

Managed Competition: Meeting China's Challenge in a Multi-vector World

Franklin D. Kramer





Atlantic Council

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EXECUTIVE SUMMARY

This paper proposes a strategic approach of “managed competition” to meet the full spectrum of challenges posed by China, including economic and innovation, diplomatic and influence, and security, both hybrid and conventional military. These challenges arise because China’s authoritarian leadership organizes and implements policies in ways that are often systemically incompatible with democratic, free market nations.

For the foreseeable future, China will remain a country where the Communist Party of China (CPC) is the “east, west, south, north, and center.”¹ Under CPC leadership, China differentiates itself from free market democracies—in its foundational documents, “protect[ing] against the corroding influence of decadent capitalist and feudal ideas,”² as the CPC constitution provides, and in the proscriptions of its leaders to “never copy the models or practices of other countries,” as CPC General Secretary and Chinese President Xi Jinping has stated.³ China, however, also is and will continue to be a large and highly consequential actor in the globalized world of the twenty-first century, notably through its expanding economy, its significant focus on emerging technologies, and its increasing military capabilities. To achieve its “two centennial goals,”⁴ China depends heavily on achieving success in the global economy. That success involves “going out”⁵ through trade and investment, diplomacy, and maintaining a stable security environment—all of which have presented, and will continue to present, economic opportunities for businesses and countries.

At the same time, China engages in significant negative behavior, including cyber espionage, aggressive actions in the East and South China Seas, a refusal to abide by international law, economic coercion, and political subversion. It utilizes excessive subsidies, forced technology transfers, and other market distortions to skew economic and technological developments to its advantage.

Understanding and responding to the challenges China presents, therefore, requires a broad perspective, recog-

nizing the interaction of economic, diplomatic, and security issues, and taking into account longer-term consequences as well as more immediate opportunities.

The managed competition strategy provides operational lines of effort for the United States and its close allies and partners in each of these crucial arenas and, in particular, with respect to the significant confrontational challenges China represents, including through its internal motivations. The strategy’s objective is to establish structures and processes that operate successfully over time, responding effectively to the often incompatible approaches of China, but also providing for measured cooperation in appropriate arenas. The main elements of the strategy include enhancing innovation, increasing resilience, providing both assurance and deterrence, and establishing selective limitations, all undertaken in coordination with the United States’ close allies and partners. The long-term goals are to ensure modernization for the United States and its close allies and partners, constrain negative Chinese behavior, and allow for cooperation on “one world” issues. The particulars are described below.

1. Economics and Innovation

A successful economics and innovation strategy will require substantially enhanced efforts to support innovation as well as a multi-tier economic approach differentiating strategic sectors and those sectors affected by—or, for emerging technologies, at future risk of—market distortions, where selective limitations are warranted, from those sectors that would benefit from reciprocal access of commercial products and services to commercial entities allowing for generally free trade in those arenas.

a. Innovation

An increased focus on innovation is critically important both for national security and to maintain competitiveness in future global markets. It is important to recognize that “China’s innovation offensive will affect the

1 Shannon Tiezzi, “Xi Jinping Continues His Quest for Absolute Party Control,” *Diplomat*, July 10, 2019, <https://thediplomat.com/2019/07/xi-jinping-continues-his-quest-for-absolute-party-control/>; Nectar Gan, “Xi Jinping Thought – the Communist Party’s tighter grip on China in 16 characters,” *South China Morning Post*, October 25, 2017, <https://www.scmp.com/news/china/policies-politics/article/2116836/xi-jinping-thought-communist-partys-tighter-grip-china>.

2 Constitution of the Communist Party of China, General Program [paragraphs are not numbered].

3 Charlotte Gao, “Xi: China Must Never Adopt Constitutionalism, Separation of Powers, or Judicial Independence,” *Diplomat*, February 19, 2019, <https://thediplomat.com/2019/02/xi-china-must-never-adopt-constitutionalism-separation-of-powers-or-judicial-independence/>.

4 “CPC Q&A: What are China’s two centennial goals and why do they matter?” Xinhua, October 17, 2017, http://www.xinhuanet.com/english/2017-10/17/c_136686770.htm.

5 The State Council Information Office of the People’s Republic of China, “China and the World in the New Era,” Xinhua, September 2019, 6, http://www.xinhuanet.com/english/2019-09/27/c_138427541.htm.

competitiveness of other nations in many high-tech sectors.”⁶ Establishing and maintaining fair and efficient markets for advanced and emerging technologies may be the most significant task facing the United States and its close allies and partners.

To enhance innovation, the United States should 1) significantly increase federal funding for research and development, and expand access to international research and development by coordinating with its close allies, 2) expand governmental actions and incentivize private sector efforts in key focused arenas such as artificial intelligence (AI), quantum computing, nanotechnology, genomics and biological research, human augmentation, information technology and cyber security, and climate and energy, 3) expand manufacturing and nonmanufacturing “clusters,” which would bring together public, private, and nonprofit entities in precompetitive research and development efforts, 4) significantly expand university programs on national security and economic issues, and encourage talent growth, especially through expanding and incentivizing science, technology, engineering, and mathematics (STEM) education, including major investments in undergraduate scholarships and graduate fellowships, and 5) expand collaboration between national security agencies and the private sector, including by revising the federal acquisition approach. Finally, a net assessment effort focused on comparative innovative activities on emerging technologies between the United States and its close allies on one side and China on the other would provide a useful guide to future efforts.

b. Economics

To ensure efficient and fair operation of the US economy, the United States should undertake a multi-tiered approach that takes into account differing requirements for markets in the United States and for activities in the Chinese market. Such an approach should utilize, as described below, selective and focused restrictions for practicable implementation. A key element will be to ensure that innovative, advanced, and emerging technologies can transition from pure innovation to effective competitors in fair and efficient markets.

For markets in the United States:

- Create necessary limitations on Chinese engagement in strategic sectors, firms, and technologies vital to national security or other critical national objectives, including, as appropriate, limits on investment, trade, licensing, financial, and other transactions.
- For non-strategic sectors unfairly affected by—most importantly, for emerging technologies such as those identified in China's Made in China 2025 initiative—China's state-directed economic practices, frameworks need to be developed that will have selective, but effective, offsetting impact, including import restraints and/or selective focused tariffs so as to ensure a level playing field for US firms. The US Congress should enact framework legislation to guide such actions, including both the creation of limitations and the provision of resources and incentives. As noted, the establishment of fair and efficient markets for advanced and emerging technologies is critical.
- For other sectors, establish generally open trade for commercial products and services to commercial users, but subject to the caveat that access to the US market should depend on generally comparable access to China's domestic market (brought about as set forth below).

For markets in China:

- Where US firms export to China or operate via subsidiaries, joint ventures, or other such arrangements in China, limit the transfer of technology, including emerging technologies and research into advanced technologies, unless approved by the US government through an enhanced review mechanism, thereby creating both a broader review as well as automatic governmental support to companies.
- For US firms incorporating Chinese firms into their supply chain, bar the use of such Chinese firms for products and components in strategic sectors vital to national security or other critical national objectives unless approved by the US government.
- Otherwise, as noted above, allow generally open trade for commercial products and services to commercial end users, but subject to the caveat that access to the US market should depend on generally comparable access to China's domestic market. Such access will be enhanced by a three-part approach: first, coordinated actions by close allies, particularly the United States, the European Union (EU), and Japan, including establishing a common platform for reporting and responding to requests for technology transfer; second, a government review of any such technology transfers; and, third, utilizing direct government negotiations to ensure market access, including by establishing agreements for firms (as Germany did recently by signing eleven cooperation

6 Max J. Zenglein and Anna Holzmann, *Evolving Made in China 2025*, Mercator Institute for China Studies (MERICS), July 2019, 13, https://www.merics.org/sites/default/files/2019-07/MPOC_8_MadeinChina_2025_final_3.pdf.

agreements⁷) or the use of targets (as the United States has done in connection with agricultural exports⁸). An approach that achieves effective access through direct actions, including bargaining by governments, is necessary since it is unlikely that any rules-based mechanism could be created to remove the many non-tariff barriers that effectively restrict reciprocal access.⁹

The net result of such an approach would not be wholesale decoupling of markets, but would entail limitations as a consequence of strategic or important equitable market competition considerations.

2. Diplomacy and Influence

In the diplomatic and influence arenas, key elements include multilateral efforts with close US allies and coordination of activities to counter disinformation and subversion.

a. Multilateral Economic Coordination

In the economic arena:

- create new economic groupings, particularly for the United States, the EU, and Japan, and coordinate as much as practicable a common economic approach by close allies to China;
- increase other multilateral efforts, including the United States joining the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP);
- generate an agenda for World Trade Organization (WTO) reform that can appropriately respond to China's impact on free market economies in conjunction with the coordinated efforts by close allies noted above; and
- establish an international infrastructure and development "Green Initiative" focused on climate change, environment, water, and health, initially developed by the United States and its close allies, but with the opportunity for others to join.

b. Influence Activities

In influence and ideological competition:

- recognize that democratic and free market countries are predominant, including in the Indo-Pacific (India, Indonesia, Malaysia, Philippines, Japan, the Republic of Korea, Australia, and New Zealand), in Europe (the countries of the EU and NATO), in North America (Canada, Mexico, and the United States), and in the rest of the hemisphere (most countries of Latin America);
- coordinate efforts to support democratic institutions, including actively countering Chinese disinformation, economic coercion, and political subversion with appropriate intelligence and information sharing;
- undertake expanded transparency regarding Chinese authoritarianism and refusal to adhere to international agreements and international law; and
- utilize military diplomacy to coordinate military exchanges and training, and engage multinational military approaches as one element of structured cooperation among democratic, free market nations.

3. Security

In the security arena, undertaking assurance, resilience, and deterrence measures will be necessary when responding to both hybrid and conventional challenges. The most significant unresolved challenge is in the cyber arena where China has utilized its capabilities to steal advanced technologies and to undertake continuous attacks, including through "advanced persistent threats," and where the expansion of technology from China's Huawei Technologies Co., Ltd. into the 5G arena will significantly increase security risks for users of this technology.

a. Hybrid

In the hybrid arena:

- for cyber, undertake expanded development of resilience capabilities, create an International Cyber Stability Board of like-minded nations to respond to ongoing Chinese cyber campaigns, place limits on the use of Chinese technology as key elements in national information technology infrastructures, and establish

7 Andreas Rinke, "Merkel hopes China-U.S. trade problems will be over soon," Reuters, September 5, 2019, <https://www.reuters.com/article/us-china-germany/merkel-hopes-china-u-s-trade-problems-will-be-over-soon-idUSKCN1VR07C>.

8 Shuping Niu, Steven Yang, Mike Dorning, Michael Hirtzer, Millie Munshi, Shawn Donnan, Isis Almeida, and Sharon Chen, "U.S. Farm Sales to China May Hit Pre-Trade War Level by Election," Bloomberg News, October 24, 2019, <https://www.bloomberg.com/news/articles/2019-10-24/china-willing-to-buy-20-billion-of-u-s-farm-goods-in-year-one>.

9 The analysis should include exports, but also consider an appropriate mechanism to evaluate sales by US company affiliates in China. See *Hearing on Risks, Rewards, and Results: US Companies in China and Chinese Companies in the United States*, US-China Economic and Security Review Commission, February 28, 2019, revised March 10, 2019, (statement of Mary E. Lovely, professor of economics and Melvin A. Eggers Faculty Scholar at Syracuse University's Maxwell School of Citizenship and Public Affairs and a nonresident senior fellow at the Peterson Institute for International Economics in Washington, DC). <https://www.piie.com/system/files/documents/lovely20190228.pdf>.

additional legal remedies focused on denying benefits to those using illegally obtained information;

- responses to economic coercion should include a governmental review of technology transfers to reduce pressure on companies, coordinated diplomacy to generate multilateral objections to any such actions against a single country, and evaluation of the creation of backup financial mechanisms to ameliorate economic cutoffs by China;
- Chinese attempts to limit free speech, particularly outside China or by non-Chinese entities, should be met with diplomatic support, countervailing economic actions including sanctions, and by civil society groups monitoring and making public inappropriate censorship activities; and
- opposition to low-level use of force will require security activities in the East and South China Seas, including diplomatic support, freedom of navigation activities, and expansion of maritime initiatives to provide intelligence that includes a common maritime picture, and capabilities and training.

b. Conventional

In the conventional military arena, enhance deterrence and warfighting capabilities:

- differentiate among three types of potential conflicts—support of treaty allies, actions in the South China Sea, and defense of Taiwan—which, while they could all be engaged in a single scenario, nonetheless present different challenges and allow for differentiated responses;
- focus on the achievement of conflict outcomes and build strategic approaches to enhance deterrence, including

development of allies' and partners' anti-access/area denial (A2/AD) capabilities and planning for the use of alternative maritime routes for hydrocarbon and other commercial flows if required at the time of conflict;

- undertake, in addition to planned modernization (which includes missile defenses, advanced aircraft, dynamic basing, and enhanced and flexible logistics), to develop and acquire asymmetric capabilities such as extended-range anti-ship missiles, counter-C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance), including countering sensors that cue missiles, and unmanned vehicles both undersea and airborne;
- accelerate development of advanced technologies, including AI, quantum computing, robotics, and man-machine interactions, that provide significant deterrent and warfighting capabilities; and
- enhance cyber resilience and develop and integrate cyber defensive and offensive capabilities.

4. 'One World' Issues

Resolution of "one world" challenges, such as climate change, necessarily requires the involvement of so significant a factor as China presents. Managed competition does not preclude cooperation—or at least parallel actions—in appropriate circumstances. Economic and diplomatic efforts should include a focus on "one world" challenges that would benefit from significant cooperation with and/or action by China for their resolution or amelioration. These areas include climate, environment, water, and health. Future actions could build on existing efforts such as the collaborations between the Environmental Protection Agency (EPA) and China, and parallel actions by the United States and China in the international health arena.

I. INTRODUCTION

This paper proposes a strategic approach of “managed competition” to meet the full spectrum of challenges posed by China, including economic and innovation, diplomatic and influence, and security, both hybrid and conventional military. These challenges arise because China’s authoritarian leadership organizes and implements China’s policies in ways that often are systemically incompatible with democratic, free market nations.

For the foreseeable future, China will remain a country where the Communist Party of China (CPC) is the “east, west, south, north, and center.”¹⁰ Under CPC leadership, China differentiates itself from free market democracies—in its foundational documents, “protect[ing] against the corroding influence of decadent capitalist and feudal ideas,”¹¹ as the CPC constitution provides, and in the proscriptions of its leaders to “never copy the models or practices of other countries,” as CPC General Secretary and Chinese President Xi Jinping has stated.¹² China, however, also is and will continue to be a large and highly consequential factor in the globalized world of the twenty-first century, notably through its expanding economy, its significant focus on emerging technologies, and its increasing military capabilities. To achieve its “two centennial goals,”¹³ China depends heavily on achieving success in the global economy, and that success involves “going out”¹⁴ through trade and investment, by diplomacy, and by maintaining a stable security environment—all of which have presented, and will continue to present, economic opportunities for businesses and countries.

At the same time, China engages in significant negative behavior, including cyber espionage, aggressive actions in the East and South China Seas, a refusal to abide by international law, economic coercion, and political subversion.

It utilizes excessive subsidies, forced technology transfers, and other market distortions to skew economic and technological developments to its advantage.

Understanding and responding to the challenges China presents, therefore, requires a broad perspective, recognizing the interaction of economic, diplomatic, and security issues, and taking into account longer-term consequences as well as more immediate opportunities.

The managed competition strategy provides operational lines of effort for the United States and its close allies and partners in each of these crucial arenas and, in particular, with respect to the significant confrontational challenges China represents, including through its internal motivations. The strategy’s objective is to establish structures and processes that operate successfully over time, responding effectively to the often incompatible approaches of China, but also providing for measured cooperation, as interests dictate, in appropriate arenas. The main elements of the strategy include enhancing innovation, increasing resilience, providing both assurance and deterrence, and establishing selective limitations, all undertaken in coordination with close allies and partners.

In implementing the managed competition approach, the United States, its close allies, and partners should not expect that China will anytime soon make significant changes to its current system; China has explicitly rejected Westernization, determining that “The path of socialism with Chinese characteristics is the only path [and]...we must...no[t] take the wrong turn by changing our nature and abandoning our system,”¹⁵ and, indeed, “must never copy the models or practices of other countries.”¹⁶ Within that context, however, the challenges China poses are nonetheless differentiated as should be the responses,

10 Shannon Tiezzi, “Xi Jinping Continues His Quest for Absolute Party Control,” *Diplomat*, July 10, 2019, <https://thediplomat.com/2019/07/xi-jinping-continues-his-quest-for-absolute-party-control/>; Nectar Gan, “Xi Jinping Thought – the Communist Party’s tighter grip on China in 16 characters,” *South China Morning Post*, October 25, 2017, <https://www.scmp.com/news/china/policies-politics/article/2116836/xi-jinping-thought-communist-partys-tighter-grip-china>.

11 Constitution of the Communist Party of China, General Program [paragraphs are not numbered].

12 Charlotte Gao, “Xi: China Must Never Adopt Constitutionalism, Separation of Powers, or Judicial Independence,” *Diplomat*, February 19, 2019, <https://thediplomat.com/2019/02/xi-china-must-never-adopt-constitutionalism-separation-of-powers-or-judicial-independence/>.

13 “CPC Q&A: What are China’s two centennial goals and why do they matter?” *Xinhua*, October 17, 2017, http://www.xinhuanet.com/english/2017-10/17/c_136686770.htm.

14 The State Council Information Office of the People’s Republic of China, “China and the World in the New Era,” http://www.xinhuanet.com/english/2019-09/27/c_138427541.htm.

15 Full text of Chinese President Xi Jinping’s report to the 19th CPC National Congress, November 11, 2017, http://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.htm.

16 Gao, “Xi: China Must Never.”



President Donald J. Trump and President Xi Jinping, July 8, 2017. (Official White House photo by Shealah Craighead)

particularly in the global Multi-vector world with numerous national, multinational, and non-state actors and continuous flows of goods, services, capital, information, and people.

In undertaking the managed competition approach, security, diplomatic, and economic issues may have consequences for one another and should be reviewed in the overall scheme of things even though responses may be in a particular arena. Negotiations, both explicit and tacit, will be elements of a strategic response, but it should be recognized that China has not always adhered to its agreements as exemplified by its militarization of islands in the South China Sea after stating that it would not do so; “trust, but verify” will be a good approach. As explained below,

the two most important actions for the United States are to maintain and enhance its innovative capabilities and to coordinate with close allies and partners on the particulars of economic, diplomatic, and security approaches.

The discussion that follows has three parts: understanding the sources of Chinese behavior; evaluating the economic, diplomatic, and security elements of competition with China; and proposing recommendations in each arena that will help establish for the United States and its close allies and partners a dynamically stable world capable of achieving significant prosperity, free from improper coercion while assuring freedom and human rights to the extent possible for those who seek it, and meeting “one world” challenges such as climate change.

II. UNDERSTANDING CHINA—SOURCES OF CHINESE BEHAVIOR

Understanding what drives China's behavior is key to understanding the global challenges it presents. The focus here will be on China's leadership through the CPC and the government.¹⁷ Given Xi's current dominance, a good place to start is with what could be called "Xi Jinping Practice" (as opposed to "Xi Jinping Thought"). Xi regularly promotes his "China Dream" of the "great rejuvenation of the Chinese nation"¹⁸ as the nation's objective with the CPC as central—"Party and government, military, civilian and learning—east, west, south, north and center—the party is leader of all"¹⁹—a conclusion fully incorporated into both Chinese constitutions (that of the party [CPC] and of the government [People's Republic of China]).²⁰ As China's State Council's recent report on "China and the World in the New Era" states:

"Over the past 70 years, China's success boils down to the CPC's leadership. Without centralized, unified, and firm leadership, China would have tended towards division and disintegration and caused widespread chaos beyond its own borders. The CPC is China's core leadership, ruling the country for long and supported by the people."²¹

For the United States and other democratic free market countries, the CPC's centrality has two important elements: first, its nationalistic approach built heavily on a narrative of Chinese victimhood brought about by hostile foreign powers, and, second, CPC control over the economy.

Nationalism has long been a factor in the thinking of China's leadership. Sun Yat-sen's Revive China Society required as part of the oath for membership to "expel the northern barbarians [i.e., the Manchus]", and "Overthrow the

"Since the Tiananmen Square protests, significant structured animosity to Western nations and Japan...has been a fundamental element of CPC thinking and implementation. It is exemplified by the 'Never Forget National Humiliation' campaign."

foreign powers" was the anthem sung in the 1920s by both the Communists as well as the Nationalists led by Chiang Kai-shek.²² However, it was the pro-democracy protests in Tiananmen Square in 1989 that changed the CPC's narrative from the post-1978 focus on economics to nationalism.

The protests in Tiananmen Square have (and had) high significance for the CPC leadership as they occurred in the context of the demise of communism in Eastern Europe and were shortly followed by the collapse of the Soviet Union. As has been thoroughly documented, Deng Xiaoping and subsequent Chinese leaders were unwavering in their efforts to assure that the same did not happen to communism in China.²³ That determination led to the removal of the then head of the CPC, Zhao Ziyang, who had shown sympathy for the student protestors, and his replacement by Jiang Zemin, during whose tenure nationalism as an animating narrative of the CPC was developed.²⁴

17 While these institutions are large and controlling, it is worthwhile to keep in mind that most of China's 1.3 billion people are neither in the CPC nor the government—and that the Chinese people's issues can have an impact even on their highly authoritarian government.

18 Many of Chinese President Xi Jinping's speeches are collected in the two volumes of *Xi Jinping: The Governance of China* (2017). See id. at 30 for the quote in text, and also Elizabeth Economy, *The Third Revolution: Xi Jinping and the New Chinese State*, (2018), 229. The CPC Constitution also provides for "all Chinese people to strive for the great rejuvenation of the Chinese nation."

19 Chris Buckley, "Xi Jinping Assuming New Status as China's 'Core' Leader," *New York Times*, February 4, 2016, <https://www.nytimes.com/2016/02/05/world/asia/china-president-xi-jinping-core.html?login=email&auth=login-email>.

20 Gao, "Xi: China Must Never." The first sentences of the CPC Constitution states: "The Communist Party of China is the vanguard of the Chinese working class, the Chinese people, and the Chinese nation. It is the leadership core for the cause of socialism with Chinese characteristics..." Constitution of the Communist Party of China, General Program [paragraphs are not numbered]. Article 1 of the Constitution of the People's Republic of China provides in part: "The defining feature of socialism with Chinese characteristics is the leadership of the Communist Party of China."

21 The State Council Information Office of the People's Republic of China, "China and the World in the New Era."

22 Zheng Wang, *Never Forget National Humiliation: Historical Memory in Chinese Politics and Foreign Relations*, (Columbia University Press: 2012), 77-78.

