded their respective tool kits, with the United States resurrecting tariff tools that had been little used since the 1990s and creating new tools to restrict high-tech exports, to diversify U.S. supply chains, and to limit financial flows between the two countries. China has aggressively deployed tariffs in response to U.S. actions, expanding its weaponization of informal market access restrictions to target countries including Canada and Australia. China furthermore is taking steps toward establishing new formal policy instruments, such as an unreliable entity list and developing social credit scores, that could be weaponized against non-Chinese companies that do not adhere to Beijing's global policy priorities.

Yet despite the rapid growth in coercive economic tools and tactics by both Washington and Beijing, U.S. policymakers have yet to develop a strategy for deploying U.S. coercive economic tools against China.[4] While senior U.S. policymakers have coordinated the deployment of different coercive economic tools to a certain degree, they do not appear to have a coherent strategy or a practice of clearly signaling Beijing. Practitioners appear to have, at best, a loose understanding of modeling and scenario analysis about the capacity, limits, and implications of different coercive economic tools. The comparative absence of modeling and strategy across tools, combined with both countries' aggressive and at times internally incoherent stated positions, has significant negative ramifications for U.S.-China economic competition, including economic loss, alienation of allies, diminishment of democratic values, and others.[5]

To be sure, at times individual measures of U.S. economic coercion are defined by clear policy objectives and explicit legal parameters, such as the deployment of export restrictions on several Chinese artificial intelligence and surveillance firms over suspected involvement in China's detention of some one million members of the Uyghur minority group.[6] But other U.S. coercive economic measures have been deployed without consensus on the ultimate policy goal.[7]

For example, while the legal notice announcing restrictions on exports to China's national champion telecommunications firm Huawei suggested that the restrictions were linked to Huawei's alleged violations of U.S. sanctions on Iran, other U.S. public rhetoric suggested the measures were linked to China's 5G telecommunications ambitions, and President Trump himself suggested they could be resolved as part of a trade deal with China.[8] Sanctions experts often call out ambiguity around the ultimate goal with these financial restrictions.[9] Indeed, even with the tariffs that the administration deployed against China in the context of the trade war, the administration sometimes appeared to be divided about whether it was genuinely seeking trade concessions from China or whether it simply wanted to decouple the U.S. and Chinese economies.[10]

Looking at Chinese economic coercion, Beijing traditionally has relied on informal and undeclared measures, carried out through bureaucratic stalling, license and visa denials, unannounced inspections, and boycotts to hamper trade flows and stoke business uncertainty.[11] However, over the past two years, Beijing also has taken steps to formalize some coercive economic measures, even while continuing to deploy informal ones in many cases. For example, in the context of the trade war,

China's retaliation generally has taken the form of formal tariffs on imports from the United States, while China has downplayed the use of informal retaliatory measures, such as customs slowdowns, against U.S. companies. China's social credit scores and unreliable entity list, when finalized, also will be formal measures. But China has continued to rely primarily on fabricated quality and safety concerns and other informal measures when it has applied economic coercion on other countries, such as Australia and Canada.

In many cases, policymakers in both Beijing and Washington see value in having ambiguity surround the goals for use of coercive economic coercion toward one another, and value flexibility in their implementation. This approach accommodates deniability and low levels of intergovernmental coordination. However, when the world's two largest economies lack clarity in the purpose and modalities of coercive economic measures deployed against each other, there is an elevated potential for unintentional escalation and a heightened perception of risk. This is a natural deterrent to investment, commerce, and flow of people, and it muddles the potential for success in achieving foreign policy aims.

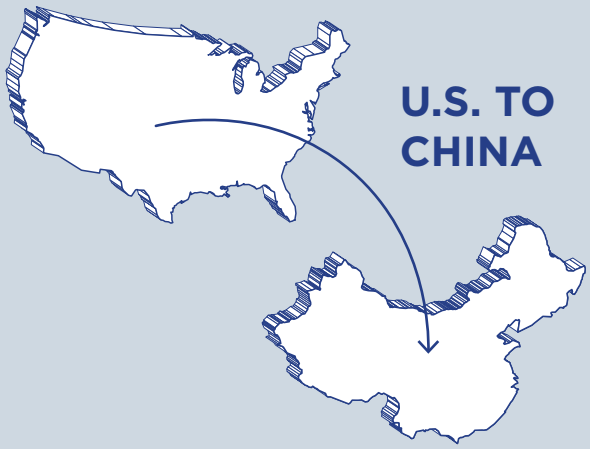
As an operational matter, both the United States and China frequently use economic coercion unilaterally. For the United States, the unilateral character in the use of economic coercion, which occurred to a limited extent during the Clinton, Bush, and Obama presidencies, has expanded dramatically under President Trump. In recent years, for example, U.S. unilateral coercive economic measures have had meaningful economic impacts on Iran, Venezuela, Turkey, and other smaller economies. However, when it comes to China, a near-peer economy that is the largest trading partner of dozens of countries globally, the record of unilateral measures has been more complex.

For example, although U.S. tariffs contributed to an approximately 20 percent fall in Chinese exports to the United States, growth elsewhere meant that China's overall global exports in 2019 were flat, rather than negative, compared to 2018. Similarly, Chinese telecommunications giant Huawei reported increased revenues in 2019 compared to 2018 despite the U.S. restricting exports to the company.[12] Strong growth within China offset flat sales elsewhere. The reality is that when the United States has acted unilaterally China has demonstrated an ability to reorient supply chains and mitigate the effects of unilateral U.S. economic coercion. If the United States is able to coordinate with allies to support and complement economic coercion directed at China, the United States will be more forceful and more effective in its efforts. These dynamics appear likely to continue in the future and necessitate an evolution in political analysis and strategic planning to accommodate the new field of international competition.

For practitioners and observers of strategic competition between the United States and China, as well as for regional, legal, and economic experts, it is important to give names and definition to the tools and modalities of U.S. and Chinese economic competition. This includes explaining and socializing the various specific tools of economic coercion used by both countries, describing what they can achieve, and what they cannot, in bilateral relations. Doing so clarifies for the United States, China, and others what coercive actions are moderate and what are severe, what escalation or de-escalation may look like, and how economic coercion may be used alongside other tools of national power. This in turn will help foreign policy makers to achieve greater clarity in signaling and thus avoid unintentional or uncontrolled escalation or consequences.

Against this backdrop, policymakers in the United States, China, and elsewhere need to expand and formalize an understanding of the statecraft and strategy of contemporary economic coercion in international affairs. This report represents an effort to contribute to this policy work. It lays out an analysis of economic coercion in the U.S.-China relationship, including a description of the tools and modalities of coercion and the rationale and catalysts for use. It goes on to offer a brief assessment of the state of U.S. strategy associated with the use of economic coercion. The report concludes with an exposition of policy principles and specific recommendations for U.S. leaders to adopt to better frame the use of economic coercion in competition with China. With such policy adaptations, and foundational analysis like that offered in this report, the United States will be better placed to outline realistic and achievable policy goals, offer clearer signals to China and others about use of economic clout in the conduct of foreign policy, and improve the resiliency of the United States and its partners to Chinese uses of economic coercion in the coming years.

SELECTED STATISTICS ON THE U.S.-CHINA ECONOMIC RELATIONSHIP



U.S. TO CHINA

7%

7% OF ALL U.S. EXPORTS GO TO CHINA

$121 BILLION

VALUE OF U.S. GOODS EXPORTS TO CHINA [13]

$57 BILLION

VALUE OF U.S. SERVICES EXPORTS TO CHINA [14]

$90 BILLION

$90 BILLION OF U.S. GOODS EXPORTS FACE CHINESE TARIFFS [21]

$500 BILLION

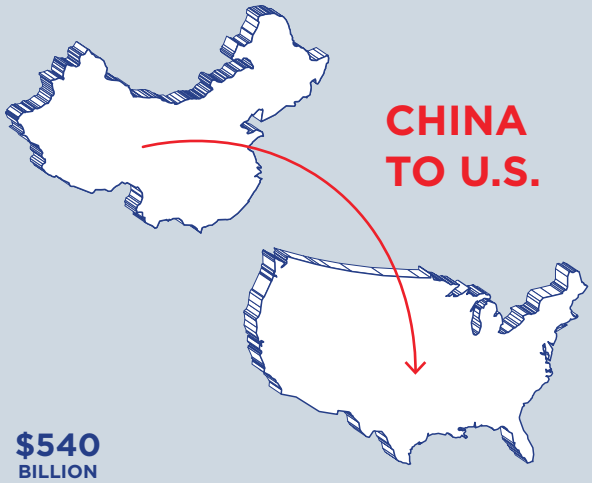
U.S. COMPANY SALES IN CHINA [27]

20%

SHARE APPLE COMPUTER SALES IN CHINA [28]

$3 TRILLION

U.S. DOLLAR DENOMINATED DEBT [29]



CHINA TO U.S.

$540 BILLION

CHINESE GOODS EXPORTS TO U.S. [16]

$18 BILLION

CHINESE SERVICES EXPORTS TO U.S. [17]

19%

13%

SHARE OF ALL CHINESE EXPORTS THAT GO TO THE U.S [18]

$336 BILLION

GOODS COVERED BY TRUMP ADMINISTRATION TARIFFS [19]

59%

SHARE OF CHINESE SOVEREIGN RESERVES HELD IN U.S. DOLLARS [30]

SHARE OF ALL CHINESE EXPORTS THAT FACE TRUMP ADMINISTRATION TARIFFS [20]

$60 BILLION

STOCK OF CHINESE FDI IN U.S. [22]

$1.6 TRILLION

VALUE OF HOLDINGS IN U.S. SECURITIES [24]

156

CHINESE COMPANIES LISTED ON U.S. SECURITIES EXCHANGES [25]

$1.2 TRILLION

TOTAL MARKET CAPITALIZATION OF CHINESE COMPANIES LISTED ON U.S. SECURITIES EXCHANGES [26]

Trends in U.S. Coercive Economic Measures Against China

KEY TAKEAWAYS

- The scale and variety of U.S. coercive economic measures against China are increasing. Measures implemented to date include tariffs and other restrictions on Chinese imports, restrictions on high tech exports, export restrictions targeting individual Chinese companies, heightened U.S. investment scrutiny, and targeted sanctions. Other measures are under active consideration in Washington.
- U.S. coercive economic measures against China serve a diverse and expanding range of policy objectives, including economic, technology, and national security objectives.
- China's economic size and global economic ties make China a fundamentally different target than other targets of U.S. coercive economic measures and make allied cooperation important. Impacts of coercive economic measures to date, in terms of achieving stated policy objectives, have been mixed.

Even prior to President Trump's election in 2016, the United States had begun to increase its use of coercive economic measures against China. For example, in 2015 the United States used the threat of economic sanctions as well as diplomatic pressure to persuade China to commit to limiting economic espionage.[31] Since President Trump's inauguration, however, the pace and scope of U.S. coercive economic measures directed at Beijing has expanded dramatically. Unlike many other areas of Trump administration policy, coercive economic measures against China have tended to attract bipartisan support. Broad bipartisan majorities in Congress have supported new U.S. investment restrictions and trade control measures and sanctions; even Trump's aggressive use of tariffs has drawn some praise from Democratic legislators.[32] This chapter assesses two key trends in the U.S. use of coercive economic measures against China, evaluates impacts, and provides key lessons from coercive economic measures imposed to date.

Washington's Approach to Targeting China with Economic Coercion

Much of the public attention on U.S. coercive economic measures has focused on President Trump's aggressive imposition of tariffs on U.S. imports of Chinese goods, which continue to cover approximately two-thirds of goods imports from China even after the United States implemented a Phase One trade deal in January 2020. But equally important, over the past several years the United States has quietly built an expansive kit of coercive economic tools that will play an increasingly prominent role in U.S.-China relations regardless of future tariff developments. These include new regulations on the export of high-end technologies, enhanced review of Chinese investments in the United States, targeted trade and financial measures against specific Chinese companies, a growing array of restrictions on the import of select goods from China in a bid to secure U.S. supply chains against national security risks, and increasingly, the strategic deployment of U.S. law enforcement tools against China.

Looking across the U.S. coercive economic tool kit, two major trends characterize America's expanding use of coercive economic measures against China. First, a broad expansion in the variety and intensity of the tools deployed, and second an across-the-board growth in the number and variety of U.S. policy objectives that U.S. coercive economic measures seek to advance. With a growing range of proposals in Congress and in the executive branch to expand U.S. coercive economic measures further, both these trends appear set to continue over the next several years. Each of the two trends is assessed in detail below.

EXPANSION OF THE VARIETY AND INTENSITY OF TOOLS DEPLOYED

The first major trend evident in the U.S. use of coercive economic measures against China under the Trump administration is an expansion in the variety and intensity of measures. This includes a renewed use of long-standing U.S. economic tools that had been little used in recent years prior to the Trump administration and in the development of new tools through new statutes and regulations. Chart One provides an overview of specific current U.S. coercive economic tools deployed against China and additional measures under consideration by Congress and the Trump administration. In general, the expansion in the types of tools recently deployed, and those planned for deployment, can be divided into six categories enumerated below.

EXPANDING U.S. TOOLS OF ECONOMIC COERCION

1. Tariffs
2. Export Controls
3. Restrictions on Chinese Investment
4. Financial Sanctions
5. Limiting Imports of China-linked Products
6. Law Enforcement Tools

The first set of tools is the dramatic expansion in U.S. tariffs. Between the establishment of the World Trade Organization (WTO) in the mid-1990s and President Trump's election, the United States did deploy tariffs against China in a bid to limit the impacts of unfair Chinese trade practices. The Obama administration, for example, imposed tariffs on Chinese tires in 2009, Chinese solar panels in 2012, and Chinese steel in 2016. But these tariffs were narrowly targeted at specific products deemed to benefit from unfair practices and the aggregate impact was limited. Prior to the Trump administration launching the current U.S. tariffs on China in 2018, the average U.S. tariff on goods imported from China was 3.1 percent. Under the Trump administration, the United States applied new tariffs to approximately two-thirds of U.S. goods imports from China and the average tariff rate applied on goods imported from China rose to approximately 21 percent before falling to 19 percent as a result of the Phase One trade deal—still an increase of approximately 500 percent.[33] The Commerce Department also has moved to broaden the range of other tariff authorities that could be applied against China, such as publishing a rule that could authorize broader tariffs against countries, including China, determined to manipulate their currencies.[34]

The second expansion in tools is the growth of new export controls related to China. This includes controls on products that can be exported to China, and restrictions on exporting products to specific Chinese companies. In 2018, Congress, concerned that existing export controls were too narrowly focused and that China was acquiring a range of "emerging and "foundational technologies from U.S. companies that could position China to overtake U.S. military superiority, enacted the Export Control Reform Act (ECRA). This law directed the U.S. Commerce Department to develop new export controls on these technologies.[35]

In parallel with ECRA, the United States also has expanded its use of existing regulatory tools to restrict the export of goods to specific Chinese companies. In particular, the Trump administration has dramatically expanded the use of the Commerce Department Entity List, which prohibits U.S. exports to identified companies absent a license, to restrict the export of U.S. products to a growing range of important Chinese companies. This includes telecoms giant Huawei, significant Chinese artificial intelligence and surveillance firms including Megvii, SenseTime, and iFlytek, and Chinese supercomputing firms.

The third expansion in U.S. tools has been an increase in restrictions on Chinese investment in the United States. Since 1975, the Committee on Foreign Investment in the U.S. (CFIUS) has had the authority to block investments in or buyouts of U.S. firms significant to

Secretary of the Treasury Steven Mnuchin chairs the Committee on Foreign Investment in the United States, which has expanded its focus on Chinese investments over the past few years. (Sarah Silbiger/Getty Images)

national security—usually deemed so for direct ties to the U.S. military. However, in recent years, particularly in light of growing concern that China has been strategically acquiring U.S. high tech firms such as semiconductor companies, or sensitive personal data on U.S. citizens, CFIUS has expanded its focus on Chinese investments. That is, CFIUS has expanded its notion of what constitutes national security sensitivity in corporate transactions.

Data from 2017, the most recent year available, demonstrate this increase. CFIUS reported reviewing 60 China-related covered transactions in 2017, up from 54 in 2016 and 29 in 2015.[36] Although CFIUS has formally blocked only four transactions since 2010, three of the four formally blocked transactions involved Chinese acquisitions of U.S. companies, while the fourth, Singapore-based Broadcom's attempted acquisition of U.S. semiconductor firm Qualcomm, was blocked over concern that the acquisition could benefit China. In addition, in 2019, CFIUS forced Chinese companies to divest from at least two U.S. companies that they had previously purchased, dating app Grindr and health portal app PatientsLikeMe.[37] In 2018, Congress further expanded CFIUS's jurisdiction when it enacted the Foreign Investment Risk Review Modernization Act (FIRRMA), which provided CFIUS with new authorities to review minority investments in U.S. companies—it previously applied primarily to controlling investments—and established a new mandatory CFIUS review for certain types of transactions.[38]

The fourth expansion in U.S. coercive economic tools against China has been the growth of financial sanctions against Chinese nationals and companies. The United States has imposed financial sanctions on at least 118 individuals and companies based in China over the past three years (2017–2019), a sharp increase from the at least 28 that the United States sanctioned over the prior three-year period (2014–2016). The Office of Foreign Assets Control (OFAC) has imposed a majority of these sanctions on Chinese companies engaged in trade with Iran and North Korea. In recent years, however, OFAC has expanded the range of sanctions applied to Chinese individuals and companies. For example, in 2018 OFAC imposed sanctions on a Chinese general and a Chinese military entity for purchasing military equipment from Russia. In late 2017, for the first time, the United States imposed sanctions on a Chinese official for alleged involvement in human rights abuses. This growth of sanctions against China also looks set to continue due to two new laws that Congress passed in late 2019, establishing sanctions against Chinese officials responsible for repression in Hong Kong and against Chinese fentanyl producers.[39]

The fifth expansion in U.S. coercive economic tools has been an increased focus on limiting the import or use of specific China-linked products in order to secure U.S. supply chains. Over the past two years the United States has sharply limited the use of equipment made by Chinese telecommunications firms Huawei and ZTE in U.S. telecommunications networks. In late 2019 the United States proposed a new regulation that could limit the U.S. private sector's use of information and communications technology equipment made by Chinese companies.[40] Import restrictions are beginning to impact other sectors as well. In late 2019 Congress enacted legislation designed to restrict the use of Chinese railcars and buses in U.S. public transportation networks.[41] In late 2019 and early 2020 Congress effectively banned the U.S. military from purchasing Chinese-made drones,[42] while the Trump administration directed U.S. government civilian agencies to stop using Chinese-made drones.[43]

Over the past six years the United States has begun to increasingly deploy law enforcement tools to focus on Chinese practices that violate U.S. law.

Finally, over the past six years the United States has begun to increasingly deploy law enforcement tools to focus on Chinese practices that violate U.S. law. The Obama administration focused on prosecuting Chinese IP theft, and in 2014 the U.S. Department of Justice indicted five Chinese military hackers for economic espionage.[44] U.S. law enforcement has expanded this China focus in the years since. For example, in late 2018 the U.S. Department of Justice announced a new "China Initiative" that would place a heighted prosecutorial focus on China-linked trade secret theft cases and other China-linked IP theft. The initiative also includes identifying tools to respond to supply chain risks, cracking down on lobbying and public influence activities by Chinese agents that fail to register under the Foreign Agents Registration Act, and bringing prosecutorial focus to Foreign Corrupt Practices Act cases involving Chinese companies that compete with American firms internationally.[45] The Department of Justice also indicted Huawei for violations of U.S. sanctions and for trade secrets theft.[46]

FBI Director Christopher Wray has unveiled national security law enforcement actions against Chinese nationals believed to have hacked more than 45 companies in the United States. These charges are part of a broader Department of Justice effort, the China Initiative, launched in December 2018, to place a heightened focus on China-linked trade secret theft cases, political influence operations, and other activities in the United States. (Alex Wong/ Getty Images)

In addition to these major categories of expanded U.S. coercive economic measures implemented to date, both Congress and the Trump administration are considering deploying additional coercive economic measures against China, regardless of implementation of the Phase One trade deal. These include a range of potential new investment restrictions. Policymakers are giving particularly serious consideration to a prohibition on U.S. federal employee pension funds investing in Chinese stocks[47] and a requirement that Chinese companies that issue securities in the United States fully comply with U.S. accounting and audit rules, or face de-listing from U.S. exchanges.[48] They also include growing support for additional export controls and financial sanctions against China, particularly in response to China's detention of approximately one million ethnically Uyghur Chinese citizens[49] and against companies involved in China's militarization of rocks and reefs in the South China Sea.[50]

EXPANSION IN THE NUMBER OF OBJECTIVES INVOKED FOR USE OF MEASURES

The second major trend in U.S. use of coercive economic measures against China over the past several years is the multiplying reasons given for their use. This expansion is in many respects unsurprising. As the U.S. strategic approach toward China shifted from the engagement-oriented posture that dominated the 1990–2016 period, to the current U.S. strategic approach that views China as a great power competitor, it is logical that the United States would deploy coercive economic measures across a greater range of policy objectives.

The Trump administration has not always been clear in expressing the specific objectives underlying the use of coercive economic measures. For example, although most U.S. officials and the formal notice restricting U.S. exports to Huawei portrayed the decision as driven by national security considerations (specifically concern over Huawei's alleged violations of U.S. sanctions on Iran),[51] over the course of 2019, President Trump repeatedly indicated that he might be willing to ease the measures on Huawei as part of a trade deal with China.[52] Nonetheless, a careful examination of the range of U.S. coercive economic measures deployed against China highlights three major categories of objectives: economic objectives, national security objectives, and hybrid objectives, which combine both economic and security objectives.

First, the United States has sought to use coercive economic measures against China to achieve economic outcomes. Specifically, to coerce China to cease myriad abuses, particularly trade practices, that undercut U.S. firms and U.S. competitiveness. Of course, the United States has long deployed tariffs to protect U.S. companies from unfair foreign competition. But the Trump administration's use of tariffs does not just represent an increase in quantity. It also represents a shift in the way in which U.S. tariffs on China are intended to achieve policy objectives.

The United States has had a number of core economic objectives relative to China over the past decade. These include reducing Chinese subsidies for state-owned enterprises and key industries, cracking down on China's theft of U.S. intellectual property and trade secrets, and obtaining better and fair market access for U.S. goods to rebalance the trading relationship. (There have been differences in views of the relative importance of these goals. For example, President Trump appears particularly focused on the bilateral trade deficit.) But between the late 1990s and the Trump administration, the United States generally pursued these goals through multilateral action and inducements, such as WTO challenges to Chinese trade practices,[53] bilateral diplomatic negotiations, and the use of trade agreements with other nations as a way of creating multilateral pressure on China to make economic reforms.