23 Kerry Brown, *China's Dream: The Culture of Chinese Communism and the Secret Sources of Its Power* (2018), 126-127.

24 Brown, *China's Dream* (2018), 126-132.

Since the Tiananmen Square protests, significant structured animosity to Western nations and Japan—what one might call the “geopolitics of resentment”—has been a fundamental element of CPC thinking and implementation. It is exemplified by the “Never Forget National Humiliation” campaign begun in the early 1990s, and recently reemphasized by the CPC publication of a new “outline for promoting patriotic education in the new era.”²⁵ The elements of this campaign are taught to all schoolchildren and memorialized in “patriotic education” memorials throughout China. Basically:

“[T]he patriotic education campaign was designed to present Chinese youths with detailed information about China’s traumatic and humiliating experience in the face of Western and Japanese incursions. The CCP-led revolution changed China’s fate and won national independence, thus ending national humiliation.”²⁶

In a major speech in 2001, Jiang underscored the nationalism narrative, noting that through CPC leadership, China had “abrogated the unequal treaties imposed upon China by Western powers and...thoroughly ended the history of humiliating diplomacy...and effectively safeguarded State sovereignty, security, and national dignity.”²⁷

That narrative is very broadly accepted in China:

“Whatever their feelings about Marxism-Leninism (probably typified by indifference), or the CPC, Chinese people...have been emotionally engaged by this nationalist message. They love their country. They love its histories, and its current wealth, and the signs present them every day that for the first time in modern history it looks to be winning.”²⁸

A survey by the Economist Intelligence Unit found: “Chinese respondents were the most optimistic, with 91.4% believing their country will have made progress towards being a better society in the next ten years, and only 3.3% fearing changes for the worst.”²⁹

In addition to its nationalistic protection of the Chinese nation, the CPC’s other key role is economic, as the party is central not only to governance, but to the economy. The constitution of the CPC provides that “development is the Party’s top priority in governing and rejuvenating the country.”³⁰ As the 2019 report by the United States Trade Representative (USTR) states:

“[T]he framework of China’s economy is set by the Chinese government and the Chinese Communist Party, which exercise control directly and indirectly over the allocation of resources through instruments such as government ownership and control of key economic actors and innumerable government directives....Article 6 of the Constitution of the People’s Republic of China provides that, ‘[i]n the primary stage of socialism, the state upholds the basic economic system in which public ownership is dominant and diverse forms of ownership develop side by side....’ Article 7 provides that ‘[t]he state-owned economy, that is, the socialist economy with ownership by the whole people, is the leading force in the national economy. The state ensures the consolidation and development of the state-owned economy.’ Similarly, the Constitution of the Chinese Communist Party provides: ‘The Communist Party of China leads the people in developing the socialist market economy. It unwaveringly consolidates and develops the public sector of the economy and unswervingly encourages, supports and guides the development of the non-public sector.’”³¹

Each of these factors—nationalism and economic leadership by the state—are key elements of Xi’s leadership, which is ultimately based on the leading role of the CPC. As Richard McGregor has written:

“Xi has always been a true believer in the party’s right to rule China. For him, the centrality of the party, of Mao, and of the communist canon are all of a piece. To deny one part of the CCP’s history is to deny all of it. In Xi’s eyes, a Chinese leader must be above all Red, meaning loyal to the Communist

25 “China unveils outline for strengthening patriotic education,” Xinhua, November 12, 2019, http://www.xinhuanet.com/english/2019-11/13/c_138549930.htm.

26 Wang, *Never Forget* (2012), 127.

27 Quoted at Wang, *Never Forget*, 102.

28 Brown, *China’s Dream*, 164. That overall sense of the end of humiliation explains why Chinese reactions are often put in terms of standing up to “bullying.” See, e.g., Maggie Fitzgerald, “China accuses the US of ‘bullying behavior,’” CNBC, May 17, 2019, <https://www.cnbc.com/2019/05/17/china-accuses-the-us-of-bullying-behavior.html>.

29 Economist Intelligence Unit, “Priorities of Progress,” 2018, 6, <https://dkf1ato8y5dsg.cloudfront.net/uploads/5/137/priorities-of-progress-whitepaper.pdf>.

30 Constitution of the Communist Party of China, General Program [paragraphs are not numbered].

31 “2018 Report to Congress On China’s WTO Compliance,” United States Trade Representative, February 2019, 12, <https://ustr.gov/sites/default/files/2018-USTR-Report-to-Congress-on-China%27s-WTO-Compliance.pdf>

Party, its leader, and its ideological roots, in good times and bad.”³²

Likewise, Kerry Brown writes: “Unified ideology matters profoundly to the CPC,” and “Those who contest CPC ideology and its new primacy under Xi do so at their peril.”³³ As one analysis describes: “The Party Leads On Everything.”³⁴

That conclusion was strengthened by Xi's analysis of the challenges of the late 1980s and early 1990s, including the protests in Tiananmen Square and communism's losses in Europe and the Soviet Union. As McGregor has described:

“Abroad, [Xi] had watched as ‘color revolutions’ in Europe and street protests in the Middle East had toppled seemingly invincible governments. But Xi took his greatest warning from the fall of the Soviet Union and was horrified at how the Soviet Communist Party had evaporated almost overnight. ‘A big party was gone, just like that,’ he said in a 2012 speech. ‘Proportionally, the Soviet Communist Party had more members than we do, but nobody was man enough to stand up and resist.’ China had studied the collapse of the Soviet Union intensely in its immediate aftermath. Nearly a quarter of a century later, Xi was worried enough about the state of the party to make everyone from senior leaders to rank-and-file officials go back to class and learn the lessons of the Soviet collapse again. ‘To dismiss the history of the Soviet Union and the Soviet Communist Party, to dismiss Lenin and Stalin, and to dismiss everything else is to engage in historic nihilism,’ he said in another 2012 speech. ‘It confuses our thoughts and undermines the party’s organizations on all levels.’”³⁵

An important, related element is Xi's explicit rejection of Western models of governance, including a desire to

change the global system. As one report notes,³⁶ referencing a speech and a report from 2017 and 2018, respectively:

“Xi also vowed that China ‘must never copy the models or practices of other countries.’ ‘We must never follow the path of Western “constitutionalism,” “separation of powers,” or “judicial independence,”’ Xi said.”³⁷

Those statements are in full accord with the CPC Constitution, which states the “Party must...oppose bourgeois liberalization” and “protect against the corroding influence of decadent capitalist and feudal ideas.”³⁸

However, Xi goes further than just rejection. As the report noted above further states: “Yet in terms of foreign affairs, Xi argued that China ‘should be apt at using law when participating in international affairs.’ but in doing so as a revisionist power. He explained: ‘In the struggle against foreign powers, we must take up legal weapons, occupy the high point of the rule of law, and say no to the saboteurs and spoilers. The global governance system is in a critical period of adjustment and change. We must actively participate in the formulation of international rules and act as participant, promoter, and leader during the changing process of global governance.’”³⁹

Likewise, the State Council report on “China and the World in the New Era” calls for “greatly reshaping the relations between major countries, the international order, regional security, the trends of thought, and the global governance system,” including that a “new model of economic globalization should be developed and shaped by all countries.”⁴⁰

The geopolitics of resentment, the ideological rejection of the Western model, and the desire to change global governance coincide with a developing and now important change congruent with “Xi Jinping Practice,” namely the

32 Richard McGregor, “Party Man: Xi Jinping's Quest to Dominate China,” *Foreign Affairs*, September/October 2019, https://www.foreignaffairs.com/articles/china/2019-08-14/party-man?utm_medium=newsletters&utm_source=twofa&utm_content=20190816&utm_campaign=TWOFA%20081619%20Russia%27s%20Imperial%20Imposter&utm_term=FA%20This%20Week%20-%20112017.

33 Brown, China's Dream, 137-138. It is perhaps worthwhile to note, however, that the CPC Constitution provides that the party shall “combat all mistaken tendencies of the ‘Left’ and right, maintaining vigilance against rightist tendencies, but primarily defending against ‘Leftist’ tendencies.” Constitution of the Communist Party of China in the numbered paragraph 1, “Adherence to the Party's Basic Line.” See Jude Blanchette, *China's New Red Guards: The Return of Radicalism and the Rebirth of Mao Zedong* (2019), especially 148-161.

34 Nis Grunberg and Katja Drinhausen, *The Party Leads On Everything*, *Mercator Institute for China Studies, MERICS*, September 24, 2019, <https://www.merics.org/en/china-monitor/the-party-leads-on-everything>.

35 McGregor, “Party Man.”

36 Gao, “Xi: China Must Never.”

37 Likewise, “Chief Justice Zhou Qiang was quoted in the state-run Chinese News Service (15 January 2017) as saying, ‘China's courts must firmly resist the western idea of judicial independence and other ideologies which threaten the leadership of the ruling Communist Party.’” John Garrick and Yan Chang Bennett, “Xi Jinping Thought: Realisation of the Chinese Dream of National Rejuvenation?” *China Perspectives*, June 2018, 102, <http://journals.openedition.org/chin perspectives/7872>.

38 Constitution of the Communist Party of China, General Program [paragraphs are not numbered].

39 Gao, “Xi: China Must Never.”

40 The State Council Information Office of the People's Republic of China, “China and the World in the New Era.”

apparent willingness of many in China to go forward without significant Western support. This is very different from the 1990s when Western financiers were instrumental in building up state-owned enterprises, or in the later 1990s and early 2000s, when Chinese entry into the World Trade Organization (WTO) was a key element for its subsequent expansive growth. During that period, China's "rejuvenation" (a term first used by Jiang, then Hu Jintao, and now Xi) was very much reliant on interaction with the West. Beginning, however, in the late 1990s with various books to the effect that "China can say no" and subsequently expanding significantly, there now is a considerable strain of thought that China does not especially need the West. The substantive basis for this thinking has increased as China's economic growth and significant technological advancements in multiple fields (e.g., far-side moon landing, quantum communications, etc.) as well as planned approaches, including the technologically focused "Made in China 2025," suggest a high degree of both capability and self-confidence.

In the overall, as Elizabeth Economy, in her book *The Third Revolution: Xi Jinping and the New Chinese State*, has described, Xi's China Dream "remain[s] at heart a call for a CCP-led China to reclaim the country's greatness," with key elements of:

- "reform without opening up,"
- "revers[ing] many of the political, social, and economic changes that emerged from thirty years of liberalizing reform,"
- "efforts to protect China's society and the economy from foreign competition and influence,"
- "constrain[ing] the avenues and opportunities by which foreign ideas, culture, and, in some cases, capital can enter the country,"
- "building a virtual wall of regulatory, legal, and technological impediments," and
- "in international affairs to...actively see[k] to shape global norms and institutions" and "reassert the centrality of China on the global stage."⁴¹

The significant constraints established under "Xi Jinping Practice" meet multiple objectives of the Chinese leadership, including long-standing concerns regarding instability. As little as China's leaders prefer to say publicly, in addition to the very real harm caused by the Opium Wars and

the conflicts with Japan, China's own conduct, including past dynastic weaknesses, the Taiping Rebellion, the long civil war between the Nationalists and the Communists, the Great Leap Forward, the Cultural Revolution, and the issues raised by the Tiananmen Square protests have all been consequential to the stability and well-being of the nation. For a deeply centralized, authoritarian system, fragility remains an issue.

"the Chinese leadership [has] long-standing concerns regarding instability...For a deeply centralized, authoritarian system, fragility remains an issue."

Accordingly, as part of understanding China's behavior, it is worth noting that China's leadership does not have an entirely free hand in establishing its policies. The economy is a key issue. Chinese governments have been successful beyond all expectations in developing the country economically and raising living standards. As the Congressional Research Service has described:

"Since opening up to foreign trade and investment and implementing free-market reforms in 1979, China has been among the world's fastest-growing economies, with real annual gross domestic product (GDP) growth averaging 9.5% through 2018, a pace described by the World Bank as 'the fastest sustained expansion by a major economy in history.' Such growth has enabled China, on average, to double its GDP every eight years and helped raise an estimated 800 million people out of poverty. China has become the world's largest economy (on a purchasing power parity basis), manufacturer, merchandise trader, and holder of foreign exchange reserves. This in turn has made China a major commercial partner of the United States. China is the largest U.S. merchandise trading partner, biggest source of imports, and third-largest U.S. export market."⁴²

Further economic success is explicitly included in China's two centennial goals of becoming, first, a "moderately prosperous society" and then a "modern socialist country

⁴¹ Economy, *The Third Revolution*, 4,5,11-12.

⁴² Congressional Research Service, *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*, Summary, June 25, 2019, <https://fas.org/spp/crs/row/RL33534.pdf>.

that is prosperous, strong, democratic, culturally advanced and harmonious,”⁴³ key aspects of which are efforts in emerging technologies such as Made in China 2025⁴⁴ and the increasing focus on AI, quantum computing, and comparable advanced technology.⁴⁵ But China's growth has slowed and is expected to slow further: “As China's economy has matured, its real GDP growth has slowed significantly, from 14.2% in 2007 to 6.6% in 2018, and that growth is projected by the International Monetary Fund (IMF) to fall to 5.5% by 2024.”⁴⁶ Moreover, some estimates have concluded that China's growth has been overstated and is currently lower than described.⁴⁷

As a result, in a trade conflict that affects GDP growth, China is in a vulnerable position, notwithstanding how successful it has been in raising economic standards. Additionally, China's leadership faces pressure in other economic areas, including income inequality⁴⁸ and corruption. Corruption is an example of where the CPC's and the Chinese people's needs have intersected, and has received significant attention from Xi:

“Most important of all, Xi launched his anticorruption campaign, appointing as its head Wang Qishan, one of the toughest and most capable officials of his generation. The scale of the resulting purge is almost incomprehensible: since late 2012, when the campaign began, authorities have investigated more than 2.7 million officials and punished more than 1.5 million of them. They

include seven members of the Politburo and the cabinet and about two dozen high-ranking generals. Two senior officials have been sentenced to death. The party has more than 90 million members, but after excluding the farmers, the elderly, and the retired, all of whom were largely spared, the purge amounts to a generational clear-out. The sheer numbers give the lie to the charge that the anticorruption campaign is merely a political purge in disguise. Certainly, the campaign has targeted some of Xi's rivals, but it has gone far beyond his enemies list.”⁴⁹

Further, there are crucial quality of life issues that have emerged for China, especially environmental, including air and water quality and water shortage, as well as the impact of climate change. Thus, while China is increasingly authoritarian—as exemplified by the significant strictures on the Internet and the use of apps such as the focus on Xi Jinping Thought⁵⁰—there are interactions between the government and the people that cause government actions to reflect public desires. One should not take these constraints, real though they are, too far. As the anti-Uighur campaign in Xinjiang province and the acerbic (and as of this writing, not final) reactions to the pro-democracy protests in Hong Kong demonstrate, China is a significantly authoritarian country with a fundamental focus on the “collective good” as defined by the CPC, as opposed to the protection of the individual and individual rights, which are hallmarks of liberal democratic thought.

43 Xinhua, CPC Q&A: What are China's two centennial goals and why do they matter? October 17, 2017, http://www.xinhuanet.com/english/2017-10/17/c_136686770.htm.

44 See U.S. Chamber of Commerce, *Made in China 2025*, 2017, https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf.

45 See, e.g., Gregory C. Allen, *Understanding China's AI Strategy*, Center for a New American Security, February 6, 2019, <https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy>.

46 Congressional Research Service, *China's Economic Rise*.

47 Wei Chen, Xilu Chen, Chang-Tai Hsieh, and Zheng (Michael) Song, *A Forensic Examination of China's National Accounts*, Brookings Institution, March 2019, 3, <https://www.brookings.edu/wp-content/uploads/2019/03/BPEA-2019-Forensic-Analysis-China.pdf>. See also Mark Dittli, “The Real Economic Growth Rate in China is Already Below 3 Percent,” Market, February 6, 2019, <https://themarket.ch/interview/the-real-economic-growth-rate-in-china-is-already-below-3-percent-Id.416>.

48 As the International Monetary Fund has stated: “Over the past two decades, China has seen a sharp reduction of poverty, but also a substantial increase of inequality....However, economic growth has not benefited all segments of the population equally or at the same pace, causing income disparities to grow, resulting in a large increase in income inequality (which appears to have peaked around 2008). This is especially of concern as the recent literature has found that elevated levels of inequality are harmful for the pace and sustainability of growth.” Sonali Jain-Chandra, Niny Khor, Rui Mano, Johanna Schauer, Philippe Wingender, and Juzhong Zhuang, “Inequality in China—Trends, Drivers and Policy Remedies,” IMF Working Paper, June 2018, 3, <https://www.imf.org/en/Publications/Search?series=IMF+Working+Papers&when=During&year=2018&title=inequality+in+china>.

49 McGregor, “Party Man.” Despite the anti-corruption campaign, according to Transparency International's Corruption Perceptions Index, China's scores have stayed roughly the same over several years still indicating significant corruption. Transparency International Corruption Perceptions Index 2018, <https://www.transparency.org/cpi2018>. According to observers like Minsing Pei, however, the anti-corruption campaign has “gained quite a bit of public support for making Chinese officials at least less overtly corrupt.” “A Look At How China's Anti-Corruption Campaign Has Affected Ordinary Citizens,” NPR, October 24, 2017, <https://www.npr.org/2017/10/24/559889548/a-look-at-how-chinas-anti-corruption-campaign-has-affected-ordinary-citizens>.

50 Javier C. Hernandez, “The Hottest App in China Teaches Citizens About Their Leader — and, Yes, There's a Test,” *New York Times*, April 7, 2019, <https://www.nytimes.com/2019/04/07/world/asia/china-xi-jinping-study-the-great-nation-app.html>.

III. THE COMPETITION

Competition has increasingly become a key element of international relations with China. The “trade wars,” as exemplified by the increased use of tariffs both by the United States and China, have received significant focus as of this writing. As this report will detail, however, the competition is far broader, a critical point because solving the tariff conflict will not resolve important elements of the competition.

The breadth of the competition is well-described in the European Commission’s March 2019 report, which states that the “balance of challenges and opportunities presented by China has shifted” and that China is a “systemic rival promoting alternative models of governance,” “present[s] security issues...[including] [c]ross-sectoral hybrid threats including information operations, and large military exercises [that] not only undermine trust, but also challenge the EU’s security,” and utilizes “distortive effects of foreign state ownership and state financing of foreign companies on the EU internal market.”⁵¹

The Director of National Intelligence’s 2019 Worldwide Threat Assessment similarly concludes that China is:

“[C]ompet[ing] more intensely with the United States and its traditional allies and partners. This competition cuts across all domains, involves a race for technological and military superiority, and is increasingly about values....China seek[s] to shape the international system and regional security dynamics and exert influence over the politics and economies of states in all regions of the world and especially in [its]...backyard.”⁵²

A further confirmation comes from important parts of the private sector and is not limited to the United States. A report from the Federation of German Industries (BDI) states:

“For a long time it looked as if China would gradually move towards the liberal, open market economies

of the West by integrating into the world economy and reshaping its economic system. This theory of convergence is no longer tenable. China is no longer developing structurally in the direction of a market economy and liberalism but is in the process of consolidating its own political, economic and social model. At the same time, China as an emerging economic power is shaping other markets and the international economic order. The Chinese model of an economy marked by substantial state control thus enters into systemic competition with liberal market economies.”⁵³

The analysis below looks more closely at the competition in three areas: economics and innovation, diplomacy and influence, and security, both hybrid and conventional military.

A. Economics and Innovation

China’s economic competition has two important parts of consequence to the United States and its close allies and partners. First, China is directing substantial resources into innovation and advanced technologies. The Made in China 2025 program identifies 10 areas in which China plans to be a world leader.⁵⁴ The ongoing effort is very significant:

“Pilot projects related to MIC25 [Made in China 2025] serve as key drivers for the introduction of new technologies into the real economy. In the past two years, around 90 percent of the almost 4,000 projects were announced. Since the inauguration of the first MIC25 pilot city in Ningbo (Zhejiang), 30 more have been established nationwide. Each is tasked with developing specific MIC25-related industries. A government plan details over 50 sub-industries and 115 industrial sub-fields, ranging from jet engines to functional fiber and products using China’s Beidou navigation system. In 2018, the so-called MIC25 National

51 “EU-China — A strategic outlook,” European Commission, March 12, 2019, <https://ec.europa.eu/commission/sites/beta-political/files/communication-eu-china-a-strategic-outlook.pdf>.

52 Worldwide Threat Assessment of the US Intelligence Community, US Senate Select Committee on Intelligence, 116th Cong. (January 29, 2019) (Statement for the Record of Director of National Intelligence Daniel R. Coats), 4, <https://www.odni.gov/index.php/newsroom/congressional-testimonies/item/1947-statement-for-the-record-worldwide-threat-assessment-of-the-us-intelligence-community>.

53 Federation of German Industries (BDI), “Partner and Systemic Competitor — How Do We Deal With China’s State-Controlled Economy?,” policy paper, 2, January 10, 2019, <https://english.bdi.eu/media/publications/#/publication/news/china-partner-and-systemic-competitor>.

54 U.S. Chamber of Commerce, Made in China 2025, 2017, 10, https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf. A more recent update is at Max J. Zenglein and Anna Holzmann, *Evolving Made in China 2025*, Mercator Institute for China Studies (MERICS), July 2019, 13, https://www.merics.org/sites/default/files/2019-07/MPOC_8_MadeinChina_2025_final_3.pdf.

Demonstration Zones (NDZ) were introduced as upgraded versions of pilot cities and city clusters. The majority (65 percent) of China's most promising top-20 smart manufacturing hubs have emerged from these zones. In addition, the innovation center scheme envisions 40 national-level 'core' centers and numerous 'supplementary' centers at provincial level."⁵⁵

Likewise, Xi has more recently focused on AI, quantum computing, and other comparable arenas as exemplified by the "New Generation Artificial Intelligence Development Plan."⁵⁶ These significant efforts have potential consequences for economic markets and for national security issues.

Second, while the United States has no reason to fear a fair competition, the "distortive effects" identified by the European Commission, as well as others, significantly affect both future innovation competition as well as the operation of markets more generally.

Most importantly, there are critical aspects of China's economy that are systemically incompatible with the Western free market approach. First, the significant differences begin with the CPC and governmental structure and control over markets and enterprises. The constitutions of the CPC and the People's Republic of China (PRC) are clear. As the USTR report of 2019 states:

"The government and the Party continue to exercise control over state-owned enterprises. Among other things, they appoint and control key executives through the Chinese Communist Party Organization Department. They also provide state-owned enterprises with preferential access to important inputs (such as land and capital) and other competitive advantages unavailable to non-state-owned companies. State-owned enterprises, in turn, play an outsized role in China's economy. For example, state-owned enterprises outstrip private Chinese companies in terms of their share of total credit, their market dominance in key industries and their share of total market capitalization on China's stock market."⁵⁷

Similarly, in Europe, the Federation of German Industries stated in its 2019 policy paper:

"The direct influence of the state or the party in corporate decisions is being expanded through a political upgrading of party cells. These intervene not only in the decision-making processes of state-owned enterprises but also in joint ventures and private enterprises."⁵⁸

Second, subsidies are a critical element of the competitive problem:

"Today, China continues to shield massive sub-central government subsidies from the scrutiny of WTO members. Together with other non-market practices, these subsidies contribute to the serious excess capacity problems that plague industries like steel, aluminum, solar panels and fishing and devastate global markets and foreign competitors."⁵⁹

One study found that subsidies conferred a 25-30 percent market advantage, while at the same time undercutting market economies:

"In the Chinese industries we studied—solar, steel, glass, paper, and auto parts—labor was between 2% and 7% of production costs, and imported raw materials and energy accounted for most costs. Production mostly came from small companies that possessed no scale economies. Yet, Chinese products routinely sold for 25% to 30% less than those from the U.S. or European Union.

"We found that Chinese companies could do this only because of subsidies they received from China's central and provincial governments. The subsidies took the form of free or low-cost loans; artificially cheap raw materials, components, energy, and land; and support for R&D and technology acquisitions....

"Huge Chinese subsidies have led to massive excess global capacity, increased exports, and

⁵⁵ Zenglein and Holzmman, *Evolving Made in China 2025*, 11.

⁵⁶ Gregory C. Allen, *Understanding China's AI Strategy*, Center for a New American Security, February 2019, <https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Understanding-Chinas-AI-Strategy-Gregory-C.-Allen-FINAL-2.15.19.pdf?mtime=20190215104041>.

⁵⁷ USTR report, 12.

⁵⁸ BDI, "Partner and Systemic Competitor," 3. Observers who are not in government have reached the same conclusions: "China is reinforcing its state-directed economic model despite demands for change from the United States as a condition to end the trade war, and is in fact increasing the influence of state-owned enterprises and the Communist Party's intrusion into the boardrooms of private companies, as highlighted by a string of recent events." Frank Tang, "China ignoring US demand for trade war reform by reinforcing state-directed economic model," *South China Morning Post*, July 13, 2019, <https://www.scmp.com/economy/china-economy/article/3018120/china-ignoring-us-demand-trade-war-reform-reinforcing-state>.

⁵⁹ USTR report, 9.

depressed worldwide prices, and have hollowed out other countries' industrial bases"⁶⁰

In its 2019 report, the USTR described industries benefiting from subsidies as including steel, non-ferrous metals, semiconductors, aircraft, textiles, chemicals, tires, paper, green technology, solar panels, wind turbines, and fishing—and for “strategic emerging industries electric vehicles, specialized steel, semiconductors, high-end equipment manufacturing and medical technology.”⁶¹

Excessive subsidies are also a key issue with respect to emerging and future technologies. This is potentially the most important issue facing the United States and its close allies and partners. In the 5G mobile networking arena, China's Huawei Technologies Co., Ltd. has been identified by the United Kingdom's oversight board as having multiple vulnerabilities in its code,⁶² but it has a substantial price advantage over its rivals.⁶³ Similarly:

“Industrial plans such as Made in China 2025, which reportedly targets 10 advanced manufacturing sectors in China with hundreds of billions of dollars in subsidies, inevitably will create a new wave of industries with severe excess capacity, to the detriment of China's trading partners.”⁶⁴

To be sure, China is not the only country to support domestic industry. However, as USTR found:

“[T]he financial support that the state provides to domestic industries in support of China's industrial policies is significantly larger than in other countries, and it is not limited to funding for research and development. The state also provides massive, market-distorting financial support to the ongoing operations of China's domestic industries. This support often leads to severe excess capacity in China—followed by China's widespread dumping of the inevitable excess production into the

markets of other WTO members. This assault on global markets can cause serious harm to other WTO members' industries and workers. The WTO does not provide effective mechanisms for addressing this problem.”⁶⁵

Third, China maintains significant non-tariff barriers to foreign investment and commerce:

“WTO-inconsistent activities pursued by China [include]: (1) local content requirements in the automobile sector; (2) discriminatory taxes in the integrated circuit sector; (3) hundreds of prohibited subsidies in a wide range of manufacturing sectors; (4) inadequate intellectual property rights (IPR) enforcement in the copyright area; (5) significant market access barriers in copyright-intensive industries; (6) severe restrictions on foreign suppliers of financial information services; (7) export restraints on numerous raw materials; (8) a denial of market access for foreign suppliers of electronic payment services; (9) repeated abusive use of trade remedies; (10) excessive domestic support for key agricultural commodities; (11) the opaque and protectionist administration of tariff-rate quotas for key agricultural commodities; and (12) discriminatory regulations on technology licensing.”⁶⁶

Fourth, China utilizes multiple methods resulting in “forcible transfer of technology,” including:

“(1) pressuring the transfer of technology through the abuse of administrative processes and other means; (2) using discriminatory regulations to force non-market licensing outcomes for U.S. businesses; (3) leveraging state capital to acquire U.S. high-technology assets for transfer to Chinese companies in accordance with China's industrial policy objectives; and (4) obtaining U.S. intellectual property and sensitive business information

60 Usha C.V. Haley and George T. Haley, “How Chinese Subsidies Changed the World,” *Harvard Business Review*, (April 25, 2013), <https://hbr.org/2013/04/how-chinese-subsidies-changed>. As a recent example, the problem has currently arisen with respect to LCD screens. Lauly Li, Kensaku Ihara, and Gen Nakamura, “Foxconn Terry Gou's Struggling Display Plant Seeks Fresh Capital,” *Nikkei Asian Review*, September 11, 2019, <https://asia.nikkei.com/Business/Technology/Foxconn-Terry-Gou-s-struggling-display-plant-seeks-fresh-capital>.

61 USTR report, 75-79.

62 “Huawei Cyber Security Evaluation Centre (HCSEC) Oversight Board Annual Report 2019: A report to the National Security Adviser of the United Kingdom,” March 2019, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790270/HCSEC_OversightBoardReport-2019.pdf.

63 Ellen Nakashima, “U.S. pushes hard for a ban on Huawei in Europe, but the firm's 5G prices are nearly irresistible,” *Washington Post*, May 29, 2019, https://www.washingtonpost.com/world/national-security/for-huawei-the-5g-play-is-in-europe--and-the-us-is-pushing-hard-for-a-ban-there/2019/05/28/582a8ff6-78d4-11e9-b7ae-390de4259661_story.html.

64 USTR report, 9. A recent example is China's decision to maintain “its support of its domestic chip industry and [to] expand that support to software and high tech sectors.” Steve Dickinson, “China Doubles Down on Industry Subsidies: No Exit,” *China Law Blog*, May 27, 2019, <https://www.chinalawblog.com/2019/05/china-doubles-down-on-industry-subsidies-no-exit.html>.

65 USTR report, 16.

66 USTR report, 8.

through cyber theft for the commercial benefit of Chinese industry.”⁶⁷

Fifth, and outside of China, another key issue has been Chinese foreign direct investment focused on Western companies with sensitive security-related technologies. In the United States, this has been described as:

“High-tech industries such as artificial intelligence (AI), biotechnology, and virtual reality have been the primary targets of Chinese VC [venture capital] activity in the United States. The DIUx [Defense Innovation Unit experimental] study estimated that from 2014 to the third quarter of 2017, Chinese investors were involved in \$1.2 billion of VC financing for U.S. AI firms. The capital market data firm PitchBook estimates that in the first half of 2018, Chinese VC funds participated in \$5.1 billion worth of investment rounds in U.S. biotech companies, up from \$4 billion in 2017...[T]he Rhodium Group study found that Chinese investors targeted sensitive technologies in 78 percent of all U.S. VC funding rounds involving a Chinese investor between 2000 and May 2018....These investments are not just lucrative business opportunities, they also enable Chinese firms to acquire valuable U.S. technology and IP.”⁶⁸

In sum, the key negative elements of the Chinese state-driven approach to economics and innovation are:

- 1) For markets within China, subsidies, forced technology transfers, benefits to national champions, restrictions on non-Chinese companies, and espionage, including through cyber; and
- 2) For markets outside China, significant subsidies, directly and indirectly, to Chinese firms, supporting unfair market competition and uncompetitive Chinese foreign direct

investment focused on technologically/militarily significant capabilities, and commercial espionage, including through cyber that undercuts Western companies and creates unfair market competition.

B. Diplomacy and Influence

China's diplomatic and influence activities, in addition to the standard use of embassies, the diplomatic corps, and negotiations of multiple types, have four important elements: 1) overseas investment and construction, particularly utilizing the Belt and Road Initiative; 2) the extensive use of military diplomacy; 3) influence campaigns; and 4) disregard of international law and international agreements.

1. Belt and Road Initiative: The Belt and Road Initiative (BRI) was originally set forth in 2013 in a slightly different format with an “overland Silk Road Economic Belt connecting China with Central Asia and beyond and an ocean-based 21st Century Maritime Silk Road.”⁶⁹ As a recent analysis states:

“Broadly speaking, BRI intends to feature two major pathways: a continental road that links China to Europe via South and Central Asia, and a sea corridor that connects China and Europe through the Indian Ocean. These routes entail BRI-related projects in Europe, Asia, Africa, and the Middle East.”⁷⁰

The purported size of the BRI has captivated many descriptions, particularly when time periods are ignored and numbers are offered up without much differentiation to include actual, planned, and desired construction and investment. Without a doubt, however, there is real money involved; the World Bank stated that, as of May 2018, “projects in all sectors that are already executed, in implementation or planned are estimated to amount to US\$575 billion.”⁷¹ The

67 USTR report, 6.

68 U.S.-China Economic and Security Review Commission, Report to 115th Congress, Second session, November 2018, 39, https://www.uscc.gov/sites/default/files/annual_reports/2018%20Annual%20Report%20to%20Congress.pdf: “Of particular concern are investments in U.S. technology start-ups. For example, the state-owned SAIC Capital has invested in Silicon Valley start-ups developing autonomous driving, mapping, and artificial intelligence technologies. These technologies are not only integral to the future of U.S. innovation and economic development, but are also used to advance the technological superiority of the U.S. military.” Id., 40.

69 Goodman and Hillman, *China's Second Belt and Road Forum*. While those routes remain the core, BRI is somewhat undifferentiated as there “have been no criteria for what qualifies as a BRI project, allowing interest groups within and outside China to repackage their own efforts as supporting the initiative. Reflecting these dynamics, the BRI has grown since its announcement to include activities in the Arctic, cyberspace, and even outer space.” Id.

70 Michael Kugelman, “Great Potential, Many Pitfalls: Understanding China's Belt and Road Initiative,” *Asian Affairs*, May 20, 2019, <https://www.tandfonline.com/doi/full/10.1080/03068374.2019.1602383?scroll=top&needAccess=true>: “Collectively, these two pathways include five envisioned routes: The New Eurasia Land Bridge, stretching from China's Jiangsu province to the Dutch city of Rotterdam; a China-Mongolia-Russia trilateral economic corridor; a China-Central Asia-West Asia Corridor, linking China and the Arabian Peninsula; a China-Indochina Peninsula Economic Corridor – connected by land and sea – extending from China's Pearl River Delta and Chinese rail routes into the ASEAN countries; and the China-Pakistan Economic Corridor (CPEC), connecting China's Xinjiang province to the Gwadar port in southern Pakistan. CPEC is arguably the most operationalized of these routes, with China already having completed several new BRI-financed power projects in Pakistan.” Id. At pp. 182-183.

71 World Bank, Belt and Road Initiative, March 28, 2018, <https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative>.

American Enterprise Institute focused on actual spending, separating BRI between investment and construction activities, and finding for the 2014-2018 period “total Chinese investment in all BRI countries was \$190 billion,” while “Chinese construction...was worth twice as much, at \$388 billion.”⁷² These certainly substantial numbers provide a useful comparison to the many references to a \$1 trillion BRI initiative with some estimates being much higher.⁷³

“while the BRI is valuable, even one year of normal global increases could match its effect on trade, and over a five-year period will almost undoubtedly have results well beyond it.”

Even more importantly, however, very few analysts discuss the outputs, which are the actual impact of the BRI, but the World Bank did make an estimate—and while the impact described is quite worthwhile, the estimated effect is not as significant as the rhetoric: “If completed, BRI transport projects could reduce travel times along economic corridors by 12%, increase trade between 2.7% and 9.7%, increase income by up to 3.4% and lift 7.6 million people from extreme poverty.”⁷⁴ By way of comparison, normal global trade increases often are of the order of 2-3% annually with global merchandise and services trade totaling approximately \$25 trillion.⁷⁵ So while the BRI is valuable, even one year of normal global increases could match its effect on trade, and over a five-year period will almost undoubtedly have results well beyond it. This is not to deny BRI’s potential economic value, but simply to put it into perspective especially since many of the normal increases, of course,

come from the actions of the United States, EU countries, Japan, and other market-driven economies.

Beyond the actual—and future—investment impact of the BRI, however, is the influence factor. Hardly a description fails to include language to the effect of “globe-girdling infrastructure” or “something so big and consequential that few corners of the globe, no matter how remote, can afford to ignore it.”⁷⁶ In general, no one is ignoring it. China hosted a BRI summit in April 2019 where some 150 countries participated with leaders from 37 nations.⁷⁷

The BRI is complemented, not always explicitly, by alternative institutions established by China, including the Asian Investment Infrastructure Bank and the 17+1 initiative in Europe. Each of these is a serious activity having both substantive and influence impact. AIIB plans to “finance projects worth about \$4 billion this year [2019], about 20 percent more than the \$3.3 billion it financed in 2018, the bank has said.”⁷⁸ The 17+1 initiative may be less important for the projects than for the connectivity it creates, as, for example, the annex to its 2019 meeting lists 71 different types of engagement.⁷⁹

2. Military Diplomacy: Second, as an additional and relatively new element in China’s influence arsenal, the People’s Liberation Army (PLA) increasingly pursues military diplomacy (in addition to its significant increase in capabilities). As the 2019 PLA white paper on defense states:

“China has engaged in military exchanges with more than 150 countries and set up 130 offices of military attachés and military representatives at Chinese diplomatic missions abroad, while 116 countries have established military attaché’s offices in China. In addition, China has put in place 54 defense consultation and dialogue mechanisms with 41 countries and international organizations. Since 2012, high level Chinese military delegations have visited over 60 countries, and defense

72 *The Belt and Road is Overhyped, Commercially*. US Senate Finance Committee Subcommittee on International Trade, Customs, and Global Competitiveness on “China’s Belt and Road Initiative.” June 12, 2019, 2-3. <https://www.finance.senate.gov/imo/media/doc/Derek%20Scissors%20-%20BRI%20Testimony.pdf> (statement of Derek Scissors, resident scholar, American Enterprise Institute).

73 For example, Morgan Stanley, *Inside China’s Plan To Create a Modern Silk*, March 2018, (estimating \$1.2-\$1.3 trillion by 2027), <https://www.morganstanley.com/ideas/china-belt-and-road>; Jonathan Hillman, *How Big Is China’s Belt and Road?*, Center for Strategic and International Studies, August 3, 2018, (“Popular estimates for Chinese investment under the BRI range from \$1 trillion to \$8 trillion, hardly a rounding error.”), <https://www.csis.org/analysis/how-big-chinas-belt-and-road>.

74 World Bank, Belt and Road Initiative.

75 World Trade Organization, Global trade growth loses momentum as trade tensions persist, press release, April 2, 2019, https://www.wto.org/english/news_e/pres19_e/pr837_e.htm.

76 Kugelman, “Great Potential, Many Pitfalls.”

77 Goodman and Hillman, *China’s Second Belt and Road Forum*.

78 Kevin Yao, “China’s AIIB eyes \$10-12 billion a year in project financing, steady growth,” Reuters, July 1, 2019, <https://www.reuters.com/article/us-china-aiib-investment/chinas-aiib-eyes-10-12-billion-a-year-in-project-financing-steady-growth-idUSKCN1TW1OL>.

79 “Full text of the Dubrovnik Guidelines for Cooperation between China and Central and Eastern European Countries,” Xinhua, April 13, 2019, http://www.xinhuanet.com/english/2019-04/13/c_137973910.htm.

ministers and commanders-in-chief from over 100 countries have visited China.”⁸⁰

Activities go well beyond exchanges to include training and education:

“Since 2012, China has held over 100 joint exercises and training with more than 30 countries...[and] has sent over 1,700 military personnel to study in more than 50 countries. Over 20 Chinese military educational institutions have established and maintained inter-collegiate exchanges with their counterparts from more than 40 countries. Meanwhile, more than 10,000 foreign military personnel from over 130 countries have studied in Chinese military universities and colleges.”⁸¹

The effort is worldwide, including both neighboring countries—“with more than 40 reciprocal military visits at and above service commander level every year”—and beyond as “in 2018 China hosted the China-Africa Defense and Security Forum, the China and Latin-America High-level Defense Forum, and the Forum for Senior Defense Officials from Caribbean and South Pacific Countries.”⁸²

3. Influence Campaigns: China uses a multitude of activities as part of its international influence campaigns. In addition to the BRI and military diplomacy discussed above:

“China has in recent years developed a sophisticated overseas influence campaign, ranging from direct political influence to bullying in academia to careful manipulation of foreign companies eager to do business.”⁸³

Chinese influence activities have expanded under Xi, as has been extensively described by Anne-Marie Brady:

“Even more than his predecessors, Xi Jinping has led a massive expansion of efforts to shape foreign public opinion in order to influence the decision-making of foreign governments and so-



Roundtable meeting of leaders at Belt and Road international forum, May 2017. (Russian Presidential Press and Information Office photo)

cieties.... In May 2015, Xi presided over a national united front work conference, the first in nine years, and in July 2015 he set up a Leading Small Group on United Front Work.”⁸⁴

Multiple Chinese CPC and government agencies are involved:

“The main agencies responsible for foreign influence operations include the Party’s United Front Work Department, the Central Propaganda

80 The State Council Information Office of the People’s Republic of China, *China’s National Defense in a New Era*, (Beijing, China: Foreign Language Press, July 2019) 31-32, download available at <http://www.xinhuanet.com/english/download/whitepaperonnationaldefenseinnewera.doc>.

81 Id. 33. The report further states: “In recent years, China has regularly held serial joint exercises and training on counter-terrorism, peacekeeping, search and rescue, and tactical skills with its neighboring countries, and carried out extensive exchanges and practical cooperation on border and coastal defense, academic institutions, think tanks, education, training, medical science, medical service, and equipment and technology.”

82 The State Council Information Office of the People’s Republic of China, *China’s National Defense*. 36. China’s worldwide efforts include UN missions: “As of December 2018, China has participated in 24 UN peacekeeping missions and has contributed more than 39,000 peacekeepers. 13 Chinese military personnel have sacrificed their lives in the UNPKOs. In the missions, China’s peacekeepers have built and repaired over 13,000 kilometers of roads, cleared and disposed of 10,342 mines and various items of unexploded ordnance, transported more than 1.35 million tons of materials over a total distance of more than 13 million kilometers, treated over 170,000 patients, and fulfilled over 300 armed escorts and long or short-distance patrols.”

83 Harry Kresja, *Under Pressure: The Growing Reach of Chinese Influence Campaigns in Democratic Societies*, Center for a New American Security, 1, 2018, <https://s3.amazonaws.com/files.cnas.org/documents/CNASReport-Under-Pressure-web.pdf?mtime=20180426161818>.

84 Anne-Marie Brady, *Magic Weapons: China’s political influence activities under Xi Jinping*, 2017, 6-7, https://www.wilsoncenter.org/sites/default/files/for_website_magicweaponsanne-mariesbradyseptember2017.pdf.

Department, the International Liaison Department, the State Council Information Office, the All-China Federation of Overseas Chinese, and the Chinese People's Association for Friendship with Foreign Countries. These organizations and others are bolstered by various state agencies such as the Ministry of Foreign Affairs and the Overseas Chinese Affairs Office of the State Council, which in March 2018 was merged into the United Front Work Department, reflecting that department's increasing power.”⁸⁵

The effort is extensive:

“China's influence activities have moved beyond their traditional United Front focus on diaspora communities to target a far broader range of sectors in Western societies, ranging from think tanks, universities, and media to state, local, and national government institutions. China seeks to promote views sympathetic to the Chinese Government, policies, society, and culture; suppress alternative views; and co-opt key American players to support China's foreign policy goals and economic interests.”⁸⁶

On the political side, “A leaked teaching manual for the United Front suggests there is now particular interest in cultivating relationships with political candidates in democratic systems, ranging from financial ties to direct policy influence.”⁸⁷ Notable Chinese actions in the political arena have occurred in both Australia and New Zealand. One Australian Labor Party senator quit his post after “media outlets revealed that...a major, pro-China donor who had paid [the senator's] legal bills in the past had threatened to pull a \$400,000 donation to the Labor Party.”⁸⁸ With respect to New Zealand, Brady's report, “Magic Weapons: China's political influence activities under Xi Jinping,” so extensively documents such efforts that she herself has personally become an apparent target of intimidation by China.⁸⁹ Not surprisingly, Taiwan has also been

a target of China's influence efforts, including the use of disinformation.⁹⁰

In the academic world, a notable Chinese effort has been the use of “Confucius Institutes.” As one report describes:

“Most notable are Confucius Institutes, of which there are about 100 in the United States. Confucius Institutes operate as semi-independent academic departments on university campuses, offering for-credit language and cultural education classes, but are largely funded and staffed by the Chinese government....The terms of universities' associations with these institutes are often private, and in addition to carefully curating the Chinese coursework and discussion so that it adheres to Beijing's censorship guidelines, academics have reported pressure to self-censor in other departments and research areas in order to win or maintain a relationship with a Confucius Institute. It is experiences like these that led the American Association of University Professors to condemn Confucius Institutes as threats to academic freedom.”⁹¹

A report from the British Parliament similarly found, “During our inquiry into China and the rules-based international system, we heard alarming evidence about the extent of Chinese influence on the campuses of UK universities.”⁹²

A third element of Chinese influence activities has been the hosting of summits, along the lines of the BRI summit noted above. Most relevantly, as part of the focus on the media, “Since 2003, China News Service has hosted annual conferences in China to which hundreds of editors from overseas media organizations in print, television, and radio are invited.”⁹³

Beyond summitry, China also uses its economic power to affect foreign media. For example:

85 Id., 3.

86 *Chinese Influence & American Interest: Promoting Constructive Vigilance*, Hoover Institution, 2, 2018, https://www.hoover.org/sites/default/files/research/docs/chineseinfluence_americaninterests_fullreport_web.pdf.

87 Kresja, *Under Pressure*, 3.

88 Joshua Kurlantzick, *Australia, New Zealand Face China's Influence*, Council on Foreign Relations, 7, December 13, 2017, <https://www.cfr.org/expert-brief/australia-new-zealand-face-chinas-influence>.

89 Eleanor Ange Roy, “‘I’m being watched’: Anne-Marie Brady, the China critic living in fear of Beijing,” *Guardian*, January 23, 2019, <https://www.theguardian.com/world/2019/jan/23/im-being-watched-anne-marie-brady-the-china-critic-living-in-fear-of-beijing>.

90 Kg Chan, “US backs Taiwan against Beijing's fake news war,” *Asia Times*, September 11, 2019, <https://www.asiatimes.com/2019/09/article/us-backs-taiwan-against-beijings-fake-news-war/>.

91 Kresja, *Under Pressure*, 7-8.

92 Foreign Affairs Committee, British Parliament, “A cautious embrace: defending democracy in an age of autocracies,” November 5, 2019, section 2, paragraph 5, https://publications.parliament.uk/pa/cm201920/cmselect/cmfa/109/10905.htm#_idTextAnchor004.

93 Emily Feng, “China and the world: how Beijing spreads the message,” *Financial Times*, July 13, 2008, <https://www.ft.com/content/f5d00a86-3296-11e8-b5bf-23cb17fd1498>.