Where the United States did impose tariffs or other coercive economic measures to force policy change by Beijing, it generally deployed them in a targeted fashion.

Notable examples included tariffs of 35 percent on tires in 2009,[54] tariffs on solar cells in 2012 and 2014 with rates up to 78 percent,[55] and tariffs of up to 266 percent on imports of Chinese steel.[56] The George W. Bush administration also included Chinese steel in a 30 percent tariff that his administration imposed on most U.S. steel imports in 2002 to protect U.S. industry from a surge in steel imports.[57] In 2015 the Obama administration also threatened Treasury Department sanctions against Chinese government entities and companies involved in cyberhacking to convince China to enter into an agreement to stop using hacking to steal U.S. commercial secrets.[58] But while all of these measures were designed to put targeted economic pressure on Beijing, none of them were designed to have broad macroeconomic impact.

The Trump administration's tariffs on China reflect a reversion to a model of the use of unilateral tariffs much more prevalent prior to the establishment of the WTO. That is, using the threat or implementation of broad-based tariffs designed to pressure a country into agreeing to substantial economic and trade policy reforms in a bid to rebalance a trading relationship. They also are consistent with how nations regularly use tariffs at a much smaller scale in the context of bilateral trade disputes and in imposing retaliatory tariffs authorized by the WTO. This includes identifying politically sensitive products in order to spur policy change by the targeted nation, rather than simply targeting the products that benefit from an unfair trade practice.

The first substantial round of tariffs that President Trump imposed on Chinese goods in July 2018 focused on products "that contain industrially significant technologies" including "goods related to China's Made in China 2025 strategic plan to dominate the emerging high-technology industries that will drive future economic growth."[59] However, later rounds of tariffs covered a vast range of manufactured products, consumer goods, and other products that generated substantial export revenue for China, but that did not necessarily have any direct relationship to unfair Chinese trade practices or other U.S.-China trade tensions. Instead, the objective of these subsequent tariffs was to generate macroeconomic and political pressure in China to force Beijing to make broader concessions on a range of economic practices and to purchase more U.S. goods. As President Trump repeatedly stated on Twitter and in public remarks (albeit often citing factually inaccurate statistics), if China felt substantial economic pain from the U.S. tariffs it would feel pressure to make a deal on major structural issues such as IP theft, market access, subsidies, and increased purchases of U.S. goods.[60]

The Trump administration's tariffs on China reflect a return to a model of unilateral tariffs that was more prevalent prior to the establishment of the World Trade Organization. (Robert Hradil/ Getty Images)

The second major set of policy objectives of U.S. coercive economic measures deployed against China over the past several years relates to U.S. foreign policy and national security. Specifically, the United States has sought to sever China's financial and economic ties with third countries subject to U.S. sanctions and punish companies that do business with sanctioned countries and other rogue actors. These objectives tend to predate the Trump administration. The Obama administration, for example, used the threat of sanctions to persuade China to reduce its imports of Iranian oil prior to the Joint Comprehensive Plan of Action nuclear deal. But under the Trump administration, the United States has increased both the number and variety of Chinese targets sanctioned over commercial or financial ties with other countries, including sanctions over Chinese defense ties with Russia and sanctions against Chinese organized crime.[61]

In recent years, U.S. foreign policy objectives advanced by coercive economic measures have also expanded to cover certain domestic Chinese political issues, predominantly human rights abuses. In late 2017, the United States for the first time sanctioned a Chinese official, police officer Gao Yan, under the Global Magnitsky sanctions program, which authorizes sanctions against individuals and entities responsible for human rights abuses and corruption.[62] In late 2019 Congress enacted new legislation that requires the President to impose sanctions on Chinese officials responsible for undermining fundamental rights and freedoms in Hong Kong,

and to evaluate whether Hong Kong remains sufficiently independent from China to continue meriting separate status under U.S. export and customs laws. The United States also cited national security concerns regarding surveillance and the detention of minorities as the reason for imposing restrictions on U.S. exports to multiple Chinese high tech firms, including Megvii, iFlyTek, and SenseTime.[63] This trend appears likely to continue with strong congressional support for sanctions on China's internment of Uyghurs and other human rights abuses.

In using coercive economic measures to advance U.S. national security interests, the United States has sought to secure U.S. supply chains to minimize the risks of espionage or disruption of U.S. industries considered core to national security. As discussed earlier, this kind of economic coercion has been particularly apparent with respect to telecommunications network equipment. Policymakers are increasingly looking to control a broader range of information and communications technology equipment, given concerns that Chinese equipment could facilitate cyber-espionage on both commercial and government information and the potential for China to disrupt networks that rely on Chinese-made equipment.

Yet another national security basis for using U.S. economic coercion is tied to securing sensitive U.S. data to mitigate espionage risks. Since 2015 the United States has deployed the threat of sanctions against Chinese individuals, entities, and companies engaged in cyber-espionage against U.S. trade secrets and other commercial information. More recently, the CFIUS process has expanded scrutiny of Chinese acquisitions of U.S. companies that have access to U.S. citizens' personal information out of concern that China could exploit the data for intelligence gathering purposes.

Finally, the United States has increasingly deployed coercive economic measures in support of maintaining America's technological edge. This can be considered to be advancing hybrid objectives, in that such coercion serves to advance both U.S. economic and national security objectives. Indeed, it appears that many U.S. policymakers see economic coercion as ideally applied to China when it can achieve this dual purpose.

Much of the congressional impetus in reforming CFIUS to expand its authority to review minority investments in U.S. companies was driven by concern that China was acquiring U.S. companies that built strategic technologies, such as semiconductor companies, and that Chinese acquisition of the technologies and transfer of technological expertise to China will undermine both the U.S. economy and U.S. military superiority.[64]

The United States has increasingly deployed coercive economic measures in support of maintaining America's technological edge, which can be considered advancing hybrid objectives.

Congressional support for the Export Reform Control Act's requirement that the U.S. Commerce Department develop controls on the export of emerging and foundational technologies was similarly driven by concerns that Chinese acquisition of key U.S. technologies could facilitate Chinese economic and military superiority while undercutting U.S. technology leadership over the mid- and long term. Potential U.S. sanctions on Chinese economic espionage and a 2018 U.S. decision to put Fujian Jinhua Integrated Circuit company on the U.S. Entity List, after finding that it was using technology stolen from U.S. semiconductor firm Micron Technologies, similarly support the objective of limiting China's access to technology as a mechanism to maintain the U.S. technological edge.[65]

Analysis of Economic Impacts

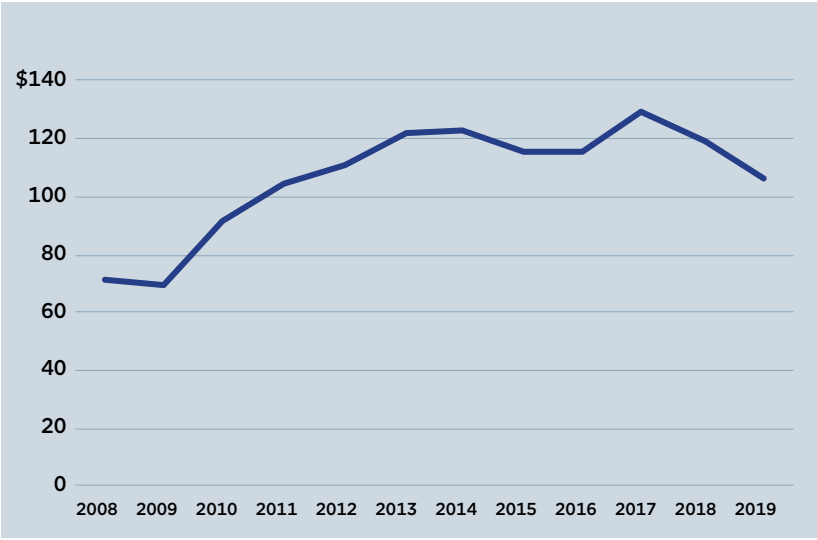
The recentness of many U.S. coercive economic measures against China and the complex interplay of other factors on the U.S.-China economic relationship make it impossible to offer a full, systematic analysis of economic impacts. For example, the chilling effect of heightened CFIUS reviews of Chinese investment in the United States is virtually certain to have contributed to the sharp fall-off in investment levels. However, changes in Chinese capital controls, the Chinese economic slowdown, and broader trade tensions also have likely played a role, and it is difficult to identify the precise role of CFIUS compared to other factors. Similarly, while U.S. tariffs were the primary driver in reducing China's exports to the United States in 2019, China's overall economic slowdown is the product of many other factors as well. This includes rising levels of debt, business inefficiencies, and demographics. Nonetheless, a preliminary review of the impacts of U.S. coercive economic measures reveals five major findings.

First, U.S. tariffs reduced the volume of Chinese exports to the United States, but did not reduce aggregate Chinese exports globally, and likely contributed to China's overall growth slowdown. Preliminary statistics for 2019 released by Chinese customs authorities

indicate that Chinese exports to the United States fell by approximately 12 percent in 2019 compared to 2018.[66] A United Nations Conference on Trade and Development (UNCTAD) economic analysis released in November 2019 found that U.S. tariffs appeared to reduce U.S. imports of tariffed products by approximately 25 percent, though with substantial differences in impacts across different sectors, likely reflecting both differential tariff rates and also differences in the availability of other suppliers.[67] Overall Chinese exports, however, recorded a modest 0.5 percent growth in 2019 as continued growth in Chinese exports to Europe, Canada, Asia, and other markets offset the decline in exports to the United States.[68]

China's reduction in exports to the United States does appear to have contributed to the marked slowdown in China's growth in 2019, which fell to a 30 year low of 6.1 percent, according to economic estimates based on Chinese statistics.[69] As part of the overall slowdown in Chinese growth, China has experienced substantial manufacturing job losses, but the percentage of those attributable to the trade war is unclear, and President Trump's statements that China has lost millions of jobs from the trade war are probably overstated.[70] (There is a lively debate about the accuracy of Chinese government statistics, with a number of outside experts arguing that China's actual growth rate has been 2 percentage points or more below rates calculated based on official Chinese statistics.[71] But economists skeptical of the official statistics nonetheless generally agree that the trade war has further slowed China's economy.)[72]

U.S. GOODS EXPORTS TO CHINA, IN BILLIONS (2008–2019)



Since 2017, Chinese retaliatory tariffs on U.S. exports to China have caused total exports from the United States to China to decrease.

Source: USITC Dataweb, Version 4.5.1 (U.S. International Trade Commission, 2020).

Second, tariffs and other import restrictions have impacted U.S. supply chains, but some industries have proven more resilient and less changed than others. There has been some diversion of U.S. supply chains away from China to other countries, notably Taiwan, the European Union, Mexico, and Vietnam, as a result of the tariffs. Not all trade was diverted, however, and economic estimates suggest there also was a net trade loss of approximately $14 billion from the tariffs.[73] In addition, there has been significant variation in supply chain shifts across industries: For example, UNCTAD found significantly larger supply chain diversion on office equipment and electronics than on transportation equipment and precision machinery, while other analysts also have found comparatively more diversion in electrical appliances and semiconductors.[74] Indeed, a business survey released in late 2019 found that only 28 percent of North American companies had moved supply chains out of China.[75]

Anecdotal reporting indicates that outright bans on the import of specific equipment, while effective in restricting Chinese supplies of targeted products, can be challenging to implement without adequate planning to identify alternative suppliers for products that China dominates. For example, a U.S. Department of the Interior plan nearing finalization to stop using Chinese-made drones will reduce fire monitoring and other services because the Department will not be able to identify other suppliers in the near term.[76] Similarly, U.S. rural telecommunications carriers will require time to remove existing Huawei equipment from their networks given the need to identify alternative suppliers and install replacement equipment.[77]

Third, CFIUS has been effective at limiting Chinese and China-linked investment in the United States. As discussed earlier, it is impossible to completely disaggregate the impact of CFIUS on Chinese investment levels in the United States from other factors. However, the overall decline in Chinese investment in the United States is striking. Chinese foreign direct investment (FDI) in the United States has fallen more than 80 percent below highs reached in 2016 and remained below 2013–2014 levels during the first half of 2019, according to data compiled

The U.S.-China trade war has diverted some manufacturing supply chains from China to places such as Vietnam, but other companies have found it hard to relocate from China. (Linh Pham/Getty Images)

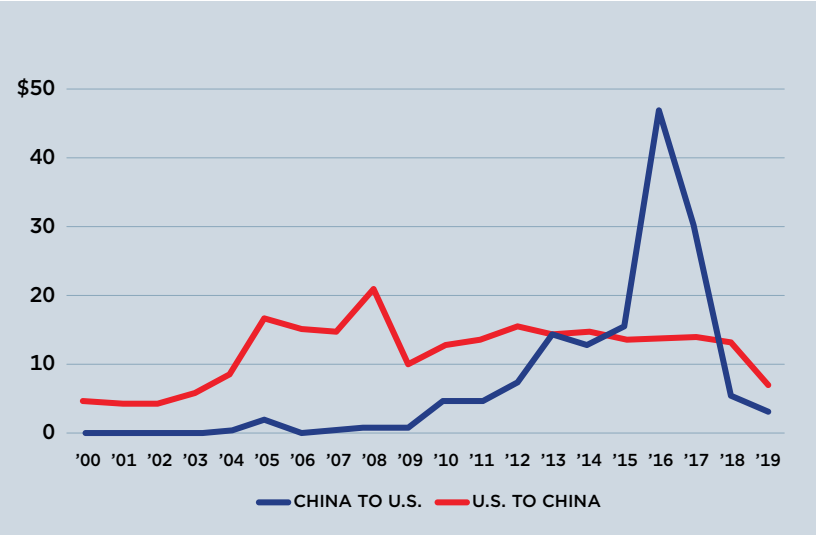
by the Rhodium Group.[78] Interestingly, Chinese venture capital investment, which faced only limited scrutiny prior to Congress enacting FIRRMA in 2018 and the Treasury Department issuing initial interim regulations in October of that year, hit record levels in 2018. While venture capital investment declined in the first half of 2019, the most recent period for which data is available, it nonetheless proved more resilient than FDI.[79] This difference in the rate of decline in venture capital investment (which did not face substantial CFIUS regulation until the second half of 2018) and FDI may be further evidence that CFIUS review, and not simply other economic and financial factors, has affected the rate of Chinese investment in the United States.

Fourth, targeted measures, including use of the Entity List and U.S. financial sanctions, have had a mixed record of success. There is no publicly available comprehensive review of the impacts of U.S. coercive economic measures on targeted Chinese firms. Indeed, it can be challenging to find any significant financial or economic performance information on Chinese companies that have been sanctioned. However, existing reporting on individual cases indicates some success and some inconclusive analysis based on both assessments of economic and financial impacts and on assessments of whether the measures are achieving stated policy goals.

For example, Chinese semiconductor company Fujian Jinhua Integrated Circuit was essentially forced to shut down following an October 2018 decision to add the company to the Entity List.[80] In this case, U.S. measures appear to have had both substantial economic impacts, and, via those economic impacts, policy success in preventing Fujian Jinhua from profiting off of the stolen IP to the detriment of U.S. firms. But this success has been due at least in part to the fact that Taiwanese semiconductor firms that had partnerships with Fujian Jinhua also cut ties to the company, as well as in part due to Fujian Jinhua's reliance on certain U.S. equipment.[81] Telecommunications giant Huawei, on the other hand, has withstood restrictions that the United States placed on it in May 2019, reporting an increase in sales as strong growth in China offset more limited sales elsewhere.[82] Huawei has been able to deploy more indigenous Chinese-made parts to circumvent the U.S. ban, but also has substantially increased its purchases from Japan[83] while continuing to purchase chips from Taiwan.[84] Similarly, the values of several Chinese surveillance technology and AI firms placed on the Entity List in October 2019 do not appear to have suffered sustained significant declines as result of the U.S. blacklisting.[85]

U.S. Treasury Department sanctions also appear to have had mixed results. U.S. sanctions on two oil tanker subsidiaries of Chinese shipping giant COSCO initially

U.S.-CHINA FOREIGN DIRECT INVESTMENT FLOWS, IN BILLIONS (2000–2019)



The United States and China have invested billions of dollars in each other's economies since 2000. Since 2017, the amount of investment from both the United States into China and from China into the United States has sharply declined.

Source: The U.S.-China Investment Hub (Rhodium Group, 2020), https://www.us-china-investment.org/us-china-foreign-direct-investments/data.

appeared to prompt international firms to sever ties to the company, driving up international tanker rates. But many COSCO tankers resumed sailing after the United States issued temporary exceptions to the sanctions,[86] and the United States de-listed one of the two subsidiaries, while keeping the other on U.S. sanctions lists.[87] More broadly, Chinese customs data indicate that while China did reduce its imports of Iranian oil by approximately half in 2019 compared to 2018, it continued to import 295,000 barrels per day from Iran, making China by far Iran's largest remaining oil customer.[88] In 2019 reporters found that a hotel and casino complex owned by a Chinese crime syndicate that had been sanctioned in 2018 remained in business and was undertaking a substantial expansion even following the sanctions.[89] Revenue and assets at China's Bank of Dandong, which the United States sanctioned in 2017 over ties to North Korea, actually grew in 2018.[90]

The final set of economic impacts is related to collateral costs. In brief, these unintended costs can be significant. For example, a late 2019 study by the U.S. Federal Reserve found that tariffs on inputs for U.S. manufacturing actually had reduced U.S. manufacturing activity and contributed to manufacturing job losses.[91] Estimates of the consumer costs of U.S. tariffs on China vary, but are significant, with a range of between $460[92] and $1,000 per person per year.[93] But even targeted measures can have significant costs and unintended consequences. For example, American tech companies sold Huawei approximately $11 billion per year in products prior to the ban.[94] U.S. semiconductor firms are increasingly concerned that broader restrictions on sales to China could undercut their revenues to the point that it impairs U.S. tech research and development (R&D) spending compared to competitor nations, ultimately undercutting U.S. technological leadership. This concern over investment appears to have persuaded the U.S. Department of Defense to block proposed measures to further restrict sales to Huawei.[95]

Analysis of Policy Impacts

The expansion in U.S. coercive economic tools deployed against China, the growth in policy objectives that coercive economic tools are intended to advance, and the impacts of the U.S. coercive economic tools deployed against China to date all have significant implications for U.S. policy.

First, the mixed record of impacts for unilateral, U.S. coercive economic tools drives home the importance of enlisting allied support for economic coercion against China. U.S. measures are intended to have

The United States imposed sanctions on two subsidiaries of COSCO, a Chinese shipping giant, for transporting Iranian oil. (Justin Sullivan/Getty Images)

macroeconomic impacts on China and impacts on targeted firms. But where unilateral U.S. coercive economic measures have had dramatic effects on small countries like Iran and Venezuela, the impacts on China have been comparatively smaller. This has been in part because of China's ability to increase exports to markets other than the United States to partially offset the loss of U.S. market share. It is also due to the ability of China to blunt the impact of U.S. export controls by altering supply chains to other high-tech suppliers. Increased allied support for coercive economic measures will magnify their impact.

Second, U.S. coercive economic measures against China can have substantial economic impacts on allies. The United States needs to clearly communicate about and address these impacts if it wants to secure multilateral support. Singapore, for example, suffered a significant slowdown in economic growth in 2019 largely as a result of the U.S.-China trade war impacting trade volumes and supply chains.[96] While the current ban on sales of U.S. goods to Huawei has disadvantaged U.S. companies relative to foreign competitors, a move to restrict non-U.S. sales of semiconductors to Huawei would have major negative impacts on important companies in several U.S. allies. Major Taiwanese semiconductor firm TSMC, for example, counts Huawei as its second-biggest customer.[97] The limited availability and higher prices for 5G telecommunications equipment purchased from suppliers other than Huawei have been a barrier to obtaining the support of U.S. allies for banning Huawei equipment from 5G telecommunications

networks. The United States needs to consider, explain, and, where possible, address the third-country impacts of U.S. coercive economic measures on China if it wants to secure allied support for them.

Third, China's increasingly aggressive efforts to develop domestic supply chains and nascent efforts to reduce China's reliance on the U.S.-dominated international financial system will, if successful, have significant implications for the United States over the longer term. This is a serious prospect the United States must consider and address as such moves by China will reduce U.S. leverage over China. The impact of U.S. coercive economic measures ultimately depends on the ability of the United States to restrict access to economic benefits that are costly for China to lose. Should China become less dependent on U.S. finance, markets, and supply chains in the future, the United States will have comparatively less coercive economic power to deploy. (Of course, reducing supply chain linkages also will reduce Chinese leverage over the United States, a substantial goal for many U.S. policymakers.)

Should China become less dependent on U.S. finance, markets, and supply chains in the future, the United States will have comparatively less coercive economic power to deploy.

One implication of this is that U.S. policymakers should look for mechanisms to strengthen influence over both the Chinese economy as a whole and over individual Chinese companies, rather than simply shutting Chinese companies out of the United States. In this vein, the United States actually can encourage Chinese companies to comply with U.S. sanctions by seeking to settle cases of sanctions violations by offering Chinese companies reduced penalties or removal from U.S. sanctions lists in exchange for developing compliance programs. One successful example of this approach was the Commerce Department's settlement with ZTE, in which ZTE paid more than $2 billion in total fines and agreed to have U.S.-approved compliance personnel oversee its global sanctions compliance program.

Fourth, the United States lacks a systematic approach to securing its supply chains. U.S. tariffs and restrictions on imports have begun to alter U.S. supply chains in some products. But the adjustment costs can be significant. To date, the U.S. approach to securing supply chains seems to have been driven more by attention to specific issues, such as telecoms, and the threat of "spy trains" than by a systemic assessment of U.S. civilian supply chain vulnerabilities. As the United States increasingly seeks to selectively sever specific supply chains from China, Washington will struggle if it does not have a more comprehensive assessment of America's supply chain vulnerabilities. A more rigorous approach will necessarily include more work to catalog, understand, and anticipate the connectivity to China and Chinese influence among all supply chain nodes significant to the United States.

Fifth, the United States is hampered in the effective use of its coercive economic tools by the absence of a comprehensive and integrated approach to deployment of such measures against China. At present, U.S. leaders lack a clear, unified understanding of which measures are intended to serve economic, national security, or hybrid goals.

Trump administration officials have sequenced coercive economic measures in certain respects. The United States, for example, placed Huawei on the Entity List in mid-May 2019 a week after trade talks broke down.[98] But without a comprehensive and integrated approach to coercive economic measures, sequencing, combined with unclear signaling, can inadvertently send incorrect messages to Beijing. The timing of the Huawei action, for example, likely contributed to China's perception that the Huawei action was actually related to the U.S.-China trade war, and not to the national security threats that Huawei poses to the United States.