“A Reuters investigation found a network of dozens of radio stations around the world—including in the United States—that were majority owned by obscured subsidiaries of government-run China Radio International (CRI)...broadcast news programming designed to explicitly show China in a positive light.... CRI stories also appear to conceal or muzzle those headlines that do not align with Beijing's preferred political narratives. Failing community radio stations from Los Angeles to Washington, D.C., have found financial lifelines in CRI, and either sold station ownership outright or leased a majority of their broadcast time to the Chinese state news purveyor.”⁹⁴

4. Disregard of international law and international agreements: China also will disregard international law and international agreements when it finds it favorable to do so. A prime example is its well-known rejection of the case brought by the Philippines regarding contested claims in the South China Sea. An independent arbitral tribunal established under the UN Convention on the Law of the Sea found entirely in the Philippines' favor. As well described by Howard French, “China's initial response to all of [the decision] was one of both systematic rejection and unrelenting scorn.”⁹⁵ Thus:

“The South China Sea arbitration has been a political farce all along, staged under the cover of law and driven by a hidden agenda,” said Yang Jiechi, state councilor of foreign affairs. “Certain countries outside the region have attempted to deny China's sovereign rights and interests in the South China Sea through the arbitration. They have even

brought other countries into the scheme to isolate and discredit China in the international community with a view to holding back China's peaceful development. But such attempts are futile, to say the least, and in doing so, they are only lifting a stone to drop it on their own feet.”⁹⁶

The refusal to abide by the ruling of the tribunal is comparable to other instances where China has flatly refused to abide by its agreements. In 2015, Xi agreed with then US President Barack Obama not to militarize the islets China was creating or adding to in the South China Sea. That agreement has been entirely ignored and militarization is ongoing.⁹⁷ Similarly, China likewise agreed to end commercial cyber espionage. This has instead accelerated in recent years.⁹⁸ Likewise, China's enforcement of United Nations sanctions on North Korea might be described as “spotty” at best.⁹⁹ Finally, China's promise of one country, two systems to Hong Kong has ever decreasing credibility.

C. Security: Hybrid and Conventional Military

China advances its security interests through a combination of hybrid efforts and conventional military capabilities and activities.¹⁰⁰

1. Hybrid: Hybrid conflict is not a self-defining term. In the discussion below, hybrid is used to encompass cyber operations, including espionage, economic coercion, and low-level use of force. Certain other activities, which could be included under the hybrid rubric, have been previously discussed under the category of influence.¹⁰¹ The key point is that all of these activities are overseen by the CPC and the

94 Kresja, *Under Pressure*. 10. Similarly: “Beijing's increased economic clout has put additional pressure on Chinese-language media abroad. In Canada, companies that depend on cultivating business relationships with the mainland also enforce compliance to China's party line by dangling much-needed advertisement money in front of Chinese-language media.” Feng, “China and the world.”

95 Howard W. French, *Everything Under the Heavens: How the Past Helps Shape China's Push for Global Power* (2018), 82.

96 Id. at p. 32.

97 US Department of Defense, *Annual Report To Congress: Military and Security Developments Involving the People's Republic of China 2019*, ii, https://media.defense.gov/2019/May/02/2002127082/-1/-1/2019_CHINA_MILITARY_POWER_REPORT.pdf.

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

99 Yosuke Onchi, “North Korea's oil smuggling blows past import cap: UN report, Ship-to-ship transfers become increasingly sophisticated,” *Nikkei Asian Review*, February 26, 2019, <https://asia.nikkei.com/Politics/Trump-Kim-Summit/North-Korea-s-oil-smuggling-blows-past-import-cap-UN-report>. ADM Philip S. Davidson, commander, U.S. Indo-Pacific command, testified, “while Beijing mostly implements United Nations Security Council Resolutions against North Korea, in a number of cases, illicit ship to ship transfers continue to occur within Chinese territorial waters.” (Statement of ADM Philip S. Davidson, U.S. Navy Commander, U.S. Indo-Pacific Command, before the US Senate Armed Services Committee on U.S. Indo-Pacific Command Posture, 116th Cong., February 12, 2019, 7, https://www.armed-services.senate.gov/imo/media/doc/Davidson_02-12-19.pdf.)

100 China is also modernizing its nuclear forces.

101 The 2019 DoD report on Chinese military power includes a section on “Influence Operations,” referencing Chinese activities as described above and adding: “The PLA has emphasized the development of its Three Warfares strategy...[which] is comprised of psychological warfare, public opinion warfare, and legal warfare. Psychological warfare uses propaganda, deception, threats, and coercion to affect the adversary's decision-making capability. Public opinion warfare disseminates information for public consumption to guide and influence public opinion and gain support from domestic and international audiences. Legal warfare uses international and domestic laws to gain international support, manage political repercussions, and sway target audiences. China views the cyberspace domain as a platform providing opportunities for influence operations, and the PLA likely seeks to use online influence activities to support its overall Three Warfares strategy...” Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019*, 113, https://media.defense.gov/2019/May/02/2002127082/-1/-1/2019_CHINA_MILITARY_POWER_REPORT.pdf.

Chinese government, and, while not necessarily entirely coordinated, are part of a generally common approach.

Cyber: China's use of cyber as an element of hybrid strategy is well-established. The 2019 Worldwide Threat Assessment by the Director of National Intelligence provided:

"China presents a persistent cyber espionage threat and a growing attack threat to our core military and critical infrastructure systems. China remains the most active strategic competitor responsible for cyber espionage against the US Government (USG), corporations, and allies. It is improving its cyber attack capabilities...."¹⁰²

As noted in the Department of Defense's (DoD's) "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019": "China has mobilized vast resources in support of...espionage activities to acquire sensitive, dual-use, or military-grade equipment."¹⁰³ Media reports have indicated that DoD contractors and subcontractors have been significantly affected by cyber attacks, and a public report for the secretary of the navy states that the "system has demonstrably failed."¹⁰⁴ Additionally, among many other instances, China engaged in the well-known cyber attack against the Office of Personnel Management (OPM), which resulted in

the personal information of 22 million people being compromised,¹⁰⁵ as well as attacks against managed service providers and is under indictment for stealing proprietary technology from US-based Micron Technology used to make dynamic random access memory (RAM) chips.¹⁰⁶ Numerous groups of Chinese hackers have been identified as "advanced persistent threats" engaging in both commercial and national security espionage.¹⁰⁷

China also presents another significant challenge through the provision of equipment for mobile 5G technology, particularly through Huawei Technologies Co., Ltd. which is "the world's No. 1 telecom supplier and No. 2 phone manufacturer."¹⁰⁸ In the broadest terms, a mobile network has end users who use phones or other devices (including the emerging Internet of Things) that send and receive signals from transmitters/receivers (called the "radio access network"), which themselves send those signals to computers/servers/software that correlate data from multiple streams and send it back out again. The computers/servers/software are often called the "core" and the receivers/transmitters and mobile devices called the "edge" though this distinction is becoming less useful as 5G capabilities are significantly software-based¹⁰⁹ and computing capabilities are now being moved to the edge.¹¹⁰ Most relevantly, Huawei provides both hardware components and software (computer programs) to run the 5G network.

¹⁰² Worldwide Threat Assessment of the US Intelligence Community, US Senate Select Committee on Intelligence, 116th Cong. (January 29, 2019) (Statement for the Record of Director of National Intelligence Daniel R. Coats), 4, <https://www.odni.gov/index.php/newsroom/congressional-testimonies/item/1947-statement-for-the-record-worldwide-threat-assessment-of-the-us-intelligence-community>.

¹⁰³ Office of the Secretary of Defense, Department of Defense, Annual Report to Congress, "Military and Security Developments Involving the People's Republic of China 2019," May 2, 2019, 93, https://media.defense.gov/2019/May/02/2002127082/-1/-1/1/2019_CHINA_MILITARY_POWER_REPORT.pdf.

¹⁰⁴ Secretary of the Navy, *Cybersecurity Readiness Review*, March 2019, 8, <https://www.navy.mil/strategic/CyberSecurityReview.pdf>; Kyle Rempfer, "Report: Navy Is Under 'Cyber Siege,' National Secrets Leaking from the Hull," *Navy Times*, March 13, 2019, <https://www.navytimes.com/news/your-military/2019/03/13/report-navy-is-under-cyber-siege-national-secrets-leaking-from-the-hull/>.

¹⁰⁵ Ellen Nakashima, "Hacks of OPM Databases Compromised 22.1 Million People, Federal Authorities Say," *Washington Post*, July 9, 2015, <https://www.washingtonpost.com/news/federal-eye/wp/2015/07/09/hack-of-security-clearance-system-affected-21-5-million-people-federal-authorities-say/>.

¹⁰⁶ US Department of Homeland Security, CISA, *Advanced Persistent Threat Activity Exploiting Managed Service Providers*, October 3, 2018, <https://www.us-cert.gov/ncas/alerts/TA18-276B>; Catherine Stupp, "Nation-State Hackers Target Managed Service Providers to Access Large Companies," *Wall Street Journal*, October 31, 2018, <https://www.wsj.com/articles/nation-state-hackers-target-managed-service-providers-to-access-large-companies-1541013256>; Ellen Nakashima and Paul Sonne, "China Hacked a Navy Contractor and Secured a Trove of Highly Sensitive Data on Submarine Warfare," *Washington Post*, June 8, 2018, https://www.washingtonpost.com/world/national-security/china-hacked-a-navy-contractor-and-secured-a-trove-of-highly-sensitive-data-on-submarine-warfare/2018/06/08/6cc396fa-68e6-11e8-bea7-c8eb28bc52b1_story.html; Office of External Affairs, US Department of Justice, PRC State-Owned Company, Taiwan Company, and Three Individuals Charged With Economic Espionage, press release, November 1, 2018, <https://www.justice.gov/opa/pr/prc-state-owned-company-taiwan-company-and-three-individuals-charged-economic-espionage>.

¹⁰⁷ See, e.g., FireEye, *Advanced Persistent Threat Groups: Who's who of cyber threat actors*, <https://www.fireeye.com/current-threats/apt-groups.html>. Recent media indicates the issue of intellectual property theft appears to include the health arena. Gina Kolata, "Vast Dragnet Targets Theft of Biomedical Secrets for China," *New York Times* (November 4, 2019), <https://www.nytimes.com/2019/11/04/health/china-nih-scientists.html?auth=login-email&login=email>.

¹⁰⁸ Sean Keane, "Huawei ban: Full timeline on how and why its phones are under fire," CNET, August 23, 2019, <https://www.cnet.com/news/huawei-ban-full-timeline-on-how-why-its-phones-are-under-fire/>.

¹⁰⁹ Iwan Price-Evans, "Introducing the 5G Core Network Functions," *Metaswitch*, February 7, 2019, ("the 5G Core comprises pure, virtualised, software-based network functions"), <https://www.metaswitch.com/blog/introducing-the-5g-core-network-functions>; Viavi, 5G Architecture ("decouples software from hardware by replacing various network functions such as firewalls, load balancers and routers with virtualized instances running as software"), <https://www.viavisolutions.com/en-us/5g-architecture>, accessed October 11, 2019.

¹¹⁰ Robert Williams, *Securing 5G Networks*, Council on Foreign Relations, July 15, 2019, ("[I]n 5G, the distinction between core and edge is less clear... some functions traditionally performed in the core will be performed in the RAN [radio access network]") <https://www.cfr.org/report/securing-5g-networks>; *Metaswitch* ("packet processing and traffic aggregation can be distributed to the network edge") <https://www.metaswitch.com/blog/introducing-the-5g-core-network-functions>.



Kevin Tao, President of Huawei, Western Europe, discusses 5G at the "Digitising Europe Summit" in Gasometer, Berlin, December 2014. (Photo by Amin Akhtar/Vodafone Institute)

Security issues arise for several reasons. First, vendors such as Huawei generally have access to the networks for which they provide key elements. That implies they can, with sufficient capability, intercept signals running on the networks. Second, the software and/or components may have vulnerabilities by design or by lack of good engineering that can be exploited. Since vendors have access to the networks, inserting vulnerabilities at a later date is also a possibility. Third, the networks could be significantly disrupted by a vendor with access. All these issues have been raised in connection with Huawei. The recent European Commission report "assess[ing]...the cybersecurity of 5G networks" describes the security risks in some detail:

- "[I]ncreased reliance on software, and the frequent updates they require, will significantly increase the exposure to the role of third-party suppliers,"
- "[S]ensitive functions...are likely to be moved closer to the edge of the network,...[and] [i]f not managed properly,...increase the overall attack surface and the

number of potential entry points for attackers, as well as increase chances of malicious impersonation of network parts and functions,"

- "[A]s 5G networks will be largely based on software, major security flaws, such as those deriving from poor software development processes within equipment suppliers, could make it easier for actors to maliciously insert intentional backdoors into products and make them also harder to detect," and
- "The increased role of software and services provided by third party suppliers in 5G networks leads to a greater exposure...deriv[ing] from the risk profile of individual suppliers...notably: [t]he likelihood of the supplier being subject to interference from a non-EU country... facilitated by...a strong link between the supplier and a government of a given third country; the third country's legislation, especially where there are no legislative or democratic checks and balances in place,...the characteristics of the supplier's corporate ownership [and]

the ability for the third country to exercise any form of pressure.”¹¹¹

The United States has barred US government agencies from purchasing Huawei software and components.¹¹² Additionally, the major US telecommunications companies—AT&T, Verizon, Sprint/T-Mobile—have undertaken not to use Huawei in their networks.¹¹³ Smaller US telecommunications companies have, however, utilized Huawei components and software.¹¹⁴

The United States has also added Huawei to the Entity List, which in effect bars exports such as microchips and other components from US companies to Huawei (although the effective date of the ban has been extended until February 2020).¹¹⁵ How this might impact Huawei's technical capacity and, therefore, its sales worldwide is not clear, although Huawei recently announced that it is producing 5G base stations without US parts.¹¹⁶ Australia,¹¹⁷ New Zealand,¹¹⁸ and Japan¹¹⁹ have blocked Huawei from being used in their networks, and Poland recently signed an agreement to the same effect.¹²⁰ However, other close allies of the United States have not taken the same path. The United Kingdom has utilized Huawei in its existing 4G networks and has an oversight board and various processes designed to

ensure security. The most recent oversight board report concluded that there are “serious and systematic defects in Huawei's software engineering and cyber security competence” and “significant cyber security and availability risks.”¹²¹ Nonetheless the United Kingdom still currently is planning to use Huawei apparently in the “edge” portions of its planned 5G networks. Huawei's major advantage in the face of frequently acknowledged security considerations is its low prices. In the Netherlands, “Huawei underbid the existing vendor, Swedish firm Ericsson, by 60 percent, according to two industry officials who spoke on the condition of anonymity to discuss a sensitive matter—offering a price that wouldn't even cover the cost of parts.”¹²² Other countries such as Malaysia also plan to use Huawei in connection with establishing 5G networks with price being a key factor: “‘Malaysia telcos are very much into Huawei and ZTE because they are affordable,’ said Ms Nur Sulyna Abdullah, the chief transformation officer of Malaysian Communications and Multimedia Commission (MCMC), on Wednesday (June 26).”¹²³

The United States has also recently added to its Entity List 28 Chinese companies, including several with AI capabilities, “that have been implicated in human rights violations and abuses in China's campaign targeting Uighurs and

- 111 NIS Cooperation Group, “EU coordinated risk assessment of the cybersecurity of 5G networks,” October 9, 2019, 6, 19, 22, https://europa.eu/rapid/press-release_IP-19-6049_en.htm.
- 112 Steve Lohr, “U.S. Moves to Ban Huawei From Government Contracts,” *New York Times*, August 7, 2019, <https://www.nytimes.com/2019/08/07/business/huawei-us-ban.html>.
- 113 Nakashima, “U.S. pushes hard.” (“Meanwhile, all four major U.S. carriers — AT&T, Verizon, Sprint and T-Mobile — also have pledged not to use Huawei products in their 5G networks.”).
- 114 Cecilia Kang, “Huawei Ban Threatens Wireless Service in Rural Areas,” *New York Times*, May 25, 2019, <https://www.nytimes.com/2019/05/25/technology/huawei-rural-wireless-service.html>.
- 115 Bureau of Industry and Security, US Department of Commerce, *Addition of Entities to the Entity List*, May 21, 2019, <https://www.federalregister.gov/documents/2019/05/21/2019-10616/addition-of-entities-to-the-entity-list>; Alan Rappeport, “U.S. Gives Companies More Time to Cease Doing Business With Huawei,” *New York Times*, August 19, 2019, <https://www.nytimes.com/2019/08/19/us/politics/huawei-trump.html>; Bureau of Industry and Security, US Department of Commerce, U.S. Department of Commerce Extends Huawei Temporary General License, press release, November 18, 2019, <https://www.commerce.gov/news/press-releases/2019/11/us-department-commerce-extends-huawei-temporary-general-license>.
- 116 Sijia Jiang, “Huawei says it has begun producing 5G base station parts without U.S. parts,” Reuters, September 26, 2019, <https://www.reuters.com/article/us-usa-china-huawei-tech/huawei-already-producing-5g-base-stations-without-us-parts-ceo-idUSKBN1WB0YD>.
- 117 Li Tao and Sarah Dai, “Australia blocks China's Huawei, ZTE from 5G development on security grounds,” *South China Morning Post*, August 23, 2018, <https://www.scmp.com/tech/china-tech/article/2160973/australia-blocks-chinas-huawei-zte-5g-development-security-grounds>.
- 118 Vicky Xiuzhong Xu, “New Zealand Blocks Huawei, in Blow to Chinese Telecom Giant,” *New York Times*, November 28, 2018, <https://www.nytimes.com/2018/11/28/business/huawei-new-zealand-papua-new-guinea.html>.
- 119 “Japan allocates 5G spectrum to carriers, blocks Huawei and ZTE gear,” Reuters, April 10, 2019, <https://venturebeat.com/2019/04/10/japan-allocates-5g-spectrum-to-carriers-blocks-huawei-and-zte-gear/>.
- 120 Justin Sink and Alyza Sebenius, “U.S. and Poland Ink 5G Security Agreement Amid Anti-Huawei Campaign,” Bloomberg, September 2, 2019, <https://www.bloomberg.com/news/articles/2019-09-02/u-s-poland-ink-5g-security-agreement-amid-anti-huawei-campaign>.
- 121 Cabinet Secretary from the Huawei Cyber Security Evaluation Centre Oversight Board, Fifth Annual report, A report to the National Security Adviser of the United Kingdom, March 2019, 3.16, 3.7.
- 122 Nakashima, “U.S. pushes hard.”
- 123 Pamela Lim and Melissa Goh, “Affordability and 5G race are reasons why Malaysia continues to support Huawei, says telco regulator,” Channel News Asia, June 27, 2019, <https://www.channelnewsasia.com/news/business/huawei-5g-malaysia-support-mcmc-mahathir-11665232>. It is worth noting that, entirely apart from 5G networks, China has engaged in espionage in instances in which there has been Chinese-supplied telecommunications equipment—as at the Africa Union where the hacking went on for five years. John Aglionby, Emily Feng, and Yuan Yang, “African Union accuses China of hacking headquarters,” *Financial Times*, January 29, 2018, <https://www.ft.com/content/c26a9214-04f2-11e8-9650-9c0ad2d7c5b5>.

“The very significant differences between China and the free market democratic countries are illustrated by the CCTV statement: ‘We believe any remarks that challenge national sovereignty and social stability do not belong to the category of free speech.’”

other predominantly Muslim ethnic minorities in the Xinjiang Uighur Autonomous Region.”¹²⁴ As with respect to Huawei, the impact on global business is yet to be determined.

Economic coercion: In addition to the influence its substantial economy and trade relations create, China has regularly engaged in economic coercion “punish[ing] countries that undermine its territorial claims and foreign policy goals with measures such as restricting trade, encouraging popular boycotts, and cutting off tourism.”¹²⁵

Specific instances include:

“(1) Chinese restrictions on rare earths exports and other measures directed at Japan after a collision between a Chinese fishing boat and a Japanese coast guard ship near the disputed Senkaku/Diaoyu islands in 2010 as well as subsequent tensions between China and Japan in 2012; (2) Chinese restrictions on imports of Norwegian salmon after Liu [Xiaobo] won the Nobel Peace Prize in 2010; (3) Chinese reductions of imports of bananas and other agricultural goods from the Philippines as well as cuts in tourism from China after a dispute over the South China Sea from 2012 to 2016; (4) Chinese

reductions in tourism and other measures against Taiwan in response to the election of Tsai [Ing-wen] in 2016; (5) Chinese tourism reductions and restrictions on certain trade with South Korea after Seoul agreed to deploy a U.S. THAAD missile defense system in 2016; and (6) temporary Chinese restrictions on cross-border trade with Mongolia after it allowed the Dalai Lama’s visit in 2016.”¹²⁶

The recent Chinese reaction to a single tweet by the general manager of the Houston Rockets supporting the Hong Kong protesters is indicative of China’s quick turn to economic coercion. As of this writing, “the Chinese Basketball Association announced it would sever ties with the Rockets, as did Tencent, the NBA’s rights holder in China, and the Rockets’ Chinese sponsors...[and] the sports arm of Chinese state broadcaster CCTV announced it would not broadcast the NBA’s preseason games being played in China this week.”¹²⁷ The very significant differences between China and the free market democratic countries are illustrated by the CCTV statement: “We believe any remarks that challenge national sovereignty and social stability do not belong to the category of free speech.”¹²⁸

Low level use of force: China’s use of low-level force is particularly evident in the maritime arena, especially in the South and East China Seas.

With respect to the South China Sea, where China has established multiple outposts as part of its extensive claims,¹²⁹ the DoD’s “Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2019” states:

“In 2018, China continued militarization in the South China Sea by placing anti-ship cruise missiles and long-range surface-to-air missiles on outposts in the Spratly Islands, violating a 2015 pledge by Chinese President Xi Jinping that ‘China does not intend to pursue militarization’ of the Spratly Islands.”¹³⁰

124 Office of Public Affairs, US Department of Commerce, U.S. Department of Commerce Adds 28 Chinese Organizations to its Entity List, press release, October 7, 2019, <https://www.commerce.gov/news/press-releases/2019/10/us-department-commerce-adds-28-chinese-organizations-its-entity-list>. See Ana Swanson and Paul Mozur, “U.S. Blacklists 28 Chinese Entities Over Abuses in Xinjiang,” *New York Times*, October 7, 2019, <https://www.nytimes.com/2019/10/07/us/politics/us-to-blacklist-28-chinese-entities-over-abuses-in-xinjiang.html>.

125 Peter Harrell, Elizabeth Rosenberg, and Edoardo Saravalle, *China’s Use of Coercive Economic Measures*, Center for a New American Security, June 2018, 2, https://s3.amazonaws.com/files.cnas.org/documents/China_Use_FINAL-1.pdf?mtime=20180604161240.

126 Id., 7-8.

127 Matt Bonesteel, “NBA Commissioner Adam Silver says league supports free speech, must live with the consequences,” *Washington Post*, October 8, 2019, <https://www.washingtonpost.com/sports/2019/10/08/nba-commissioner-adam-silver-says-players-executives-are-free-comment-china/>.

128 Ibid.

129 *China Island Tracker*, Asia Maritime Transparency Initiative, Center for Strategic and International Studies, “China has 20 outposts in the Paracel Islands and 7 in the Spratlys. It also controls Scarborough Shoal, which it seized in 2012, via a constant coast guard presence, though it has not built any facilities on the feature. Since 2013, China has engaged in unprecedented dredging and artificial island-building in the Spratlys, creating 3,200 acres of new land, along with a substantial expansion of its presence in the Paracels.” <https://amti.csis.org/island-tracker/china/>.

130 US Department of Defense, Annual Report to Congress, ii.



Former Defense Secretary James N. Mattis walks with Gen. Wei Fenghe, China's defense minister, at China's Ministry of National Defense in Beijing, June 27, 2018. (DoD photo by Army Sgt. Amber I. Smith)

Similarly, with respect to the East China Sea, US Navy ADM Philip S. Davidson, commander of the US Indo-Pacific command, testified to the Senate Armed Services Committee on February 12, 2019:

“Beijing continues using its military forces to advance its territorial claims in the East China Sea. Beijing maintains a high level of surface combat patrols in the East China Sea. Additionally, Chinese Coast Guard vessels frequently enter the territorial waters of the Senkaku Islands, which the United States recognizes as being under the administrative control of the Japanese. In 2017, these incursions occurred on an average of once every ten days, and continued in 2018 at about two per month.”¹³¹

2. Conventional: The conventional military challenge presented by China arises from a combination of the geopolitical roles of the PLA; its relatively recent, but quite well-developed, current capabilities; and the expectation of significant future modernization.

Geopolitically, the PLA supports what China describes as its core interests. As set forth in the recent PLA white

paper, “China’s National Defense in the New Era,” China maintains a very stringent, uncompromising attitude toward such core issues:

“The ‘Taiwan independence’ separatist forces and their actions remain the gravest immediate threat....The South China Sea islands and Diaoyu Islands are inalienable parts of the Chinese territory....China has the firm resolve and the ability to safeguard national sovereignty and territorial integrity, and will never allow the secession of any part of its territory by anyone, any organization or any political party by any means at any time. We make no promise to renounce the use of force, and reserve the option of taking all necessary measures.”¹³²

Chinese military leaders are quite clear in reiterating these conclusions. In his speech at the Shangri-La dialogue this year, Chinese Gen. Wei Fenghe stated with respect to Taiwan: “[A]ny underestimation of the PLA’s resolve and will is extremely dangerous. We will strive for the prospects of peaceful reunification with utmost sincerity and greatest efforts, but we make no promise to renounce the

¹³¹ Davidson, 7.

¹³² The State Council Information Office of the People’s Republic of China, China’s National Defense, 5, 7.

use of force. Safeguarding national unity is a sacred duty of the PLA.”¹³³

China's military capabilities are substantial and increasing, both with respect to geographically closer contingencies as well as allowing for significant worldwide activities. Among other significant examples as set forth in the China defense white paper:

“[T]he PLAN [navy] is speeding up the transition of its tasks from defense on the near seas to protection missions on the far seas...the PLAAF [air force] is accelerating the transition of its tasks from territorial air defense to both offensive and defensive operations, ...[and] PLASSF [Strategic Support Force] is a new type of combat force for safeguarding national security [including a combination of cyber, electronic warfare, and information operations].”¹³⁴

The white paper further lists a series of capability improvements, including for “strategic deterrence and counterattack, maritime maneuver operations, maritime joint operations” and “strategic early warning, air strikes, air and missile defense, information countermeasures, airborne operations, strategic projection, and integrated support.”¹³⁵

Former US Deputy Secretary of Defense Robert Work has analyzed China's military modernization effort focusing on its capacity to offset US military capabilities. His analysis finds that “China's offset strategy has five reinforcing lines of effort”:

- “Industrial and technical espionage and civil-military fusion to rapidly acquire comparable military capabilities to those developed over decades by the United States so that the PLA could compete operationally on something approaching an even footing.”
- “Developing...‘systems destruction warfare,’—the crippling of the U.S. battle network’s command, control, communication, and intelligence systems.”

- “Attacking effectively first by amassing an arsenal of long-range precision missiles and advanced targeting systems....”
- “Developing ‘Assassin’s Mace’ capabilities—what DoD terms ‘black capabilities’....”
- “Becoming the world leader in artificial intelligence and then deploying that technology for military superiority.”¹³⁶

Other analyses have similarly identified key Chinese capabilities to include “long-range, accurate missiles,” “reconnaissance and targeting systems,” “integrated air defenses,” and “information superiority,”¹³⁷ as well as advanced systems, including “counter-space,” “autonomous unmanned vehicles,” “maneuverable re-entry vehicles,” “hypersonic glide vehicles,” “directed energy weapons,” and “electromagnetic railguns.”¹³⁸

China is providing significant resources to continue the development of its forces. The Chinese white paper states that China's defense budget from 2010 to 2017 “increased from RMB669.192 billion to RMB1,043.237 billion...an average [annual increase] of 9.42%.”¹³⁹ As large as these numbers are,¹⁴⁰ they appear to be an understatement. The DoD's 2019 annual report to Congress states:

“China's published military budget omits several major categories of expenditures, including R&D and foreign weapons procurement. Actual military-related spending is higher than stated in the official budget, estimated at more than \$200 billion in 2018. It is difficult to calculate actual military expenses, largely because of China's poor accounting transparency....Over the next few years, China's official defense budget will likely increase by an annual average of 6 percent, growing to \$260 billion by 2022. This will allow the PLA to dedicate more money for training, operations, and modernization following China's 2015 reforms, which reduced the PLA's size by 300,000 personnel.”¹⁴¹

133 Gen. Wei Fenghe, State Councilor and Minister of National Defense, PRC, “Speech at the 18th Shangri-La Dialogue,” June 2, 2019, http://eng.chinamil.com.cn/view/2019-06/02/content_9520790.htm.

134 The State Council Information Office of the People's Republic of China, China's National Defense, 21.

135 Id. at 21.

136 Robert O. Work and Greg Grant, *Beating the Americans at their Own Game: An Offset Strategy with Chinese Characteristics*. 2019, 5-6, <https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-Work-Offset-final-B.pdf?mtime=20190531090041>.

137 David Ochmanek, *Restoring U.S. Power Projection Capabilities: Responding to the 2018 National Defense Strategy*, RAND Corporation, July 2018, 4-5, https://www.rand.org/content/dam/rand/pubs/perspectives/PE200/PE260/RAND_PE260.pdf.

138 Tate Nurkin, Kelly Bedard, James Clad, Cameron Scott, and Jon Grevatt, “China's Advanced Weapons Systems,” U.S.-China Economic and Security Review Commission, May 2018, 9-10, https://www.uscc.gov/sites/default/files/China%27s%20Advanced%20Weapons_PR.pdf.

139 The State Council Information Office of the People's Republic of China, China's National Defense, 27.

140 At a 6.5 RMB/dollar exchange rate, which is just an approximate average for those years, the amounts would be approximately US\$102 billion in 2010 and US\$160 billion in 2017.

141 US Department of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019, 95.

IV. THE 'MANAGED COMPETITION' STRATEGY

An effective strategy of managed competition will require actions on economics and innovation; diplomacy and influence; and security, including hybrid and conventional military. The main courses of action include enhancing innovation, increasing resilience, providing assurance, and establishing selective limitations, all undertaken in coordination with close allies and partners. Managed competition does not preclude cooperation as interests dictate in appropriate areas. The particulars—economic, diplomatic, and security—are described below.

A. Economic and Innovation

In responding to the economic competition with China, two objectives seem critical for the United States and its close allies. First, the United States (as well as its close allies) should have highly effective capabilities in strategic sectors and with respect to advanced and emerging technologies, both current and future, including support for innovation and the establishment of fair and efficient markets. Those capabilities should not only be in the United States, but should also include the opportunity for significant collaboration with close allies, particularly with respect to enhancement of innovation and advanced and emerging technologies. To the extent that such capabilities depend on resources or materiel not economically generated in the United States or by close allies, the United States and its close allies should engage with partner countries where supply chains are sufficiently reliable. Second, the United States (as well as its close allies) should have sufficient industries and firms in multiple sectors that provide middle-class income to the bulk of the nation. These objectives should likewise be achieved in the context of fair and efficient market competition.

Achieving these objectives will require a twofold effort—first, enhancing innovation and advanced technologies and, second, generating significant selective changes to the current international economic arrangements with China, especially with regard to sectors that affect national security and those impacted by market distortions. The most significant potential challenge will be assuring fair and efficient markets for advanced and emerging technologies in the face of China's market distorting activities.

1. Innovation: Innovation, while a complicated process, is arguably the easier of the tasks as it mainly requires focus on the United States' own behavior and that of its allies/close partners. The United States is a highly innovative country and close allies likewise have important capabilities.¹⁴² The requisite efforts will be multiple, including actions by the government, private sector, and academia.

To maximize innovative capacity, one analysis proposed that valuable steps would include 1) increasing federal funding for research and development, and expanding access to international research and development by coordinating with key entities outside the United States, 2) significantly expanding government efforts into key focused arenas such as AI, quantum computing, nanotechnology, human augmentation, genomics and biological research, information technology and cyber security, and climate and energy, 3) expanding manufacturing and nonmanufacturing "clusters," which would bring together public, private, and nonprofit entities in precompetitive research and development efforts, 4) encouraging talent growth, particularly through enhancing and incentivizing science, technology, engineering, and mathematics education (STEM), and 5) expanding the collaboration between national security agencies and the private sector by revising the federal acquisition approach.¹⁴³

A more recent report on "Innovation and National Security: Keeping Our Edge" included comparable recommendations as well as a significant focus on universities and STEM education. It proposes 1) "restor[ing] federal funding for research and development to its historical average...[of] 1.1 percent of...GDP...[or] from \$146 billion to about \$230 billion (in 2018 dollars)"; 2) "mak[ing]...strategic investment in universities...of up to \$20 billion a year for five years...[for] cross-disciplinary work in areas of pressing economic and national security interest"; 3) "twenty-five thousand competitive STEM undergraduate scholarships and five thousand graduate fellowships"; 4) "encourag[ing] American start-ups in AI and data science, genomics and synthetic biology, quantum information systems, and other frontier technologies to invest in, export to, and form R&D partnerships with...early adopters, developers, and customers who will build on U.S. technologies," and 5) "develop[ing]

¹⁴² For more on the Scowcroft Center's innovation work, see Peter Engelke and Robert A. Manning, *Keeping America's Innovative Edge*, Atlantic Council, April 4, 2017, <https://www.atlanticcouncil.org/in-depth-research-reports/report/keeping-america-s-innovative-edge-2/> and Peter Engelke and Robert A. Manning, *The Global Innovation Sweepstakes: A Quest to Win the Future*, Atlantic Council, June 26, 2018, <https://www.atlanticcouncil.org/in-depth-research-reports/report/the-global-innovation-sweepstakes-a-quest-to-win-the-future-2/>.

¹⁴³ Franklin D. Kramer and James Wrightson, *Innovation, Leadership, and National Security*, Atlantic Council, April 2016, https://www.atlanticcouncil.org/images/publications/Innovation_Leadership_and_National_Security_web_0411.pdf. This analysis and that two paragraphs below draw directly from this report.

a network of international cooperative science and technology partnerships, open to governments and the private sector, to apply frontier technologies to shared global challenges, such as climate change.”¹⁴⁴

The recent interim report of the National Security Commission on Artificial Intelligence similarly recommended as five “lines of effort” for the US government to “invest in AI research and development,” “apply AI to national security missions,” “train and recruit AI talent,” “protect and build upon U.S. technology advantages,” and “marshall global AI cooperation.”¹⁴⁵

The benefits from such actions could be significant.¹⁴⁶

- First, there are three critical ways to enhance innovation through greater government effort: first, to increase funding for basic research and development; second, to increase access to international research and development; and third, by expanding government projects into key new areas. The first two are foundational and provide support to the United States’ scientific and technology knowledge capability that is so critical to future innovation. The third stimulates innovation in key focused areas through establishing purposeful projects that address key needs or issues for the country in the same way that past defense projects helped usher in whole new technological innovations.
- Second, while the invention of a new technology will require the breakthrough efforts of highly creative researchers, the potential of innovative breakthroughs may linger in technology concepts, or in market niches, until the technological breakthrough diffuses into the market. To accomplish the necessary diffusion, corporations are one of the institutions that have the ability to introduce new capacities that link up with public demand by generating the required changes in market and societal processes. While corporations do finance applied R&D, enhancing innovation, including diffusion, into critical areas could be furthered by incentivizing market return, possibly through tax credit for research and development efforts or perhaps through the issuance of tax-free “technology bonds,” thereby lowering the cost of finance.
- Third, clustering that provides manufacturing test beds and prototyping centers may provide capabilities that are highly beneficial to product innovators. Test beds

could dramatically shorten the timeline and expense for innovation. They could provide a place where entrepreneurs and companies could test and refine their manufacturing process ideas without having to build their own facility at a high (and sometimes prohibitive) cost.

- Fourth, encouraging talent growth through the expansion of clusters as an attractive environment for elite researchers as well as significantly increasing university research could be highly worthwhile, and that might be supplemented by the development of technical training through community colleges and online courses that lead to the creation of the necessary production and related skills.
- Finally, it would be worthwhile to undertake a net assessment process that tracked relative progress by the United States and its close allies with China’s progress in advanced technologies. Doing so would help focus research, development, and implementation and help guide the best use of funding. Unlike net assessment efforts in the past, a great deal of activity on advanced technologies is taking place in the private sector, so useful analysis would have to go beyond government programs and funding. In addition to the technological issues, it would be useful to track resource and other supporting requirements. An effective net assessment process would be one element of ensuring that the United States and its close allies develop the advanced technologies critical to future economic and security requirements.

2. Economic: The initial, but crucial, issue for the economic arena is whether significant changes to the current international economic arrangements with China will be required. The recommendations that follow propose, with respect to US domestic markets, a three-tiered approach that will include changes to the strategic sectors of the economy; changes to those non-strategic sectors that are nonetheless significantly affected—or for advanced and emerging technologies that are at future risk—by China’s state-driven structural advantages; and changes to those areas where the market could prevail if reasonable reciprocity did occur. With respect to markets in China, differentiation will be required with respect to markets where China is engaged in global supply chains and to the internal Chinese domestic market where US firms are seeking to make sales.

First, with respect to strategic sectors, important changes have occurred and others are ongoing. The United States

¹⁴⁴ James Manyika and William H. McRaven (chairs), and Adam Segal (project director), *Independent Task Force Report No. 77, Innovation and National Security: Keeping Our Edge*, Council on Foreign Relations, 6-8, 2019, https://www.cfr.org/report/keeping-our-edge/pdf/TFR_Innovation_Strategy.pdf.

¹⁴⁵ National Security Commission on Artificial Intelligence, Interim Report 4, 24-47 (November 2019), <https://www.epic.org/foia/epic-v-ai-commission/AI-Commission-Interim-Report-Nov-2019.pdf>.

¹⁴⁶ The following four subparagraphs come directly from Franklin D. Kramer and James Wrightson, *Innovation, Leadership, and National Security*, Atlantic Council, April 2016, 19, 20, 24, 28, https://www.atlanticcouncil.org/images/publications/Innovation_Leadership_and_National_Security_web_0411.pdf.

has long reviewed foreign direct investment transactions with national security implications generally through the interagency Committee on Foreign Direct Investment in the United States (CFIUS). In the 2018 Foreign Investment Risk Review Modernization Act (FIRRMA), Congress expanded CFIUS' jurisdiction to include real estate transactions and to cast a broader net over transactions relating to critical infrastructure and technologies, thereby generating control over venture capital and other types of arrangements that focus on emerging and sensitive technologies or firms.

Controls over Chinese foreign direct investment are now subject to greater review. As explained by the US Department of Commerce:

"The Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA) expands the jurisdiction of the Committee on Foreign Investment in the United States (CFIUS) to address growing national security concerns over foreign exploitation of certain investment structures which traditionally have fallen outside of CFIUS jurisdiction....While China is not mentioned specifically in FIRRMA, there will be impact on Chinese investment in the U.S. CFIUS has greater visibility of Chinese investment into the U.S., which in turn will lead to heightened scrutiny of potential Chinese investments in areas related to critical technologies, critical infrastructure, businesses with sensitive personal data, and certain types of real estate transaction."¹⁴⁷

Existing policy in the context of export controls with respect to China is likewise undergoing substantial change. Until recently, the rules as implemented by the Department of Commerce have been "to approve items for civil end use to civil end users," while there has been a "presumption of denial for items that would make a direct and significant contribution to China's military capabilities."¹⁴⁸ However, the Export Control Act of 2018¹⁴⁹ "authorizes Commerce to establish appropriate controls, including interim controls, on the export, reexport, or transfer (in country) of emerging and foundational technologies."¹⁵⁰ As a result, the department has issued an "advance notice of proposed rulemaking," which identifies 14 categories, including

biotechnology, AI, advanced computing, data analytics, quantum technology, robotics, brain-computer interfaces, and hypersonics.¹⁵¹ While the list and concomitant limits have not been finalized as of this writing, it seems clear that significant restrictions will be adopted. Further, as noted above, Huawei and 28 other companies have been added to the Commerce Department's Entity List, and the potential for further additions is clear.

Similarly, the Commerce Department has proposed a rule (likely to be adopted) for "Securing the Nation's Information and Communications Technology and Secure Supply Chain."¹⁵² The proposed rule authorizes blocking any transaction involving a "foreign adversary," which poses "an undue risk of sabotage or subversion of ICTS in the United States; an undue risk of catastrophic effects on the security and resiliency of critical infrastructure or the digital economy in the United States; or an unacceptable risk to national security or to the security and safety of U.S. persons."¹⁵³

It almost certainly will be the case, moreover, that such reviews will be undertaken on a continuing interagency process engaging, in addition to the Commerce Department, relevant national security agencies including the DoD, the Intelligence Community, and the State Department on both the scope of strategic sectors and technologies, and the nature of appropriate further restrictions. As noted, Congress has also been fully engaged with the passage of the relevant legislation and will undoubtedly continue to be involved formally and informally in its oversight role to ensure full political support and to lay the basis for any additional required legislation. In sum, for strategic sectors vital to national security or other critical national objectives, including advanced and emerging technologies, the new rules are establishing structural limitations focused on critical sectors, firms, and technologies, including, as appropriate, limits on investment, trade, licensing, financial, and other transactions. China should not be involved in the establishment of US national security.

Second, with respect to industries—both manufacturing and services—that are not strategic, but are significantly affected by China's state-directed approach and are important to the US economy, the fundamental issues are to

147 US Department of Commerce, "China-U.S. Export Controls," July 30, 2019, <https://www.export.gov/article?id=China-U-S-Export-Controls>.

148 Ibid.

149 Enacted as part of the FY19 National Defense Authorization Act.

150 Bureau of Industry and Security, US Department of Commerce, "Review of Controls for Certain Emerging Technologies," Federal Register, November 19, 2018, <https://www.federalregister.gov/documents/2018/11/19/2018-25221/review-of-controls-for-certain-emerging-technologies>.

151 Id. The full list includes multiple subcategories.

152 United States Department of Commerce, "U.S. Department of Commerce Proposes Rule for Securing the Nation's Information and Communications Technology and Services Supply Chain," November 26, 2019, <https://www.commerce.gov/news/press-releases/2019/11/us-department-commerce-proposes-rule-securing-nations-information-and>

153 Ibid. For draft of full rule, see <https://www.federalregister.gov/documents/2019/11/27/2019-25554/securing-the-information-and-communications-technology-and-services-supply-chain>

identify the relevant sectors and/or firms and to determine specifically how to create offsetting arrangements that would provide assurance of a level playing field to US companies. In terms of the scope of affected sectors, the USTR 2019 report and other analyses have identified multiple industries, including steel, aluminum, solar panels, glass, paper, and automobile parts, and emerging technologies such as electric vehicles, high-end equipment manufacturing, and medical technology.¹⁵⁴ Even more importantly, future technologies and sectors are also at risk given the subsidies that China is providing to Made in China 2025 and comparable programs for advanced technologies such as AI and quantum computing. It is worth repeating that potentially the most important issues facing the United States and its close allies relate to advanced and emerging technologies. As noted above, “China’s innovation offensive will affect the competitiveness of other nations in many high-tech sectors,” and that strategy is backed by a state-driven approach “[f]ar beyond classical industrial subsidies... [and] backed by a large variety of financial tools, ranging from insurance compensation schemes to tax incentives, facilitated by SME [small and medium-sized enterprise] financing, and direct funding for...demonstration zones and (pilot) projects.”¹⁵⁵ Establishing an effective countervailing approach will be critical for the US economy in the future.

In terms of the restrictions themselves, there appear to be two basic approaches that could be used in tandem. Tariffs could be authorized on a selective sectoral basis or there could be selective limits established on the types or amounts of imports. The latter approach would be similar to the results arising from the voluntary export restraints in the 1980s negotiated by the Reagan administration, the difference being, of course, that there the United States and Japan agreed whereas that is less likely with respect to China.¹⁵⁶ While Congress has enacted multiple authorities that authorize an administration to limit imports through tariffs and otherwise,¹⁵⁷ and which US President Donald J. Trump has invoked in the current trade disputes with China, it would be desirable for Congress to take action and pass framework legislation in this arena (as it has done with regards to export controls and emerging technologies and foreign investment). Whatever the ultimate approach,

the expectation would be that such restrictions would be at least medium-term and (perhaps likely long-term) as the prospect of near-term change in the fundamentals of China’s economy seems low.

“future technologies and sectors are also at risk given the subsidies that China is providing to Made in China 2025 and comparable programs...Establishing an effective countervailing approach will be critical for the US economy.”

In addition to limitations, significant efforts should be undertaken to provide support for innovation and to ensure that innovative capabilities can be established in fair and efficient markets. As a step in that direction, the Department of Commerce should develop a list of affected sectors—existing sectors that warrant remediation, but most importantly focusing on the future—akin to what is being done in the export arena regarding technologies. Congress should then enact, as part of the framework legislation proposed above, incentives for the development and transition to market of advanced and emerging technologies. As discussed above, innovation is the most significant effort for the United States, and Congress’s engagement is critical to supporting innovation by providing resource support, developing incentives through tax credits or otherwise, and reducing obstacles in connection with contracting with the federal government, including the availability of Other Transactional Authority and other flexible contracting approaches.¹⁵⁸

Third, with respect to non-strategic industries not specifically harmed by China’s economic practices, the United States might choose to authorize relatively free trade and investment for commercial items and commercial

¹⁵⁴ As noted earlier, in its 2019 report, the United States Trade Representative described industries benefitting from subsidies as including steel, non-ferrous metals, semiconductors, aircraft, textiles, chemicals, tires, paper, green technology, solar panels, wind turbines, and fishing—and for “strategic emerging industries” electric vehicles, specialized steel, semiconductors, high-end equipment manufacturing, and medical technology.

¹⁵⁵ Zenglein and Holzmah, *Evolving Made in China 2025*, 12, 13.

¹⁵⁶ Of course, negotiations could lead to voluntary export restraints.

¹⁵⁷ These include Section 201 of the Trade Act of 1974, Section 232 of the Trade Expansion Act of 1962, Section 301 of the Trade Act of 1974, and Section 337 of the Tariff Act of 1930, as well as the International Emergency Economic Powers Act, 50 U.S.C. Section 1701 et seq. See Congressional Research Service, *Trump Administration Tariff Actions* (Sections 201, 232, and 301): Frequently Asked Questions, February 22, 2019, <https://crsreports.congress.gov/product/pdf/R/R45529>.