A final policy implication for U.S. decisionmakers is that even with allied support and continued U.S. leverage, there will be limits to the ability of coercive economic measures to drive policy change in Beijing. The Phase One trade deal illustrates these limits. While China ultimately made some commitments regarding increased IP protections and mechanisms for reducing IP theft, a commitment to stop requiring technology transfer as a condition of market access, and expanded market access in some sectors, including finance (as well as purchases of U.S. goods), China so far has been unwilling to agree to fundamental systemic changes to its subsidies and state-centric economic model. It appears unlikely to do so as a result of U.S. pressure. U.S. policymakers need to assess the limits of coercive economic tools and develop strategies that deploy all aspects of U.S. power in countering the challenges that China poses.

SELECTED TOOLS AND CAPACITY OF U.S. COERCIVE ECONOMIC POLICY

	TOOLS	LEAD IMPLEMENTING AGENCY	IMPACT	MECHANISM OF USE	LIMITS ACCESS TO U.S. FINANCIAL SYSTEM	TARIFFS AND/OR IMPORT RESTRICTIONS	LIMITS EXPORTS	FREEZES ASSETS	IMPOSES LIMITS ON INVESTMENT
Tariff Tools	Section 301 of the Trade Act of 1974	Office of the U.S. Trade Representative	Authorizes tariffs and other market access restrictions against countries that violate trade agreements or otherwise engage in unfair trade practices that burden U.S. commerce.	U.S. Trade Representative leads investigation of alleged foreign trade practice and recommends tariffs or, potentially, other U.S. response.		X			
	Section 232 of the Trade Expansion Act of 1962	Department of Commerce	Authorizes tariffs or imposes quotas on the import of products when the import of the product is deemed to pose a threat to U.S. national security.	Commerce leads investigation of national security impacts of targeted import; coordinates recommendation of tariffs, import restrictions, or other measures to address national security concern.		X			
	Anti-Dumping and Countervailing Duty Investigations	Department of Commerce	Imposes tariffs on specific products that benefit from unfair foreign subsidies or which are being dumped below cost in the U.S. market.	U.S. Commerce Department and U.S. International Trade Commission investigate alleged dumping and/or unfair subsidies; impose compensatory tariffs.		X			
	Safeguard Investigations	Department of Commerce	Imposes tariffs or quotas on imports to protect U.S. industry impacted by a surge of foreign imports.	U.S. International Trade Commission investigates surge of imports and recommends compensatory tariffs.		X			
Export Controls	Export Administration Regulations and Commerce Control List	Department of Commerce	Regulates the export of a wide range of products that require a license to export to specified (or all) countries and/or to the nationals of specified countries, even if in the United States.	U.S. Department of Commerce can amend regulations to limit exports of new categories of technology and/or the export of specified goods to specific countries.			X		
	U.S. Munitions List	Department of State	Restricts the export of U.S. weapons without a State Department license.	Largely derived from the four major multilateral control regimes: Australia Group, Missile Technology Control Regime, Nuclear Suppliers Group, and Wassenaar Arrangement.			X		
	Entity List	Department of Commerce	Prohibits the export of goods to identified company (without a Commerce Department license).	Department of Commerce can add a company to the Entity List on finding that the company has been involved or poses a significant risk of being involved "in activities that are contrary to the national security or foreign policy interests of the United States." Commerce can license specific exports to a targeted company.			X		
	Denial Order	Department of Commerce	Prohibits the export of goods to identified company and restricts other actions with respect to the identified company.	Department of Commerce issues Denial Order.	X		X		
Sanctions	Targeted Sanctions	Department of Treasury; Department of State	Generally freezes assets in the U.S. and prohibits all U.S. companies from doing business with the target (U.S. SDN list); can also impose more limited financial restrictions on specific targets.	Secretary of Treasury or State determines that individual or company violated U.S. sanctions prohibitions.	X	X	X	X	X
	Sectoral and Comprehensive Sanctions	Department of Treasury	Prohibits certain categories of business with targeted countries.	President issues Executive Order prohibiting categories of business with specified country.	X	X	X	X	X
	Patriot Act 311 Designation	Department of Treasury	Requires domestic financial institutions to conduct additional due diligence or impose limits on opening of correspondent accounts for designated entity.	Review and approved by the Financial Crimes Enforcement Network (FinCEN), with policy input from the National Security Council.	X			X	
	FinCEN Advisory on Foreign Firms	Treasury Department	Raises awareness of potential illicit finance risks.	FinCEN issues public and non-public advisories to financial institutions and other covered entities.	X				

SELECTED TOOLS AND CAPACITY OF U.S. COERCIVE ECONOMIC POLICY *CONTINUED*

	TOOLS	LEAD IMPLEMENTING AGENCY	IMPACT	MECHANISM OF USE	LIMITS ACCESS TO U.S. FINANCIAL SYSTEM	TARIFFS AND/OR IMPORT RESTRICTIONS	LIMITS EXPORTS	FREEZES ASSETS	IMPOSES LIMITS ON INVESTMENT
Investment Restrictions	Committee on Foreign Investment in the U.S. (CFIUS)	Department of Treasury	Reviews foreign investments in U.S. companies.	Reviews foreign investments in the United States and can require mitigation measures to address national security risks and/or recommend that the President block a proposed transaction; can require transactions that were not approved to be unwound.					X
	Securities and Exchange Commission (SEC) listing requirements and investigations	Securities and Exchange Commission	SEC can limit ability of foreign companies to list securities if they do not meet U.S. standards and can investigate violations of securities laws.	No set SEC listing standards, meet minimum financial standards (market value for public shares of at least $40 million) and non-financial standards (key executives' contact details and with none having a felony conviction).	X				X
Non-tariff Import Restrictions	Executive Order 13876	Department of Commerce	Authorizes blocking of use of certain information communications technology equipment in the United States and by U.S. companies.	Department of Commerce can require company to stop using specified equipment.		X			
	Restrictions on Use of Chinese Equipment in U.S. Telecommunications Networks	Federal Communications Commission; government procurement authorities	Effectively bans Huawei, ZTE, and other Chinese-made telecommunications equipment from U.S. telecommunications networks.	Federal agencies use purchasing restrictions and limit use of federal dollars to prevent use of Chinese telecommunications equipment in U.S. networks.		X			
	Other Import Restrictions	Government procurement and spending authorities	Restrictions on use of federal dollars and federal agencies for the purchase of Chinese rail cars and buses, Chinese drones, potentially other Chinese products.	Federal agencies use purchasing restrictions and limit use of federal dollars to prevent purchase of specified Chinese-made equipment.		X			
U.S Law Enforcement Tools	U.S Law Enforcement Tools	Department of Justice and Securities and Exchange Commission, among others	Impose fines and monetary penalties against companies that violate U.S. anti-bribery laws, that engage in IP theft, and violate other areas of U.S. law.	Department of Justice files either civil or criminal charges against defendant; other agencies such as the Securities and Exchange Commission use authorities as appropriate.	X			X	
Anti-Boycott Laws	Anti-Boycott Laws	Commerce Department; Internal Revenue Service	Enacts criminal and civil penalties, denies export privileges and tax benefits to U.S. companies that comply with certain foreign boycotts.	Bureau of Industry and Security's Office of Antiboycott Compliance brings an enforcement case against an entity that violates anti-boycott laws.			X		

Trends in China's Use of Coercive Economic Measures Against the United States

KEY TAKEAWAYS

- China has elevated the role of coercive economic measures in its statecraft over the past decade and now deploys economic coercion across a broadening range of foreign policy issues beyond China's stated "core national interests."
- China is taking steps to alter the way it deploys coercive economic measures, increasingly targeting specific firms and beginning to develop regulatory tools to formalize the use of economic coercion.
- To date, China generally has deployed coercive economic measures against the United States reactively and in a limited fashion. China appears likely to expand the use of coercive economic measures against the United States and U.S. companies.

Chinese economic statecraft, or *jingji waijiao*, includes both economic inducements and coercive economic measures.[99] Over the past decade, China has expanded globally its use of economic statecraft, including coercive economic measures.[100] Popular Chinese coercive economic measures include tariffs, boycotts, limitations on trade and commerce with and inside China, pressure on specific foreign companies, restrictions on Chinese tourism abroad, and other targeted financial measures.[101] While economic inducements remain the prominent elements of Chinese economic statecraft, coercive economic measures are increasingly important as a part of the Chinese economic tool kit. Moreover, economic coercion instruments appear increasingly important as an instrument by which Beijing conducts foreign policy, in dealings both with foreign governments' counterparts and the private sector abroad. The importance and potency of these coercive measures to the Chinese Communist Party (CCP) leadership appears likely to continue to increase.[102]

Previous CNAS research, as well as work by other experts, has identified several prominent characteristics in China's use of coercive economic measures: China has tended to deploy them most aggressively over issues that Beijing deems as core national interests. China tends to implement these measures informally, relying on a range of informal directives and legal measures that have no direct bearing on a foreign policy dispute to put pressure on a target. Moreover, many of the cases have targeted China's neighbors. A large share of targets has proven

The importance and potency of coercive economic measures to the Chinese Communist Party leadership appears likely to continue to increase.

to be democratic countries, and China tends to target politically influential constituencies as the immediate targets of economic coercion. Additionally, oftentimes rather than acting in the first instance, China commonly exerts economic coercion in response to a perceived provocation, generally tied to a core challenge related to a territorial dispute or Chinese sovereignty.

Over the past several years, China has appeared to accelerate its use of economic coercion, including toward U.S. targets, and to expand the modalities and tools it uses to engage in this coercion. This suggests that China is broadening the aperture for economic coercion and is increasingly active against, in particular, nongovernment

entities abroad. Beijing appears intent on accelerating the evolution of its methodology for use of economic coercion, and quite comfortable embracing disruptive policy opportunities.

With a powerful, growing economy and expanding plans to influence global trade, politics, and legal norms, China is rapidly scaling up its approach to economic coercion. There also are a growing number of examples of China deploying economic coercion against U.S. firms that China sees as expressing views counter to Chinese foreign policy, something that was rare until recently. The CCP appears to embrace the narrative that the United States is in an inescapable decline and that China inevitably will replace the United States as the global hegemon, which is one factor that likely contributes to its more aggressive approach to economic coercion.

To put this recent evolution in context, economic diplomacy and statecraft have been integral to Chinese foreign policy since 1978, when Deng Xiaoping initiated reforms for economic opening. China's "going out" strategy, which encouraged Chinese enterprises to invest and operate abroad, and the *yijing cuzheng* strategy, a Chinese foreign policy to improve political relations through economic cooperation,[103] are clear underpinnings of China's present prominent ambition to leverage economic power, including coercive economic power, in the service of national interests. As one scholar puts it, China needs "to place more emphasis on improving political relations through economic cooperation" in order to enhance China's influence in the politics and security of the surrounding countries.[104]

Deng Xiaoping, former leader of the Chinese Communist Party, initiated a program of reform and opening China to external commercial relationships, decreasing controls on private businesses and allowing outside foreign investment into China. (Keystone/ Getty Images)

The CCP has offered the view that coercive economic measures, or economic sanctions (*jingji chengfa*) are tools that all "large countries" use, comparing China's use of economic punishments most frequently to that of the United States' sanctions regime.[105] According to Song Guoyu, Deputy Director of the Center for American Studies at Fudan University, part time scholar on the Ministry of Commerce's Committee of Experts, and researcher for the Ministry of Finance's International Finance and Experts Center, the use of coercive economic measures is "the best option between subtle diplomacy and all-out-war," making it one of the most important tools in China's economic tool kit.[106]

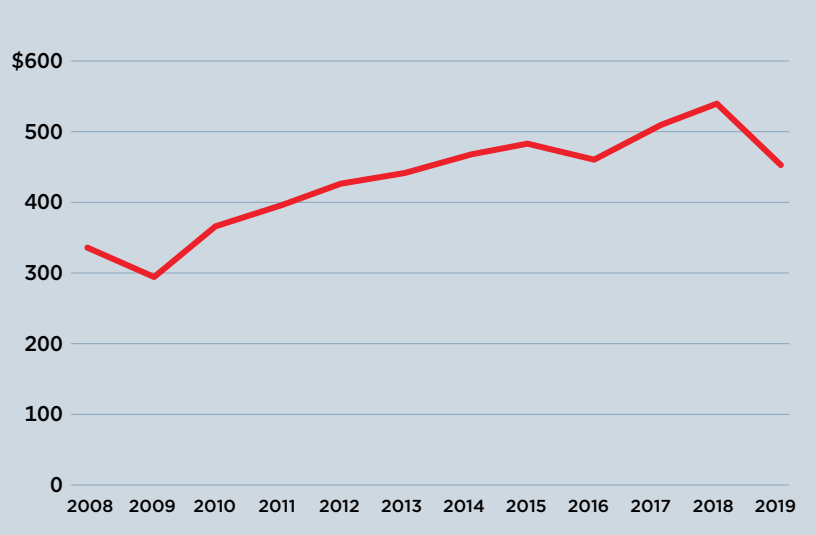
China's Approach to Targeting the United States and U.S. Interests with Economic Coercion

Looking at the last several years, and against the backdrop of the U.S.-China trade war, China's use of coercive economic tools targeting U.S. interests generally has been proportional and reactive. Furthermore, it often has been primarily formal in character, involving declared policy coming directly from senior party officials. It has occurred in-domain, involving parallel policy instruments rather than policy instruments from an entirely different arena of government authorities. The primary example of China's use of coercive economic measures toward the United States in the last several years has been its use of tariffs. Since 2018, the Trump administration placed tariffs on 66.6 percent of Chinese exports to the United States.[107] In response, the Chinese Ministry of Commerce placed tariffs on 60.3 percent of U.S. exports to China.[108]

However, China's expanding use of formal coercive economic measures, such as tariffs, is largely to retaliate against U.S. uses of similar economic actions. China still primarily uses informal coercive economic measures to sway policies and allow it to maintain plausible deniability.

For U.S. advanced technology firms reliant on access to the Chinese market for profit margins, the Chinese government can threaten them to act against U.S. regulations such as export controls.[109] In order to avoid a complete technological blockade against its companies, China warned large tech companies such as Microsoft,

U.S. IMPORTS OF CHINESE GOODS, IN BILLIONS (2008–2019)



U.S. tariffs have resulted in a sharp drop of U.S. imports of Chinese goods between 2018 and 2019..

Source: USITC Dataweb, Version 4.5.1 (U.S. International Trade Commission, 2020)..

Dell, and Samsung not to comply with the U.S. addition of Huawei onto the Entity List.[110] These Chinese threats have had a powerful effect on the thinking of many U.S. firms that seek to operate in both the United States and in China. This point is not lost on the U.S. administration, which has sought to address it through public remarks, regulatory guidance, and other outreach. In Vice President Mike Pence's October 2018 speech at the Hudson Institute, he pointed out that "China threatened to deny a business license for a major U.S. corporation if they refused to speak out against our administration's policies."[111]

Notably, China's reactive posture is an important feature of its economic coercion. Even while the United States has directed myriad public critiques and economic threats at China related to its conduct, China has not followed suit. It does not have a tradition of engaging in proactive deployment of economic coercion to criticize U.S. policy activities. Some observers credit this posture to the long-standing Chinese policy of noninterference abroad, inferring that China is unlikely to try to deter targets preemptively. Instead China may prefer to continue to use economic punishments to signal China's disapproval as a reaction to an event or perceived slight.[112] An alternative explanation is that China is still too dependent on the United States technologically and financially to take the first step to coerce the United States economically.[113]

Looking operationally at China's use of economic coercion, two major trends have emerged over the past couple years. These include, first, an increase in the scope of goals or articulated national interests that underlie China's use of economic coercion toward its targets, including targets in the United States. A second major trend is an increase in China's willingness to use economic coercion and an expansion in the tools and modalities of use.

EXPANSION IN THE ARRAY OF OBJECTIVES INVOKED FOR USE OF MEASURES

In the past, China typically limited its use of coercive economic measures to instances closely tied to Chinese core national interests. These were defined by the Information Office of the State Council as "state sovereignty, national security, territorial integrity and national reunification, China's political system established by the Constitution and overall social stability, and the basic safeguards for ensuring sustainable economic and social development" in its 2011 paper on China's peaceful development.[114] However, the scope of what falls under the definition of core national interests appears to be expanding. Several additional objectives, beyond the clear scope of defending territorial claims and sovereignty, China appears to seek to advance in its use of economic coercion are outlined below.

EXPANDING CHINESE OBJECTIVES OF ECONOMIC COERCION

1. Expand Economic Advantages
2. Respond to Infringement on Territorial Integrity
3. Defend National Champion Companies
4. Target U.S. Allies and Alliances

The first major set of objectives for which China has deployed coercive economic measures against the United States is economic. China has a long tradition of this form of economic coercion toward the United States. Beijing has long coerced U.S. and other international firms into transferring technology and expertise to China by requiring such transfers as a condition of market access. Before China's entrance to the WTO, China "often explicitly mandated technology transfer, requiring the transfer of technology as a quid pro quo for market access."[115] As

previously noted by the U.S. National Counterintelligence Executive, "Chinese actors are the world's most active and persistent perpetrators of economic espionage."[116]

Even as China has passed a Foreign Investment Law that is supposed to protect the intellectual property rights of foreign investors and companies, forced technology transfer has still continued.[117] Besides traditional economic espionage, Chinese cyber-espionage efforts to gain U.S. technology also have reportedly accelerated.[118] According to the 2019 Business Climate Survey administered by the American Chamber of Commerce in China, 53 percent of members still say that the risks of IP leakage and IT and data security threats are greater in China than in other regions where companies operate.[119]

The second set of objectives on the basis of which China has deployed economic coercion against the United States has been to respond to perceived infringements on China's territorial integrity. Over the past several years, China has increasingly used coercive economic measures to defend its territorial integrity with regard to its claims on Hong Kong and Taiwan—including against U.S. firms. During 2019, China notably increased its coercive economic activity against U.S. companies and other entities regarding their statements in support of Hong Kong democracy and self-determination. China banned U.S. nongovernmental democracy organizations, such as the National Endowment for Democracy, Freedom House, and Human Rights Watch as a response to critiques from the United States regarding the CCP's posture toward Hong Kong.[120]

Similarly, China always has insisted that Taiwan was part of its sovereign territory and has used coercive economic measures against Taiwan in recent years. But China now also has expanded its coercive campaign to impact U.S. companies, among other multinational companies. For example, China has pressed U.S. airlines and hotel companies serving Taiwan to cease identifying "Taiwan" as a country on their websites.

These incidents are a continuation of prior instances of Chinese economic coercion linked to issues of territorial integrity, but have been deployed more frequently and less subtly, reflecting China's changing strategic interests. As one leading Chinese scholar puts it, when China became the world's second largest economy a decade ago, it "changed China's main strategic interest from economic prosperity to national rejuvenation."[121]

China's National People's Congress, China's national legislature, passed a Foreign Investment Law at the end of 2019 and is currently drafting its first export control law. (Andrea Verdelli/Getty Images)

Third, China appears to be increasing its use of coercive economic measures to defend its national champion companies. For example, China has sought to use the threat of being added to its unreliable entity list, a list that aims to punish companies that act contrary to Chinese interests, as a key method by which to cripple or constrain the business activities of foreign companies. China also appears to view the threat of being added to the unreliable entity list as a means to discourage companies from complying with U.S. trade controls and other measures. Putting foreign firms on this list would mean their loss of access to China's market. Ultimately, this is a very powerful threat China now has to pressure U.S. companies to adhere to its domestic goals, such as supporting Huawei as a national champion.[122] The potential for use of this tool was clear recently when China appeared to consider using its unreliable entities list to name companies such as FedEx that were following U.S. export restrictions to limit delivery of critical components to Huawei.

China is increasingly targeting U.S. allies for economic coercion, which has important implications for U.S. foreign policy and security.

Finally, China is increasingly targeting U.S. allies for economic coercion, which has important implications for U.S. foreign policy and security. For example, in 2018, Australia passed national security legislation banning foreign interference in politics.[123] In 2019, the Australian government denied Huang Xiangmo, a prominent Chinese political donor in Australia, a passport, canceled his permanent residency, and denied

his citizenship application. Huang has been linked to the United Front Work Department, an organ of the CCP, and accused of influencing Australian politics.[124] Perhaps even more dramatically, in early 2019, Australia announced it would ban Huawei equipment from Australia's 5G telecommunications networks, responding to U.S. concerns that Huawei equipment could be used to facilitate espionage and network disruptions.[125] In response to the growing tensions, in 2019 several Chinese ports restricted imports of Australian coal, an important Australian export to China.[126]

Similarly, in a developing case of Chinese economic coercion, the Chinese ambassador to Sweden has threatened to "impose restrictions on [the] economy and trade with Sweden," a statement that was reinforced by the Chinese Foreign Ministry.[127] These threats were in response to the Swedish Minister of Culture Amanda Lind attending the Tulchosky Prize award ceremony, an annual award given to persecuted or exiled writers. The prize was awarded to Gui Minhai, a Hong Kong bookseller and Swedish citizen who was kidnapped by the Chinese government for printing books critical of Beijing.

In additional instances of Chinese targeting of European leaders, in early 2020, China's ambassador to the Czech Republic sent a letter to major Czech businesses warning the businesses that they could face commercial retaliation in China if their executives joined a planned visit by a Czech parliamentarian to Taiwan.[128] In early 2020, China also threatened to retaliate against German car companies if Germany, too, banned Huawei equipment from national 5G networks.[129]

In another case, after Canada detained Huawei CFO Meng Wanzhou in 2019, China sought to punish Canada by pulling back to a near-halt purchases of Canadian canola oil,[130] beef, and pork.[131] Perhaps even more dramatically, shortly after Canada detained Meng, the Chinese government retried and sentenced a Canadian citizen to death for drug smuggling, and detained Canadian citizens Michael Spavor, a businessman with ties to North Korea, and Michael Kovrig, a former Canadian diplomat.[132]

These various examples of Chinese economic coercion targeting close U.S. allies illustrate the pressure many are under from China. If the United States does not respond in some fashion to these instances, the increasing—and increasingly aggressive—Chinese economic coercion against U.S. allies has the potential to dissuade them from joining U.S.-led efforts to combat Chinese economic and national security challenges.

EXPANSION OF THE VARIETY AND INTENSITY OF TOOLS DEPLOYED

The modalities China uses to engage in economic coercion have previously been discussed and documented by CNAS in *China's Use of Coercive Economic Measures*

China has detained Canadian citizens Michael Spavor and Michael Kovrig in retaliation for Canada's detention of Huawei CFO Meng Wanzhou at the request of the United States. (Karen Ducey/Getty Images)

and in other sources. These include import restrictions, popular boycotts, investment restrictions, pressure on specific companies, export restrictions, restrictions on Chinese tourism, and targeted financial measures. China still frequently uses many of these tools, but in a number of cases China appears to have adapted its use of the coercive economic measures, by increasing the intensity of the tool or by narrowing the scope of the target.

China also has begun to craft new modalities within its legal and regulatory system to coerce countries and companies into aligning with its national security and foreign policy goals. That is, it has developed new tools of economic coercion, particularly in the formal realm. Many of its older tools of coercion have been informal. This includes examples of limiting trade or targeting particular firms or nationals from the Canadian and Australian cases noted above. In providing a public rationale for the Canadian canola oil ban, China alleged that it had found pests in shipments of Canadian canola oil and imposed the ban for safety reasons.[133] China similarly cited quality and safety issues in slowing imports of Australian coal. However, China is developing, and gaining greater facility in the use of, formal tools of economic coercion. Experts expect that China's development of new tools of economic statecraft will continue to evolve as China sharpens and adapts methods of economic coercion to emerging points of economic leverage.[134]

EXPANDING CHINESE TOOLS OF ECONOMIC COERCION

1. Tariffs
2. Corporate Social Credit System
3. Unreliable Entity List
4. Law Enforcement Tools
5. Requirements to Remove Foreign Content

A first prominent new tool of China's economic coercion is the imposition of tariffs. In response to the imposition of U.S. tariffs on 66.6 percent of Chinese exports to the United States, the Chinese Ministry of Commerce placed tariffs on 60.3 percent of U.S. exports to China. This is based on the Regulations of the People's Republic of China on Import and Export Duties, with measures officially announced and recorded by the Customs Tariff Commission of the State Council.[135] In imposing these tariffs, China has sidestepped a more direct response to U.S. concerns related to China's protectionist economic policies, forced technology transfer, intellectual property theft, and discriminatory licensing regime. Rather, it has relied on these tariff restrictions as a response to U.S. tariff escalation.

A second new tool of Chinese economic coercion is the development of a corporate social credit system. This is part of China's initiative to use big data to monitor private organizations and individuals' behavior and to reward or punish their actions. While the system's primary use is to ensure that businesses are adhering to Chinese law and regulations, it also can be used to "enhance the government's ability to control companies' behavior" to adhere to Chinese interests."[136] Companies that receive negative ratings through the corporate social credit system will be subject to increased restrictions to business activities, can be put on a blacklist, and can be publicly shamed. The corporate social credit system also holds businesses responsible for their business partners, which, if a foreign company is placed on a blacklist, could completely isolate it from the entire Chinese business environment.[137]

A third new tool of China's economic coercion is naming firms on the unreliable entities list, as briefly mentioned previously. This measure has been proposed but not yet fully implemented, and is based on China's foreign trade, national security, and anti-monopoly laws.[138] According to the Ministry of Commerce, the unreliable entity list is intended "to severely punish companies that have undermined China's national interests."[139] The criteria that the government would consider in adding an entity to the unreliable entities list includes (1) what discriminatory measures the foreign company has taken against Chinese companies, (2) if those measures are used for noncommercial purposes, (3) what the material damage is to Chinese companies and industry, and (4) the threat to China's national security.[140]

A fourth new tool of China's economic coercion is the deployment of law enforcement tools and regulation, such as China's foreign investment laws, as a potential form of economic coercion. During the Two Sessions in March 2019, the annual meeting of the plenary sessions of National People's Congress and the Chinese People's Political Consultative Conference, the Chinese government expanded the jurisdiction of the National Development and Reform Commission to include governance over whether inbound foreign direct investment threatened national security, and was "charged with ensuring that [foreign investment] is in line with economic security."[141]

Similarly, in mid-2018 the Chinese government used the Civil Aviation Administration of China (CAAC) to accuse international airlines, including U.S. airlines,

China's Ministry of Commerce has overseen the imposition of tariffs on 60.3 percent of U.S. exports to China. (VCG/Getty Images)

of "serious dishonesty" in how they listed Taiwan, Hong Kong, and Macau on their websites. The CAAC threatened to penalize these companies' credit records. Foreign airlines ultimately complied with Chinese pressure to stop identifying Taiwan as a separate country on their corporate websites to varying degrees. China further escalated this issue in 2019 by refusing to let an Air New Zealand plane land in Shanghai because the flight's paperwork had included a reference to Taiwan.[142]

A fifth new tool of China's economic coercion is issuance of a requirement to remove foreign-made parts in Chinese government property and procurement practices. While China has championed indigenous innovation since the mid-2000s, its urgency to be self-sufficient has escalated in the face of economic coercion from the United States and wariness on the part of others regarding trade and investment with China in sensitive areas. In November 2019, when the U.S. Department of Commerce announced an advanced notice of proposed rulemaking that would allow it to conduct national security reviews to potentially unwind any information and communication technology transactions that involve foreign adversaries that may harm the national security of the United States, Beijing ordered all of its government and public institutions to remove all foreign computer equipment and software within the next three years.[143] In their comments to the Department of Commerce, U.S. trade associations, such as the U.S. Chamber of Commerce, the National Association of Manufacturers, and the Rural Wireless Broadband Coalition all emphasized the uncertainty that the rules would create, which would severely disrupt business decisions and investments.[144]

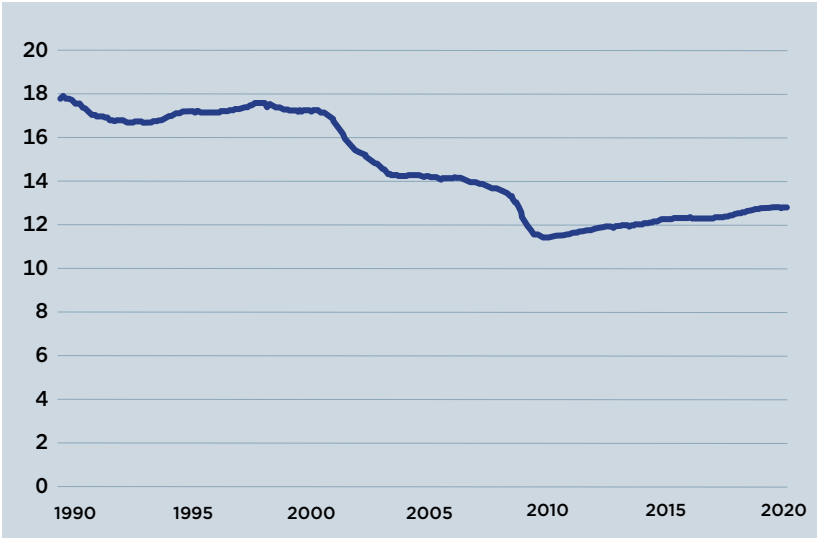
Analysis of Economic Impacts

China's coercive economic measures against the United States and U.S. companies have had growing economic and financial significance. At an aggregate economic level the impacts have been comparatively muted and have not stalled a growth trend for the U.S. economy. However, the impacts on some individual sectors have been larger. Chinese coercive economic measures against the United States have had at least three sets of economic impacts.

First, China's retaliatory tariffs have had measurable adverse impacts on two U.S. sectors, agriculture and manufacturing. Between 2016 and 2018, U.S. total trade with China decreased by 17.3 percent.[145] Total exports of agriculture, forestry, fishing, and hunting goods from the United States to China decreased by 57.2 percent between 2016 and 2018.[146] Between 2017 and 2018, exports of soybeans in particular decreased by 74.5 percent.[147] In 2019, family farm bankruptcies increased by nearly 20 percent from 2018, which was the greatest increase in farm bankruptcies since the Great Recession in 2010.[148]

The manufacturing sector shows some effects of the tariffs, but has not fared as poorly as the agriculture sector. In December 2019, growth contracted for the fifth

U.S. MANUFACTURING SECTOR EMPLOYMENT, IN MILLIONS (1990–2020)



A late 2019 study by the U.S. Federal Reserve found that tariffs on inputs for U.S. manufacturing had reduced U.S. manufacturing activity and contributed to manufacturing job losses.

Source: Current Employment Statistics, Bureau of Labor Statistics Data Viewer (Bureau of Labor Statistics, 2020).

straight month, dropping to 47.2, the lowest reading in over a decade.[149] A reading over 50 means that the sector has grown, while a reading under 50 indicates a contraction of the sector. However, there has been a modest increase in employment in the manufacturing sector—employment increased by 3.8 percent between January 2017 and December 2019, or an absolute increase of 487,000 people.[150] This increase is part of a trend that began in December 2009 at the bottom of the recession, with a total increase of 10.7 percent over the past decade.[151]

Second, Chinese economic coercion against individual firms appears to have taken a meaningful economic toll. ESPN estimates that the tweet by Houston Rockets General Manager Daryl Morey in support of the Hong Kong protestors cost the Rockets $7 million this season and $20 million overall when including the multiyear broadcasting, franchising, and individual player sponsorship deals that China terminated as a result of the tweet.[152] In February 2020, NBA Commissioner Adam Silver said that the total loss between October 2019 and February amounted to less than $400 million, but that the loss would be "in the hundreds of millions."[153] As of February 2020, Chinese state television channels have yet to broadcast any NBA games and Tencent, a private Chinese company, has showed a reduced numbers of NBA games.

Ultimately, Chinese targeting of specific foreign companies with economic coercion can be quite costly. For example, Chinese retaliation against South Korea for the deployment of the Terminal High Altitude Area Defense (THAAD) system cost the Lotte conglomerate group approximately $837 million in 2017 and cost the South Korean economy approximately $15.6 billion overall as a result of China's restrictions on tourism.[154]

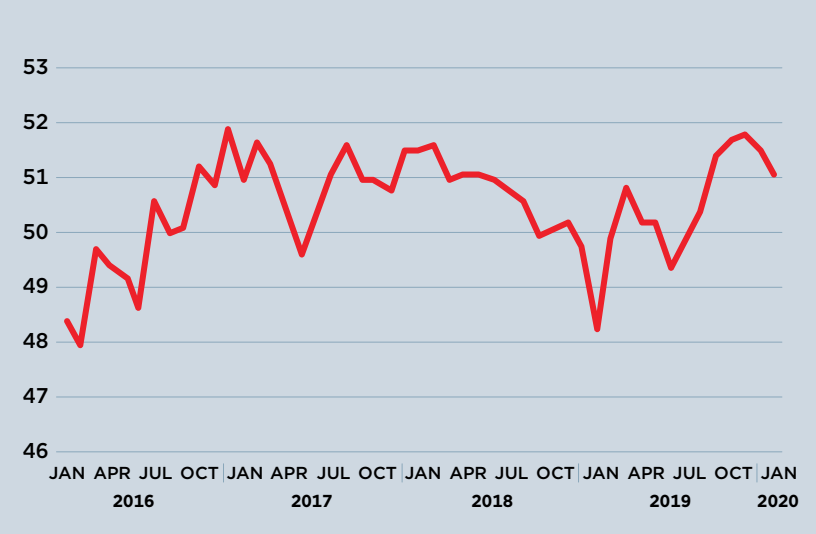
Third, China's use of coercive economic measures against the United States has had growing unintended collateral costs for China. In early 2019, the Chinese government had to reduce the value-added tax rate from 16 percent to 13 percent for manufacturing and other industries and cut corporate contributions to employee's insurance from 20 percent to 16 percent, alleviating the pressure on corporate profits as a result of the trade war.[155] By the end of 2019, at the annual meeting of the Central Economic Work Conference, which sets economic policy for the upcoming year and is chaired by Xi Jinping, Chinese leaders told the country's banks to "increase medium and long-term financing support to [the] manufacturing [sector]."[156] In response to the 25 percent tariffs that China has placed on imports of U.S. soybeans, the China Feed Industry Association also has decreased its requirements of 15 to 16 percent soybean meal content in pig feed standards to 11 to 13 percent.[157] For comparison, in 2017, China imported $13.9 billion worth of soybeans.[158]

Daryl Morey, general manager of the Houston Rockets, tweeted in support of Hong Kong protestors in October 2019, sparking an immediate backlash from the Chinese private sector and government, that shut down the streaming of NBA games on television in China, which caused an estimated loss of up to $400 million. (Bob Levey/Getty Images)

China's eagerness to surpass the United States in the technological sphere also has affected the efficiency of its economy. In order to support sectors that the central government identifies as strategic, Beijing has heavily subsidized its state-owned industries. While this strategy has allowed Chinese products such as steel, aluminum, and solar panels to flood the global market, it also has created extreme inefficiencies in China's economy, leaving it with zombie firms (firms that need bailouts to keep the doors open). These subsidies often are directed to state-owned enterprises in China, which have become less profitable even as they grow.[159]

Chinese tariffs have adversely affected domestic manufacturing and production. In the summer of 2019, Chinese official data indicated that industrial output growth fell to 5 percent—its lowest point in 17 years—and total industrial profits for 2019 fell by 3.3 percent.[160] Throughout the trade war, Caixin's General Manufacturing Purchasing Managers' Index, which tracks the strength of China's manufacturing sector, reached a high of 51.8 in November 2019 and a low of 48.3 in January 2019.[161] A score above 50 means that China's manufacturing sector is expanding, while a score below 50 means that its sector is contracting. Reporting also has indicated that the central government also shut down

CHINA'S PURCHASE MANUFACTURING INDEX



The Trump administration's use of coercive economic measures against China has affected the growth of China's manufacturing sector. Caixin's Purchase Manufacturing Index measures the health of Chinese manufacturers. A score above 50 means that the sector is growing, while a score below 50 means that it is contracting.

Source: Caixin, Caixin Purchase Manufacturing Index, January 2020 (Caixin, 2020), https://www.caixinglobal.com/report/.

Guangdong's regional manufacturing statistics, which had been released on a monthly basis every month for seven years.[162]

China's economic push toward reducing its reliance on the United States is especially prominent in the high-tech sector. Not only has Beijing ordered all of its public institutions to remove foreign computer equipment and software over the next three years, but it also has begun to remove from product designs foreign made parts where possible. In the smartphone industry, Huawei has replaced almost all U.S. components in its phones with parts made from competitor economies, such as Taiwan, Japan, and the Netherlands.[163]

Observers should not assume that the United States can muddle through China's economic coercion with only modest dents in its armor. China's economic moves may compound in ways hard to fully evaluate at the moment. There is snowballing anecdotal evidence of international firms adopting pro-CCP propaganda and political positions to avoid being subject to Chinese economic coercion.[164] This self-censorship gives China greater freedom of political maneuver in its illiberal activities and makes challenging Chinese coercion all the more difficult for other private sector entities or governmental agencies.

Analysis of Political Implications and Dynamics

Both the United States' and China's use of coercive economic measures has affected political decisionmaking in Beijing, emboldening CCP leadership to use economic tools more often and with greater impunity. Chinese intimidation of private companies and its threats of severing market access may have been much more effective than previously thought. The lack of a cohesive response by the United States and other countries to China's economic coercion, as well as a lack of coordinated response by the private sector pushing back against China, only has convinced the Chinese leadership that its deployment of coercive economic measures is a low risk, high reward tool that does not impose painful economic risks on its own economy. This suggests several policy lessons about China's use of these tools.

To begin with, China has developed an effective capacity to preemptively deter and silence adversaries and critics or prevent critics from speaking up again. When China first deploys a coercive economic measure against a target, it can be accompanied by clear political signaling. This has meant having an ambassador speak out or using state propaganda organs to signal disapproval. The use of the coercive economic measure can also be severe enough such that it dissuades critics from

In 2017, China restricted tourist groups to South Korea and curbed South Korean business activities in China after South Korea deployed the Terminal High Altitude Area Defense (THAAD) system. The economic pressure from China caused South Korean policymakers to become warier about speaking out on topics that could be sensitive to China. (Lockheed Martin/Getty Images)

speaking out again. For example, since China restricted tourist groups to South Korea after the THAAD deployment, South Korean policymakers report being somewhat warier about speaking out on topics that might be considered sensitive to the Chinese.[165]

China's targeting of the foreign private sector, threatening firms with the loss of market access, has had similar chilling effects. Beijing successfully coerced Marriott to designate Taiwan as "Taiwan, China" on its website, rather than listing it as a separate country. Beijing also forced Mercedes-Benz to apologize and fire an employee who quoted the Dalai Lama in an Instagram post, a medium that is blocked in China.[166] In response to other bubble tea shops indicating support for the recent Hong Kong protests, Taiwanese bubble tea chains GongCha and HeyTea have come out in support of one country, two systems, while other shops have said that they are from "Taiwan, China."[167] BNP Paribas, a French bank, publicly apologized and took "internal action" against an employee after they came out in support of the Hong Kong protestors on their personal social media page.[168]

There have been some instances, however, in which Chinese economic coercion has not been as effective or has had somewhat mixed results. In October 2019, after the blowback that the NBA received due to Houston Rockets General Manager Daryl Morey's tweet supporting the Hong Kong protestors, the NBA released a statement that made it clear that while Daryl Morey did not represent the Houston Rockets or the NBA, "the values of the league support individuals' educating themselves and sharing their views on matters important to them."[169] In a follow-up statement, NBA Commissioner Adam Silver reinforced the message that the NBA does not regulate the speech of players or franchise employees, though it did not directly support Morey.[170]

In the airline industry, China has had mixed results in coercing international airlines to embrace de facto the One China policy. In April 2018, the Civil Aviation Administration of China sent letters to international airlines demanding they remove any references to Taiwan as a separate country than China.[171] While other foreign carriers, such as Singapore Airlines, Air France, and Lufthansa all complied by adjusting Taiwanese destinations to include "Taiwan, China," U.S. airlines such as United Airlines, American Airlines, and Delta simply listed Taipei as a destination, removing "Taiwan."[172]

To date, the U.S. government's reaction to Chinese coercion against individual U.S. firms has been relatively mild and ineffective at galvanizing companies

China has retaliated strongly against companies and individuals that have come out in support of the Hong Kong protestors, pictured in 2019. (Chris McGrath/Getty Images)

to stand up to Chinese bullying. While then-White House press secretary Sarah Huckabee Sanders criticized China's campaign to press airlines to stop labeling Taiwan as a country on their websites as "Orwellian nonsense," there was never a systematic campaign by the U.S. government against Chinese pressure. As described above, U.S. airlines ultimately responded to Chinese pressure over recognition of Taiwan.

In October 2019, Secretary of State Mike Pompeo said that it is "completely inappropriate" for China to retaliate against U.S. businesses whose employees have come out in support of the Hong Kong protests.[173] A year earlier, Vice President Pence also spoke out against Chinese economic coercion, saying "Senior Chinese officials have also tried to influence business leaders to encourage them to condemn our trade actions, leveraging their desire to maintain their operations in China."[174] These are notable high-level statements from the administration. However, commentary from some executive branch officials on China's broad and aggressive range of coercive economic activities has not translated into administration action to more formally and publicly support U.S. firms subject to Chinese pressure.

The U.S. administration's lack of response to China's economic coercion of U.S. firms also extends to partners and allies. Likeminded countries such as Canada have been subject to Chinese economic coercion, including for actions driven by the United States like the legal proceedings tied to Meng Wanzhou. The U.S. administration has offered very limited public remarks on the issue.[175]

Like-minded countries in Europe and the Indo-Pacific also have faced forms of Chinese economic coercion with no strong support from the U.S. government, whether rhetorical, monetary, or in the form of support in a legal challenge. In Europe, Sweden currently is facing the cancellation of two Chinese business delegations and the suspension of their regular bilateral talks on economics and trade for awarding a freedom of speech prize to Gui Minhai, a Swedish citizen who was kidnapped for printing books critical of the CCP.[176] China also has threatened to downgrade economic activity with the Netherlands and Germany because of U.S. pressure to prevent the Dutch Ministry of Foreign Affairs from allowing ASML, a semiconductor manufacturer, to export advance chip machinery to China, and for Germany's decision to potentially exclude Huawei from bidding to build the German 5G network.[177]

These compounded instances have left allies feeling abandoned, reconsidering how much they can rely on the United States.[178] Now, the United States also is left in a position of playing catch-up on a multilateral response to China's economic coercion, if it decides to embrace this approach. The lack of a coordinated policy response by the U.S. government, standing up for U.S. businesses and like-minded countries, has further emboldened China to use coercive economic measures with increasing frequency and has had a large impact on decisionmaking in boardrooms and situation rooms at home and abroad.[179]

SELECTED TOOLS AND CAPACITY OF CHINESE ECONOMIC COERCION

	Tools	Agency	Impact	Method of Deployment	Limits Access to Chinese Financial System	Tariffs and/or Import Restrictions	Limits Exports	Freezes Assets	Imposes limits on Investment
Tariffs	Tariffs	Customs Tariff Commission of the State Council	Imposes costs on the import of specific foreign goods.	Customs Tariff Commission of the State Council adds goods to a list.		X			
Market Access Restrictions	Sanitary and Safety Measures	State Administration for Market Regulation	Delays imports of agricultural goods.	Customs officers delay approval of shipments of agricultural goods into the country.		X			
	Business with State-owned Enterprises	State-owned Assets Supervision and Administration Commission, Ministry of Finance, Central Huijin Investment Co.	Stop buying specific foreign goods.	Various regulators tell state-owned enterprises to stop buying specific overseas products.		X			
	Flight Restrictions	Civil Aviation Authority of China	Prevents planes from landing and foreign airlines from operating in China.	Signals to pilots that their planes are not allowed to land and refuse to approve cabin crew manifests.					
	Licensing Restrictions	State Administration for Industry and Commerce	Rejection, revocation, or slowed down approval processes for necessary licenses to operate.	Delays, revocations, or rejections of licenses necessary for operation.					X
	Limits on Package Tour Sales and Individual Tourist Travel	Ministry of Culture and Tourism	Prevents domestic tour operators and tourists from booking trips abroad.	Releases a notice restricting or banning tour groups from hosting tours to specific destinations.			X		
	Export Controls	Ministry of Commerce; State Administration of Science, Technology, and Industry for National Defense; Ministry of Science and Technology; Central Military Commission; General Administration of Customs	Prevents the export of goods to identified end users and for particular end uses by imposing embargos and application of temporary controls for up to two years.	Adds goods and end users onto following lists: List of Additional Dual-Use Items and Technology Subject to Export Prohibition with North Korea, List of Technologies Prohibited or Restricted from Export.			X		

SELECTED TOOLS AND CAPACITY OF CHINESE ECONOMIC COERCION *CONTINUED*

	Tools	Agency	Impact	Method of Deployment	Limits Access to Chinese Financial System	Tariffs and/or Import Restrictions	Limits Exports	Freezes Assets	Imposes limits on Investment
Corporate Pressures	Unreliable Entities List	Ministry of Commerce's Bureau of Industry, Security, Import and Export Control	Punishes companies for acting contrary to Chinese national security.	Unclear.					
	Corporate Social Credit System	National Development and Reform Commission, State Administration for Market Regulation, and various government agencies	Punishes or rewards companies on a set of approximately 300 regulatory ratings and compliance records.	Various regulators collect information on the enterprise and its employees, feeding into a larger database, which can affect that agency's rating of the entity.	X			X	
	Popular Boycotts	Unspecified government agencies	Stirs up nationalistic sentiment to boycott specific foreign companies and products.	Use of official propaganda or word of mouth to mobilize domestic grassroots support to boycott specific foreign manufacturers.		X			
	Joint Venture Technology Transfer	National Development and Reform Commission, local government officials and agencies	Transfers intellectual property from foreign companies to Chinese companies.	Central and subcentral policymakers verbally mandate technology transfer by excluding foreign technologies and investments, thereby forcing joint ventures and partnerships with Chinese partners.					
Other Measures	Anti-Monopoly Law	Ministry of Commerce, National Development and Reform Commission, State Administration for Market Regulation	Supports China's industrial policy goals and curtails IP rights.	Antitrust regulators investigate entities and then issue fines or orders companies to lower prices.					X
	Foreign Investment Law	Ministry of Commerce, State Administration for Market Regulation, General Administration of Customs	Could be used to intervene in investments by firms from countries with which China has a dispute.	Unclear.	X				X

The Place of Economic Coercion in the U.S.-China Strategic Competition

KEY TAKEAWAYS

- U.S. coercive economic measures against China are, and will be, necessarily different from coercive economic measures directed at smaller economies.
- Both the United States and China have vulnerabilities to each other's economic coercion. The United States needs to better understand its vulnerabilities.