¹⁵⁸ Congressional Research Service, *Department of Defense Use of Other Transaction Authority: Background, Analysis, and Issues for Congress*, February 22, 2019, <https://crsreports.congress.gov/product/pdf/R/R45521>.

enterprises¹⁵⁹, but a key issue involves obtaining reciprocal treatment for US firms in China. This is a difficult problem, however, since China has not been forthcoming in eliminating non-tariff barriers even when the issues have been raised, and its focus on national champions and indigenous production, as well as the way provincial targets are generated and officials evaluated, makes it less likely that real reciprocity can be accomplished. To resolve this issue, two possible approaches might be utilized, possibly in complementary fashion.

First, as recommended by Mary E. Lovely, coordinated action by the United States and its close allies could have an important impact:

“The goal of Chinese policy is acquisition of advanced technology, and the method is to trade market access for technology transfer. Given this Chinese strategy, US coordination with other innovative nations is necessary to invalidate current ‘divide and conquer’ strategies. American multinational firms face a choice between transferring technology and ceding the Chinese market to competitors. The Section 301 report notes American firms are reluctant to resist unwanted tech transfer requests for fear of losing the Chinese market to firms that will take the deal. There is ample evidence that European and Japanese competitors also face such demands. These firms experience a ‘prisoner’s dilemma’ in that they would be better off resisting such requests but only if they could be sure that other firms would not capitulate, an

outcome they cannot insure on their own. The leading innovating nations can overcome this collective action problem by coordinating. A common platform for reporting and responding to such requests would make it more difficult for China or any other nation to play one firm off another. Once a claim of forced transfer is made by a participating nation, outward investment in these technologies would be subject to review by all parties according to a common set of criteria.”¹⁶⁰

It is notable that in recent statements a Chinese vice minister said that China will “neither explicitly nor implicitly” force technology transfer from non-Chinese companies.¹⁶¹ Whether that will hold in practice is yet to be determined, but, regardless, collaboration among close allies would be a valuable safeguard.

Second, the recent signing of 11 cooperation agreements by Germany¹⁶² and the Trump administration’s focus on seeking a designated amount of Chinese purchases of US exports in the agriculture sector¹⁶³ suggests a possible approach to resolve the overall issue of reciprocity. Essentially, governments will need to be engaged in bargaining on behalf of industries and even specific corporations. That, of course, is hardly a market approach, but it might be the most realistic solution available in dealing with a state-driven economy and, implemented over time, could provide access and predictability for US companies and others from free market countries. The analysis should include exports, but also consider an appropriate mechanism to evaluate sales by US (and its close allies’) firms’ affiliates in China.¹⁶⁴

159 Examples of commercial items that would fit under this category might include furniture and bedding, toys and sports equipment, and plastics. For more, see Office of the United States Trade Representative, *The People’s Republic of China*, Accessed November 26, 2019, <https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china>.

160 US-China Economic and Security Review Commission, Hearing on Risks, Rewards, and Results: US Companies in China and Chinese Companies in the United States, February 28, 2019, revised March 10, 2019, (testimony of Mary E. Lovely, professor of economics and Melvin A. Eggers Faculty Scholar at Syracuse University’s Maxwell School of Citizenship and Public Affairs and a nonresident senior fellow at the Peterson Institute for International Economics in Washington, DC), 8-9, <https://www.piie.com/system/files/documents/lovely20190228.pdf>. Lovely identifies a second instance where cooperation would be critical: “Forced technology transfer may also occur where American firms have few outside competitors. For example, in the case of cloud computing, the Section 301 report argues that without the ability to handle data flows for clients inside China, American companies are hindered in their ability to manage data flows for clients worldwide. In the absence of strong non-Chinese service providers, a refusal by American companies to engage on Chinese terms would cede the market to Chinese providers. Again, coordinated action with allies to bar Chinese service providers access to foreign markets (making them unable to serve clients worldwide), would change the payoff to China of its current restrictive policies.” Id., 9.

161 Huizhong Wu, Ben Blanchard, and Andrea Shalal. “China to ease foreign investment curbs, won’t force tech transfers – vice minister,” Reuters, October 29, 2019, <https://www.reuters.com/article/us-china-economy-foreign-capital/china-to-ease-foreign-investments-curbs-wont-force-tech-transfers-vice-minister-idUSKBN1X815K>.

162 Andreas Rinke, “Merkel hopes China-U.S. trade problems will be over soon,” Reuters, September 5, 2019, <https://www.reuters.com/article/us-china-germany/merkel-hopes-china-u-s-trade-problems-will-be-over-soon-idUSKCN1VR07C>.

163 Shuping Niu, Steven Yang, Mike Dornig, Michael Hirtzer, Millie Munshi, Shawn Donnan, Isis Almeida, and Sharon Chen, “U.S. Farm Sales to China May Hit Pre-Trade War Level by Election,” Bloomberg News, October 24, 2019, <https://www.bloomberg.com/news/articles/2019-10-24/china-willing-to-buy-20-billion-of-u-s-farm-goods-in-year-one>.

164 “Sales of goods and services by all US affiliates in China in 2016 totaled \$464 billion. Of this total, US foreign affiliates supplied \$286 billion to the Chinese domestic market. The magnitude of these sales, and their importance to the United States, can be gauged by comparison to US exports of goods and services to China, which totaled \$170.5 billion in the same year.” US-China Economic and Security Review Commission, Hearing on Risks, Rewards, and Results: US Companies in China and Chinese Companies in the United States, February 28, 2019, revised March 10, 2019, (testimony of Mary E. Lovely, professor of economics and Melvin A. Eggers Faculty Scholar at Syracuse University’s Maxwell School of Citizenship and Public Affairs and a nonresident senior fellow at the Peterson Institute for International Economics in Washington, DC), 8-9, <https://www.piie.com/system/files/documents/lovely20190228.pdf>.

The reasons for utilizing a bargaining approach rather than seeking market rules derives from the experience with China as well as Beijing's control over its economy. There are many US firms interested in the Chinese market—a top 10 list in terms of ongoing sales includes Apple, Intel, Qualcomm, Boeing, and Micron Technology¹⁶⁵—and the US agricultural sector has similar major interests. That is likewise true of companies from other close US allies, including the EU and Japan. As discussed above, however, in addition to subsidies and other market-distorting actions, China utilizes a host of non-tariff barriers that affect firms seeking to undertake activities there. Given China's focus on indigenous efforts and other undertakings to support national firms, including quotas and incentives for provincial governments, as well as the historical record, it may be difficult to obtain full or even reasonable reciprocity through a rules-based approach. For example, "China wants to reach a 90 percent market share for new energy vehicles (NEV) and an 80 percent share for IT products for vehicles by 2025."¹⁶⁶ Similarly, China recently ordered "all government offices and public institutions to remove foreign computer equipment and software within three years"¹⁶⁷ Such a strategy by China would be a reason to maintain barriers to Chinese firms to the US market (and markets of close US allies), but, as the foregoing suggests, trade negotiations based on concerted actions by close allies and which also could create access or establish targets (as a floor, not a ceiling) and putting the onus on the Chinese government to deliver results, not promises, might offer a results-oriented, step-by-step approach that could work satisfactorily.

It is perhaps useful to note that a group of economists, including both US and Chinese scholars and four Nobel Prize winners, recently recommended in outline an approach along the lines discussed above which "allows countries to use well-calibrated policies (including tariff and non-tariff trade policies) to protect their industrial, technological, and social policy choices domestically without imposing unnecessary and asymmetric burdens on foreign actors."¹⁶⁸ As the group wrote, a country "would be allowed to undertake well-calibrated domestic policy adjustments that demonstrably aim to reduce or minimize harm to its domestic economy. For example,...regulations on domestic firms to

curtail the leakage of sensitive technological material to foreign firms. Or...[to] raise trade barriers to protect communities adversely affected by exports."¹⁶⁹

In a recent analysis, Wendy Cutler concluded that addressing "issues related to state-led economies...requires new trading rules." She recommended a multifactor approach that included 1) working in multiple fora, including the WTO, G20, Organisation for Economic Co-operation and Development (OECD), and Asia-Pacific Economic Cooperation (APEC), 2) forming "new coalitions to address specific issues" such as a "pluralistic agreement on state-owned enterprises," and 3) enhancing defensive measures such as investment screening and export controls.¹⁷⁰

The United States has historically taken the lead when important changes to the international economic system are required. As Robert Dohner has described:

"The characterization of the importance of the US role as the maintainer of the trading system is correct, but it neglects the equally important role the United States has played as the system *shaper*—particularly when the system needed to respond to stress and change not covered by system rules. In situations that existing rules don't cover, a willingness to break the rules is often the only way to bring about the required revisions to international rules."¹⁷¹

Dohner further noted that such changes are necessary for China:

"Unfortunately, getting China to agree to rules that constrain its activities has been extremely difficult, illustrated by the glacial discussions on revising international rules on official export credits, which have been dragging on without progress since 2012....If an action is not covered by trade rules, there is little incentive for the accused to respond, other than by denying that there is a problem. As in past situations, breaking an impasse to add to international trading rules often requires a willingness to break existing rules."¹⁷²

165 Philip van Doorn, "Apple, Nike and 18 other U.S. companies have \$158 billion at stake in China trade war," *MarketWatch*, April 4, 2018, <https://www.marketwatch.com/story/trade-war-watch-these-are-the-us-companies-with-the-most-at-stake-in-china-2018-03-29>.

166 Zenglein and Holzmann, *Evolving Made in China 2025*, 9.

167 Yuan Yang and Nian Liu, "Beijing orders state offices to replace foreign PCs and software," *Financial Times*, December 8, 2019, <https://www.ft.com/content/b55fc6ee-1787-11ea-8d73-6303645ac406>.

168 The US-China Trade Policy Working Group, Joint Statement, *US-China Trade Relations: A Way Forward*, October 2019, 1, https://cdn.shanghai.nyu.edu/sites/default/files/_us-china_trade_joint_statement_2019_0.pdf.

169 Id., 4-5.

170 Wendy Cutler, *Strength in Numbers: Collaborative Approaches to Addressing Concerns with China's State-Led Economic Model*, *Asia Society Policy Institute*, April 9, 2019, <https://asiasociety.org/policy-institute/strength-numbers>.

171 Robert Dohner, "Trade rules (sometimes) need to be broken," *New Atlanticist*, August 21, 2018, <https://www.atlanticcouncil.org/blogs/new-atlanticist/trade-rules-sometimes-need-to-be-broken>.

172 *New Atlanticist*, <https://www.atlanticcouncil.org/blogs/new-atlanticist/trade-rules-sometimes-need-to-be-broken>.

Accordingly, Dohner concludes:

“The global trading community faces a similar situation now, in which the system needs to address practices that are not covered by international rules.”¹⁷³

Accordingly, as Cutler and Dohner have analyzed and the USTR report states, actions beyond the WTO will be necessary:

“However, it is unrealistic to believe that actions at the WTO alone would ever be sufficient to force or persuade China to make fundamental changes to its trade regime. The WTO system was designed for countries that are truly committed to market principles—not for an enormous country determined to maintain a state-led, non-market system. No matter how many cases are brought at the WTO, China can always find a way to engage in market-distorting practices.”¹⁷⁴

In sum, significant changes are needed to establish an effective international economic system that can create appropriate bridging between China's state-driven economy and the democratic, free-market economies of the United States and its close allies.

If the three-tier approach suggested above were in fact implemented, it is important to recognize that there could be costs associated both from limitations, including tariffs, established by the United States and potential responding actions taken by China. A paper from the Federal Reserve Bank of St. Louis explains:

“A..., more direct channel is retaliatory tariffs imposed by foreign nations. For example, when U.S. imposes tariffs on Chinese steel imports and China retaliates by imposing tariffs on U.S. soybeans, U.S. soybean exports are hurt.... [Also,] tariffs raise the prices of imported inputs that U.S. exporting firms need to make export goods, which renders

U.S. exports less competitive.... The sectors that export the most to China, however, stand to suffer directly from the escalating Sino-American trade tensions. In addition, higher tariffs will escalate the cost of Chinese intermediate inputs that U.S. firms use in their global supply chains, which can also hurt U.S. exports to other nations.”¹⁷⁵

As previously noted, China's current actions have had consequences for the US agricultural sector, and Trump's decision to postpone tariffs on cellphones, laptops, and toys from China underscores the effects on Americans as consumers.¹⁷⁶ If the recommendations set forth above are implemented, the net result would be a diminution of some elements of bilateral trade, but with offsetting gains in the strategic sectors and those sectors, particularly advanced and emerging technologies, unduly affected by China's state-driven economic approach. Trade with China would not be decoupled, but it would be diminished (though it might be that some of that trade might well move to other countries). As the overall calculus of benefits to some sectors and losses to others involves important national considerations, Congress's involvement is extremely important to include consideration of the possibility of creating a support mechanism for industries detrimentally affected by the proposed changes, as well as support for developing fair and efficient markets for advanced and emerging technologies.

The recommendations above do suggest significant changes to certain elements of the international economic system. It is important to recognize that the issues China's economic system raises go beyond simple trade competition and, therefore, more than trade considerations are appropriate. While Trump, at least in public announcements, has largely focused on trade deficits, the USTR analysis is broader and the president's strategy is consistent with overhauling the trade system in light of the security and societal impacts of allowing a large state-driven system to detrimentally affect market economies.¹⁷⁷ Most important is the need to ensure that market economies of the United States and its close allies are not being undercut in the

173 *New Atlanticist*, <https://www.atlanticcouncil.org/blogs/new-atlanticist/trade-rules-sometimes-need-to-be-broken>.

174 USTR report, 10-11. The United States Trade Representative's report in 2019 assessed the issue as follows: “At its core, this approach is based on the following assessment: (1) WTO membership comes with expectations that an acceding member not only will strictly adhere to WTO rules, but also will support and pursue open, market-oriented policies; (2) China has failed to comply with these expectations; (3) in recent years, China has moved further away from open, market-oriented policies and has more fully embraced a state-led, mercantilist approach to the economy and trade; and (4) China's market distorting policies and practices harm and disadvantage its fellow WTO members, even as China reaps enormous benefits from its WTO membership.” USTR report, 3.

175 Subhayu Bandyopadhyay, Asha Bharadwaj, and Suryadipta Roy, *Taking a Closer Look at U.S. Exports to China*, Federal Reserve Bank of St. Louis, September 12, 2018, <https://www.stlouisfed.org/publications/regional-economist/third-quarter-2018/closer-look-exports-china>.

176 Ana Swenson, “U.S. Delays Some China Tariffs Until Stores Stock Up for Holidays,” *New York Times*, August 13, 2019, <https://www.nytimes.com/2019/08/13/business/economy/china-tariffs.html?auth=login-email&login=email>.

177 As the economist Dani Rodrik has set forth, trade disputes can involve significant social issues for the disadvantaged country: “There is a second, different social and political objection to trade—that trade violates norms embodied in our institutional arrangements. The suggestion here is that trade may undercut the social bargains struck within a nation and embedded in its laws and regulations.” Dani Rodrik, *Straight Talk on Trade: Ideas for a Sane World Economy* (2018), 230.

development and implementation of advanced and emerging technologies that are keys to the future. Accordingly, the proposed recommendations, which include key issues of security, of how the US economy will perform now and in the future, and of the nature of the quality of life for Americans, are not so much to change China as to benefit Americans and US allies. Given those high stakes, undertaking significant, but appropriate, changes to economic interactions with China is in the national interest.

B. Diplomacy and Influence

The United States and its close allies and partners all have existing diplomatic strategies responding to the impact of China's significant growth and increasing assertiveness. The recommendations below are designed to expand strategic opportunities beyond current approaches. As discussed below, some are Indo-Pacific-focused and some are more global in nature.

In the diplomatic arena, US Secretary of State Michael R. Pompeo has described the US approach of a “free and open Indo-Pacific” to include “protect[ing]...sovereignty from coercion by other countries,” “open access to seas and airways,” and “fair and reciprocal trade.”¹⁷⁸ The Trump administration has focused on the digital economy, infrastructure, and energy as key aspects of the US strategy.¹⁷⁹

A number of other countries and entities are also undertaking important efforts. These efforts include Japan's Free and Open Indo-Pacific Strategy, India's Look East policy, and the Republic of Korea's New Southern Policy, as well as the EU's Connectivity Europe and Asia strategy¹⁸⁰ and ASEAN Connectivity 2025 for the multiple institutions often grouped under the concept of “ASEAN centrality.”¹⁸¹ The aggregate value of the investment in these activities is substantial, with one recent analysis finding, for example, that “Japanese-backed projects in the region's six biggest economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam—are valued at \$367 billion, the figures show. China's tally is \$255 billion.”¹⁸²



China's President Xi Jinping (*US State Department photo*)

As suggested by the multiplicity of strategies, a key element to success in this arena will be thoughtful implementation of Multi-vector diplomacy. While multiple nations are allies and/or partners or otherwise significantly engaged with the United States globally or in the Indo-Pacific, it is important to recognize that those relationships do not necessarily converge into a common approach on China. Among the reasons for this is that there is no overarching consensus on China or its various behaviors either among the countries of the region or in the wider international arena. By way of examples, Japan's views differ from India's; Indonesia's are its own; and that is true of Vietnam, the Republic of Korea, Singapore, and many

178 US Secretary of State Michael R. Pompeo, “America's Indo-Pacific Economic Vision,” speech to the Indo-Pacific Business Forum, July 30, 2018, <https://www.state.gov/remarks-on-americas-indo-pacific-economic-vision/>.

179 Id. “The Digital Connectivity and Cybersecurity Partnership...will support communications infrastructure development through technical assistance and public-private partnerships; promote market-driven digital regulatory policies; and build partners' cybersecurity capacity to address common threats....Asia EDGE...[will] help Indo-Pacific partners import, produce, move, store, and deploy their energy resources [and]...an Infrastructure Transaction and Assistance Network [will] boost the development of infrastructure done right [including]...tools for project scouting, financing, and technical assistance.” See also, U.S. Mission to ASEAN, *Fact Sheet: Advancing a Free and Open Indo-Pacific Region*, November 18, 2018, <https://asean.usmission.gov/advancing-a-free-and-open-indo-pacific-region/>.

180 European Commission, Joint Communication to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, *Connecting Europe and Asia – Building blocks for an EU Strategy*, September 19, 2018, https://eeas.europa.eu/sites/eeas/files/joint_communication_-_connecting_europe_and_asia_-_building_blocks_for_an_eu_strategy_2018-09-19.pdf.

181 These include ASEAN (Association of Southeast Asian Nations), the ASEAN Regional Forum, ASEAN Plus Three, and the East Asia Summit, as well as associated dialogues.

182 Michelle Jamrisko, “China No Match for Japan in Southeast Asia Infrastructure Race,” Bloomberg, June 22, 2019, <https://www.bloomberg.com/news/articles/2019-06-23/china-no-match-for-japan-in-southeast-asia-infrastructure-race>.

other countries. The lack of convergence is reflected in the often-heard phrase “don’t make us choose” between the United States and China.¹⁸³ In Europe, views toward China are both evolving and divergent. The EU’s report cited above and describing China as a systemic rival has not much in common with the “17+1” countries that actively seek Chinese investment or Italy’s recent approval of China’s BRI. Further, cooperation between Russia and China is increasing. Finally, although many international fora exist in the Indo-Pacific, there is not a single forum in which strategic issues play out. ASEAN and related activities are important, but so are alliances, as are bilateral and plurilateral arrangements.

“Successful use of Multi-vector diplomacy will require recognizing that...like-minded countries may have divergent interests in some arenas, and...effective... cooperation will require balanced judgments.”

Successful use of Multi-vector diplomacy will require recognizing that generally like-minded countries may have divergent interests in some arenas, and that achieving effective overall cooperation will require balanced judgments. Robert Blackwill and Ashley Tellis have underscored the importance of Multi-vector diplomacy very well in the context of US relations with India:

“The United States must recognize that India is not an ally and will not behave as one, even though there are issues on which the two countries’ vital interests align. Strengthening those convergences should be a priority in Washington. Toward that

end, the United States should desist under certain circumstances from levying demands on India that could threaten New Delhi’s relations with its other partners: when vital U.S. interests are not at stake, when demands would undermine progress toward collectively balancing China, and when they relate to peripheral differences in the bilateral relationship with India.”¹⁸⁴

Multi-vector diplomacy does not mean, however, that there are no expectations from other countries. As noted, the key point is convergence of interests. As Blackwill and Tellis point out in the context of US-India relations, among other things, “this means [India] contributing to the liberal international order...[and] prioritiz[ing] practical cooperation to balance China.”¹⁸⁵

Effective Multi-vector diplomacy will have three key elements:

1. Multilateral Economic Coordination: As the U.S.-China Economic and Security Review Commission has stated:

“U.S. complaints regarding China’s trade and economic challenges are shared broadly with Australia, Canada, Japan, South Korea, the United Kingdom, and the EU. At the Commission’s hearing on U.S. tools to address Chinese market distortions, all witnesses emphasized the benefits of cooperation.”¹⁸⁶

As valuable as multinational coordination would be, it is important to recognize that trade disputes and other actions have made many Europeans and European countries far less sanguine about cooperation with the United States. The difficulty is reflected, for example, by Cecilia Malmström, the EU’s trade commissioner for the past five years, that the “United States...is not the traditional strong transatlantic partner.”¹⁸⁷

A multilateral coordinated approach would have at least four elements.

183 For a useful discussion, see Jonathan Stromseth, *Don’t Make Us Choose: Southeast Asia in the Throes of US-China Rivalry*, Brookings Institution, October 2019, https://www.brookings.edu/wp-content/uploads/2019/10/FP_20191009_dont_make_us_choose.pdf.

184 Robert D. Blackwill and Ashley J. Tellis, “The India Dividend: New Delhi Remains Washington’s Best Hope in Asia,” *Foreign Affairs*, September/October 2019, <https://www.foreignaffairs.com/articles/india/2019-08-12/india-dividend>.

185 Ibid.

186 U.S.-China Economic and Security Review Commission, 2018 Report to 115th Cong., Second session, 110, <https://www.uscc.gov/annual-report/2018-annual-report-congress>: “Dr. Bown, Ms. Drake, and Dr. Branstetter indicated that global challenges require ‘a global solution,’ while a ‘go-it-alone’ approach could undermine the U.S. negotiating position, as China is ‘quite adept at playing off different Western governments and Western firms against one another.’ Professor Hillman pointed out that a coalition effort could ‘shield its members from direct and immediate retaliation from China’ and place ‘sustained pressure at the highest levels on China.’ Mr. Cohen noted such coalitions could cover trade-related negotiations as well as coordinated action on government procurement restrictions, law enforcement, data or intelligence sharing, or other changes in domestic law. However, witnesses also recognized that unilateral actions by the United States have contributed to the interest of other nations in finding stronger tools against China’s contravention of global trading norms.”

187 Jim Brunsten, Sam Fleming, and Alan Beattie, “EU ill-equipped to face China and US, Brussels trade chief warns,” *Financial Times*, October 9, 2019, <https://www.ft.com/content/d5d1e928-e9c6-11e9-a240-3b065ef5fc55>.



President Emmanuel Macron of France with German Chancellor Angela Merkel. European leaders are taking a more stringent approach to Chinese direct investment. (NATO photo)

“the EU’s recognition of China as a ‘systemic rival’...indicates... it would be highly valuable for common approaches to Chinese direct investment...for sectors that have consequential security or economic implications.”