As described throughout this report, both the United States and China are expanding their coercive economic tool kits, and economic coercion is becoming a common part of the U.S.-China relationship. However, U.S. policy leaders have yet to develop a comprehensive, strategic approach to the use of coercive economic measures against Beijing. This includes a failure so far to develop a robust policy of working with allies, including by helping them to bolster their economic advantages and competitiveness. To be sure, U.S. policymakers have demonstrated a high degree of creativity and initiative in deploying economic coercion against China's unfair trade policies and China's challenges to U.S. strategic interests. Nevertheless, U.S. policy leadership's outlining of a doctrine, or terms of use, for these tools of economic coercion still lags behind. This gap risks deploying coercive measures ineffectively, triggering unintended Chinese responses, inadvertently harming U.S. allies, and, ultimately undermining the effectiveness of economic coercion against China.

Looking to the future, America's use of coercive economic measures against China will be necessarily different from the U.S. use of coercive economic measures against other recent targets like Iran, Venezuela, and even Russia. China, as the world's second largest economy, and a country that is deeply integrated with the U.S. economy, is more resilient than other countries to certain kinds of coercive U.S. measures, and has a greater ability to retaliate against U.S interests. Also, U.S. coercive economic measures deployed against China have far more potential to cause unintended collateral costs than do U.S. coercive economic measures against less economically significant targets. These measures also may only deliver political benefits in certain circumstances, limiting their utility to compel policy change and advance U.S. security.

At present, it is difficult for many observers and analysts of economic coercion to gauge how powerful it will be, when deployed, as both an economic and political matter. While a full, empirical answer to this question will be difficult to produce in the highly dynamic and evolving environment, it may be possible to derive at least some preliminary conclusions about vulnerability to economic coercion. Such findings will be useful to U.S. policymakers, for example, as they consider whether and how to use economic coercion tools, and how to gauge the significance of escalation measures. Additionally, such findings can help the United States, and others, contemplate policy changes to bolster resiliency in the face of economic coercion.

U.S. AND CHINESE VULNERABILITIES

As the world's two largest economies and ones with more than $700 billion annually in two-way trade, both the United States and China have significant vulnerabilities to each other's economic coercion. A comprehensive assessment of vulnerabilities is beyond the scope of this report, and one of the report's key recommendations is that the United States conduct a systematic study of both U.S. and Chinese vulnerabilities. In assessing U.S. vulnerabilities to Chinese economic coercion, the United States needs to examine macroeconomic vulnerabilities, vulnerabilities of specific key sectors, and trade flows and financial flows. U.S. vulnerabilities ultimately will depend on China's ability to restrict business in ways that have disproportionate costs to the United States relative to the collateral costs to China. Similarly, China's vulnerabilities to U.S. coercion ultimately depend on the U.S. ability to impose measures with limited and acceptable collateral costs.

Major U.S. vulnerabilities to China: China historically has exercised economic coercion by limiting access to its vast domestic market. The United States exports more than $150 billion each year to China. While the aggregate value of U.S. exports to China is substantially less than 1 percent of U.S. GDP, exports to China are particularly important for a handful of products. Prior to the U.S.-China trade war, for example, China purchased more than 55 percent of U.S. soybean exports.[180] A U.S. vulnerability assessment needs to carefully examine key export categories to identify the most vulnerable sectors, both in terms of raw economic dependence on China, and also in terms of whether Chinese pressure on a specific sector could result in undue political influence on constituencies in the U.S. government.

Equally important is a sophisticated understanding of the importance of the Chinese market for key U.S. industries that depend on China even if they do not export many products there—e.g., because they manufacture the products in China or in third countries. China, for example, represents 34 percent of the global semiconductor market.[181] It represents an even larger share of the revenues of some U.S. chip companies, although many of the chips made by U.S. companies are made outside the United States. Many U.S. consumer products companies, such as chain restaurants and apparel companies, are similarly comparatively dependent on the Chinese market even though their business there does not show up in U.S. export statistics.[182]

The United States also faces potential vulnerabilities from China's dominance in the supply of specific goods that the United States would have difficulty rapidly obtaining elsewhere. The Pentagon, for example, has been encouraging the development of rare earths mines in Australia to reduce U.S. dependence on rare earths mined in China.[183] As previously mentioned, the U.S. Department of the Interior recently chose to ground its fleet of drones, which had been primarily made in China, rather than simply procuring non-Chinese alternatives because of a dearth of readily available non-Chinese suppliers.[184]

The United States appears to be comparatively less vulnerable to Chinese financial coercion, given both inherent U.S. strengths and the fact that collateral costs to China of engaging in financial coercion could be high. For example, China appears unlikely to try to coerce the United States by selling off China's large stocks of U.S. government bonds because the United States likely would be able to step into the market to stabilize it. Furthermore, should the United States fail to stabilize the market, the collateral costs to China, a sharp decline in the value of its remaining holdings, would be high. Nonetheless, a vulnerability study should examine whether there are specific financial markets where the United States may have targeted vulnerabilities.

Major Chinese vulnerabilities to the United States: Escalating U.S. coercive economic measures over the last two years have highlighted a number of Chinese vulnerabilities, including via high tech supply chains. The U.S. Entity Listing of Fujian Jinhua Integrated Circuit company, which depended on U.S. and allied chip-making equipment, appears to have largely halted the company's operations. But as the U.S. Entity Listing of Huawei shows, large Chinese companies are adapting to minimize their supply chain vulnerabilities. China also remains comparatively dependent on the United States as a whole as an export market, though the U.S. share of global Chinese exports has been dropping over the last several years.

Many Chinese companies, particularly multinationals, remain dependent on access to the U.S. financial system in light of the fact that many of their exports are priced in dollars. Similarly, many large Chinese banks remain dependent on access to the global financial system to service their multinational Chinese clients and to engage in cross-border transactions. Chinese investors also depend on the ability to raise capital through listings and trading in U.S. markets. However, there could be significant collateral costs to global markets if U.S. officials put a large, globally interconnected Chinese bank or company on U.S. sanctions lists, or otherwise bar Chinese investors from participation in U.S. capital markets.

As a matter of public policy, and in service of U.S. national security, what U.S. policymakers need now is a set of principles for how to situate coercive economic measures within broader U.S.-China competition. They also need guidance to understand how vulnerable the United States and its allies are to Chinese economic coercion in different circumstances, and benchmarks for understanding implementation and impact of coercive economic measures in the bilateral relationship. As an operational matter, the U.S. government also needs internal processes to organize information sharing, scenario planning, and clear signaling to China and others. It furthermore needs to establish, or adapt, the international alliance structures to better accommodate cooperation between the United States and foreign counterparts when it comes to the use of, or defense against, economic coercion. Though a full development of such strategic concepts and guidance is beyond the scope of this report, preliminary principles and recommendations are outlined below.

Policy Recommendations

KEY TAKEAWAYS

- Strong U.S. domestic investments are needed to maintain America's competitive edge over China. Moreover, coercive economic measures are a key part of the U.S. tool kit to compete with China.
- The United States needs a more systematic approach to the deployment of coercive economic measures against China that is guided by better estimates of U.S. vulnerabilities, better assessments of impacts, has a clear focus and more effective signaling, better integrates different coercive economic measures, and that updates the tool kit on an ongoing basis.
- The United States needs to increase its focus on securing the support of allies for coercive economic measures against China.

In the strategic competition with China, and as coercive economic measures become increasingly important in the U.S.-China relationship, policymakers in the U.S. executive branch and in Congress need a clear set of principles for the use of coercive economic measures against China. Adherence to a set of principles will maximize the odds that U.S. coercive economic measures against China will achieve intended policy objectives while minimizing unintended and collateral costs. This section outlines a set of these key principles and related policy recommendations. Some of these will help the United States to better understand its coercive economic tools as they are contemplated with regards to China, and to organize and systematize their use. Other principles and policy recommendations will be helpful for the United States, and allies and partners, to increase resiliency to withstand economic coercion from China at the national and subnational level.

Recommendations to Bolster U.S. Competitiveness and Refine the Policy Approach to Economic Coercion

The U.S. administration and Congress must work first and foremost to bolster U.S. competitiveness, particularly in the economic and technology arenas, in order to most effectively compete with China and use economic coercion in the context of this competition. That is, the United States must focus vigorously on developing and sustaining a powerful economy that it can defend and leverage with the use of economic coercion. Letting this economic engine idle or stall will undermine the degree to which the United States can use economic coercion and make it more vulnerable to economic coercion deployed by others. Furthermore, U.S. policymakers must hone their policy execution and messaging to deliver clear, effective forms of economic coercion in the bilateral relationship.

1. INVEST TO MAINTAIN AMERICA'S COMPETITIVE EDGE.

Coercive economic measures can limit China's access to specific U.S. technologies and reduce U.S. reliance on Chinese supply chains in key technologies, such as mobile telecommunications network equipment, that China could exploit for espionage. But in an era of great power competition with a near-peer economy, the United States must invest in maintaining America's competitive edge and cannot focus simply on limiting China's ability to purchase or steal technology from the United States and U.S. allies. China is already competitive with the United States in technologies such as

telecommunications and artificial intelligence and will lead the United States in these areas over the mid- and long term unless the United States invests to maintain its own competitiveness. Although federal research and development spending as a share of the economy recently has seen small increases after falling steadily between the early 2000s and 2016,[185] the executive branch in recent years has proposed cutting R&D spending, with only Congress ultimately providing modest increases.[186]

Increase federal R&D spending. The executive branch should increase federal R&D spending to 1.2 percent of GDP, matching levels in the 1970s, to maintain America's competitive edge over China over the long term.[187] U.S. policymakers also should seek to leverage and incentivize private investment to expand innovative technology in the United States, another critical edge for the United States in its strategic competition with China.

Invest in educating the future U.S. workforce. The executive branch should launch a major new educational and skills training initiative to support the development of the American workforce of the future. This must include investing in STEM education at all levels. The National Science and Technology Council should work with Congress to develop an implementation plan for the recommendations in its report, "Charting a Course for Success: America's Strategy for STEM Education."[188] Additionally, for programs like the Boren Scholarship and Fellowship, the National Defense Science and Engineering Fellowship, Critical Language Scholarship Program, and the Foreign Language and Area Studies program, sponsoring agencies should explore options such as giving preferred status for civil service hiring for veterans in these programs, voluntarily enrolling program alumni as government consultants, and making security clearance allowances for those who graduate from these programs. The U.S. government also should better equip hiring managers within the government to understand how to hire applicants who have graduated from these programs.[189]

Adapt existing immigration policy. The administration also should adapt immigration policy to allow for more highly skilled individuals to enter the country and to bring more promising students into higher education across a variety of science and technology fields by removing the overall H-1B cap. Since 2005, H-1B visas have been capped at 85,000 per year, which is disproportionate to the 199,000 people who applied for visas in 2018.[190] Similarly, the administration should not eliminate the Optional Practical Training program, which allows STEM students on a F-1 visa to work for up to three years after graduation in the United States.[191]

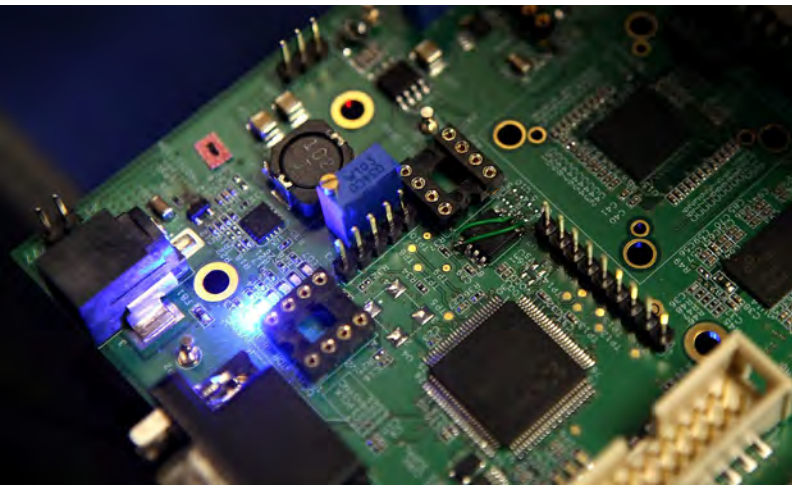
2. IMPROVE ASSESSMENTS OF BOTH U.S. COERCIVE ECONOMIC MEASURES AND U.S. VULNERABILITIES TO CHINESE ECONOMIC COERCION.

The U.S. government has yet to systematically study either U.S. vulnerabilities to Chinese economic coercion or to rigorously analyze the impacts and costs of coercive economic measures against China. With the potential for China to exploit vulnerabilities, and for U.S. coercive economic measures to have significant collateral costs and unintended consequences, the United States will need a clear and more rigorous process for evaluating economic coercion in the U.S.-China relationship.

The United States needs a more clear and more rigorous process for evaluating economic coercion in the U.S.-China relationship.

Create an interagency process to secure critical supply chains. The White House should lead an interagency process, comprised of Treasury, Commerce, State, Defense, Energy, Homeland Security, and the intelligence community, to systematically identify what risks China poses to U.S. supply chains. Current efforts to limit imports from China to secure supply chains have been ad hoc and focused on individual issues that garner public attention, such as telecommunications, or public transportation. The United States needs to comprehensively examine what technologies and goods the civilian U.S. infrastructure relies on heavily or exclusively from China given national security risks, and take action to secure those supply chains, much as the Department of Defense systematically studies defense supply chains to identify potential vulnerabilities.

Create an office within the Department of Commerce to conduct systematic analysis on coercive economic measures. Congress should appropriate and authorize funds for the establishment of an analytical office within the Department of Commerce, through working closely with counterparts in other agencies, to conduct systematic



Chinese high-tech companies that develop products like semiconductors have responded to rising U.S. economic coercion by expanding efforts to build domestic capacity, and decrease reliance on foreign suppliers, thereby insulating Chinese firms from U.S. economic leverage. Over the past two years, Chinese companies have boosted efforts to reduce their dependence on U.S. information technology (IT) suppliers. (Justin Sullivan/Getty Images)

and rigorous economic analysis on the costs of coercive economic measures, including sanctions, trade controls, and some investment restrictions. This office should evaluate costs to U.S. firms and to overall economic performance, and should seek formal input from the State Department, intelligence community, and other agencies, as appropriate. This office should produce short- and long-form analyses that are distributed to national security leaders across the U.S. government and to committees of jurisdiction in the Congress.

Create an external consultative body on the commercial impacts of coercive economic measures. The U.S. Treasury Department, the Office of the U.S. Trade Representative (USTR), and Commerce Departments should jointly establish an external consultative body to collect feedback and evaluate economic and commercial impacts of coercive economic measures on U.S. firms and the U.S. economy. The membership of these bodies should be derived from a wide cross-section of U.S. industries and be appointed for temporary, renewable terms. A steering committee of the members should assist in establishing and overseeing research by the advisory group, which should be shared across the U.S. government and with congressional committees of jurisdiction, as appropriate.

3. MAINTAIN LONG-TERM LEVERAGE.

China has responded to rising U.S. coercive economic measures by expanding efforts to insulate itself from U.S. economic leverage. For example, in response to U.S. export restrictions over the last two years against ZTE and Huawei, China has boosted efforts to reduce its dependence on U.S. semiconductors and other IT suppliers. Given China's size and global economic reach, the United States cannot simply isolate China from the global economy. The United States would waste time and resources on this fool's errand and undermine a more strategic focus on limiting Chinese actions in narrow, core areas and shoring up economic or technology arenas where the United States maintains lasting leverage. As a principle of policy, the United States should seek to maintain economic leverage over China for the long term to be able to advance U.S. core national interests in general, and to use coercive economic measures to do so specifically. U.S. policymakers should balance the near-term benefits of immediate coercive economic measures against the risk that they will reduce U.S. leverage over China over the long term, while also taking affirmative steps to increase U.S. leverage over China.

Push for greater market access for U.S. firms in a Phase Two trade deal. In the course of bilateral negotiations, including in a Phase Two trade deal and in discussions outside of this track, the U.S. Treasury and Commerce Departments as well as the USTR should push Chinese counterparts to provide greater market access to U.S. firms, particularly financial firms. The United States should work with like-minded countries to establish high standards for financial services by which Chinese financial services companies will have to abide. The United States also should work with countries that China is targeting for rollout of domestic and cross-border payment applications, including for remittances, to support competition, transparency, stability, and integrity in the provision of financial services. This likely will help, both directly and indirectly, to maintain U.S. financial leverage over China over the longer term.

Elevate and enhance law enforcement investigations and actions. Alongside promoting major new investments in the U.S. technology sector, officials at the U.S. Department of Justice should seek to help preserve and expand a dominant U.S. position in many technology arenas by elevating and enhancing law enforcement investigations and actions to crack down on Chinese intellectual property theft and commercial espionage.

Where a particular threat exists in a sensitive industry or related to a particular technology, U.S. Treasury, State, and Commerce officials may consider restrictions on particular visas, or enhanced requirements for due diligence, or restrictions, related to trade, export, or reexport, to Chinese firms that may be linked to theft or espionage.

4. IDENTIFY AND COMMUNICATE CLEAR OBJECTIVES.

Much as the United States should never undertake military activities directed at China without clear objectives, the United States should not undertake coercive economic measures against China without clear policy objectives. However, this has often been the case in instances of recent policy. As a result, over the past two years, a lack of clarity in objectives for U.S. coercive economic measures deployed against China has at times undercut U.S. policy. If China is uncertain about why the United States has imposed a specific coercive economic measure, China has less incentive to offer concessions to secure relief from it and a comparatively greater incentive to invest in ways to circumvent it. Lack of clarity in objectives also raises the odds of Chinese escalation. If China perceives a U.S. coercive economic measure as being more aggressive than it is in fact intended to be, China is relatively more likely to seek to retaliate by escalating rather than seeking a negotiated resolution. The lack of clear objectives, and challenges in communicating about objectives, also has affected third countries' perceptions of and policies toward the United States. While Southeast Asian countries largely benefited from the effects of the U.S.-China trade war, perceptions of the United States declined over the past two years.

Deliver a formal, public policy address on economic competition with China. A senior U.S. administration official–White House personnel or a cabinet secretary—should give a formal, public policy address on economic competition and the bilateral relationship with China and issue a formal presidential policy directive on U.S.-China economic competition that lays out the policy rationale and objectives that will guide the United States in the use of coercive economic measures. This address should make clear that the United States will use coercive economic measures to achieve policy aims and will modify or remove the measures if China adapts its policy to align with clear criteria. The administration can and should update this policy stance with annual or semi-annual speeches to accommodate the dynamic economic environment and bilateral relationship.

Establish an Economic Policy Coordinator for China Affairs at the White House. The White House should establish an Economic Policy Coordinator for China Affairs to oversee the various economic policies applied to China, whether coercive measures or ones intended for growth, development and mutual economic engagement. This coordinator should oversee an interagency process to evaluate and deconflict economic policy initiatives related to China.

Offer clear, public information about U.S. coercive economic measures against China. In every instance of U.S. use of a coercive economic measure that targets China, whether a financial sanction, export restriction or other, a U.S. official must offer clear, public information about the goal and remedy for the action. This will be particularly important when the legal basis of the measure is tied directly to another policy issue, such as Iran or North Korea, and indirectly to China as a facilitator.

Conduct whole-of-government review on coercive economic measures against China. The administration should conduct a whole-of government review of coercive economic measures related to China every four years to evaluate proportionality, legal sufficiency, and appropriate cancellations or changes to the measures to accord with developing policy. This review should bear in mind the economic effects of coercive economic measures and the degree to which they support core U.S. strategic goals with respect to China.

5. EFFECTIVE SIGNALING AND PLANNING FOR ESCALATION.

In addition to identifying and articulating clear policy objectives regarding specific coercive economic measures, policymakers should expand their focus on strategies to signal those objectives to China and to third countries. Similarly, U.S. policymakers generally should signal the circumstances under which the United States would consider escalating or de-escalating specific coercive economic measures. Effective signaling will increase China's incentives to offer concessions and to refrain from taking steps that would trigger U.S. escalation, and will reduce the chances that China inadvertently triggers an escalatory cycle by escalating itself following a misinterpretation of the objectives of a specific U.S. coercive economic measure. Planning for potential escalation means rigorously assessing how China is likely to respond to a specific U.S. coercive

economic measure, including identifying whether and how China might retaliate and/or escalate in response, and planning for defensive actions against Chinese coercive economic measures. Effective signaling is also critical to enabling allies to understand U.S. policy and to building allied support for U.S. coercive economic measures.

Develop strategic concepts on economic engagement with China. A new Economic Policy Coordinator for China in the White House should assemble a team of detailees from various U.S. government agencies to examine and develop strategic concepts with regard to economic engagement with China. This group should be expert in the legal basis and history of U.S. economic policy related to China, and also expert in scenario work and modeling, war gaming, and crisis management activities. The team should craft a framework for U.S. economic competition with China that will inform long-term planning documents, including the National Security Strategy and the National Defense Strategy, as well short-term strategic planning. The team also should make recommendations about how to adapt, on an ongoing basis, U.S. government coordinating activities to align goals and signals to China in the economic, and economic competition, domain.

Coordinate messaging on economic competition with China. The Economic Policy Coordinator for China, alongside near-term policy coordination work in the interagency, should coordinate messaging by U.S. government officials related to economic competition with China and the use of coercive economic measures. This can include establishing common talking points for U.S. government officials engaging with foreign diplomatic counterparts and the private sector. As a practical matter, this will help to educate the many officials of the U.S. government who directly or indirectly work on the U.S.-China economic competition and tools of economic coercion in this relationship. It also will create more consistency in messaging and a new culture of coordination around signaling in this domain.

6. STRENGTHEN U.S. INSTITUTIONS THAT ARE RESPONSIBLE FOR DEVELOPING AND DEPLOYING COERCIVE ECONOMIC MEASURES.

The United States government urgently needs to invest significant resources in the bureaucracy and operational capacity to handle and coordinate U.S.-China economic competition of the future. This will help to support robust, informed policy, ensure better policy alignment with goals, and reinforce a culture of coordination and long-term planning indicated in prior recommendations. As a specific operational matter, the United States can institute new training activities and resources of immediate and long-term impact.

Conduct a regular series of tabletop exercises on economic warfare between the United States and China. The White House should coordinate with officials at the Treasury, Commerce, State, and Defense Departments, along with the USTR, congressional committees and key offices, a series of regular tabletop exercises or war games focused on themes of escalating economic competition, or economic warfare, between the United States and China. These agencies should involve senior managers and political appointees in these sessions to reinforce an array of learning opportunities to examine this critical issue for economic performance and national security. Findings of these activities should be shared broadly across the U.S. government, disseminated to the many professional staff charged with crafting ideas and policy options across an array of agencies and legal authorities for use in the U.S. strategic competition with China.

Collect and share data on Chinese economic coercion. The Treasury and Commerce Departments, with close coordination from the State Department and USTR, should establish dedicated research teams examining data and case studies of Chinese economic coercion and effects. These sources of data should be shared with the Economic Policy Coordinator for China at the White House and throughout the interagency. The data and related analysis also should be shared with the U.S. Congress and foreign partners and allies, as appropriate.

7. CONTINUE TO MODERNIZE THE TOOL KIT.

Over the past three years, the United States has taken important steps to modernize the tool kit of coercive economic measures that can be deployed in competition with China. These include expanding the U.S. export control regime, expanding CFIUS review for foreign investment in the United States, and beginning to limit the import of certain Chinese products that pose national security threats. These measures are all in addition to the broad tariffs that Trump imposed on more than $360 billion of U.S. imports of Chinese goods. The United States must continue to modernize its coercive economic tool kit as part of its growing competition with China, adapting its current tools and crafting new authorities as well.

Expand restrictions on specific "end uses" of U.S. products, as well as on select "end users." The United States should expand the export control regime to prohibit the sale of U.S. products to select new end uses in China that challenge U.S. interests and values, such as mass surveillance and serious human rights abuses in China. Such an expansion will require substantial engagement with the private sector to address implementation challenges and to minimize unintended costs, including for smaller and mid-sized U.S. businesses. U.S. export controls are currently designed primarily to restrict sales of specific products, either to China as a country (e.g., restrictions on most arms exports to China) or to specific "end users" in China. However, the United States also has certain restrictions on "end uses"—for example, U.S. companies cannot export goods for military end uses in China, even if the product is not inherently military and is being exported to a civilian end-user.

Build a coherent regulatory framework for restrictions on imports. To secure key supply chains, Congress should develop legislation that would authorize the U.S. executive branch to establish an import control regime for national security purposes and to protect U.S. supply chains. This will move the United States away from the more recent practice of the U.S. government of restricting imports of Chinese products for national security reasons in an ad hoc fashion, under miscellaneous legal authorities. Congress effectively banned the import of certain Chinese telecommunications equipment, restricted the use of federal funding to purchase certain mass transit vehicles made by China-owned companies, and the Trump administration has moved to more broadly limit imports of certain Chinese IT products. However, with a new statute, the United States should embrace a formal, cross-cutting regulatory architecture to limit imports from China on clear national security grounds. The U.S. administration should use restrictions in the new statute sparingly, and a coherent regulatory architecture is more likely to result in judicious use than will a further expansion of the current ad hoc approach. Such an architecture would be likely to raise significant considerations with respect to WTO obligations, which the Office of the U.S. Trade Representative would need to address in implementing such restrictions.

Study development of a broader and more flexible legal architecture to impose tariffs on products made by specific companies, rather than simply from a specific country. The U.S. Congress should create a study group of members, which will hear from independent and administration experts, and request a Government Accountability Office study, on ways to develop a legal architecture that would expand the U.S. ability to differentiate tariffs imposed on products imported from specific companies, which is currently generally only available in certain limited circumstances. Under current U.S. law, the United States most commonly imposes tariffs on imports of specific products from China, rather than imposing tariffs on products made by specific Chinese companies, with certain exceptions, e.g., for "dumping." However, as the United States continues to use coercive economic measures to address specific trade and other economic abuses by China, the United States would benefit from a tariff architecture that affords the ability to more broadly and more readily differentiate between imports of goods from various classes of Chinese companies, potentially such as state-owned enterprises and private sector enterprises. This congressionally led process of study and evaluation can provide direction on a path forward for U.S. tariff policy.

The support of governments allied with the United States is critical to making U.S. coercive economic measures against China effective. When third countries do not coordinate with, or support, the United States, China may turn to their businesses to circumvent U.S. economic pressure. (Sean Gallup/Getty Images)

Recommendations for Strengthening Multilateral Frameworks and Collaboration with Allies

The United States should affirm alliance and partner relationships in the U.S.-China economic competition: The support of allied governments, particularly when they represent major global economies and custodians of hard currency or crucial supply chain hubs, is critical to making U.S. coercive economic measures against China effective. When third countries do not coordinate with, or support, the United States, their economies may become arenas for China to circumvent or evade U.S. economic pressure. Alternatively, China can shore up its own economic position by drawing U.S. allies closer to China on economic terms, a step that can, of itself, undermine alliance relationships of the United States. In addition, U.S. measures intended to target China can have significant adverse impacts on the economies of allied countries that are themselves dependent on the Chinese economy, and the United States must consider these impacts in deploying U.S. coercive economic measures.

Moreover, the U.S. experience with sanctions over the past several years has shown that U.S. unilateral economic pressure can have significant impacts when deployed against comparatively small countries. The scale of the U.S. market compared with the size of a country's like Iran, Venezuela, or Cuba means that most companies in allied countries, such as companies based in Europe, will comply with U.S. sanctions because the potential costs of noncompliance—potentially losing access to the United States—generally far outweigh the costs of ending prohibited business in a sanctioned country. This corporate risk calculation is true regardless of whether a company's own government chooses to join the United States in legally imposing sanctions or other coercive economic measures on the target country. But such corporate compliance is far from assured when it comes to sanctions against China. Companies in allied countries face a much tougher choice if and when forced to choose between U.S. and Chinese markets, reducing the impact of U.S. unilateral measures. With concern about Chinese competition, trade abuses, and national security risks spreading in Europe and among U.S. allies in Asia, the U.S. has an opportunity to build a multilateral coalition to implement coercive economic measures on China and should work to build multilateral support for such measures wherever possible.

1. BUILD A MULTILATERAL ARCHITECTURE.

There is no standing body of like-minded governments dedicated to creating a joint approach toward the deployment of coercive economic measures against China. The United States should invest in establishing a multilateral architecture of cooperation to increase the impact of U.S. measures, and learn from and support the actions and ideas of other nations that are also concerned about Chinese economic coercion. This work will maximize the odds that coercive economic measures will successfully advance U.S. interests.

Establish a "like-minded" group for investment restrictions and trade controls targeting China. The Office of the U.S. Trade Representative, the Commerce Department, and the Treasury Department should jointly establish a like-minded group of key industrial nations to develop a collective approach to imposing export and import controls on China and restrictions on Chinese investment. Key like-minded countries should include the United Kingdom, Germany, France, South Korea, Israel, Japan, Canada, and Australia; the European Union also should participate as an observer.

Create a Tech-N international group. The State, Treasury, and Commerce Departments should lead the U.S. administration in creation of a new international group of advanced, technology-leading democracies to coordinate on technology policy ("Tech-N").[192] This organization would help in establishing international norms and standards, promote supply chain security, counter illiberal uses of technology, and maximize and coordinate R&D spending.

2. STRENGTHEN THE UNITED STATES AND ALLIED DEFENSES.

As a critical component of withstanding Chinese economic coercion, the United States must prepare for China to use its own economic coercion strategies to seek to advance its national interests. The United States has a clear interest not only in fortifying its own economic actors, but also in supporting allies and partners abroad so that China does not find indirect ways to target the United States and its interests.

Establish a reserve fund for those targeted by Chinese economic coercion. The United States, led by the Treasury and Commerce Departments, should establish a reserve fund for companies or municipalities targeted by Chinese economic coercion. This fund should be premised on the notion of protecting institutions that abide by international economic law and competitive market principles. It should support entities unfairly targeted by China in an anti-competitive manner that may have grave national security significance for the United States and a coalition of major allies. The membership generally should be oriented to G7 member states and others. The United States should capitalize this fund and ask for allied governments to contribute. The United States also should seek contributions from private sector firms who themselves might be candidates to receive support from such a fund, if targeted directly by China with an act of economic coercion. The leaders of this fund should examine options for modifying its structure toward an insurance vehicle for participating entities. In leading such a fund the United States could bolster its efforts to convince other countries to work more closely and actively with the United States to impose costs on China for its challenges to the rules-based international order. Furthermore, by signaling to China that the United States and its allies are taking preemptive steps to protect their collective interests, Washington could serve to deter Beijing from at least some instances of coercive economic pressure toward entities that would use the multilateral fund.

Examine and update the Anti-Boycott Regulations. The United States, led by a delegation in Congress and a study group at the Department of Commerce, should examine the Anti-Boycott Regulations to consider how the United States could update them or enact other appropriate measures to support U.S. firms targeted by Chinese economic competition. U.S. leaders should work closely with foreign counterparts to consider how parallel legal authorities could be adopted in other jurisdictions, particularly other major global economies.

Recommendations for Engaging the Private Sector

The U.S. government should reach out to the private sector in a more formal and transparent manner. A number of the challenges that China poses to the United States in an era of great power competition cannot be addressed by the U.S. government alone, and responding to certain Chinese challenges will require cooperation with U.S. private sector companies. The U.S. government needs to increase cooperation with the private sector to improve information sharing about Chinese economic coercion and tactics to minimize unintended and collateral costs of U.S. measures. In addition, a cooperative approach with the private sector can build on regulatory approaches to craft more effective strategies. For example, the U.S. government does not have effective regulatory tools that can legally prevent U.S. companies from complying with certain types of Chinese economic coercion, such as Chinese demands that U.S. companies censor social media feeds and refrain from speaking on political issues such as Tibet. However, the U.S. government could encourage the private sector to establish voluntary mechanisms and commitments to resist such Chinese pressure.

In July 2018, Secretary of State Mike Pompeo delivered a speech on America's Indo-Pacific Economic Vision at the U.S. Chamber of Commerce. Better U.S. government engagement with the private sector will strengthen America's ability to compete with China. (Alex Wong/Getty Images)

ENHANCE INFORMATION FLOW AND COLLABORATION WITH THE PRIVATE SECTOR.

Better engaging the private sector will strengthen America's ability to compete with China across both economic and national security domains. U.S. officials and the private sector should take several steps to improve cooperation in support of U.S. policy.

Improve information sharing. The Department of Commerce, State Department, and Treasury Department should establish an information sharing mechanism to collect information on instances of Chinese coercive economic measures directed against U.S. companies and publish a periodic report on China's use of coercive economic measures. This could resemble a standardized form for private firms to voluntarily file alerts on instances of economic coercion. The alert could be on a confidential basis directly to the U.S. government, or in a direct or anonymized fashion with other users of the alert-filing system and the U.S. government. Government analysts, from the Treasury and intelligence communities, can distill lessons from the alerts for the periodic reports, and also convene periodic listening sessions, or conferences, for private sector representatives to participate in person in information sharing and engagement on this topic.

Promote a private sector code of conduct on China. Leading private sector trade associations, including the U.S. Chamber of Commerce and trade associations specializing in manufacturing and high-tech activities, along with the U.S. Department of State and the National Security Council, should foster the development of a private sector code of conduct regarding China. The voluntary code of conduct should include commitments by U.S. companies to refrain from engaging in certain activities in China or with Chinese entities that would counter U.S. values and interests, such as supporting Chinese censorship or surveillance. It also should include commitments by U.S. firms to resist Chinese coercive economic pressure along specific criteria defined by its drafters and founding signatories. The U.S. government should consider a package of incentives that could be available to companies that voluntarily sign on to the code of conduct. U.S. officials also should coordinate with foreign counterparts to spur parallel processes in other countries, and welcome observers from allies and partner countries to learn from the process in the United States.

Conclusion

Economic coercion is now a key policy instrument used by the United States and China to advance strategic goals, including in their bilateral relationship. It appears to be a major emerging domain of competition between the two countries. It is also a domain to advance a slew of multiplying national economic and security objectives. While both countries have sufficient leverage over each other to exact economic harms, and some strong political signals, in the use of economic coercion, this is still a relatively modest means of statecraft. Its most painful effects are felt relatively narrowly in particular economic sectors or by a handful of companies, albeit national champions and national security firms.

On a broad scale, and for now, the ability of economic coercion to actually change headline economic indicators and core national interests and policies appears relatively muted in the U.S.-China bilateral relationship. This may be a feature of the underlying leverage, the tools, or the policymakers, but the implication is that tools of economic coercion have limits. They may successfully silence political dissent, handicap growth, and increase political costs. They cannot force policy capitulation, however, and they cannot be the means by which the United States forces China to adopt more liberal economic or political norms.

Where economic coercion can have explosive effects is in provoking diplomatic disagreements and nationalist or ideological sentiment. Coercive economic measures can evoke highest-level political rebuke and fury. Concerningly, this can deeply confuse the targets of coercion as well as the world at large. When signaling is unclear or emotional, as it so often is when practiced by the United States and China, it can cause significant unintended consequences. This can risk escalation and miscalculation in the U.S.-China relationship.

In the future, it is possible that the stakes for the use and effects of economic coercion may be even higher. Economic coercion could become a more powerful means by which China and the United States compete with and confront one another. As the two countries separate areas of their economic activity, creating a kind of selective decoupling, as a result of economic coercion or other factors, the two countries may find it more viable to use bigger and more powerful forms of economic coercion against one another. That is, when the U.S. and Chinese economies are less intertwined there may be less to lose by deploying economic coercion against each other.

China, mindful of this possibility, clearly is embarking on nascent efforts to build resiliency to U.S. economic coercion by diversifying supply chains and trading partners away from the United States. China has shifted investment dollars outside of the United States and has become bolder in seeking to silence and direct the actions of many of the foreign firms and nations that rely on Chinese markets. Beijing is willing to accommodate economic inefficiencies to accelerate a pull back from U.S. partners, seeking instead to cultivate an insulated position for a long-term competition.

The United States, by contrast, is aggressive in its use of economic coercion toward China, but lacks a clear strategy or plan for bolstering its own resilience. The United States lags woefully in activities to build resiliency to Chinese economic coercion, and in programs to bolster the U.S. economic and technology advantages that afford the leverage to engage in coercion in the first instance. Too few U.S. policy leaders realize that to retain economic leverage vis-à-vis China, the United States must stay connected to China economically. This means that U.S. policy leaders and regulators must seek to settle disputes, not merely push China away. For U.S. security leaders, securing supply chains cannot simply, or always, mean cutting China off from advanced U.S. technology.

Furthermore, U.S. policy leaders generally have failed to implement an approach to deploying economic coercion toward China that is coordinated with close allies. Given the size of China's economy and its powerful links to many other national economies, the United States has a limited hope of foreign policy success in a unilateral approach to the use of coercion with China. China is fully aware of this and may seek to foster the conditions for U.S. unilateral action by dividing the United States and its allies. China is increasingly active in pressuring America's closest allies, including Germany, Australia, and the United Kingdom, for example, to break with the United States on decisions to partner with Chinese telecom firms.

The dynamics of economic contestation between the United States and China, including the use of economic coercion, appear likely to continue and even escalate in the future. This necessitates an evolution in U.S. political analysis and strategic planning to accommodate this emerging field of international competition. In this environment, the United States must adapt its posture and operational approach for the use of economic coercion toward China. Furthermore, it must urgently develop strategic concepts to frame the use of economic coercion, which will aid in clear signaling and managed escalation, and de-escalation, in the bilateral relationship. This will serve the United States when tensions rise, as they inevitably will.

Endnotes

1. This definition of coercive economic measures is the same as the definition used by Elizabeth Rosenberg, Peter Harrell, and Edoardo Saravalle in an earlier work on China's use of coercive economic measures, https://www.cnas.org/publications/reports/chinas-use-of-coercive-economic-measures.

2. See Charles Wolf, Jr., Xiao Wang, and Eric Warner, "China's Foreign Aid and Government-Sponsored Investment Activities," RAND Corporation, 2013, https://www.rand.org/content/dam/rand/pubs/research_reports/RR100/RR118/RAND_RR118.pdf; Scott Kastner, "Buying Influence? Assessing the Political Effect of China's International Trade," *Journal of Conflict Resolution*, 60 no. 6 (2016), 980–1007; Axel Dreher, Andreas Fuchs, Bradley Parks, Austin M. Strange, and Michael J. Tierney, "Apples and Dragon Fruits: The Determinants of Aid and Other Forms of State Financing from China to Africa," AidData, October 2015, http://docs.aiddata.org/ad4/files/wps15_apples_and_dragon_fruits.pdf.

3. Peter Harrell, Elizabeth Rosenberg, and Edoardo Saravalle, "China's Use of Coercive Economic Measures," CNAS, June 11, 2018, https://www.cnas.org/publications/reports/chinas-use-of-coercive-economic-measures.

4. Ely Ratner, Daniel Kliman, Susanna Blume, Rush Doshi, Chris Dougherty, Richard Fontaine, Peter Harrell, Martijn Rasser, Elizabeth Rosenberg, Eric Sayers, Daleep Singh, Paul Scharre, Loren DeJonge Schulman, Neil Bhatiya, Ashley Feng, Joshua Fitt, Megan Lamberth, Kristine Lee, and Ainikki Riikonen, "Rising to the China Challenge: Renewing American Competitiveness in the Indo-Pacific," CNAS, January 2020, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-NDAA-final-6.pdf?mtime=20200116130752.

5. Noah Barkin, "The U.S. Is Losing Europe in Its Battle With China," *The Atlantic*, June 4, 2019, https://www.theatlantic.com/international/archive/2019/06/united-states-needs-europe-against-china/590887/; Charles W. Boustany, Jr. and Aaron L. Friedberg, "Answering China's Economic Challenges: Preserving Power, Enhancing Prosperity," NBR Special Report 76 (The National Bureau of Asian Research, February 2019); and Charles W. Boustany Jr. and Aaron L. Friedberg, "Partial Disengagement: A New U.S. Strategy for Economic Competition with China," NBR Special Report 82 (The National Bureau of Asian Research, November 2019).

6. U.S. Department of Commerce, Bureau of Industry and Security, "Addition of Certain Entities to the Entity List," Federal Register 84 no. 196 (October 9, 2019), 54002.

7. See Cecilia Kang and David E. Sanger, "Huawei Is a Target as Trump Moves to Ban Foreign Telecom Gear," *The New York Times*, May 15, 2019, https://www.nytimes.com/2019/05/15/business/huawei-ban-trump.html; Doina Chiacu and Stella Qiu, "Trump says 'dangerous' Huawei could be included in U.S.-China trade deal," Reuters, May 23, 2019, https://www.reuters.com/article/us-usa-trade-china/trump-says-dangerous-huawei-could-be-included-in-u-s-china-trade-deal-idUSKCN1ST0PA; and U.S. Department of Commerce, Bureau of Industry and Security, "Addition of Entities to the Entity List," Federal Register 84 no. 98 (May 21, 2019), 22961.

8. Donald Trump (@realDonaldTrump), ". . . We don't need China and, frankly, would be far better off without them . . . Our great American companies are hereby ordered to immediately start looking for an alternative to China, including bringing your companies HOME and making your products in the USA. . . ." August 23, 2019. 10:59 a.m. Twitter.

9. Richard Nephew, "The Hard Part: The Art of Sanctions Relief," *The Washington Quarterly*, 41 no. 2 (Summer 2018), 63–77; Elizabeth Rosenberg and Jordan Tama, "Strengthening the Economic Arsenal," CNAS, December 16, 2019, https://www.cnas.org/publications/reports/strengthening-the-economic-arsenal.

10. Kevin Brueninger, "US does not want to 'decouple' from China, Vice President Mike Pence says as trade talks intensify," CNBC, October 24, 2019, https://www.cnbc.com/2019/10/24/us-does-not-want-to-decouple-from-china-vice-president-mike-pence-says.html.

11. Elizabeth Rosenberg, Peter Harrell, and Edoardo Saravalle in an earlier work on China's use of coercive economic measures, https://www.cnas.org/publications/reports/chinas-use-of-coercive-economic-measures; Ketian Vivian Zhang, "Chinese non-military coercion—Tactics and rationale," Brookings Institution, January 22, 2019, https://www.brookings.edu/articles/chinese-non-military-coercion-tactics-and-rationale/.

12. Yuan Yang and Daniel Shane, "Huawei sees growth in revenues and 5G contracts despite US ban," *Financial Times*, October 16, 2019, https://www.ft.com/content/5f3c7f68-efdd-11e9-ad1e-4367d8281195.

13. "China - International Trade and Investment Country Facts," U.S. Department of Commerce, Bureau of Economic Analysis, December 19, 2019, https://apps.bea.gov/international/factsheet/factsheet.cfm?Area=650.

14. "China - International Trade and Investment Country Facts."

15. "China - International Trade and Investment Country Facts."

16. "China - International Trade and Investment Country Facts."

17. "China - International Trade and Investment Country Facts."

18. "Is China the world's top trader?" China Power. March 28, 2019, updated January 28, 2020, https://chinapower.csis.org/trade-partner/.

19. Brock R. Williams and Keigh E. Hammond, "U.S.-China Tariff Actions by the Numbers," Congressional Research Service, October 9, 2019, https://fas.org/sgp/crs/row/R45949.pdf.

20. Calculated by dividing value of U.S. goods imports covered by Trump administration tariffs by the U.S. Department of Commerce's total U.S. goods imports in 2019. "Trade in Goods with World, Seasonally Adjusted," U.S. Census Bureau, https://www.census.gov/foreign-trade/balance/c0004.html.

21. "Trade in Goods with World."

22. Andres B. Schwarzenberg, "U.S.-China Investment Ties: Overview and Issues for Congress," Congressional Research Service, August 18, 2019, https://fas.org/sgp/crs/row/IF11283.pdf.

23. "U.S.-China Investment Ties."

24. "U.S.-China Investment Ties."