First, the United States should work with its close allies to coordinate their substantive approaches to trade with China, both with respect to exports as well as imports. As discussed above, this is a critical element for an effective China strategy. The three-tier approach described above should generally fit the national interests of the EU countries, and allied Indo-Pacific countries such as Japan and Australia. There will need to be consultations regarding specifics, including the trade-security relationship,

particularly for strategic sectors and emerging technologies. But as the EU’s recognition of China as a “systemic rival” with “distortive effects...on the EU internal market” and also its raising of “security issues” indicates, there are substantial substantive convergent interests.¹⁸⁸ Additionally, it would be highly valuable if there could be generally common approaches to Chinese foreign direct investment, especially for sectors that have consequential security or economic implications.¹⁸⁹ As noted, CFIUS’ review has been expanded in the United States and such issues are receiving greater European attention, including through the EU’s foreign investment screening regulation¹⁹⁰ as well as at the national level. Moreover, a number of countries have issued national strategies focused on China that set forth significant economic and security risks. For example, “The Netherlands & China: a new balance” provides:

“[W]e have to acknowledge that China is not a market economy or a democracy founded on the rule of law as we are accustomed to. The government wishes to address unfair trading practices and will strive for more balance and more reciprocity in its

188 Julianne Smith and Torrey Taussig, “The Old World and the Middle Kingdom,” *Foreign Affairs*, September/October 2019, <https://www.foreignaffairs.com/articles/china/2019-08-12/old-world-and-middle-kingdom>.

189 An additional area for US collaboration with its close allies is standards setting in areas of emerging technology.

190 European Commission, EU foreign investment screening regulation enters into force, press release, April 10, 2019, https://europa.eu/rapid/press-release_IP-19-2088_en.htm.

trade relations with China. When it comes to certain key technologies and critical raw materials, we do not want to become dependent on China. Furthermore, we seek to protect intellectual property, prevent unwanted technology transfer and ensure investment risks are manageable...

"[W]e must also be mindful of security issues (including those concerning economic security), cyberespionage, undesirable influencing, and our own norms and values."¹⁹¹

It is worth noting that the three-tier approach recommended by this report does not preclude commercial sales to, or other involvement with, commercial entities. Therefore, commercial arrangements can be undertaken even as strategic sectors and markets for future advanced and emerging technologies receive significantly greater scrutiny with appropriate selective limitations.

"A multilateral "Green Initiative" that focuses on climate change, environment, water, and health would be of high value."

Related to the need for substantive agreement, there need to be effective regularized processes for coordination among close US allies with respect to China. The ongoing trilateral Japan-EU-US discussions on nonmarket practices and WTO reform could be further enhanced by practical implementation measures, as recent joint statements suggest.¹⁹² It would also be valuable for the United States and Europe to create a more effective economic coordination relationship with respect to transatlantic issues. A potential model would be "E3+1+US," that is France, Germany, and the United Kingdom plus the EU plus the United States. These two approaches—global and transatlantic—might serve as frameworks and other close US allies such as Canada, the Netherlands, or Australia might be included as appropriate.

Regularized meetings at a sufficiently high level would allow for common approaches that would take account of the requirements of the different close allies and limit the Chinese capacity to divide and conquer through individual negotiations. A starting point might be to seek a common approach regarding advanced and emerging technologies. However, as noted above and as Julianne Smith and Torrey Taussig have pointed out, progress on a coordinated approach toward China is a diplomatic challenge that will require a greater degree of trust and a capacity to resolve transatlantic economic issues than currently has been the case.¹⁹³

Second, the United States should join the CPTPP as soon as practicable. Doing so would enhance US prospects for trade with the 11 nations in the CPTPP as well as provide valuable diplomatic interaction.

Third, sufficient consideration needs to be given to an appropriate response to the BRI. A multilateral "Green Initiative" that focuses on climate change, environment, water, and health would be of high value. The United States, the EU, and Japan could undertake a coordinated approach to providing investment and technical assistance in each of these areas. The provision of investment and infrastructure from Western sources, of course, preceded the BRI and is continuing, including by, among others, the International Financial Institutions, the EU, and bilateral efforts such as by the United States, Japan, and the Republic of Korea.¹⁹⁴ It would be useful for investments by democratic, free market countries that are government-supported to include as a central focus meeting the significant emerging, but high priority, needs of relevant regions. Climate change adaptation will be increasingly important as will renewable energy projects, including solar and wind, and other clean energy activities. Air and water quality are of consequential concern in many countries of the Indo-Pacific. Water shortage issues likely will be increasingly important.¹⁹⁵ Investments that will help ameliorate or resolve water shortages will be crucial. Health considerations are major factors for many populations. A small secretariat that coordinated Green Initiative efforts and worked with international and nonprofit organizations, as well as countries in the region, to prioritize funding could lead to valuable actions.¹⁹⁶

191 Government of the Netherlands, *The Netherlands & China: a new balance*, May 2019, (quotes from summary), <https://www.government.nl/documents/policy-notes/2019/05/15/china-strategy-the-netherlands--china-a-new-balance>.

192 United States Trade Representative, *Joint Statement of the Trilateral Meeting of the Trade Ministers of the United States, European Union, and Japan*, press release, May 23, 2019, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/may/joint-statement-trilateral-meeting>.

193 Smith and Taussig, "The Old World."

194 Japan's overseas official development assistance in 2018 was \$14.8 billion. <https://donortracker.org/country/japan>. The Republic of Korea's official development assistance was US\$2.8 billion. Donor Tracker, South Korea, <https://DonorTracker.Org/Country/South-Korea>.

195 Somini Sengupta and Weiyi Cai, "A Quarter of Humanity Faces Looming Water Crises," *New York Times*, August 6, 2019, <https://www.nytimes.com/interactive/2019/08/06/climate/world-water-stress.html>.

196 From a US perspective, the nascent United States International Development Finance Corporation (DFC) may provide new capabilities—including the ability to take not only debt, but also equity, in key projects—that would be useful in implementing such a Green Initiative. Overseas Private Investment Corporation, "FAQs on BUILD Act Implementation," <https://www.opic.gov/build-act/faqs-build-act-implementation>.

A different, but additional, BRI-related effort for the EU, working with the United States, should be to evaluate the 17+1 initiative of China in Europe and determine whether an offsetting approach needs to be in place. Worldwide efforts that have been made to expand transparency to help nations avoid overbearing financial terms established by China in connection with BRI projects should be continued, including the Blue Dot Network recently begun by the United States, Australia and Japan.¹⁹⁷

Fourth, while, as discussed above, the WTO cannot itself be expected to lead any reworking of the nature of international economic relations, there are good reasons to restructure the WTO in accordance with the recommendations discussed above. The three-way discussions among the United States, the EU, and Japan that are ongoing should be continued as a part of coordinated economic diplomacy among allies to establish a revised international framework.

2. Influence activities: With respect to influence and the ideological competition, the most effective approach is the attraction of the democratic, free market model. Inasmuch as democratic and free market countries include India, Indonesia, Malaysia, the Philippines, Japan, Republic of Korea, Australia, New Zealand, the EU/NATO countries, Canada, Mexico, and most of Latin America, as well as the United States, the democratic, free market model starts from a strong position. However, a good starting point does not obviate the need for an effective strategic approach.¹⁹⁸ Such a strategy should include countering disinformation, economic coercion and political subversion, and increasing transparency regarding Chinese authoritarianism and refusal to adhere to international agreements and international law.

First, while actions countering political subversion and economic coercion will mainly be an internal matter for a

country, effective responses will benefit from intelligence sharing and other forms of coordination. Being aware of Chinese actions in one country can help another have ready structured courses of action if and when needed. Information sharing with respect to China will undoubtedly proceed on a Multi-vector basis.¹⁹⁹ Efforts in Europe or on a transatlantic basis where there are existing structures of the EU and NATO would likely be very different from those in the Indo-Pacific. Even there, there are different contexts ranging from bilateral alliances to the Five Eyes consortium, which includes Australia and New Zealand, to informal groupings of various sorts. Nations will need to conclude what arrangements suit them best. Additionally, as many governments have realized, the private sector is heavily involved in multiple aspects of hybrid challenges, particularly those involving information and cyber. Engaging the private sector, including academia, is, therefore, important to create resilient and responsive national efforts.

Beyond process, there are several substantive aspects that need attention in the context of China's influence efforts. A specific focus needs to be undertaken with respect to Confucius Institutes which, as described above, have become in many instances centers of propaganda and sometimes subversion, rather than the educational institutions they purport to be. Limiting such institutes' interactions with universities and other educational entities may be appropriate. In the United States, the FY19 National Defense Authorization Act provides that no DoD funds "may be obligated or expended to support a Chinese language program at an institution of higher education that hosts a Confucius Institute."²⁰⁰ Given the recent, more transparent focus, a number of US universities have begun to close such institutes.²⁰¹ Similarly, one Australian state has terminated a "Confucius Institute program—administered by the Chinese government agency Hanban—teach[ing] China's official language in 13 public schools across New South Wales."²⁰² More recently, the head of

197 "The U.S. Overseas Private Investment Corporation (OPIC), Australia's Department of Foreign Affairs and Trade (DFAT), and Japan Bank for International Cooperation (JBIC) today unveiled *Blue Dot Network*—a multi-stakeholder initiative that brings together governments, the private sector, and civil society to promote high-quality, trusted standards for global infrastructure development in an open and inclusive framework. "Blue Dot Network will evaluate and certify nominated infrastructure projects based upon adherence to commonly accepted principles and standards to promote market-driven, transparent, and financially sustainable infrastructure development in the Indo-Pacific region and around the world." OPIC, The Launch of Multi-Stakeholder Blue Dot Network, press release, November 4, 2019, <https://www.opic.gov/press-releases/2019/launch-multi-stakeholder-blue-dot-network>.

198 The Lowy Institute's Asia Power Index, while ranking the United States at the top, also reflects the increasing competition from China. Lowy Institute, Asia Power Index (2019), <https://power.lowyinstitute.org/>.

199 One report recommends that the United States and Japan "should work together to help countries across the region identify Chinese online influence campaigns and counter disinformation emanating from Beijing," with a focus on the Philippines, Malaysia, and Indonesia. Patrick M. Cronin, Abigail Grace, Daniel Kliman, and Kristine Lee, *Contested Spaces: A Renewed Approach to Southeast Asia, Center for a New American Security*, March 2019, 22, [https://s3.amazonaws.com/files.cnas.org/CNAS+Report_Contested+Spaces_Asia_Final+\(2\).pdf](https://s3.amazonaws.com/files.cnas.org/CNAS+Report_Contested+Spaces_Asia_Final+(2).pdf).

200 National Defense Authorization Act FY2019, Section 1091, <https://www.congress.gov/115/bills/hr5515/BILLS-115hr5515enr.pdf>.

201 Dan Spinelli, "American Colleges Hosted 'an Important Part of China's Propaganda Set-Up.' Now They're Bailing Out." *Mother Jones*, March 21, 2019, <https://www.motherjones.com/politics/2019/03/confucius-institutes-china-spent-the-last-decade-bankrolling-hundreds-of-college-programs-now-congress-has-had-enough/>.

202 Colin Packham, "Australian state ends Chinese education program over foreign interference fears," Reuters, August 22, 2019, <https://www.reuters.com/article/us-australia-china-education/australian-state-ends-chinese-education-program-over-foreign-interference-fears-idUSKCN1VD009>.

the Confucius Institute at a Brussels university “has been banned from Belgium after security services accused him of being a spy.”²⁰³ A British parliamentary report also recommended closer coordination among allies, including the United Kingdom, the United States, Australia, Canada, and New Zealand, “to protect universities.”²⁰⁴ Finally, a staff report from the US Senate Permanent Subcommittee on Investigations concluded, “Absent full transparency regarding how Confucius Institutes operate and full reciprocity for U.S. cultural outreach efforts on college campuses in China, Confucius Institutes should not continue in the United States.”²⁰⁵

Likewise, China's influence efforts need to be understood and guarded against when media or others fail to disclose their connections to the CPC or the Chinese government. Requiring transparency is a well-established principle in the context of foreign actions in the political arena, as well as in certain aspects of media ownership or control. Australia passed legislation designed to combat foreign influence in 2018²⁰⁶ and New Zealand's intelligence service director has more recently raised the issue.²⁰⁷

Second, transparency regarding Chinese authoritarianism and refusal to adhere to international agreements and international law should be an important effort. This would be an arena where multilateral actions would be valuable, and the EU and many European nations have significant interests. Obvious areas of focus include the treatment of the Uighurs in Xinjiang province, ongoing disturbances in Hong Kong, the substantial internal repression of free speech and the right of dissent, and the refusal to accept the Law of the Sea tribunal's ruling regarding the South China Sea. The recent disclosure by the *New York Times* of Chinese internal documents regarding the clampdown in Xinjiang province underscores the authoritarianism of the Chinese government, including the requirement to “round up everyone who should be rounded up” that has led to the detention of hundreds of thousands.²⁰⁸

In the context of Southeast Asia, the authors of the “Contested Spaces” report made the following recommendation:

“The U.S. State Department should issue a brief white paper that lists every unlawful action that Beijing has conducted in the South China Sea, including violations of environmental laws. Successful public shaming would require a single, up-to-date document around which allies, partners, and other likeminded states could rally. To disseminate this document across Southeast Asia, the United States could leverage media outlets, such as Voice of America, and online social media platforms in local languages. It could couple this public media campaign with private briefings for political leaders and military and intelligence officials across Southeast Asia, where possible, providing access to declassified or releasable information that further illuminates Chinese behaviors of concern.”²⁰⁹

Given the nature of the CPC and the Chinese leadership, these democratic transparency efforts should not be focused so much on changing China (except perhaps in the longer term), nor should it be expected for such transparency to cause countries to stop dealing with China. Rather, the goal should be to make sure that countries are clear that they will need to protect their own sovereignty when interacting with China, and that coordinating with the United States and other democratic countries can be valuable.

3. Military Diplomacy: As described in the DoD's *Indo-Pacific Strategy Report*, the United States undertakes an extensive military diplomacy program. While treaty allies are naturally engaged, significant efforts also cover interactions with partner countries. In the South and East China Seas, the United States has undertaken a combined strategy of enhancing relationships through education, training, exercises, and sales programs; supporting global norms, especially by freedom of navigation operations, increasingly in combined operations with other countries; undertaking bilateral and multilateral diplomatic efforts such as through the ASEAN Regional Forum Defense Ministerial; and encouraging comparable activities by others. Such actions are supportive of efforts by multiple countries,

203 Sophia Yan and James Crisp, “Belgium bars Chinese professor suspected of spying for Beijing,” *Telegraph*, October 30, 2019, <https://www.telegraph.co.uk/news/2019/10/30/belgium-bars-chinese-professor-suspected-spying-beijing/>.

204 Foreign Affairs Committee, British Parliament, “A Cautious Embrace,” section 2, paragraph 25.

205 Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, US Senate, “China's Impact on the U.S. Education System,” Staff Report, February 28, 2019, 10, <https://www.hsgac.senate.gov/imo/media/doc/PSI%20Report%20China's%20Impact%20on%20the%20US%20Education%20System.pdf>.

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

207 Charlotte Greenfield, “New Zealand at risk of foreign interference: intelligence service head,” *Reuters*, April 11, 2019, <https://www.reuters.com/article/us-newzealand-security-elections/new-zealand-at-risk-of-foreign-interference-intelligence-service-head-idUSKCN1RN0BL>.

208 Austin Ramzy and Chris Buckley, “‘Absolutely No Mercy’: Leaked Files Expose How China Organized Mass Detentions of Muslims,” *New York Times*, November 16, 2019, <https://www.nytimes.com/interactive/2019/11/16/world/asia/china-xinjiang-documents.html>.

209 Cronin et al., *Contested Spaces*, 20.

including Vietnam, Indonesia, the Philippines, and Japan. The United States similarly interacts in multiple ways with India. All these activities are important for maintaining the stability of the region. The long-term benefits to the United States and globally are high.

C. Security—Hybrid and Conventional Military

In the security arena, assurance, resilience, and deterrence measures will be necessary to respond to both hybrid and conventional challenges posed by China.

1. Hybrid: China's hybrid activities include cyber espionage, economic coercion, and low-level use of force. Many of the response options include military activities, but it is worth underscoring that US military leaders uniformly support strong diplomatic efforts.

a. Countering cyber espionage

Chinese cyber espionage has been significant even apart from the issues raised by Huawei in conjunction with the establishment of 5G networks. No complete solution can be expected, but significant benefits can be achieved by enhancing resilience and raising the cost of cyber intrusions. Cybersecurity issues are not limited to China. Russia, North Korea, Iran, and criminal and terrorist organizations likewise are significant threats. Accordingly, a cyber response to China will necessarily be part of a larger cybersecurity effort, though certain parts of an overall approach could be China-directed.

Accomplishing cybersecurity objectives requires a multifaceted approach, including 1) development and deployment of advanced technologies and critical capabilities such as cloud technologies, automation, and AI; 2) public-private "coordinated partnerships" for protection of confidential government and business information as well as key critical infrastructure arenas; 3) significant governmental efforts that include resources; 4) legal remedies and sanctions to ensure that cyber intrusions provide no benefits; 5) appropriate use of the US doctrine of "persistent engagement and defending forward"; and 6) like-minded countries working together via an International Cyber Stability Board. Countries with more significant cyber capabilities will have greater success in dealing with Chinese cyber activities, so Multi-vector international coordination to enhance cybersecurity capacity can have significant

value.²¹⁰ The recently enacted Asia Reassurance Initiative Act of 2018 (ARIA) specifically authorizes \$100 million annually for cybersecurity cooperation to "strengthen resilience against cyberattacks, misinformation, and propaganda" and to "strengthen the resilience of critical infrastructure."²¹¹ These arenas are generally understood by each country in the region, but practical cooperation needs to be enhanced.

Overcoming vulnerabilities and enhancing cybersecurity resilience will require multiple steps. In dealing with its own vulnerabilities, the US government is shifting its approach of increasing resilience to greater use of cloud technology provided by expert firms and supported by other advanced capabilities such as AI and automation. Further actions should include providing a standard "resilience architecture" for contractors and subcontractors, and necessary additions of cybersecurity personnel and budgetary funding to the US Department of Homeland Security (DHS) and the DoD.²¹²

A comparable approach is required for the private sector. Most organizations do not have the expertise or resources to provide effective cybersecurity, and will, therefore, benefit greatly from utilizing cloud technology run by experts for data storage and provision of services. Businesses, of course, have to connect to the cloud and protect information at their own sites. This can be done through "software defined networks," which are one of the developing advanced technologies, as well as the employment of expert firms that can monitor and respond to activities on a business's networks. To help assure the requisite expertise, the government could create a certification approach, including the frameworks for effective "resilience architectures"—though, since cyber is a highly dynamic arena, it will be important not to create a checklist, but rather adopt a performance-oriented approach.

There are a variety of ways to organize international interactions. A valuable starting point would be organizing around like-minded countries and organizations, including through the establishment of an International Cyber Stability Board.²¹³ Such a board could focus on provision of protection and resilience to key cross-border critical infrastructures, including finance and transportation; undertake a multinational campaign response to malignant cyber actions by a significant nation state and criminal threats; and enhance capabilities to defend against armed attack,

210 This section derives from Franklin D. Kramer and Robert J. Butler, *Cybersecurity: Changing the Model*, Atlantic Council, March 2019, https://www.atlanticcouncil.org/wp-content/uploads/2019/04/Cybersecurity-Changing_the_Model.pdf.

211 Asia Reassurance Initiative Act of 2018, S.2736 115th Congress (2017-2018), Section 2 (2)(A), <https://www.congress.gov/bills/115th-congress/senate-bill/2736/text>.

212 Kramer and Butler, *Cybersecurity*.

213 Frank Kramer, Bob Butler, and Catherine Lotrionte, "Raising the Drawbridge with an 'International Cyber Stability Board,'" *Cipher Brief*, March 4, 2019, <https://www.thecipherbrief.com/raising-drawbridge-international-cyber-stability-board>.

including with allies and close partners. It is important to recognize that technology is not the only way to deal with cyber attacks. Legal remedies, including the use of sanctions, freezing of assets, and forfeitures can have a key role. Such actions can have greatest effect when coordinated at a multinational level.

With respect to the challenge posed by Huawei, the best answer from a security perspective is to bar the use of its technologies. It may be that the US decision to put Huawei on the Entity List (which effectively bars US firms from transacting with a listed entity) will limit Huawei's ability to provide 5G capabilities to Western and other entities. Nevertheless, Huawei will, undoubtedly, seek to develop other technology options, which, as noted above, it says it is doing regarding base station production. Certainly, co-operation with the United States seems unlikely though what the United States will do when it comes to dealing with European and other countries that do utilize Huawei capabilities is still to be determined.

Assuming that Huawei is utilized in numerous countries whose networks are relevant to US security issues, several approaches may be possible. First, the United States could utilize encryption to move its own data. Second, countries that utilize Huawei's technology can undertake to build trusted capabilities on top of the untrusted network, utilizing both hardware and software approaches. Such actions are less than optimal as they add resource requirements and may not be available to all users and uses. Countries should also ensure that Huawei's technologies are interoperable with other vendors so that replacement by more trusted elements might be possible without having to replace the entire system. Software capabilities that allow for such interoperability and multiple vendor engagement appear to be a potentially valuable approach.²¹⁴ Finally, the United States could—and should—work with other existing and potential providers to be able to offer alternatives (including a satisfactory pricing approach). As one example, according to media reports, the US government is considering credit facilities that would allow Huawei's competitors to match Huawei's pricing structures.²¹⁵

b. Economic coercion

China's use of economic coercion ranges from forced technology transfers to pressure on businesses, including to lobby their domestic legislatures, to politically motivated cutoffs of exports and imports such as limiting rare earth

exports to Japan, imports of bananas from the Philippines, and tourism to South Korea. Additionally, and importantly, as the dispute with the National Basketball Association (NBA) illustrates, China's impact on free expression needs to be considered. Several steps should be taken in response:

- Forced technology transfers can be ameliorated, as discussed above, by coordinated action by the United States and its close allies, including requiring all such transfers of technology to be subject to government review. Such a requirement transfers the decision from the business, which is often driven by short-term profit, to the government, which can take a longer-term view focusing on national security requirements. Of course, that requires the government to take a longer-term view.
- Pressures on businesses are less easily dealt with. A single business has a difficult time opposing pressure from China's government. The US government should reach out and encourage business groups to take a stand as was recently done by US business councils representing US firms in China. Such actions in the face of potential significant economic loss deserve strong support from the US government. Group efforts can combine transparency through public reports with requests to the executive branch and the Congress to take action ranging from diplomacy to legislation. This approach can also be adopted in the EU, and by Japan and others. Engaging the government in response to China's actions is a key principle because it is necessary to have equivalent power balances.
- The potentially most explosive issue relates to matters of free expression and, particularly, China's attempts to regulate speech beyond its own borders. As noted, the issue recently came strongly to the fore in the context of the National Basketball Association (NBA), but multiple companies from multiple countries have faced similar pressure. The most admirable approach is NBA Commissioner Adam Silver's statement in support of free speech.²¹⁶ Companies, however, will benefit from governmental support, through both rhetoric and diplomacy, but more substantively as well. If China chooses to sanction free speech outside its borders, the United States should have available countervailing economic sanctions. Ideally, these sanctions should be imposed in coordination with close allies of the United States. That will not resolve the problem of corporate

214 Kiran Stacey, "US pushes to fund western rivals to Huawei," *Financial Times*, October 7, 2019, <https://www.ft.com/content/94795848-e6e3-11e9-b112-9624ec9edc59>.