25. "Chinese Companies Listed on Major U.S. Stock Exchanges," U.S.-China Economic and Security Review Commission, February 25, 2019, https://www.uscc.gov/sites/default/files/Chinese%20Companies%20on%20U.S.%20Stock%20Exchanges.pdf.

26. "Chinese Companies Listed on Major U.S. Stock Exchanges."

27. Joy Dantong Ma, "China's Trade War Tools and Their Effects on the US Economy," Macro Polo, July 18, 2018, https://macropolo.org/chinas-trade-war-tools/.

28. "China's Trade War Tools."

29. Karen Yeung, "China is underestimating its US$3 trillion dollar debt and this could trigger a financial crisis, says economist," *South China Morning Post*, November 16, 2018, https://www.scmp.com/economy/china-economy/article/2173461/china-underestimating-its-us3-trillion-dollar-debt-and-could.

30. Yusuf Khan, "China aims to reduce its dependence on America by 'decoupling' from the dollar, ANZ bank says," *Business Insider*, November 18, 2019, https://markets.businessinsider.com/news/stocks/china-diversifying-away-from-dollar-reserves-due-to-trade-war-anz-2019-11-1028695801.

31. See https://fas.org/sgp/crs/row/IN10376.pdf

32. Bob Fredericks, "Schumer: We have to be tough on China," *The New York Post*, August 1, 2019, https://nypost.com/2019/08/01/chuck-schumer-backs-trump-on-new-china-tariffs/.

33. Chad P. Bown, "US-China Trade War Tariffs: An Up-to-Date Chart," Peterson Institute of International Economics, December 19, 2019, https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date-chart.

34. Andrea Shalal, "U.S. finalizes rule to slap duties on countries that undervalue currencies," Reuters, February 3, 2020, https://www.reuters.com/article/us-usa-trade-currency/u-s-finalizes-rule-to-slap-duties-on-countries-that-undervalue-currencies-idUSKBN1ZY08V. The Trump administration had temporarily formally designated China a currency manipulator in August 2019, but terminated the designation in parallel with the Phase One U.S.-China trade deal. See https://home.treasury.gov/news/press-releases/sm751 and https://www.nytimes.com/2020/01/13/us/politics/treasury-china-currency-manipulator-trade.html.

35. Department of Commerce, Bureau of Industry and Security, "Review of Controls for Certain Emerging Technologies," Federal Register 83 no. 223 (November 19, 2018), 58201, https://www.federalregister.gov/documents/2018/11/19/2018-25221/review-of-controls-for-certain-emerging-technologies.

36. The Chinese share of all CFIUS reviews increased from 20 percent in 2015 to 25 percent in 2017. Committee On Foreign Investment In The United States, Annual Report to Congress, Report Period: Calendar Year 2016 and Calendar Year 2017, https://www.treasury.gov/resource-center/international/foreign-investment/Documents/CFIUS-Public-Annual-Report-CY-2016-2017.pdf.

37. Jeff Farrah, "Another Day, Another U.S. Company Forced to Divest from Chinese Investors," TechCrunch, April 15, 2019, https://techcrunch.com/2019/04/15/another-day-another-u-s-company-forced-to-divest-of-chinese-investors/. These were the first publicly reported required divestitures since the Obama administration required Chinese-owned Ralls Corporation to divest from several Oregon wind farms in 2012. Ralls challenged the mandatory divestment in court, and the government and Ralls later settled the case with Ralls divesting the wind farms. John Marciano, Keith Martin, and Amanda Rosenberg, "Wind Developer Ralls Corp. vs. U.S. Government: Case Settled," December 10, 2015, https://nawindpower.com/wind-developer-ralls-corp-vs-us-government-case-settled.

38. Michael Brown and Pavneet Singh, "China's Technology Transfer Strategy: How Chinese Investments in Emerging Technology Enable A Strategic Competitor to Access the Crown Jewels of U.S. Innovation," Defense Innovation Unit Experimental (DIUx), https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_(1).pdf.

39. This legislation also authorizes sanctions on fentanyl producers in countries other than China, but the overwhelming majority of the law's focus is Chinese fentanyl producers. "Schumer, Cotton Announce Inclusion of Fentanyl

Sanctions Act in Must-Pass Defense Bill; First-of-its-Kind Legislation Will Hold China Accountable for Commitment to Crack Down on Deadly, Illicit Trafficking," Senate Democrats, press release, December 11, 2019, https://www.democrats.senate.gov/newsroom/press-releases/schumer-cotton-announce-inclusion-of-fentanyl-sanctions-act-in-must-pass-defense-bill-first-of-its-kind-legislation-will-hold-china-accountable-for-commitment-to-crack-down-on-deadly-illicit-trafficking.

40. Katy Stech Ferek, "U.S. Seeks to Unwind Business Deals That Pose Telecommunications Security Threat," *The Wall Street Journal*, November 26, 2019, https://www.wsj.com/articles/u-s-seeks-to-unwind-business-deals-that-pose-telecommunications-security-threat-11574782284.

41. Lindsay Wise and Katy Stech Ferek, "Congress Wants to Ban Chinese Buses, Railcars in Defense Bill," *The Wall Street Journal*, December 10, 2019, https://www.wsj.com/articles/congress-wants-to-ban-chinese-buses-railcars-in-defense-bill-11575927925. The legislation will primarily affect the U.S. subsidiaries of Chinese companies that manufacture the rolling stock.

42. Mark Magnier, "In the crosshairs: Chinese drones a target for US ban as security risk," *South China Morning Post*, December 10, 2019, https://www.scmp.com/news/china/article/3041073/crosshairs-chinese-drones-target-us-ban-security-risk.

43. Kiran Stacey, "US to ground civilian drone programme on concerns over China tech," *Financial Times*, January 12, 2020, https://www.ft.com/content/a50088de-33f6-11ea-9703-eea0cae3f0de.

44. See https://www.justice.gov/opa/pr/us-charges-five-chinese-military-hackers-cyber-espionage-against-us-corporations-and-labor and https://www.nytimes.com/2015/05/20/technology/6-chinese-men-indicted-in-theft-of-code-from-us-tech-companies.html.

45. "Chinese Telecommunications Device Manufacturer and its U.S. Affiliate Indicted for Theft of Trade Secrets, Wire Fraud, and Obstruction of Justice," Department of Justice, press release, January 28, 2019, https://www.justice.gov/opa/pr/chinese-telecommunications-device-manufacturer-and-its-us-affiliate-indicted-theft-trade.

46 "Chinese Telecommunications Conglomerate Huawei and Subsidiaries Charged in Racketeering Conspiracy and Conspiracy to Steal Trade Secrets," Department of Justice, press release, February 13, 2020, https://www.justice.gov/opa/pr/chinese-telecommunications-conglomerate-huawei-and-subsidiaries-charged-racketeering.

47. Pete Schroder, "U.S. lawmakers seek to ban federal pension fund from investing in China," CNBC, November 6, 2019, https://www.cnbc.com/2019/11/06/reuters-america-u-s-lawmakers-seek-to-ban-federal-pension-fund-from-investing-in-china.html.

48. "Gallagher, Colleagues Introduce Bill to Ban Chinese & Foreign Firms That Flaunt U.S. Laws From U.S. Exchanges," Office of Congressman Mike Gallagher, press release, June 5, 2019, https://gallagher.house.gov/media/press-releases/gallagher-colleagues-introduce-bill-ban-chinese-foreign-firms-flaunt-us-laws-us.

49. U.S. House of Representatives, Uyghur Human Rights Policy Act of 2019, H.R. 649, 116th Congress, 1st sess., https://www.govinfo.gov/content/pkg/BILLS-116hr649ih/pdf/BILLS-116hr649ih.pdf.

50. U.S. House of Representatives, South China Sea and East China Sea Sanctions Act of 2019, S.1634, 116th Congress, 1st sess., https://www.congress.gov/116/bills/s1634/BILLS-116s1634is.pdf.

51. U.S. Department of Commerce, Bureau of Industry and Security, Addition of Entities to the Entity List, Federal Register 84 no. 98 (May 21, 2019), 22961, https://www.govinfo.gov/content/pkg/FR-2019-05-21/pdf/2019-10616.pdf.

52. See Christina Wilkie, "Trump: 'I can imagine Huawei being included' in a US-China trade deal," CNBC, May 23, 2019, https://www.cnbc.com/2019/05/23/trump-huawei-trade-deal.html. Ultimately, however, Huawei was not included in the Phase One trade deal signed in January 2020, and the administration currently appears to be keeping Huawei separate from trade discussions.

53. "Obama Administration Files WTO Complaint on China's Subsidies to Aluminum Producers," Office of the U.S. Trade Representative, press release, January 12, 2017, https://ustr.gov/about-us/policy-offices/press-office/press-releases/2017/january/Obama-Administration-Files-WTO-Complaint-China-Aluminum.

54. Jennifer Love, "Obama imposes tariffs on Chinese Tires," NBC News, September 12, 2009, http://www.nbcnews.com/id/32808731/ns/business-world_business/t/obama-imposes-tariffs-chinese-tires/#.XjCEEpJKii4.

55. Diane Cardwell, "U.S. Imposes Steep Tariffs on Chinese Solar Panels," *The New York Times*, December 16, 2014, https://www.nytimes.com/2014/12/17/business/energy-environment/-us-imposes-steep-tariffs-on-chinese-solar-panels.html.

56. John W. Miller and William Mauldin, "U.S. Imposes 266% Duty on Some Chinese Steel Imports," *The Wall Street Journal*, March 1, 2016, https://www.wsj.com/articles/u-s-imposes-266-duty-on-some-chinese-steel-imports-1456878180.

57. David E. Sanger, "Bush Puts Tariffs of as Much as 30% on Steel Imports," *The New York Times*, March 6, 2002, https://www.nytimes.com/2002/03/06/us/bush-puts-tariffs-of-as-much-as-30-on-steel-imports.html. The Obama administration did launch one U.S. unilateral action that could have resulted in broader tariffs against China, rather

than tariffs limited to specific products that benefit from unfair Chinese practices: a 2010 investigation into Chinese subsidies and unfair trade practices related to green energy. "United States Launches Section 301 Investigation into China's Policies Affecting Trade and Investment in Green Technologies," Office of the U.S. Trade Representative, press release, October 15, 2010, https://ustr.gov/about-us/policy-offices/press-office/press-releases/2010/october/united-states-launches-section-301-investigation-c. But the Obama administration ultimately dropped that investigation without imposing tariffs, while settling a parallel challenge at the World Trade Organization, after China agreed to terminate various green energy subsidies and trade practices that discriminated against U.S. green energy companies. Doug Palmer and Leonora Walet, "China agrees to halt subsidies to wind power firms," Reuters, June 7, 2011, https://www.reuters.com/article/us-china-windpower/china-agrees-to-halt-subsidies-to-wind-power-firms-idUSTRE7561B920110607.

58. John W. Rollins, Susan V. Lawrence, Dianne E. Rennack, and Catherine A. Theohary, "U.S.–China Cyber Agreement," Congressional Research Service, October 16, 2015, https://fas.org/sgp/crs/row/IN10376.pdf.

59. "Statement by the President Regarding Trade with China," the White House, press release, June 15, 2018, https://www.whitehouse.gov/briefings-statements/statement-president-regarding-trade-china/. The United States had previously used this type of approach to trade with China, though on a smaller scale, in 1995 when the Clinton administration threatened to impose tariffs of 100 percent on imports of $1 billion of Chinese products ranging from textiles to cellular telephones if China did not crack down on rampant Chinese piracy of American software, music, and movies. David E. Sanger, "President Imposes Trade Sanctions on Chinese Goods," *The New York Times*, February 5, 1995, https://www.nytimes.com/1995/02/05/world/president-imposes-trade-sanctions-on-chinese-goods.html.

60. However, the Clinton administration ultimately withdrew the threatened tariffs without imposing them after China said that it would strengthen IP protections.

61. "Treasury Sanctions the Zhao Wei Transnational Criminal Organization," U.S. Department of the Treasury, press release, January 30, 2018, https://home.treasury.gov/news/press-releases/sm0272.

62. Ng Yik-tung, Wong Lok-to, He Ping, and Luisetta Mudie, "Beijing Police Chief is First Chinese Official to be Sanctioned by US," Radio Free Asia, December 22, 2017, https://www.rfa.org/english/news/china/chief-12222017103212.html.

63. U.S. Department of Commerce, Bureau of Industry and Security, *Addition of Certain Entities to the Entity List*, Federal Register 84 no. 196 (October 9, 2019): 54002, https://www.govinfo.gov/content/pkg/FR-2019-10-09/pdf/2019-22210.pdf.

64. See, for example, Michael Brown and Pavneet Singh, "China's Technology Transfer Strategy: How Chinese Investments in Emerging Technology Enable A Strategic Competitor to Access the Crown Jewels of U.S. Innovation," Defense Innovation Unit Experimental (DIUx), https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_(1).pdf.

65. United States Department of Commerce, Bureau of Industry and Security, "Addition of an Entity to the Entity List," Federal Register 83 no. 210 (October 30, 2018), 54519, https://www.govinfo.gov/content/pkg/FR-2018-10-30/pdf/2018-23693.pdf.

66. Miao Han, Yinan Zhao, and Tomoko Sato, "China's 2019 Exports Edged Up as Total Trade With U.S. Declined," Bloomberg, January 13, 2020, https://www.bloomberg.com/news/articles/2020-01-14/china-s-trade-with-u-s-fell-in-2019-global-surplus-widened.

67. Alessandro Nicita, "Trade and trade diversion effects of United States tariffs on China," UNCTAD Research Paper No. 37 (United Nations Conference on Trade and Development, November 2019), https://unctad.org/en/PublicationsLibrary/ser-rp-2019d9_en.pdf.

68. Han, Zhao, and Sato, "China's 2019 Exports Edged Up as Total Trade With U.S. Declined."

69. Stephen McDonell, "China's economic growth hits 30-year low," BBC News, January 17, 2020, https://www.bbc.com/news/business-51144892. While Chinese government statistics claim a 6.1 percent growth, outside figures put China's economic growth closer to 4 percent.

70. Vincent Ni and Christopher Giles, "Has President Trump's trade war cost China three million jobs?" BBC News, August 30, 2019, https://www.bbc.com/news/world-asia-49441689.

71. See https://www.brookings.edu/wp-content/uploads/2019/03/bpea-2019-forensic-analysis-china.pdf.

72. See https://themarket.ch/interview/the-real-economic-growth-rate-in-china-is-already-below-3-percent-ld.416.

73. Nicita, "Trade and trade diversion effects of United States tariffs on China," 12.

74. Rob Subbaraman, Sonal Varma, and Michael Loo, "US-China trade diversion: Who benefits?" Nomura, June 2019, https://www.nomuraconnects.com/focused-thinking-posts/us-china-trade-diversion-who-benefits/.

75. Rajesh Kumar Singh, "U.S. bike firms face uphill slog to replace Chinese supply chains," Reuters, January 14, 2020, https://www.reuters.com/article/us-usa-trade-supply-chains-insight/u-s-bike-firms-face-uphill-slog-to-replace-chinese-supply-chains-idUSKBN1ZD1FV.

76. Stacey, "US to ground civilian drone programme on concerns over China tech."

77. Cecilia Kang, "Huawei Ban Threatens Wireless Service in Rural Areas," *The New York Times*, May 25, 2019, https://www.nytimes.com/2019/05/25/technology/huawei-rural-wireless-service.html.

78. See Thilo Hanemann, Cassie Gao, Adam Lysenko, and Daniel H. Rosen, "Sidelined: US-China Investment in 1H 2019," Rhodium Group and the National Committee on U.S.-China Relations, July 2019, https://arraysproduction-0dot22.s3.amazonaws.com/rhodiumgroup/assets/icon/RHG_TWS-2019-1H_Report.pdf.

79. Hanemann, Gao, Lysenko, and Rosen, "Sidelined: US-China Investment in 1H 2019."

80. Yoko Kubota, "China Sets Up New $29 Billion Semiconductor Fund," *The Wall Street Journal*, October 25, 2019, https://www.wsj.com/articles/china-sets-up-new-29-billion-semiconductor-fund-11572034480.

81. Michael Herh, "What Has Forced Fujian Jinhua Integrated Circuit to Stop DRAM Development?" Business Korea, January 28, 2019, http://www.businesskorea.co.kr/news/articleView.html?idxno=28696.

82. Brenda Goh, "Huawei's 2019 revenue to jump 18%, forecasts 'difficult' 2020," Reuters, December 30, 2019, https://www.reuters.com/article/us-huawei-tech-results/huaweis-2019-revenue-to-jump-18-forecasts-difficult-2020-idUSKBN1YY1JL.

83. "Parts bought by Huawei from Japan firms valued at ¥1.1 trillion in 2019," *The Japan Times*, November 22, 2019, https://www.japantimes.co.jp/news/2019/11/22/business/corporate-business/huawei-parts-procured-japan-firms-worth-10-billion-2019/#.XjCWeJJKii5.

84. Debby Wu, "TSMC to Keep Supplying Huawei, Quashes Talk of U.S. Pressure," Bloomberg, November 3, 2019, https://www.bloomberg.com/news/articles/2019-11-04/tsmc-to-keep-supplying-huawei-quashes-talk-of-u-s-pressure.

85. Priyanka Boghani, Stefen Joshua Rasay, and Xiuxi Zhu, "Megvii IPO valuation complicated by lack of direct peers, US blacklisting," S&P Global Market Intelligence, January 16, 2020, https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/56585875. In addition, one blacklisted firm, Megvii, recently restored a faltering IPO process after initially delaying the offering following its blacklisting. Scott Murdoch and Julie Zhu, "Blacklisted Chinese firm Megvii cleared for $500 million Hong Kong IPO," Reuters, January 6, 2020, https://www.reuters.com/article/us-megvii-ipo/blacklisted-chinese-firm-megvii-cleared-for-500-million-hong-kong-ipo-idUSKBN1Z511E.

86. Jonathan Saul and Collin Eaton, "Tankers sail after U.S. allows sanctions-hit COSCO unit to wind down oil deals," Reuters, October 25, 2019, https://www.reuters.com/article/us-iran-nuclear-usa-cosco/tankers-sail-after-u-s-allows-sanctions-hit-cosco-unit-to-wind-down-oil-deals-idUSKBN1X421D.

87. Brian Scheid, "End of Cosco sanctions shows US reluctance for penalizing key oil market players: analysts," S&P Global Platts, February 3, 2020, https://www.spglobal.com/platts/en/market-insights/latest-news/oil/020320-end-of-cosco-sanctions-shows-us-reluctance-for-penalizing-key-oil-market-players-analysts.

88. "U.S. lifts Iran sanctions on one unit of Chinese shipping giant COSCO," Oil & Gas 360, https://www.oilandgas360.com/u-s-lifts-iran-sanctions-on-one-unit-of-chinese-shipping-giant-cosco/.

89. Jeremy Douglas, "Asian organized crime doubles down on casinos," CNN, February 14, 2019, https://www.cnn.com/2019/02/13/opinions/casinos-southeast-asia-intl/index.html.

90. "Dandong yinhang gufen youxian gongsi 2018nian niandu baogao," [2018 Annual Report for the Bank of Dandong, Co., Ltd.], Bank of Dandong, April 2019, http://www.dandongbank.com/data/tosend/resource/upload/%E4%B8%B9%E4%B8%9C%E9%93%B6%E8%A1%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82018%E5%B9%B4%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf.

91. Greg Robb, "Fed study finds Trump tariffs backfired," MarketWatch, December 28, 2019, https://www.marketwatch.com/story/fed-study-finds-trump-tariffs-backfired-2019-12-27.

92. Katheryn Russ, "What Trump's tariffs have cost the U.S. economy," PBS, October 11, 2019, https://www.pbs.org/newshour/economy/making-sense/what-trumps-tariffs-have-cost-the-u-s-economy.

93. Taylor Telford, "Trump's trade war comes for consumers: Tariffs could cost U.S. families up to $1,000 a year, JP Morgan forecasts," *The Washington Post*, August 20, 2019, https://www.washingtonpost.com/business/2019/08/20/trumps-trade-war-comes-consumers-tariffs-will-cost-us-families-year-jp-morgan-forecasts/.

94. Sherisse Pham, "Losing Huawei as a customer could cost US tech companies $11 billion," CNN, May 17, 2019, https://www.cnn.com/2019/05/17/tech/huawei-us-ban-suppliers/index.html.

95. Ana Swanson, "Tougher Huawei Restrictions Stall After Defense Department Objects," *The New York Times*, January 24, 2020, https://www.nytimes.com/2020/01/24/business/economy/huawei-restrictions.html.

96. Finbarr Bermingham, "Singapore's US-China trade war exposure laid bare in scathing economic review," *South China Morning Post*, September 4, 2019, https://www.scmp.com/economy/china-economy/article/3025624/singapores-us-china-trade-war-exposure-laid-bare-scathing.

97. Wu, "TSMC to Keep Supplying Huawei."

98. Alan Rappeport and Ana Swanson, "Trump Renews

Trade War as China Talks End Without a Deal," *The New York Times,* May 10, 2019, https://www.nytimes.com/2019/05/10/us/politics/trump-china-trade.html.

99. The exact translation of *jingji waijiao* is economic diplomacy, but in this context, it refers to economic statecraft.

100. Harrell, Rosenberg, and Saravalle, "China's Use of Coercive Economic Measures."

101. Harrell, Rosenberg, and Saravalle, "China's Use of Coercive Economic Measures."

102. Li Wei and Sun Yi, "Liaojie zhongguo jingji waijiao," [Understanding Chinese Economic Diplomacy], *Waijiao pinglun*, 2014 no. 20144 (November 2014), 1–24; Song Guoyou, "Zhongguo zhoubian jingji waijiao: jizhi xietiao yu celue xuanze," [Chinese Economic Diplomacy Toward Neighboring Countries: Coordinating Mechanisms and Strategic Choices], Guoji wenti yanjiu, March 26, 2014.

103. Yan Xuetong, *Leadership and the Rise of Great Powers*, (Princeton, NJ: Princeton University Press, April 9, 2019.)

104. Song, "Zhongguo zhoubian jingji waijiao: jizhi xietiao yu celue xuanze."

105. Song, "Zhongguo zhoubian jingji waijiao: jizhi xietiao yu celue xuanze."

106. Song, "Zhongguo zhoubian jingji waijiao: jizhi xietiao yu celue xuanze."

107. Williams and Hammond, "U.S.-China Tariff Actions by the Numbers."

108. Williams and Hammond, "U.S.-China Tariff Actions by the Numbers."

109. Kate Conger, "China Summons Tech Giants to Warn Against Cooperating With Trump Ban," *The New York Times*, June 8, 2019, https://www.nytimes.com/2019/06/08/business/economy/china-huawei-trump.html.