215 Ibid.

216 Sopan Deb, "Adam Silver Commits to Free Speech as Chinese Companies Cut Ties With N.B.A.," *New York Times*, October 8, 2019, <https://www.nytimes.com/2019/10/08/sports/adam-silver-nba-china-hong-kong.html>.



U.S. Navy guided-missile destroyer USS William P. Lawrence (DDG 110), top middle, transits through international waters in the South China Sea with the Indian Navy destroyer INS Kolkata (D 63) and tanker INS Shakti (A 57), Japan Maritime Self-Defense Force helicopter-carrier JS Izumo (DDH 183) and destroyer JS Murasame (DD 101), and Republic of Philippine Navy patrol ship BRP Andres Bonifacio (PS 17). (*Japan Maritime Self Defense Force Photo*)

self-censorship, but here US civil society groups—and not the government—should monitor business actions and make public inappropriate self-limitations.

- In terms of responding when exports or imports are limited for geopolitical reasons, countries should consider creating funds to support affected industries. (Just as most countries have funding to respond to natural disasters, there could be funding to deal with “China disasters”). It could potentially be valuable to establish a collaborative approach, starting with coordinated diplomacy, to generate multilateral objections to any such actions against a single country. It would similarly be useful to consider the creation of a multilateral “trade disruption” backup financial mechanism (perhaps via an insurance mechanism) to ameliorate economic cutoffs. This approach would spread the risk and keep China from playing one country off against another.

c. Low level use of force

China's use of low-level force is most notable in the South and East China Seas. There are significant deterrent and countervailing options to respond effectively to this challenge, but absent a Chinese decision to terminate such activities, which seems unlikely, it should be expected that these will be ongoing arenas for competitive conduct. The most difficult issues may arise with respect to undersea resources. By way of example, China has engaged in oil surveying in waters claimed by Vietnam, and the latter has accused China of “seriously violating Vietnam's sovereign rights.”²¹⁷ Likewise, the Philippines faces similar issues, as do others.

In the East China Sea, where the United States is formally allied with Japan, the two countries have undertaken a bilateral approach to countering China's activities, including

217 Bloomberg, “Vietnam accuses Chinese ships of ramping up South China Sea tensions,” *South China Morning Post*, October 4, 2019, <https://www.scmp.com/news/china/diplomacy/article/3031603/vietnam-accuses-chinese-ships-ramping-south-china-sea-tensions>.

a territorial dispute over a group of islands. The United States has regularly stated, including at the presidential level, that the Senkaku Islands are covered by the US-Japan alliance and, therefore, part of the collective defense approach.²¹⁸ This is a highly valuable deterrence action. Additionally, the United States and Japan maintain a high degree of military interaction that includes US forces in Japan, regular exercises and other interchanges, and significant arms sales, including, for example, F-35 aircraft, missile defense systems, early warning and tanker aircraft, and unmanned aerial vehicles.²¹⁹ Further, ARIA, noted above, sets forth Congress's statement of policy for diplomatic, security, economic, and human rights issues in the Indo-Pacific, including that the "core tenets of the United States-backed international system are being challenged" by China.²²⁰

In the South China Sea, multiple regional nations have significant interests. Among these nations are the Philippines, which is a treaty ally of the United States, Indonesia, Vietnam, Malaysia, and Brunei. The United States utilizes a combination of diplomatic support, freedom of navigation activities, and expansion of maritime initiatives to provide intelligence, including a common maritime picture, capabilities, and training. Congress has been strongly supportive through, for example, ARIA and its support to the DoD Maritime Security Initiative. ARIA sets forth Congress's statement of policy for freedom of navigation, including "to conduct...regular freedom of navigation, and overflight operations" and "joint maritime training" in the South China Sea.²²¹ The Maritime Security Initiative is described by the DoD's *Indo-Pacific Strategy Report* as authorizing:

"[T]he provision of training, equipment, supplies, and small-scale construction to the Philippines, Vietnam, Indonesia, Malaysia, Thailand, Sri Lanka, and Bangladesh to enhance their ability to 'sense, share, and contribute' to maritime security and MDA [maritime domain awareness]; to create a common Regional Maritime Picture; and to empower them to observe and control more

effectively their own sovereign maritime spaces, both individually and jointly."²²²

The United States recently undertook the first maritime cooperation naval exercise with ASEAN.²²³ Moreover, in addition to the United States, many other countries not bordering the South China Sea, including Australia, France, India, Japan, and the United Kingdom, have undertaken freedom of navigation and other supporting activities.²²⁴ In addition to this regular presence in the region, the United States supplies equipment to regional states, such as the transfer to Vietnam of coast guard cutters and patrol boats.²²⁵

None of these combined efforts preclude the possibility of miscalculation, but they are demonstrable actions that should help reduce any such probability and should be continued. Resolution will require diplomacy. Agreements on shared approaches have been reached with China—for example, between China and Japan on undersea resources in 2008,²²⁶ but they have foundered over implementation. China's inflexible statements regarding sovereignty make negotiation difficult. The US approach of not taking sides on the merits of the claims, while understandable, has also not been effective, and China has been highly resistant to considering any US role.

2. Conventional military: China presents multiple conventional military challenges. These can be divided to differentiate among three types of potential conflicts: support of treaty allies, actions in the South China Sea, and defense of Taiwan. Each presents different challenges and allows for differentiated responses. To be sure, no one knows how a conflict might evolve. There certainly could be an overlap or simultaneity among the three arenas, but the potential circumstances allow for analytic, planning, and operational approaches that maximize the United States' and its allies and partners' ability to prevail. In so doing, it is important to focus on the objectives that would be sought in any such conflict and not just, as is sometimes the case, on a comparative evaluation of particular weapons. To be

218 Congressional Research Service, *The U.S.-Japan Alliance*, June 13, 2019, 14, <https://fas.org/sgp/crs/row/RL33740.pdf>.

219 *Id.*, 37-38.

220 Asia Reassurance Initiative Act of 2018.

221 *Id.*, Section 213.

222 US Department of Defense, *Indo-Pacific Strategy Report* June 1, 2019, 49, <https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF>.

223 Wassana Nanuum, "First US-Asean naval exercise begins," *Bangkok Post*, September 2, 2019, <https://www.bangkokpost.com/thailand/general/1741184/first-us-asean-naval-exercise-begins>.

224 For example, Prashanth Parameswaran, "South China Sea Minilateralism: Between Opportunities and Limits," *Diplomat*, May 13, 2019, ("United States, India, Japan, and the Philippines engage[d] in what effectively constituted a quadrilateral presence operation in the South China Sea"), <https://thediplomat.com/2019/05/south-china-sea-minilateralism-between-opportunities-and-limits/>.

225 Phil Stewart and James Pearson, "U.S. to provide ship to Vietnam to boost South China Sea patrols" *Reuters*, November 20, 2019, <https://www.reuters.com/article/us-vietnam-usa-military/us-to-provide-ship-to-vietnam-to-boost-south-china-sea-patrols-idUSKBN1XU0UP>.

226 Ministry of Foreign Affairs of Japan, *Cooperation between Japan and China in the East China Sea*, Japan-China joint press statement, June 18, 2008, <https://www.mofa.go.jp/files/000091726.pdf>.

sure, wars are fought with weapons, but their outcomes derive from a broader concatenation of factors. Further, it is essential to recognize that “war has a logic all its own” and that the potential for escalation in a conflict with China is very high. That should be a constraint on the initiation of hostilities or, if conflict began, to limiting it as much as possible. But miscalculation, emotions, and other factors can significantly alter the ability to constrain the use of force. In terms of the potential conflicts that the United States might face with China:

First, with respect to the defense of treaty allies from a Chinese threat, the military balance, including geography, favors the United States and its allies. It is hard to envision a reason for such an attack—perhaps China seeking to “teach a lesson” along the lines of its 1979 attack against Vietnam or miscalculation arising out of geopolitical circumstance. Whatever the basis, in undertaking such an attack China would have to “come out” to use its full complement of forces to attack Japan, the Philippines, or Australia.²²⁷ Its ground forces would not be very relevant and its air force would be operating at extended range without the support it would have in a close-in fight from ground-based air defenses. War is, however, unpredictable, and any such conflict would be significant. China’s naval forces, both surface and subsurface, would have an operational impact as would missiles of which China has many and which could cause significant destruction, and its air force could not be discounted. Further, cyber attacks, including against critical infrastructures, could be a significant factor. China likely would also seek to attack the United States’ capacity to reinforce both by cyber and conventionally. Nonetheless, defenders should be able to generate an integrated multi-domain operational defense that would put the balance in the United States and its allies’ favor with respect to any invading force. Precisely how such a conflict would develop would be speculative, but the United States would also want to project power in multiple ways against Chinese capabilities. The prospect for destruction on all sides would be very significant. The better approach, of course, is to deter such conflict since any conflict with China would be very serious and the potential for escalation very high.

Second, in the South China Sea, the ongoing hybrid interactions could, through miscalculation or otherwise, erupt into a shooting war. The United States would have three broad objectives. First, and most important, to ensure the security of allies that might be affected. Second, to support key partners who seek assistance. Third, to support freedom of navigation.

With respect to its allies, Japan, the Republic of Korea, and the Philippines receive a significant portion of their hydrocarbons from the Middle East via maritime transport through the South China Sea. It would be possible to reroute the tankers on a longer route so as to avoid transiting the South China Sea. The United States and its allies should undertake in advance the necessary planning and preparation to be ready if that became necessary. Additionally, as a backup, North America, including the United States, Canada, and Mexico, could be a source of oil and gas, and some hydrocarbons from the Arabian Gulf that normally go east could be rerouted to Europe if necessary to backfill against other diversions. Doing so would take some effort, but the issues involved are hardly insurmountable, especially in the context of a conflict.

Whether the United States would engage in any actual conflict in the South China Sea, assuming neither it nor a treaty ally had been attacked, is a political issue that would be dependent on the context of the conflict. If, however, such an effort is undertaken, it should be recognized that, if one focuses on the potential objectives for the outcome of such a conflict, the balance again would hardly favor China whose own commerce would be significantly affected. To be sure, China does have military facilities on multiple islands/islets in the South China Sea. Those facilities are, however, extremely vulnerable to attack. China’s surface fleet should similarly be vulnerable to US and ally/partner counterattack, including from facilities in those countries. The larger military problems would come from Chinese missiles, the Chinese air force, and the Chinese subsurface fleet. However, the three countries most obviously affected by any potential South China Sea conflict would be Vietnam, Indonesia, and the Philippines. With respect to each, there are pathways that would offer alternatives to the normal commerce in the South China Sea, though there is no doubt that commerce would be disrupted. So, while China could cause issues within the South China Sea and affect its normal usage as a sea lane of commerce, it probably could not keep the bordering countries from maintaining some reasonable amount of commerce unless it chose to attack them directly. A direct attack against the Philippines would, as discussed above, bring into play US treaty obligations. With respect to Vietnam or Indonesia, the calculus for those countries could be significantly enhanced if they were defended collectively with the United States—as noted, a highly consequential political decision. Again, no potential conflict with China should in any way be minimized. A Chinese conventional attack could be augmented by cyber attacks, but the military balance in the South China Sea analyzed in terms of effective outcomes,

227 The Republic of Korea is a treaty ally of the United States, but the potential conflict in the region is most significantly with the Democratic People’s Republic of Korea. China could intervene, as it did in the Korea War; if it did, the potential for escalation would be very high.

as opposed to the capacity for disruption, should favor the United States and its allies and partners.

Third, Taiwan persistently remains the most difficult military problem because of geography, China's military modernization, and limited defense efforts by Taiwan itself. For now, deterrence holds, but this is the area that could most easily trip over into war. Arguably, one factor undergirding stability has been China's desire to avoid affecting economic relationships. As and if disputes increase and emotions rise, that may be less of a constraint.

The best approach to the defense of Taiwan from a military perspective is for Taiwan to create an A2/AD capability that would significantly limit the possibility of a successful Chinese attack. Such an A2/AD approach should be built especially around anti-ship and air and missile defense capabilities, underwater unmanned vehicles, maritime mines, and similar "porcupine" defensive capabilities.²²⁸ Taiwan also would undoubtedly face significant cyber attacks and building resilient cyber capabilities would be important.²²⁹ Taiwan is small and there would be significant concerns regarding its ability to hold off a persistent effort by China, unless the United States engaged on the side of Taiwan. Such a US decision would, of course, be consequential. The Taiwan Relations Act provides that the United States shall "maintain the capacity...to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan," and that the "President and the Congress shall determine, in accordance with constitutional processes, appropriate action by the United States in response to any such danger."²³⁰ Since Taiwan is deemed a "core interest" by China, the prospect of escalation would be extremely high.

In terms of enhancing deterrence and increasing the likelihood of prevailing in the event of a conflict, the United States and its allies and partners should focus on appropriate modernization efforts given the very significant modernization actions being undertaken by China. The DoD's

recent *Indo-Pacific Strategy Report*²³¹ sets forth several key elements of the US effort, including acquisition of advanced missile defense systems (interoperable with allied systems in Japan and Australia); fourth- and fifth-generation aircraft; air-air, air-surface, and anti-ship missiles; maritime cruise missiles; unmanned surface vessels; and new destroyers—and other capabilities such as dynamic basing of maritime and air forces (which should be coupled with passive protection systems) and enhanced and flexible logistics.²³²

Military technological capabilities always benefit from continuous development. That is particularly true given China's focused military modernization effort. In that context, enhanced anti-ship capabilities, including extending ranges; counter-C4ISR (command, control, communications, computers, intelligence, surveillance, reconnaissance), including countering sensors that cue missiles; survivable intelligence, surveillance, and reconnaissance; hypervelocity missile defense, including artillery projectiles; unmanned vehicles, both undersea and airborne; and intermediate-range conventional missiles for deterrence and warfighting all have high value. The United States' Indo-Pacific strategy also notes increased investment for "offensive and defensive cyberspace operations." Such efforts need to be integrated with electronic warfare, both offense and defense. Further advanced technology efforts, including AI, are critical. The DoD has, for example, utilized AI capabilities in support of the counter-ISIS conflict and has now stood up the Joint Artificial Intelligence Center; other areas include quantum computing relevant to communications and to cyber among many other missions; robotics, which will include continuous evolution and breakthroughs beyond current unmanned vehicles; and man-machine interactions, including human augmentation. The DoD is significantly focused on these issues, but an even greater effort, including increasing non-defense-traditional private sector involvement and working with allies that have advanced capabilities, is well warranted.

228 The U.S.-China Economic and Security Review Commission 2019 report states that Taiwan "took a series of steps to enhance its military capabilities...includ[ing] the island's largest increase in its defense budget in more than a decade, breaking ground on the facility that will build Taiwan's indigenous submarines, allocating funding for the procurement of 60 new small fast-attack missile boats, and expediting production of new missile defense systems and mobile land-based antiship missile platforms." U.S.-China Economic and Security Review Commission, 2019 Report to Congress, November 2019, 20-21, <https://www.uscc.gov/sites/default/files/2019-11/2019%20Annual%20Report%20to%20Congress.pdf>.

229 The United States and Taiwan have recently held a combined cyber exercise. "US and Taiwan hold first joint cyber-war exercise," BBC News, November 4, 2019, <https://www.bbc.com/news/technology-50289974>.

230 Taiwan Relations Act, Sections 2(b)(6), 3(c), text available at <https://www.ait.org.tw/our-relationship/policy-history/key-u-s-foreign-policy-documents-region/taiwan-relations-act/>.

231 US Department of Defense, "Indo-Pacific Strategy Report," 18-19.

232 A thorough analysis of the military challenges presented by China, including force and strategic recommendations, can be found at David Ochmanek, Peter A. Wilson, Brenna Allen, John Speed Meyers, and Carter C. Price, *U.S. Military Capabilities and Forces for a Dangerous World*, RAND Corporation, January 29, 2018, 7-29, https://www.rand.org/pubs/research_reports/RR1782-1.html.

V. 'ONE WORLD' COOPERATION

Finally, managed competition does not preclude cooperation—or at least parallel actions—in appropriate circumstances. Economic and diplomatic efforts should include a focus on “one world” challenges—climate, environment, water, and health—that would benefit from significant cooperation with and/or action by China for their resolution or amelioration. The United States should continue its cooperative efforts with China in the environmental arena, seek reinforcing efforts in the health area where each have valuable programs, and undertake coordinated, or at least parallel, research and development activities with respect to climate change.

“China cooperates on environmental efforts with the United States and other countries such as Sweden. These programs could be expanded and serve as models for additional efforts.”

China cooperates on environmental efforts with the United States and other countries such as Sweden. These programs could be expanded and serve as models for additional efforts. According to the US Environmental Protection Agency (EPA):

“EPA and China’s Ministry of Ecology and Environment (MEE)—formerly the Ministry of Environmental Protection (MEP)—collaborate to strengthen capacity to address current and emerging environmental and public health challenges. This collaboration has expanded the quality of environmental protection expertise at both EPA and MEE, and has equipped China to achieve significant milestones in the development and implementation of its environmental protection programs, policies and laws.”²³³

The US-China cooperation covers “improving air quality”; “reducing water pollution”; “preventing exposure to chemicals and toxics”; “remediating soil, hazardous and



EPA collaborates with MEE to support U.S. equipment and technology demonstration project in China on groundwater and soil environmental sampling. (Photo by the Environmental Protection Agency)

solid waste”; “improving environmental enforcement and compliance”; and “enhancing environmental laws and institutions.”²³⁴ Further:

“EPA’s Office of Research and Development has also collaborated with China’s Ministry of Science and Technology (MOST) on joint research to better assess emissions and their impacts, improve mitigation practices and technologies, and enhance sustainability. Areas of shared research have included water sustainability, computational toxicology, technologies for soil and ground water remediation, air pollution monitoring, motor vehicle emissions, and clean cookstoves.”²³⁵

²³³ Environmental Protection Agency, *EPA Cooperation with China*, <https://www.epa.gov/international-cooperation/epa-collaboration-china>.

²³⁴ Ibid.

²³⁵ Ibid.

Both the United States and China undertake significant efforts in the international health arena, though in somewhat different ways. As described in a recent RAND Corporation analysis:

“The United States and China have collaborated for more than two decades on infectious disease control (HIV/AIDS, influenza, and emerging infections), cancer, and other noncommunicable diseases.”²³⁶

That collaboration reflects China's expanding efforts on international health issues:

“Even though China's global development assistance was historically overshadowed by the United States, United Kingdom, Japan, and other Organisation for Economic Co-operation and Development (OECD) countries, no one can deny the significance of China's transformation from a recipient of foreign aid to a critical provider of development resources in the Global South. A 2017 analysis showed that China had emerged as an important participant in global health, serving as a source of overseas development assistance and DHA [development health aid], sharing

concerns about cross-border infectious disease threats, joining in global health governance, and participating in global sharing of knowledge and technology.”²³⁷

Areas for potential increased collaboration, as recommended by the RAND Corporation, include global health capacity building, regulatory harmonization, and collaboration on drug policy.²³⁸

Climate change is the obvious other area that offers significant opportunities for cooperation. There are multiple ongoing efforts to develop technologies relevant to mitigation and adaption. As with the EPA-China collaboration, a useful step would be the establishment of joint or coordinated research and development programs. Each country could create focused R&D programs and provide for interchange among programs. Such efforts could also be open to scientists from other countries. China could also be invited to join the Green Initiative discussed above. While the Trump administration does not prioritize climate policy, and China has continued building coal-fired plants and recently reduced renewable investments”²³⁹ Congress nonetheless should consider the benefits of R&D in this arena, including the potential of working with China.²⁴⁰

236 Jennifer Bouey, *Implications of U.S.-China Collaborations on Global Health Issues*, RAND Corporation, July 31, 2019, 12, https://www.rand.org/content/dam/rand/pubs/testimonies/CT500/CT516/RAND_CT516.pdf.

237 Id., 8.

238 Id., 14-15.

239 Leslie Hook, Climate change: how China moved from leader to laggard, *Financial Times*, November 25, 2019, <https://www.ft.com/content/be1250c6-0c4d-11ea-b2d6-9bf4d1957a67>.

240 There are legitimate concerns regarding at least some China researchers in the United States as set forth in a staff report from the US Senate Permanent Subcommittee on Investigations, which describes the “Thousand Talents Plan” though which “China unfairly uses the American research and expertise it obtains for its own economic and military gain.” The US Congress should analyze whether coordination on issues like climate change would raise similar concerns. Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, US Senate, “Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans,” November 18, 2019, 1, <https://www.hsgac.senate.gov/imo/media/doc/2019-11-18%20PSI%20Staff%20Report%20-%20China%27s%20Talent%20Recruitment%20Plans.pdf>.

VI. CONCLUSION

The United States and its close allies and partners should be able to achieve their objectives in dealing with China. As noted above, the main elements of the managed competition strategy include enhancing innovation, increasing resilience, providing assurance, and establishing selective limitations, all undertaken in coordination with close US allies and partners. Economically, certain important adjustments will need to be made, particularly for strategic sectors and to avoid significant market distortions. But mutually beneficial trade rules for commercial items to commercial entities can be established if appropriate reciprocal arrangements can be negotiated. The most important actions for the United States and its close allies will be to take steps to ensure their economies remain innovation-driven, with a focus on important emerging technologies. In the diplomatic and influence arena, the United States and its close allies

should coordinate their approaches, including steps to enhance transparency and counter disinformation, economic coercion, and political subversion by China. They should develop a Green Initiative focused on climate change, environment, water, and health. In the security arena, key actions will include enhancing cyber resilience, creating mechanisms to offset economic coercion, maintaining freedom of navigation, and enhancing deterrence by modernizing current capabilities and emerging technologies.

A strategic approach, as discussed above, will allow for a future dynamically stable and prosperous world where the United States and its allies and partners are free from coercion and, by reducing the opportunities for miscalculation, can likewise encourage China to engage constructively. A stable world built on such approaches will benefit all parties.

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Franklin D. Kramer is a Distinguished Fellow and on the board of the Atlantic Council. Mr. Kramer has been a senior political appointee in two administrations, including as Assistant Secretary of Defense for International Security Affairs. At the Department of Defense, Mr. Kramer was in charge of the formulation and implementation of international defense and political-military policy, with worldwide responsibilities including NATO and Europe, the Middle East, Asia, Africa and Latin America.

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Mr. Kramer has written extensively; in addition to the current report on "Managed Competition: Meeting China's Challenge in a Multi-vector World," his publications include on NATO, "NATO Priorities After the Brussels Summit" and "Meeting the Russian Hybrid Challenge"; on counterinsurgency, he was the principal editor, and co-author of the policy chapter, of the book "Civil Power in Irregular Conflict" and "Irregular Conflict, The Department of Defense and International Security Reform"; on innovation, "Innovation, Leadership, and National Security"; and on cyber "Cybersecurity: Changing the Model," "Cyber and Deterrence: The Military-Civil Nexus in High-End Conflict," and "Cyber, Extended Deterrence, and NATO."



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