110. Conger, "China Summons Tech Giants."

111. Vice President Mike Pence, "Remarks by Vice President Pence on the Administration's Policy Toward China," the Hudson Institute, Washington, October 4, 2018; author interviews with private sector representatives in the United States, Europe, and Asia.

112. Yan Liang, "Zhongguo duiwai jingji zhicai: mubiao yu zhengce yiti,"

113. Ashley Feng and Lorand Laskai," Welcome to the New Phase of the US-China Tech Competition," Defense One, September 3, 2019, https://www.defenseone.com/ideas/2019/09/welcome-new-phase-us-china-tech-competition/159598/.

114. In 2011, China added "the basic safeguards for ensuring sustainable economic and social development" to its list of core national interests. See "China's Peaceful Development," Information Office of the State Council, September 6, 2011, http://english.www.gov.cn/archive/white_paper/2014/09/09/content_281474986284646.htm.

115. "Findings of the Investigation Into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act of 1974," Office of the U.S. Trade Representative, March 22, 2018, https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF.

116. "Foreign Spies Stealing US Economic Secrets: Report to Congress on Foreign Economic Collection and Industrial Espionage, 2009-2011," Office of the National Counterintelligence Executive, October 2011.

117. Steve Dickinson, "China's New Foreign Investment Law and Forced Technology Transfer: Same As it Ever Was," China Law Blog, blog, March 21, 2019, https://www.chinalawblog.com/2019/03/chinas-new-foreign-investment-law-and-forced-technology-transfer-same-as-it-ever-was.html.

118. David E. Sanger and Steven Lee Myers, "After a Hiatus, China Accelerates Cyberspying Efforts to Obtain U.S. Technology," *The New York Times*, November 29, 2018, https://www.nytimes.com/2018/11/29/us/politics/china-trump-cyberespionage.html.

119. "2019 China Business Climate Survey Report," American Chamber of Commerce in the People's Republic of China, March 8, 2019, https://www.amchamchina.org/policy-advocacy/business-climate-survey/.

120. U.S. House of Representatives, *Uyghur Human Rights Policy Act of 2019*, H. R. 649, 116th Congress, 1st sess., https://www.govinfo.gov/content/pkg/BILLS-116hr649ih/pdf/BILLS-116hr649ih.pdf; Public Law 116-76, *Hong Kong Human Rights and Democracy Act of 2019*, November 27, 2019; and "China takes countermeasures after U.S. signs Hong Kong act," CGTN, December 2, 2019, https://news.cgtn.com/news/2019-12-02/China-takes-countermeasures-after-U-S-signing-of-Hong-Kong-bill-M5Xgxx-AsOA/index.html.

121. Yan, *Leadership and the Rise of Great Powers*.

122. Conger, "China Summons Tech Giants."

123. Damien Cave and Jacqueline Williams, "Australian Law Targets Foreign Interference. China Is Not Pleased." *The New York Times*, June 28, 2018, https://www.nytimes.com/2018/06/28/world/australia/australia-security-laws-foreign-interference.html.

124. Agence France-Press and Sarah Zheng, "Chinese billionaire Huang Xiangmo stripped of Australian residency, banned from returning over 'political interference' concerns," *South China Morning Post*, February 6, 2019, https://www.scmp.com/news/asia/australasia/

article/2185148/chinese-billionaire-huang-xiang-mo-stripped-australian.

125. Jamie Smyth, "Australia banned Huawei over risks to key infrastructure," *Financial Times*, March 27, 2019, https://www.ft.com/content/543621ce-504f-11e9-b401-8d9ef1626294.

126. "Exclusive: China's Dalian port bans Australian coal imports, set 2019 quota—source," Reuters, February 21, 2019, https://uk.reuters.com/article/us-china-australia-coal-exclusive/exclusive-chinas-dalian-port-bans-australian-coal-imports-sets-2019-quota-source-idUKKCN1QA0F1.

127. Jojje Olsson, "China Tries to Put Sweden on Ice," *The Diplomat*, December 30, 2019, https://thediplomat.com/2019/12/china-tries-to-put-sweden-on-ice/.

128. Raphael Satter and Nick Carey, "China threatened to harm Czech companies over Taiwan visit: letter," Reuters, February 19, 2020, https://www.reuters.com/article/us-china-czech-taiwan/china-threatened-to-harm-czech-companies-over-taiwan-visit-letter-idUSKBN20D0G3?__twitter_impression=true.

129. Katrin Bennhold and Jack Ewing, "In Huawei Battle, China Threatens Germany 'Where It Hurts': Automakers," *The New York Times*, January 16, 2020, https://www.nytimes.com/2020/01/16/world/europe/huawei-germany-china-5g-automakers.html.

130. "Canola and China—What Growers Should Know," Canola Council of Canada, January 16, 2020, https://www.canolacouncil.org/news-homepage/canola-china-%E2%80%93-what-growers-should-know/.

131. Jason Kirby, "China lifts ban on Canadian pork and beef exports," *Financial Times*, November 5, 2019, https://www.ft.com/content/be42bd22-0010-11ea-b7bc-f3fa4e77dd47.

132. Emily Rauhala, "Canada arrested Huawei's Meng for the United States. As China retaliates, it's on its own," *The Washington Post*, May 8, 2019, https://www.washingtonpost.com/world/the_americas/canada-helped-the-us-arrest-meng-wanzhou-as-it-gets-punished-by-china-its-on-its-own/2019/05/07/c8152fbe-6d18-11e9-bbe7-1c798fb80536_story.html; Liu Zhen, "China charges Canadians Michael Kovrig and Michael Spavor with spying," *South China Morning Post*, May 16, 2019, https://www.scmp.com/news/china/diplomacy/article/3010517/china-charges-canadians-michael-kovrig-and-michael-spavor.

133. Keegan Elmer, "China defends ban on Canadian canola, saying it reported pest problem on four occasions," *South China Morning Post*, March 30, 2019, https://www.scmp.com/news/china/diplomacy/article/3003957/china-defends-ban-canadian-canola-saying-it-reported-pest.

134. Author interviews with experts from the United States, China, Singapore, and Europe.

135. "Regulations of the People's Republic of China on Import and Export Duties," General Administration of Customs People's Republic of China, October 29, 2003, http://english.customs.gov.cn/Statics/d30338b4-2f6a-47ea-a008-cff20ec0a6d2.html.

136. "The Digital Hand: How China's Corporate Social Credit System Conditions Market Actors," (European Chamber of Commerce in China, 2019), 2.

137. "The Digital Hand."

138. "China to establish list of unreliable entities," Ministry of Commerce of the People's Republic of China, press release, June 4, 2019, http://english.mofcom.gov.cn/article/counselorsreport/americaandoceanreport/201906/20190602869531.shtml.

139. Wang Cong and Zhang Hongpei, "China's 'unreliable entity list' imminent," *The Global Times*, August 22, 2019, http://www.globaltimes.cn/content/1162388.shtml.

140. Jon Cowley, Zhenyu Ruan, and Frank Pan, "China will release its 'Unreliable Entity List,'" Global Compliance News, https://globalcompliancenews.com/china-will-release-its-unreliable-entity-list-20190603/.

141. Amanda Lee, "China tightens 'national security' review for foreign investments, sparking fears of trade war retaliation," *South China Morning Post*, May 13, 2019, https://www.scmp.com/economy/global-economy/article/3010002/china-tightens-national-security-review-foreign-investments.

142. Nicola Smith, "Air New Zealand flight to Shanghai turned back over Taiwan reference," *The Telegraph*, February 12, 2019, https://www.telegraph.co.uk/news/2019/02/12/air-new-zealand-flight-shanghai-turned-back-taiwan-reference/.

143. "US Commerce Department Proposes Sweeping New Rules for National Security Review of US Information and Communications Technology or Services Transactions," Mayer Brown, December 27, 2019, https://www.mayerbrown.com/en/perspectives-events/publications/2019/12/us-department-of-commerce-proposes-rule-for-securing-the-nations-information-and-communications-technology-and-services-supply-chain; Yuan Yang and Nian Liu, "Beijing orders state offices to replace foreign PCs and software," *The Financial Times*, December 8, 2019, https://www.ft.com/content/b55fc6ee-1787-11ea-8d73-6303645ac406.

144. "U.S. Chamber of Commerce ICTS Supply Chain Comments," U.S. Chamber of Commerce, press release, January 10, 2020, https://www.uschamber.com/comment/us-chamber-of-commerce-icts-supply-chain-comments; National Association of Manufacturers, "Comments of the National Association of Manufacturers on the Securing the Information and Communications Technology and Services Supply Chain Proposed Rule

(Docket DOC-2019-0005)," comment to Department of Commerce, January 10, 2020, https://www.regulations.gov/document?D=DOC-2019-0005-0029; and Rural Wireless Broadband Coalition, "Comments of Rural Wireless Broadband Coalition," comment to Department of Commerce, January 10, 2020, https://www.regulations.gov/document?D=DOC-2019-0005-0064.

145. USITC Dataweb, Version 4.5.1, U.S. International Trade Commission, 2020.

146. Calculated by NAICS code 11. USITC Dataweb, Version 4.5.1, U.S. International Trade Commission, 2020.

147. Calculated by HTS Code 1201. USITC Dataweb, Version 4.5.1, U.S. International Trade Commission, 2020.

148. "The Verdict Is In: Farm Bankruptcies Up in 2019," the American Farm Bureau Federation, January 29, 2020, https://www.fb.org/market-intel/the-verdict-is-in-farm-bankruptcies-up-in-2019.

149. Ana Swanson and Jeanna Smialek, "U.S. Manufacturing Slumps as Trade War Damage Lingers," *The New York Times*, January 3, 2020, https://www.nytimes.com/2020/01/03/business/manufacturing-trump-trade-war.html.

150. Employment by industry, Version 1.1, U.S. Bureau of Labor Statistics, 2020.

151. Employment by industry, Version 1.1

152. Kevin Arnovitz, "Inside the NBA's silent tension surrounding Daryl Morey," ESPN, November 12, 2019, https://www.espn.com/nba/story/_/id/28059499/inside-nba-silent-tension-surrounding-rockets-gm-daryl-morey.

153. Ben Cohen, "China Standoff Cost the NBA 'Hundreds of Millions,'" *The Wall Street Journal*, February 16, 2020, https://www.wsj.com/articles/china-standoff-cost-the-nba-hundreds-of-millions-11581866522.

154. Michael Herh, "Lotte Shopping to Sell Off 21 Lotte Mart Stores in Beijing," BusinessKorea, April 27, 2018, http://www.businesskorea.co.kr/news/articleView.html?idxno=21921; Darren J. Lim, "Chinese Economic Coercion during the THAAD Dispute," The Asan Forum, December 28, 2019, http://www.theasanforum.org/chinese-economic-coercion-during-the-thaad-dispute/#a17.

155. "Economic Watch: China's corporate tax cuts inspire entrepreneurs," Xinhuanet.com, April 4, 2019, http://www.xinhuanet.com/english/2019-04/04/c_137949819.htm.

156. Sidney Leng, "Trade war helps push China's private manufacturers to the brink, as investment hits all-time low," *South China Morning Post*, December 24, 2019, https://www.scmp.com/economy/china-economy/article/3043412/trade-war-helps-push-chinas-private-manufacturers-brink.

157. "Siliao xingui qiangzhi jianshao doupoliang dadou jinkou huojian 1000 wandun," [New standards for feed emphasizes decreasing soybean meal amount, soybean imports decrease by 10 million tons], Sina, October 10, 2018, http://finance.sina.com.cn/money/future/fmnews/2018-10-10/doc-ihmhafiq6956511.shtml?mc_cid=1b6b3d9fb5&mc_eid=f2b7aeb356.

158. Calculated using HTS code 1201. World Trade Organization Data Portal, Statistics on merchandise trade (Geneva, 2020).

159. David J. Lynch, "Initial U.S.-China trade deal has major hole: Beijing's massive business subsidies," *The Washington Post*, December 31, 2019, https://www.washingtonpost.com/business/economy/initial-us-china-trade-deal-has-major-hole-beijings-massive-business-subsidies/2019/12/30/f4de4d14-22a3-11ea-86f3-3b5019d451db_story.html.

160. "China says it needs 'arduous efforts' to meet 2019 industrial output goal," CNBC.com, July 23, 2019, https://www.cnbc.com/2019/07/23/china-economy-arduous-efforts-to-meet-2019-industrial-output-goal.html; "2019 nian quanguo guimo yishang gongye qiye lirun xiajiang 3.3%," [2019 profits of industrial enterprises declined by 3.3 percent], National Bureau of Statistics, February 3, 2020, http://www.stats.gov.cn/tjsj/zxfb/202002/t20200203_1724853.html.

161. "Previous Reports: Caixin Manufacturing PMI," Caixin, 2019, https://www.caixinglobal.com/report/. These are according to official Chinese government and nongovernment sources, but may still be unreliable.

162. Liu Jiefei and Lin Jinbing, "Beijing Says It Suspended Guangdong Economic Indicator Over Paperwork," December 19, 2018, https://www.caixinglobal.com/2018-12-19/beijing-says-it-suspended-guangdong-economic-indicator-over-paperwork-101361149.html.

163. Asa Fitch and Dan Strumpf, "Huawei Manages to Make Smartphones Without American Chips," *The Wall Street Journal*, December 1, 2019, https://www.wsj.com/articles/huawei-manages-to-make-smartphones-without-american-chips-11575196201.

164. BNP Paribas, a French bank, publicly apologized and took "internal action" against an employee after they came out in support of the Hong Kong protestors on their personal social media page. Taiwanese bubble tea chains GongCha and HeyTea have come out in support of one country, two systems, while other shops have said that they are from "Taiwan, China."

165. Author interviews in South Korea.

166. Sherisse Pham, "Mercedes-Benz hits pothole in China with Dalai Lama post," CNN, February 7, 2018, https://money.cnn.com/2018/02/07/technology/mercedes-benz-tibet-china-apology/index.html.

167. Anna Fifield, "Taiwan's tea party aims to burst Beijing's one-China bubble," *The Washington Post*, December 15, 2019,

https://www.washingtonpost.com/world/asia_pacific/taiwans-tea-party-aims-to-burst-beijings-one-china-bubble/2019/12/14/e3e8f0a4-1678-11ea-80d6-d0ca7007273f_story.html.

168. Alfred Liu and Bei Hu, "BNP Apologizes for Employee's Posting on Hong Kong Protests," Bloomberg, September 16, 2019, https://www.bloomberg.com/news/articles/2019-09-16/bnp-paribas-apologizes-for-employee-s-post-on-hong-kong-protests.

169. "NBA statement," National Basketball Association, press release, October 6, 2019, https://pr.nba.com/nba-statement/.

170. Adam Silver, "Adam Silver's statement on NBA and China," National Basketball Association, press release, https://www.nba.com/article/2019/10/08/adam-silver-statement-china-nba.

171. James Palmer and Bethany Allen-Ebrahimian, "China Threatens U.S. Airlines Over Taiwan References," *Foreign Policy*, April 27, 2018, https://foreignpolicy.com/2018/04/27/china-threatens-u-s-airlines-over-taiwan-references-united-american-flight-beijing/.

172. Chris Horton, "How Beijing enlists global companies to pressure Taiwan," July 25, 2018, https://asia.nikkei.com/Spotlight/Cover-Story/How-Beijing-enlists-global-companies-to-pressure-Taiwan. As of February 2020, the websites of Singapore Airlines, Air France, and Lufthansa all complied by adjusting Taiwanese destinations to include "Taiwan, China," and U.S. airlines such as United Airlines, American Airlines, and Delta only used "Taipei."

173. Mark Landler, "In Discussion Ostensibly About Tax Cuts, Trump Keeps China in Cross Hairs," *The New York Times*, May 5, 2018, https://www.nytimes.com/2018/05/05/us/politics/trump-trade-china.html; Kevin Breuninger, "China's attacks on US businesses are 'completely inappropriate,' Mike Pompeo says," CNBC, October 21, 2019, https://www.cnbc.com/2019/10/21/chinas-attacks-on-us-businesses-completely-inappropriate-mike-pompeo.html.

174. Vice President Mike Pence, "Remarks by Vice President Pence on the Administration's Policy Toward China," (The Hudson Institute, Washington, DC, October 4, 2018).

175. "Joint Statement by Vice President Mike Pence and Canadian Prime Minister Justin Trudeau," the White House, press release, May 30, 2019, https://www.whitehouse.gov/briefings-statements/joint-statement-vice-president-mike-pence-canadian-prime-minister-justin-trudeau/.

176. Klas Granström, "Kinas ambassadör: Två näringslivsdelegationer har ställt in sina besök till Sverige [China's ambassador: Two business delegations have canceled their visits to Sweden]," Expressen TV, December 19, 2019, https://www.expressen.se/tv/ditv/kinas-ambassador-tva-naringslivsdelegationer-har-stallt-in-sina-besok-till-sverige/; Alison Flood, "China threatens Sweden after Gui Minhai wins free speech award," *The Guardian*, November 8, 2019, https://www.theguardian.com/books/2019/nov/18/china-threatens-sweden-after-gui-minhai-wins-free-speech-award.

177. Johan Leupen and Sandra Olsthoorn, "Peking waarschuwt voor verslechtering Nederlands-Chinese relatie om ASML[Beijing warns of deterioration of Dutch-Chinese relationship to ASML]," Het Financieele Dagblad, January 15, 2020, https://fd.nl/economie-politiek/1330606/peking-waarschuwt-voor-verslechtering-nederlands-chinese-relatie-om-asml?_ga=2.165303999.1673603980.1579103763-1008592084.1579103763#; Jens Kastner, "Squeezed by China and US, Germany faces key Huawei decision," *Nikkei Asian Review*, January 4, 2020, https://asia.nikkei.com/Spotlight/Huawei-crackdown/Squeezed-by-China-and-US-Germany-faces-key-Huawei-decision.

178. Scott Harold, "The Emerging U.S.-China Strategic Competition and the Role of Transatlantic Cooperation," Institut Montaigne, October 7, 2019, https://www.institutmontaigne.org/en/blog/emerging-us-china-strategic-competition-and-role-transatlantic-cooperation; Charles Edel and John Lee, "The Future of the US-Australia Alliance in an Era of Great Power Competition," The U.S. Studies Centre at the University of Sydney, June 2019, https://www.ussc.edu.au/analysis/the-future-of-the-us-australia-alliance-in-an-era-of-great-power-competition; and Neil Irwin, "Australia and the U.S. Are Old Allies. China's Rise Changes the Equation." *The New York Times*, May 11, 2019, https://www.nytimes.com/2019/05/11/upshot/australia-relationship-china-us-trade.html.

179. Author interviews in the United States, Europe, and Asia.

180. Ken Roberts, "Chinese Purchases of U.S. Soybeans Have Ticked Up, But True Test is the Next 45 Days," Forbes.com, October 11, 2019, https://www.forbes.com/sites/kenroberts/2019/10/11/chinese-purchase-of-us-soybeans-have-ticked-up-but-true-test-is-the-next-45-days/#689e5ac84cad.

181. "2019 Factbook," Semiconductor Industry Association, May 29, 2019, https://www.semiconductors.org/wp-content/uploads/2019/05/2019-SIA-Factbook-FINAL.pdf.

182. See Yun Li, "These US stocks have the most exposure to China's consumer market getting hit by coronavirus fears," CNBC, January 27, 2020, https://www.cnbc.com/2020/01/27/us-stocks-most-exposed-to-china-consumer-market-hit-by-coronavirus.html; Leo Sun, "These 3 U.S. Tech Stocks Are Exposed to China's Coronavirus Outbreak," The Motley Fool, February 11, 2020, https://www.fool.com/investing/2020/02/11/these-3-us-tech-stocks-are-exposed-to-chinas-coron.aspx; Sue Chang, "Top 10 S&P 500 companies most exposed to China," MarketWatch, July 8, 2015, https://www.marketwatch.com/story/top-10-sp-companies-most-exposed-to-china-2015-07-08.

183. Aaron Mehta, "To Combat China's Hold on Rare Earth Minerals, Pentagon Looks to Australia," DefenseNews.com, August 27, 2019, https://www.defensenews.com/pentagon/2019/08/27/to-combat-chinas-hold-on-rare-earth-minerals-pentagon-looks-to-australia/.

184. Carrie Mihalcik, "Interior Department Grounds Drone Fleet Amid Concerns of Chinese Spying," Cnet.com, January 29, 2020, https://www.cnet.com/news/interior-department-officially-grounds-drones-made-in-china/.

185. Matt Hourihan and David Parkes, "Federal R&D Budget Trends: A Short Summary," American Association for the Advancement of Science, January 2019, 7, https://www.aaas.org/sites/default/files/2019-01/AAAS%20R%26D%20Primer%202019.pdf.

186. John F. Sargent Jr., "Federal Research and Development (R&D) Funding: FY2020," Congressional Research Service, November 26, 2019, https://fas.org/sgp/crs/misc/R45715.pdf.

187 · Ratner et al., "Rising to the China Challenge."

188. "Charting a Course For Success: America's Strategy for STEM Education" (Committee on STEM Education of the National Science and Technology Council, December 2018), https://www.whitehouse.gov/wp-content/uploads/2018/12/STEM-Education-Strategic-Plan-2018.pdf.

189. Ratner et al., "Rising to the China Challenge."

190. Ratner et al., "Rising to the China Challenge."

191. Martijn Rasser, Megan Lamberth, Ainikki Riikonen, Chelsea Guo, Michael Horowitz, and Paul Scharre, "The American AI Century: A Blueprint for Action," December 2019, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Tech-American-AI-Century_updated.pdf?mtime=20200103081822.

192. Martijn Rasser, Elizabeth Rosenberg, and Paul Scharre, "The China Challenge: Strategies for Recalibrating the U.S.-China Tech Relationship," CNAS, December 12, 2019, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-US-China-Tech-Competition-formatted-for-pdf-download.pdf?mtime=20191217130551.

About the Center for a New American Security

The mission of the Center for a New American Security (CNAS) is to develop strong, pragmatic and principled national security and defense policies. Building on the expertise and experience of its staff and advisors, CNAS engages policymakers, experts and the public with innovative, fact-based research, ideas and analysis to shape and elevate the national security debate. A key part of our mission is to inform and prepare the national security leaders of today and tomorrow.

CNAS is located in Washington, and was established in February 2007 by co-founders Kurt M. Campbell and Michèle A. Flournoy.

CNAS is a 501(c)3 tax-exempt nonprofit organization. Its research is independent and non-partisan. CNAS does not take institutional positions on policy issues. Accordingly, all views, positions, and conclusions expressed in this publication should be understood to be solely those of the authors.

1152 15th Street, NW Suite 950 Washington, DC 20005
t. 202.457.9400 | f. 202.457.9401 | info@cnas.org | cnas.org


Center for a
New American
Security